



Planning Inspectorate

The Planning Act 2008

Dogger Bank South Offshore Wind Farms

Examining Authority's Report
of Findings and Conclusions
and

Recommendation to the Secretary of State for
Energy Security and Net Zero

Examining Authority

Adrian Hunter BA(Hons) BTP MRTPI (Lead Member of the Panel)

Claire Beloe MSc DIC BSc(Hons) CSci CEnv C.WEM MCIWEM

Helena Obremski BA(Hons) MA MRTPI

Laura Shorney BSc MA MRTPI

Matt Tandy C.WEM MCIWEM MIoL

10 October 2025

This page is intentionally blank

OVERVIEW

File Ref: EN010125

The application dated 12 June 2024 was made under section 37 of the Planning Act 2008 and was received by The Planning Inspectorate on 12 June 2024.

The applicants are RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited.

The application was accepted for examination on 10 July 2024. The examination of the application began on 14 January 2025 and was completed on 11 July 2025.

The proposed development comprises 2 offshore generating stations with a capacity greater than 100 megawatts and a combined maximum number of 200 turbines, with associated onshore export cables, converter stations and onward connection to the National Grid.

Summary of Recommendation:

The Examining Authority (ExA) recommends that the Order in the form applied for cannot be made pursuant to regulations 63 and 64 of the Habitats Regulations.

The Secretary of State (SoS) is however the competent authority for Habitat Regulations Assessment (HRA) purposes and therefore, should the SoS conclude when undertaking this role that the HRA considerations have been met, then, when considering the benefits and adverse impacts of the proposed development, the ExA recommends that the Order should be made in the form attached.

REPORT TABLE OF CONTENTS

1.	INTRODUCTION.....	1
1.1.	BACKGROUND TO THE EXAMINATION	1
1.2.	APPOINTMENT OF THE EXAMINING AUTHORITY.....	1
1.3.	THE APPLICATION	2
1.4.	THE EXAMINATION	5
1.5.	CHANGES TO THE APPLICATION	6
1.6.	UNDERTAKINGS, OBLIGATIONS AND AGREEMENTS	7
1.7.	STRUCTURE OF THIS RECOMMENDATION	8
2.	HOW THE APPLICATION IS DETERMINED	10
2.1.	INTRODUCTION	10
2.2.	LEGISLATION AND POLICY	10
2.3.	NATIONAL POLICY STATEMENTS	11
2.4.	UK MARINE POLICY STATEMENT	12
2.5.	OTHER RELEVANT NATIONAL POLICIES.....	13
2.6.	LOCAL IMPACT REPORT	13
2.7.	ENVIRONMENTAL IMPACT ASSESSMENT.....	13
2.8.	HABITATS REGULATIONS ASSESSMENT.....	14
2.9.	WATER FRAMEWORK DIRECTIVE.....	14
2.10.	TRANSBOUNDARY EFFECTS.....	14
3.	OVERARCHING PLANNING ISSUES	16
3.1.	NEED	16
3.2.	ALTERNATIVES	20
3.3.	GOOD DESIGN.....	28
4.	ONSHORE ISSUES	35
4.1.	ONSHORE ECOLOGY AND BIODIVERSITY	35
4.2.	LANDSCAPE AND VISUAL EFFECTS	52
4.3.	ONSHORE HISTORIC ENVIRONMENT.....	70
4.4.	LAND USE AND AGRICULTURE	101
4.5.	TRAFFIC AND TRANSPORT INCLUDING PUBLIC RIGHTS OF WAY	112
4.6.	GEOLOGY AND LAND QUALITY	124
4.7.	HYDROLOGY AND FLOOD RISK	129
4.8.	SOCIO-ECONOMICS AND TOURISM.....	137
4.9.	NOISE AND VIBRATION	148
4.10.	AIR QUALITY	154
4.11.	HUMAN HEALTH	160
4.12.	CLIMATE CHANGE	163
5.	OFFSHORE ISSUES	168
5.1.	MARINE ARCHAEOLOGY	168
5.2.	SHIPPING AND NAVIGATION.....	173
5.3.	AVIATION AND RADAR.....	179
5.4.	INFRASTRUCTURE AND OTHER ACTIVITIES	190

5.5.	COMMERCIAL FISHERIES	225
5.6.	OFFSHORE ORNITHOLOGY	234
5.7.	FISH AND SHELLFISH ECOLOGY	261
5.8.	MARINE MAMMALS	286
5.9.	MARINE AND COASTAL PROCESSES	300
5.10.	BENTHIC AND INTERTIDAL ECOLOGY	330
6.	SUMMARY OF CONCLUSIONS IN RELATION TO THE HABITATS REGULATIONS ASSESSMENT	345
6.1.	INTRODUCTION	345
6.2.	SUMMARY OF FINDINGS IN RELATION TO LIKELY SIGNIFICANT EFFECTS	346
6.3.	CONSERVATION OBJECTIVES	347
6.4.	SUMMARY OF FINDINGS IN RELATION TO ADVERSE EFFECTS ON INTEGRITY ...	347
6.5.	HRA DEROGATIONS	347
6.6.	CONSIDERATION OF ALTERNATIVES	348
6.7.	IMPERATIVE REASONS OF OVERRIDING PUBLIC INTEREST	349
6.8.	COMPENSATORY MEASURES	349
6.9.	HRA CONCLUSIONS	352
7.	CONCLUSION ON THE CASE FOR DEVELOPMENT CONSENT	354
7.1.	INTRODUCTION	354
7.2.	HABITATS REGULATIONS ASSESSMENT	354
7.3.	MARINE CONSERVATION ZONE ASSESSMENT	355
7.4.	SUMMARY OF MAIN PLANNING ISSUES	356
7.5.	CONCLUSION	362
8.	LAND RIGHTS AND RELATED MATTERS	363
8.1.	INTRODUCTION	363
8.2.	LEGISLATIVE REQUIREMENTS	364
8.3.	THE REQUEST FOR COMPULSORY ACQUISITION AND TEMPORARY POSSESSION POWERS	366
8.4.	THE PURPOSES FOR WHICH LAND IS REQUIRED	367
8.5.	EXAMINATION OF THE COMPULSORY ACQUISITION AND TEMPORARY POSESSION CASE	369
8.6.	STATUTORY UNDERTAKERS LAND, RIGHTS AND APPARATUS	380
8.7.	EXA'S CONCLUSIONS ON THE CASE FOR COMPULSORY ACQUISITION AND TEMPORARY POSESSION	392
8.8.	THE EXA'S RECOMMENDATIONS ON COMPULSORY ACQUISITION AND TEMPORARY POSESSION	395
9.	DRAFT DEVELOPMENT CONSENT ORDER AND RELATED MATTERS	397
9.1.	INTRODUCTION	397
9.2.	THE ORDER AS APPLIED FOR	397
9.3.	EXAMINATION AND EVOLUTION OF THE DEVELOPMENT CONSENT ORDER	398
9.4.	MAIN ISSUES CONSIDERED IN THE EXAMINATION	406
9.5.	PROTECTIVE PROVISIONS	416
9.6.	EXA'S RECOMMENDED CHANGES	423
9.7.	CONCLUSIONS	429

10.	SUMMARY OF FINDINGS AND CONCLUSIONS.....	430
10.1.	INTRODUCTION.....	430
10.2.	CONSIDERATION OF FINDINGS AND CONCLUSIONS.....	430
10.3.	CIRCUMSTANCES SHOULD THE SOS CONCLUDE THAT HABITATS REGULATIONS ASSESSMENT MATTERS ARE SATISFACTORY.....	431
10.4.	MATTERS FOR THE SECRETARY OF STATE	433
10.5.	RECOMMENDATION.....	434
APPENDIX A: OTHER LEGISLATION AND POLICY.....		I
APPENDIX B: ABBREVIATIONS LIST.....		II
APPENDIX C: HABITATS REGULATIONS ASSESSMENT.....		III
APPENDIX D: MARINE CONSERVATION ZONE ASSESSMENT		IV
APPENDIX E: LAND RIGHTS OBJECTIONS CONSIDERED IN WRITTEN AND ORAL PROCESSES.....		V
APPENDIX F: RECOMMENDED DEVELOPMENT CONSENT ORDER.....		VI

LIST OF FIGURES

Figure 1: Proposed offshore development area.....	2
Figure 2: Proposed onshore development area.....	2
Figure 3: Proposed onshore substation zone	3
Figure 4: Diagram of proposed infrastructure for the proposed development	4
Figure 5: Surrounding offshore infrastructure	5
Figure 6: Onshore substation zones short list.....	24
Figure 7: Offshore statutory and non-statutory nature conservation sites	27
Figure 8: International statutory designates sites within 10km of the order limits.....	36
Figure 9: National statutory designated sites within 2km of the onshore order limits	37
Figure 10: Statutory and non-statutory designation	41
Figure 11: Statutory and non-statutory designation	44
Figure 12: LVIA study area.....	54
Figure 13: Onshore substation zone of theoretical visibility and location of viewpoints	56
Figure 14: Indicative landscape plan	59
Figure 15: Statutory and non-statutory features of the onshore historic environment	73
Figure 16: Location of the anti-aircraft gunsite (highlighted in yellow) and proposed landscape mitigation	76
Figure 17: Location of Catfoss Hall (highlighted in yellow) and the order limits.....	79
Figure 18: Location of Cobble Hall (highlighted in yellow) and the order limits	81
Figure 19: Location of the Black Mill (highlighted in yellow) and the order limits	82
Figure 20: Location of the heavy anti-aircraft gunsite near to Butt Farm (highlighted in yellow) in relation to the order limits	84
Figure 21: Mapped heavy anti-aircraft emplacement locations.....	85
Figure 22: Aerial photograph of the anti-aircraft gunsite near to Butt Farm, 1946.....	86
Figure 23: Baseline photography from the anti-aircraft gunsite near to Butt Farm towards the location of the proposed development (OSZ)	88
Figure 24: Visualisation of the proposed development (OSZ) and landscape mitigation from the anti-aircraft gunsite near to Butt Farm at year 1 of operation	88
Figure 25: Visualisation of the proposed development (OSZ) and landscape mitigation from the anti-aircraft gunsite near to Butt Farm at year 10 of operation	89
Figure 26: A table identifying the ALC grades within the proposed onshore development area.	102
Figure 27: TTSA.....	114
Figure 28: Sensitive junction locations	116

Figure 29: Staxton Wold RLoS coverages.....	182
Figure 30: Other OWFs in and near to ES Chapter 16 study area.....	195
Figure 31: Proximity of the proposed array areas to other offshore wind farms	199
Figure 32: The difference in carbon dioxide (CO ₂) emissions from the base case plotted against adjusted kittiwake collisions per metre increase or decrease in air gap.....	249
Figure 33: The difference in cost from the base case plotted against adjusted kittiwake collisions per metre increase or decrease in air gap.....	250
Figure 34: Implications to mass, cost and CO ₂ of an increase or decrease in air gap from base case (34mMSL)	250
Figure 35: Fish and shellfish study area	263
Figure 36: Atlantic herring and sandeel spawning potential.....	271
Figure 37: The extent of preferred and marginal potential spawning habitats for Atlantic herring.....	271
Figure 38: Extent of unmitigated and mitigated underwater noise contours overlaid on the potential spawning habitat heat map for Atlantic herring	275
Figure 39: Extent of underwater noise contours associated with revised and original monopiling locations overlaid on the potential spawning habitat heat map for Atlantic herring.....	278
Figure 40: Indicative location of cable crossing between the proposed development and Hornsea Project Four OWF	321
Figure 41: Benthic and intertidal ecology study area	331
Figure 42: Marine Conservation Sites	333

LIST OF TABLES

Table 1: Summary of effects from the proposed development on AEP of OWFs.....	205
Table 2: Summary of findings on main planning issues.....	357
Table 3 dDCO documentation submitted into the examination	399
Table 4: Notable changes made to dDCO	401
Table 5: DCO provisions recommended to be changed	423

1. INTRODUCTION

1.1. BACKGROUND TO THE EXAMINATION

- 1.1.1. An application (the application) for the Dogger Bank South Offshore Wind Farms (the proposed development), Planning Inspectorate (the Inspectorate) reference EN010125, was submitted by RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited (the applicants) to the Inspectorate on 12 June 2024 under section (s) 31 of the Planning Act 2008 (PA2008) and accepted for examination under s55 of the PA2008 on 10 July 2024 [\[PD-001b\]](#). This Recommendation sets out the Examining Authority's (ExA) findings, conclusions and recommendations to the Secretary of State (SoS) for Energy Security and Net Zero.
- 1.1.2. The legislative tests for whether the proposed development is a Nationally Significant Infrastructure Project (NSIP) were considered by the Secretary of State for Housing, Communities and Local Government in its decision to accept the application for examination in accordance with s55 of the PA2008 [\[PD-001b\]](#).
- 1.1.3. The proposed development comprises 2 offshore generating stations with a capacity greater than 100 megawatts and a combined maximum number of 200 turbines, with associated onshore export cables, converter stations and onward connection to the National Grid. The proposed development falls within s15(3) of the PA2008 and meets the definition of an NSIP set out in s14(1)(a) and s15(3) of the PA2008. As such, the proposed development requires development consent in accordance with s31 of the PA2008.
- 1.1.4. The [examination library \[EN010125-000619-Dogger Bank South - Examination Library.pdf\]](#) (EL) provides a record of all application documents and submissions to the examination, each of which is given a unique reference number, for example [\[APP-001\]](#). The reference numbers are used throughout this Recommendation and hyperlinks are included to allow the reader to access them directly.
- 1.1.5. This Recommendation does not contain extensive summaries of the documents and representations received. Readers are referred to relevant material using linked EL references. Full regard has been had to all such material and to all important and relevant matters arising from it in all conclusions drawn by the ExA in this Recommendation.

1.2. APPOINTMENT OF THE EXAMINING AUTHORITY

- 1.2.1. On 11 September 2024, Jo Dowling, Andrew Mahon, Helena Obremski, Laura Shorney and Matt Tandy were appointed as the ExA for the application under s61 and s65 of the PA2008 [\[PD-001\]](#). Jo Dowling was appointed as the Lead Member. On 17 December 2024, Claire Beloe was appointed to replace Andrew Mahon [\[PD-009\]](#). On 22 April 2025, Adrian Hunter was appointed to replace Jo Dowling as the Lead Member [\[PD-019\]](#).

1.3. THE APPLICATION

LOCATION OF THE PROPOSED DEVELOPMENT

- 1.3.1. The proposed array areas would be located within the Dogger Bank region of the North Sea. The closest point to the coast from the proposed array areas would be 100 kilometres (km) for Dogger Bank South (DBS) West and 122km from DBS East.



Figure 1: Proposed offshore development area

Source: ES Non-Technical Summary, figure 2-1 [REP7-022]

- 1.3.2. The offshore export cables would make landfall at Skipsea. The onshore export cables would be installed between the landfall and the proposed onshore substation zone (OSZ). The onshore export cable corridor would be approximately 32km long.

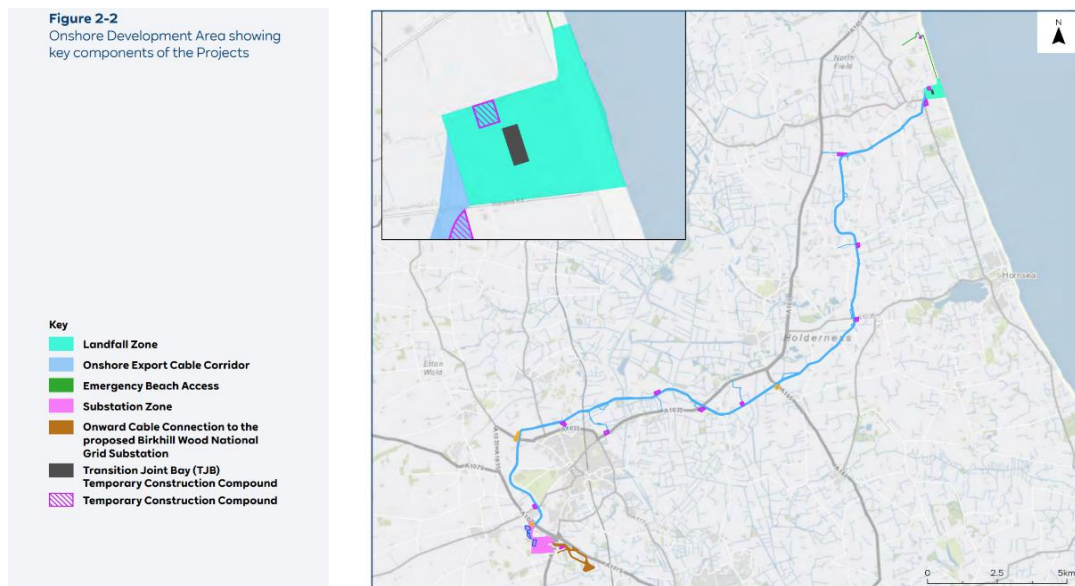


Figure 2: Proposed onshore development area

Source: ES Non-Technical Summary, figure 2-2 [REP7-022]

- 1.3.3. Up to 2 onshore converter stations would be co-located within an OSZ which would be located near the hamlet of Bentley. A 400 kilovolt (kV) onward cable connection,
- DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

approximately 2.5km long, would be constructed between the 2 onshore converter stations and the proposed new Birkhill Wood National Grid Substation close to the existing Creyke Beck substation to the south of Beverley.



Figure 3: Proposed onshore substation zone

Source: ES Non-Technical Summary, figure 2-3 [REP7-022]

- 1.3.4. The location of the proposed development is shown in the final version of the land plans [REP4-002]. The site lies within East Riding of Yorkshire Council (ERYC) administrative area and is wholly in England.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

- 1.3.5. The proposed development at application would comprise:

- the construction and operation of 2 array areas, each with up to 100 wind turbines and their foundations
- the construction of up to 8 offshore platforms and their foundations including collector platforms, offshore converter platforms and accommodation platform and an electrical switching platform
- scour protection (where required)
- subsea cables including:
 - array cables which would link the wind turbines to each other and the offshore platforms
 - inter-platform cables which would link the offshore platforms
 - export cables from the offshore platforms to the landfall
- cable protection (as required)
- landfall, intertidal works between Mean High Water Spring (MHWS) and Mean Low Water Spring (MLWS) and associated transition joint bays (TJB) which would be used to connect the onshore and offshore cables at landfall
- onshore export cables installed underground from the TJB to the onshore converter stations and associated joining bays and link boxes
- up to 2 converter stations

- onward 400kV cable connection from the onshore converter stations to the proposed Birkhill Wood National Grid Substation
- trenchless crossing locations (for example by horizontal directional drilling)
- construction and operational accesses
- temporary construction compounds

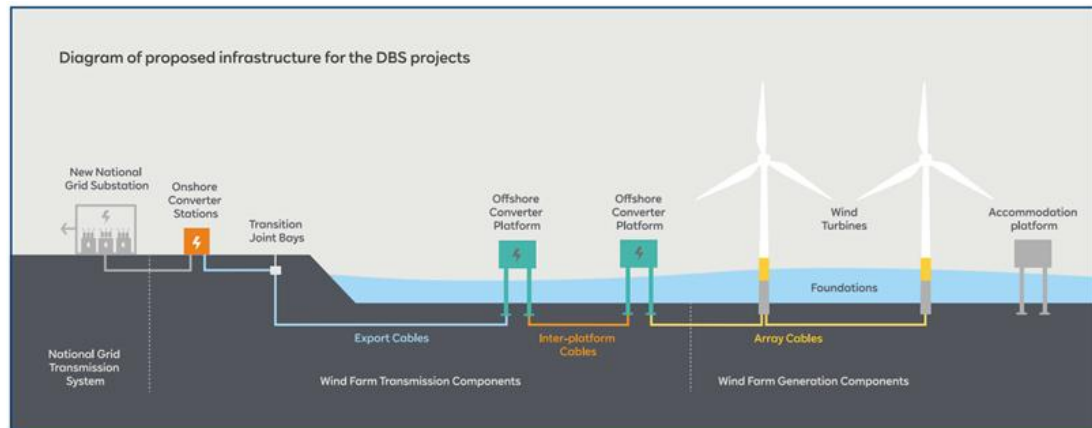


Figure 4: Diagram of proposed infrastructure for the proposed development

Source: ES Non-Technical Summary, plate 2-1 [REP7-022]

- 1.3.6. Details of the proposed offshore and onshore works as applied for can be found in the Environmental Statement (ES) Chapter 5 (Project Description) [APP-071] and each Work No. can be found in schedule 1 of the draft Development Consent Order (dCO) [APP-027].

RELEVANT PLANNING HISTORY

- 1.3.7. The applicants did not identify any specific planning history of relevance to the application. This was confirmed by ERYC [PDC-007], although it did highlight that development consent had been made for the Dogger Bank D Offshore Wind Farm development. An application for development consent for a solar farm development at Peartree Hill Plantation, Meaux, which commenced examination on 22 July 2025, showed part of the onshore cable corridor for the proposed development appearing to cross part of the solar farm site.
- 1.3.8. The proposed development would be developed within a period of rapid growth in the offshore wind sector in the North Sea evidenced by several other offshore wind farm proposals.

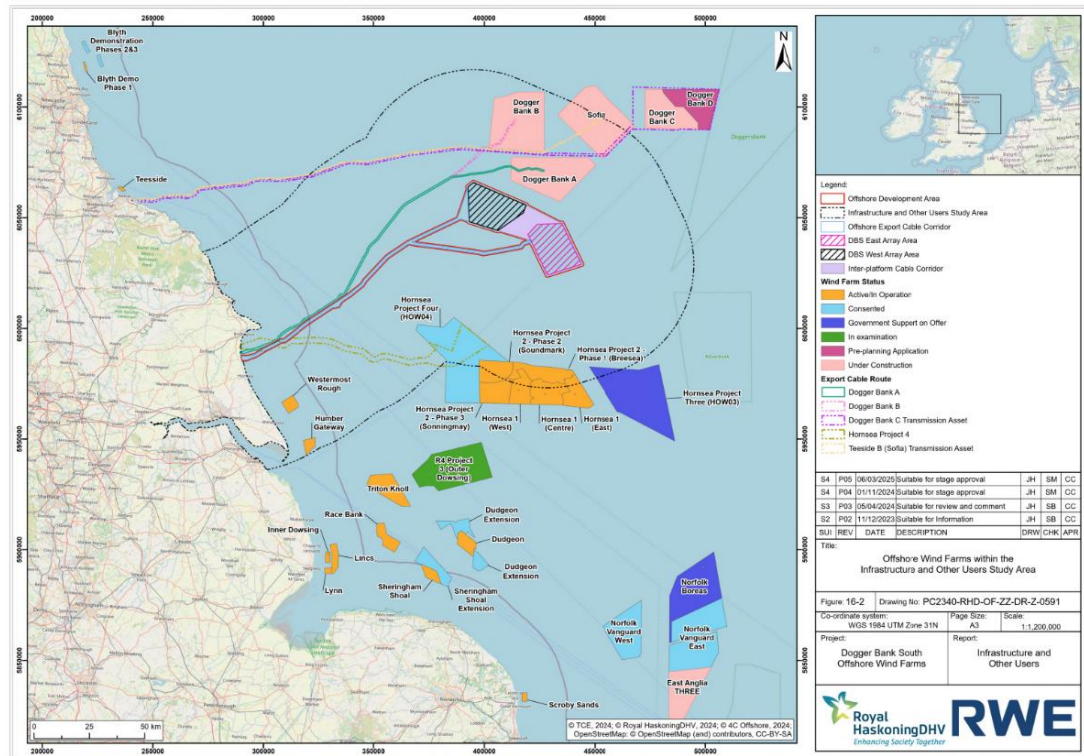


Figure 5: Surrounding offshore infrastructure

Source: ES Chapter 16 Infrastructure and Other Users Figures, figure 16.2 [REP3-014]

1.4. THE EXAMINATION

SUMMARY OF EVENTS IN THE EXAMINATION

- 1.4.1. The preliminary meeting (PM) commenced on 22 October 2024 [EV2-007]. However, following concerns about the maturity of some fundamental elements of the application documents, the ExA made the decision to adjourn the PM [PD-005] to enable the applicants to undertake a major update of the offshore ornithology information and to progress the Habitats Regulations Assessment (HRA) compensation proposals. Following a review of the additional and updated documents [AS-017] to [AS-046] and [AS-051] to [AS-122], the ExA re-opened the PM on the 14 January 2025 [EV6-003].
- 1.4.2. The ExA's procedural decisions (PD) and the examination timetable took full account of matters raised at the PM. They were provided in the Rule 8 Letter dated 16 January 2025 [PD-011].
- 1.4.3. The examination began on 14 January 2025 and concluded on 11 July 2025. The principal components of and events around the examination can be seen in the examination timetable [Examination timetable - Dogger Bank South Offshore Wind Farms - Find a National Infrastructure Project] and are summarised below. A number of parties requested to join and to leave the examination. During the examination the ExA also asked questions of parties who were not interested parties (IPs), namely Joint Nature Conservation Council (JNCC) and NatureScot.
- 1.4.4. The ExA asked 2 rounds of written questions (ExQ):
 - ExQ1 [PD-014]

DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

- ExQ2 [\[PD-021\]](#)

1.4.5. The ExA made the following requests for further information and comments under Rule 17 of the Infrastructure Planning (Examination Procedure) Rules 2010:

- 10 October 2024 [\[PD-003\]](#)
- 15 October 2024 [\[PD-004\]](#)
- 22 October 2024 [\[PD-005\]](#)
- 24 October 2024 [\[PD-006\]](#)
- 7 November 2024 [\[PD-007\]](#)
- 26 November 2024 [\[PD-008\]](#)
- 17 December 2024 [\[PD-010\]](#)
- 21 January 2025 [\[PD-012\]](#)
- 11 February 2025 [\[PD-013\]](#)
- 3 March 2025 [\[PD-016\]](#)
- 15 April 2025 [\[PD-018\]](#)
- 9 June 2025 [\[PD-026\]](#)
- 19 June 2025 [\[PD-027\]](#)
- 7 July 2025 [\[PD-030\]](#)

1.4.6. The ExA published a Report on the Implications for European Sites (RIES) [\[PD-025\]](#), which included questions for the applicants, Natural England (NE) and the Marine Management Organisation (MMO).

1.4.7. The key examination events were:

- 6 issue specific hearings (ISH): ISH1 [\[EV4-002\]](#), ISH2 [\[EV5-001\]](#), ISH3 [\[EV8-001\]](#), ISH4 [\[EV9-001\]](#), ISH5 [\[EV10-001\]](#) and ISH6 [\[EV11-001\]](#).
- 2 compulsory acquisition hearings (CAH): CAH1 [\[EV3-002\]](#) and CAH2 [\[EV7-001\]](#).
- unaccompanied site inspections (USI): 24 September 2024 [\[EV1-001\]](#), 25 September 2024 [\[EV1-002\]](#) and 26 September 2024 [\[EV1-003\]](#).
- an access required site inspection (ARSI): 4 March 2025 [\[EV1-004\]](#).

1.4.8. The PDs taken by the ExA are recorded in the EL. They detail the ExA's decisions relating to the procedure of the examination and did not bear on the ExA's consideration of the planning merits of the proposed development.

STATEMENTS OF COMMON GROUND

1.4.9. The ExA requested the submission of statements of common ground (SoCG) between the applicants and various IPs in its Rule 6 letter, Annex F [\[PD-002\]](#) and subsequently during the examination. The applicants' final Statement of Commonality summarises the status of agreement on SoCGs at the end of the examination [\[REP8-014\]](#).

1.4.10. The signed SoCGs have been fully taken into account by the ExA in all relevant sections of this Recommendation.

1.5. CHANGES TO THE APPLICATION

1.5.1. Changes to the key application documents, including the wording of the dDCO, were submitted and updated during the examination. The changes sought to address points raised by IPs and the ExA and to update or provide additional information resulting from changes and discussions that had occurred during the examination.

CHANGE REQUEST

- 1.5.2. The applicants submitted a formal change request on 10 January 2025 [[AS-129](#) to [AS-152](#)] for which the applicants carried out a non-statutory consultation exercise.
- 1.5.3. Change request 1 related to offshore and intertidal aspects of the proposed development. The changes included:
- change 1: removal of proposed gravity base structure foundations
 - change 2: removal of the proposed electrical switching platform from the design envelope
 - change 3: reduction of the number of proposed platforms in the design envelope, plus associated scour protection
 - change 4: reduction of proposed cabling within the array areas, plus associated seabed preparation and cable protection
 - change 5: removal of the proposed short trenchless crossing option at landfall
- 1.5.4. Change request 2 related to the onshore aspects of the proposed development, specifically within the OSZ. The change reduced the footprint of the proposed onshore converter station(s) within the OSZ and resulted in the following changes:
- change 1: reduction in the footprint of the onshore converter station(s) and reduction in the nature of the compulsory acquisition (CA) powers sought
 - change 2: removal of the diversion of existing Yorkshire Water Main which would result in a reduction in the nature of CA powers sought
 - change 3: reduction in the size and change in the indicative location of the proposed sustainable drainage systems (SuDS)
 - change 4: changes to the proposed landscaping
- 1.5.5. The ExA agreed with the applicants that neither of the proposed changes were so material that it constituted a materially different project. The proposed changes were not considered, individually or cumulatively, to lead to the project being different in nature or substance to that which was originally applied for. Additionally, parties that may have been affected by the proposed changes were given an appropriate opportunity to engage and sufficient time remained in the examination to allow for their full and proper consideration.
- 1.5.6. The ExA therefore issued a PD [[PD-012](#)] to accept both changes into the examination.
- 1.5.7. Further details of the proposed offshore and onshore works, after the acceptance of the change request can be found in the updated ES Chapter 5 (Project Description) [[REP7-032](#)] and each Work No. can be found in schedule 1 of the dDCO [[REP9-003](#)].

1.6. UNDERTAKINGS, OBLIGATIONS AND AGREEMENTS

CONSENTS AND LICENCES

- 1.6.1. At deadline (DL)7, the applicants updated the other consents and licences document [[REP7-099](#)] which set out the consents that would, or may be, required for the proposed development that are not in the dDCO, in relation to both the onshore and offshore works. It also provided details of the consents that the applicants would be seeking to disapply within the DCO and which, as a result would not be applied for separately.

COMMERCIAL AGREEMENTS

- 1.6.2. A number of parties confirmed that, during the examination, they had reached private agreements with the applicants regarding protection of their assets or interests. These are referred to, where relevant, in subsequent sections of this Recommendation.

1.7. STRUCTURE OF THIS RECOMMENDATION

- 1.7.1. The structure of the remainder of this Recommendation is as follows:

- Section 2 identifies how the application is to be determined and summarises the key legislation and policy context that applies to the decision.
- Section 3 sets out the findings and conclusions in relation to overarching issues that arose from the application and during the examination.
- Section 4 sets out the findings and conclusions in relation to the onshore planning issues that arose from the application and during the examination.
- Section 5 sets out the findings and conclusions in relation to the offshore planning issues that arose from the application and during the examination.
- Section 6 summarises considerations arising from the Habitats Regulations Assessment (HRA).
- Section 7 sets out the balance of planning considerations arising from sections 2, 3, 4 and 5 in the light of important and relevant factual, legal and policy considerations.
- Section 8 sets out the ExA's examination of land rights and related matters.
- Section 9 considers the implications of the matters arising from the preceding chapters for the DCO.
- Section 10 summarises all relevant considerations and sets out the ExA's recommendation to the SoS.

- 1.7.2. The ExA's initial assessment of principal issues (IAP) [\[PD-002\]](#), Annex C was informed by the ExA's reading of the application documents, relevant representations (RR) and consideration of any other important and relevant matters. Building on this, the ExA has taken account of all examination submissions, made both in writing and orally, in identifying the main planning issues relevant to its consideration of the proposed development. In addition to the issues arising from the IAP, the ExA has also given consideration on an overarching basis to the principle of the development in terms of need and the consideration of alternatives.

- 1.7.3. The ExA's findings and conclusions on the planning issues have been subdivided into onshore matters (Section 4) and offshore matters (Section 5).

- 1.7.4. In each section, the ExA will introduce the topic, drawing attention to those matters it has had regard to, followed by a summary of the application as made. The ExA then reports on the main issues for each topic. Findings and conclusions will then be drawn for each topic.

- 1.7.5. To aid the SoS in their consideration of the various matters, in its conclusions, the ExA has come to a view, using professional judgement, as to whether the effect of those matters weigh for or against the making of the DCO. Having identified whether the effect of that matter weighs positively in favour or negatively against the making of the Order, the ExA has then considered what weighting should be attributed to that conclusion in the overall planning balance. To ensure a consistent approach, the ExA has adopted the following terminology:

- a little weight
- moderate weight
- great weight
- very great weight

1.7.6. The ExA does not report on every issue raised by IPs. It instead focuses on those matters which were principal concerns for the examination and specific discussion points of interest. Where the ExA does not discuss a particular concern of an IP, the SoS can be assured the ExA has considered the matter and that it is satisfied with the applicants' responses given at the appropriate point in the examination.

1.7.7. This Recommendation is supported by the following appendices:

- appendix A – other legislation and policy
- appendix B – list of abbreviations
- appendix C – Habitats Regulations Assessment
- appendix D – Marine Conservation Zone Assessment
- appendix E – land rights objections considered in written and oral processes
- appendix F – recommended draft DCO

2. HOW THE APPLICATION IS DETERMINED

2.1. INTRODUCTION

- 2.1.1. This section identifies the key legislation, policy and Local Impact Report (LIR) relevant to the Examining Authority's (ExA) consideration of the application. Annex C of the ExA's Rule 6 letter [\[PD-002\]](#), set out its initial assessment of principal issues (IAP) as required under section (s) 88(1) of the Planning Act 2008 (PA2008). In making its recommendation, the ExA has considered all written and oral submissions that have been received during the examination.

2.2. LEGISLATION AND POLICY

PLANNING ACT 2008

- 2.2.1. The PA2008 provides the basis for decision-making in respect of applications for Nationally Significant Infrastructure Projects (NSIP). National Policy Statement (NPS) EN-1, NPS EN-3 and NPS EN-5 have effect in relation to the proposed development and consequently the application is to be determined under the provisions of s104 of the PA2008. Section 104(2) of the PA2008 sets out the matters to which the Secretary of State (SoS) must have regard when making their decision:
- any NPS which has effect in relation to development of the description to which the application relates
 - the appropriate marine policy documents (if any), determined in accordance with s59 of the Marine and Coastal Access Act 2009
 - any LIR within the meaning given by s60(3) submitted to the SoS before the deadline specified in a notice under s60(2) of the PA2008
 - any matters prescribed in relation to development of the description to which the application relates
 - any other matters which the SoS thinks are both important and relevant to the SoS's decision
- 2.2.2. Section 104(3) of the PA2008 requires the SoS to decide the application in accordance with any relevant NPS that has effect in relation to this application, subject to the exceptions in s104(4) to (8) as follows:
- where deciding the application in accordance with any relevant NPS would lead to the United Kingdom (UK) being in breach of any of its international obligations
 - where deciding the application in accordance with any relevant NPS would lead to the SoS being in breach of any duty imposed on her or him by or under any enactment
 - where deciding the application in accordance with any relevant NPS would be unlawful by virtue of any enactment
 - where the adverse impact of the proposed development would outweigh its benefits
 - where any condition prescribed for deciding an application otherwise than in accordance with a NPS is met
- 2.2.3. This Recommendation sets out the ExA's findings, conclusions and recommendations taking these matters into account and applying s104 of the PA2008.

MARINE AND COASTAL ACCESS ACT 2009

- 2.2.4. The Marine and Coastal Access Act 2009 (MCAA2009) sets the framework for the marine planning system in the UK. It provides for the preparation of a UK Marine Policy Statement 2011 (MPS), marine plans for UK marine areas and the system of marine licensing. In deciding an application for an order granting development consent, the SoS must have regard to (amongst other things) the appropriate marine policy documents, which in this case is the MPS and any relevant marine plans.
- 2.2.5. The draft Development Consent Order (dDCO) submitted as part of the application [REP9-003] at schedules 10, 11, 12, 13, 14 and 14A contains Deemed Marine Licences (DML) under part 4 of the MCAA2009.

OTHER LEGISLATION

- 2.2.6. A full list of relevant primary and secondary legislation, including but not limited to duties arising under the Equality Act 2010, Human Rights Act 1998 and the Climate Change Act 2008 (as amended), can be found in Table A1 of appendix A of this Recommendation. All applicable legislation has been considered by the ExA as required and the findings and recommendations are framed so as to identify and enable the SoS to discharge all applicable statutory considerations or duties.

2.3. NATIONAL POLICY STATEMENTS

- 2.3.1. NPSs set out UK Government policy for national infrastructure development and formed the primary policy context for this examination. The NPSs of relevance to the proposed development are:

- Overarching NPS for Energy (EN-1)
- NPS for Renewable Energy Infrastructure (EN-3)
- NPS for Electricity Networks Infrastructure (EN-5)

- 2.3.2. These were all published in November 2023 and came into force from 17 January 2024. Sections 3 to 5 of this Recommendation assess the extent to which the proposed development accords with them.

OVERARCHING NATIONAL POLICY STATEMENT FOR ENERGY (NPS EN-1)

- 2.3.3. NPS EN-1 sets out the UK Government's policy for the delivery of major energy infrastructure. It lays out the general principles and generic impacts to be considered in examining applications for energy NSIPs and provides the policy framework within which all other energy NPSs sit.
- 2.3.4. Section 4.2 of NPS EN-1 establishes the principle of a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure. Low carbon infrastructure for the purposes of this policy includes, amongst other things, offshore renewable electricity generation such as offshore wind farms (OWF) and all electricity grid infrastructure in scope of NPS EN-5 such as power lines and associated substations. NPS EN-1 states that CNP infrastructure benefits from a presumption in favour of consent, subject to several exceptions.

NATIONAL POLICY STATEMENT FOR RENEWABLE ENERGY INFRASTRUCTURE (NPS EN-3)

- 2.3.5. NPS EN-3 provides policy specific guidance to major renewable energy infrastructure, including OWFs. It sets out the assessment criteria for offshore wind applications, which include the consideration of biodiversity, ecology and habitats, marine physical and historic environment, commercial fisheries, navigation and shipping, other offshore activities, and seascape and visual effects. Expectations around Habitats Regulations Assessment, climate change resilience and good design are also articulated.

NATIONAL POLICY STATEMENT FOR ELECTRICITY NETWORKS (NPS EN-5)

- 2.3.6. NPS EN-5 sets out policy relevant to electricity transmission and distribution systems. It provides a framework of technology-specific impacts to be considered for electricity networks infrastructure including substations and overhead lines. Assessment criteria specific to electricity networks development include the consideration of effects relating to biodiversity and geological conservation, landscape and visual, noise and vibration and electro-magnetic fields (EMF). NPS EN-5 also supports the principle of achieving coordinated approaches to delivering offshore and onshore electricity transmission to minimise environmental, community and other impacts.

REVISED DRAFT NATIONAL POLICY STATEMENTS FOR NEW ENERGY INFRASTRUCTURE

- 2.3.7. The Department for Energy Security and Net Zero (DESNZ) published revised energy NPSs on 24 April 2025 for consultation. The consultation closed on 29 May 2025. Under the transitional arrangements the consultation version of NPS EN-1 identified that whilst the review is undertaken, the current suite of energy NPSs remain relevant government policy, with NPS EN-1 to NPS EN-5 having effect for the purposes of the PA2008.
- 2.3.8. Emerging draft energy NPSs are potentially capable of being important and relevant considerations in the decision-making process. The extent to which they are relevant is a matter for the SoS to consider within the framework of the PA2008 and with regard to the specific circumstances of each development consent order application.

2.4. UK MARINE POLICY STATEMENT

- 2.4.1. The MPS provides the framework for preparing marine plans and taking decisions affecting the marine environment. The MPS sets out a series of high-level marine objectives in order to achieve clean, healthy, safe, productive and biologically diverse oceans and seas. Chapter 3 of the MPS sets out the policy objectives for the key activities that take place in the marine environment.
- 2.4.2. The policies of the East Inshore and Offshore Marine Plans (adopted April, 2014) and the North East Inshore and Offshore Marine Plans (adopted June, 2021) are also capable of being important and relevant considerations in relation to the proposed development. These plans are underpinned by a number of strategic objectives and include policies that guide the regulation, management, use and protection of the marine plan areas.

2.5. OTHER RELEVANT NATIONAL POLICIES

2.5.1. Other important and relevant UK Government policy has been taken into account by the ExA, including the following:

- The National Planning Policy Framework (2024)
- Net Zero: The UK's Contribution to Stopping Global Warming Emissions (2019)
- Ten Point Plan for a Green Industrial Revolution (2020)
- Energy White Paper: Powering our Net Zero Future (2020)
- Industrial Decarbonisation Strategy (HM Government, 2021)
- Net Zero Strategy: Build Back Greener (HM Government 2021)
- British Energy Security Strategy (HM Government 2022)
- Powering up Britain (DESNZ, 2023)
- Clean Power 2030 Action Plan (2024)

2.5.2. Table A2 at appendix A provides a comprehensive list of other national policies of relevance to the proposed development.

2.6. LOCAL IMPACT REPORT

2.6.1. One LIR was submitted into the examination at Procedural Deadline C from East Riding of Yorkshire Council (ERYC) [[PDC-007](#)]. Section 6 of the LIR identified planning policies which ERYC deemed to be important and relevant considerations in the determination of this application.

2.6.2. In addition to providing commentary on relevant planning policies and the dDCO, the LIR covered the following potential effects of the proposed development:

- principle of development and local policy background
- design, landscape and visual assessment
- ecology, trees and landscaping
- heritage assets including archaeology
- public rights of way and countryside access
- flood risk and drainage
- highways and transportation
- living conditions

2.6.3. The applicants submitted their comments on the LIR at Deadline (DL1) [[REP1-048](#)]. The matters raised are considered in further detail in sections 4 and 5 of this Recommendation.

2.7. ENVIRONMENTAL IMPACT ASSESSMENT

2.7.1. The proposed development is development for which an Environmental Impact Assessment (EIA) is required. On 26 July 2022, the Planning Inspectorate (the Inspectorate) received, on behalf of the SoS, a Scoping Request under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, as amended (the EIA Regulations). The applicants also provided notification under regulation 8(1)(b) of the EIA Regulations that it proposed to provide an Environmental Statement (ES) in respect of the proposed development.

2.7.2. The Inspectorate, on behalf of the SoS, provided a Scoping Opinion on 2 September 2022 [[APP-232](#)]. 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. The applicants provided the
DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

Planning Inspectorate with certificates confirming compliance with s56 [OD-003] and s59 [OD-004] of the PA2008 and regulation 16 of the EIA Regulations [OD-002] on 10 May 2024.

- 2.7.3. The ExA considers that changes to the documentation, comprising the ES during the examination, together with the change requests (see section 1.5 of this Recommendation) did not individually or cumulatively undermine the scope and assessment of the ES. As such, the ExA considers that the ES, as supplemented with additional information during the examination, is sufficient to enable the SoS to take a decision in compliance with the EIA Regulations.
- 2.7.4. Following the close of the examination, the ExA became aware of a number of incorrect references within the ES to the final dDCO [REP9-003], in particular the conditions within the DMLs, along with the final version of the Commitments Register [REP9-009]. As these errors were identified after the close of the examination, the ExA was unable to request the applicants rectify them.

2.8. HABITATS REGULATIONS ASSESSMENT

- 2.8.1. The SoS is the competent authority for the purposes of the Conservation of Habitats and Species Regulations 2017 (as amended) ('the Habitats Regulations') and the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) ('the Offshore Marine Regulations').
- 2.8.2. The proposed development is one that has been identified as giving rise to the potential for likely significant effects (LSE) on European sites and hence is subject to a Habitats Regulations Assessment (HRA).
- 2.8.3. As is the convention and to inform SoS decisions prepared under the PA2008, a separate record of considerations relevant to HRA has been set out at appendix C of this Recommendation, a summary of which can be found in Section 6.

2.9. WATER FRAMEWORK DIRECTIVE

- 2.9.1. Directive 2000/60/EC (the 'Water Framework Directive' or WFD) sets objectives to prevent and reduce pollution, improve aquatic ecosystems and mitigate the effects of floods. It provides for the production of river basin management plans for the sustainable management of rivers. The WFD is transposed into law in England and Wales by The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.
- 2.9.2. The application included a Water Environment Regulations Compliance Assessment [REP5-020]. The proposed development was assessed to have no effects that would be likely to cause deterioration in WFD status or prevent waterbodies from achieving their WFD objectives, provided that best practice and established guidance are adhered to, in accordance with the measures identified in the Outline Code of Construction Practice [REP7-105]. The WFD assessment is discussed in more detail in sections 4 and 5 of this Recommendation.

2.10. TRANSBOUNDARY EFFECTS

- 2.10.1. A transboundary screening under Regulation 32 of the EIA Regulations was undertaken on behalf of the SoS on 1 February 2023 following the applicants' request for an EIA Scoping Opinion. On the basis of the information provided by the

applicants and taking a precautionary approach, the Inspectorate concluded that the proposed development was likely to have a significant effect on the environment in the following European Economic Area (EEA) member states:

- Denmark, France, Germany and Belgium (potential impacts on commercial fisheries)
- The Netherlands (potential impacts on commercial fisheries and aviation and radar)
- Sweden (potential impacts on shipping and navigation)
- Norway (potential impacts on existing infrastructure - Langeled gas pipeline)

- 2.10.2. All these states were consulted on the proposed development. Germany, Norway and the Netherlands requested to be involved in the transboundary consultation procedure. Sweden confirmed it did not wish to participate. Belgium, Denmark and France did not respond.
- 2.10.3. A second screening was published on 23 August 2024. In light of the additional information provided by the applicants, the Inspectorate found that the proposed development was not likely to have a significant effect on the environment in Sweden, but that a likely significant effect on the environment in Norway, Belgium, Denmark, France, the Netherlands and Germany remained.
- 2.10.4. Accordingly, transboundary issues consultation was undertaken under regulation 32 of the EIA Regulations. This resulted in the following actions:
- 4 October 2024, Denmark made a written submission [\[OD-010\]](#) regarding birds that migrate across the North Sea between Denmark and England and confirmed a wish to continue to follow the process
 - 4 October 2024, Germany made a written statement [\[OD-011\]](#)
 - 23 October 2024, the Netherlands made a written statement [\[OD-012\]](#)
 - no responses were received from Norway, Belgium or France
 - the applicants provided their response [\[AS-117\]](#)
- 2.10.5. At ExQ1 [\[PD-014\]](#), the ExA asked questions (BE.1.13, FSE.1.14 and MM.1.11) of The Netherlands Ministry of Infrastructure and Water Management. No response was received to this.
- 2.10.6. A submission was received from Germany [\[REP3-041\]](#) in response to an ExA question (OR1.57) in the Rule 17 letter of 3 March 2025 [\[PD-016\]](#). No response was received to the ExA questions directed to the Netherlands and Denmark in the same Rule 17.
- 2.10.7. The regulation 32 duty is an ongoing duty, and on that basis, the ExA has considered whether any facts have emerged to change the Inspectorate's screening conclusions, up to the point of closure of the examination. The ExA is content that the duties under regulation 32 have been satisfied.

3. OVERARCHING PLANNING ISSUES

3.1. NEED

INTRODUCTION

3.1.1. This section considers the need for the proposed development.

3.1.2. In its consideration of need, the Examining Authority (ExA) had regard to:

- section 3 of the Overarching National Policy Statement for Energy EN-1 (NPS EN-1),
- the National Policy Statement for Renewable Energy Infrastructure (NPS EN-3)
- the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)
- relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans and the UK Marine Policy Statement
- the Local Impact Report (LIR)
- any matters prescribed in relation to the development
- any other important and relevant matters

THE NEED CASE

3.1.3. The applicants presented the need case for the proposed development in Environmental Statement (ES) Chapter 2 (Need for the Project) [APP-065], drawing on national and international support for low carbon energy and the contribution that the proposed development could make towards key national policy aims. If approved, construction could commence in 2026/ 27, with first power generation expected to contribute to the United Kingdom (UK) Government's clean energy targets in 2030.

3.1.4. The applicants set out the urgent need for renewable energy to:

- Achieve Net Zero by 2050 as required by the Climate Change Act 2008 (2050 Target Amendment) Order 2019.
- Reach the UK Government's target to deploy 50 gigawatts (GW) of offshore wind by 2030 as set out in the British Energy Security Strategy (Department for Business Energy and Industrial Strategy, 2022).
- Address harmful impacts from climate change on health, mortality rates, ecosystem structure and function, socioeconomics, species extinctions and food and water security identified by the Intergovernmental Panel on Climate Change (2021).
- Address underlying national vulnerability to international oil and gas prices by reducing dependence on imported oil and gas in the British Energy Security Strategy Policy Paper (Department for Business Energy and Industrial Strategy, 2022).
- Reduce emissions which would play a key role in the United Nations' Sustainable Development Goal of ending poverty in all its forms, zero global hunger and affordable and clean energy for all, that was set out in the UK Climate Change Committee's Net Zero Report (2019).
- Support the aspirations of the UK Clean Growth Strategy (UK Government, 2017a), creating economic opportunities which could play a major part in boosting the economy and providing new jobs and skills in the UK.

3.1.5. The applicants explained that the proposed development would address the matters set out below.

DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

- 3.1.6. ES Chapter 2 [APP-065] stated that the proposed development would make a significant contribution to the achievement of national renewable energy targets and the UK's contribution to global efforts in reducing the effects of climate change, by providing 3GW of renewable energy over a design life of 30 years. ES Chapter 30 (Climate Change) [REP6-036] estimated that the proposed development would result in 91.9 million tonnes of avoided carbon emissions for the in-isolation scenario and 183.5 million tonnes for the sequential scenario, concluding that this would have a beneficial effect, which would be significant in Environmental Impact Assessment (EIA) terms. ES Chapter 2 stated that the proposed development would therefore contribute towards reducing the production of carbon dioxide to net zero greenhouse gas emissions by the 2050 target, through renewable energy production growth.

ENERGY SECURITY

- 3.1.7. The applicants' need case explained that the proposed development would assist in reducing the UK's reliance on imported energy and would improve energy security. The applicants set out that the proposed development would generate renewable energy to meet the average annual domestic energy needs of approximately 3 million UK households per year [APP-065].

ECONOMIC OPPORTUNITIES

- 3.1.8. ES Chapter 2 [APP-065] stated that the proposed development would provide a valuable contribution to employment, and that during construction, an estimated 2,390 full-time equivalent jobs could be supported. During the operational phase, the proposed development could support 1,120 full-time equivalent jobs. The applicants also stated [APP-065] that the proposed development would contribute to the development of the supply chain and skilled workforce, with associated economic benefits. There would also be indirect effects of additional employment and expenditure, such as from the workforce, which the applicants stated would contribute towards the local economy.
- 3.1.9. The applicants' need case identified that the proposed development would result in significant expenditure in manufacturing, services, materials and equipment, with an estimated overall construction cost of £7 billion, and operation and maintenance expenditure of around £177 million per annum. In total, the gross added value over the proposed development's lifetime was expected to be £1 billion, which the applicants stated would make a significant contribution at a national level.

ISSUES CONSIDERED DURING THE EXAMINATION

- 3.1.10. The overall need case for the proposed development was not a matter disputed by parties during the examination.
- 3.1.11. East Riding of Yorkshire Council's (ERYC) LIR [PDC-007] and signed Statement of Common Ground (SoCG) [REP8-015] confirmed that the need for the proposed development was established and supported in principle by the East Riding Local Plan Strategy Document (2016).
- 3.1.12. Some interested parties (IP), such as Dr Mounce [RR-063] and the National Trust [RR-038] recognised the need for renewable energy projects, but objected to the

proposed location. This is dealt with in more detail in section 3.2 (Alternatives) of this Recommendation.

- 3.1.13. ES Chapter 2 [APP-065] referred to the potential for renewable energy to improve energy affordability and aspirations to reduce energy poverty, but did not provide information on how specifically the proposed development would do this. In response to the ExA's second written questions (ExQ2), the applicants stated [REP5-036] that large-scale offshore wind projects can reduce wholesale electricity prices by reducing the market share formed by other more expensive and environmentally damaging forms of generation, pushing them out of the market, and reducing overall prices. Domestic production of electricity also reduces the UK's reliance on volatile fossil fuel markets that can spike in price due to a series of wider factors, which in the past has led to large increases in energy prices and therefore a reduction in energy affordability. The applicants concluded that reducing the proportion of electricity in the UK generated by fossil fuels would therefore help to protect lower, more stable energy prices, thereby reducing energy poverty.
- 3.1.14. ES Chapter 2 set out the need case and benefits of the proposed development in the context of delivering both Dogger Bank South East and Dogger Bank South West array areas. However, the draft Development Consent Order (dDCO) [REP9-003] would not guarantee the delivery of both array areas, that is, it could be the case that only one array area would be constructed.
- 3.1.15. The ExA asked the applicants [PD-014] whether ES Chapter 2 should present the benefits associated with the delivery of one array area on a 'worst-case scenario' basis to conform with the rest of the ES and requested that the ES was updated to reflect this. The applicants stated [REP3-027] that ES Chapter 2 presented the contribution that the proposed development could make to decarbonisation and employment if both array areas were built. As consent was sought for both projects, the applicants considered that this was a reasonable description of the proposed development's ability to meet the needs established by the UK Government. The applicants did not update ES Chapter 2 as requested by the ExA.
- 3.1.16. The applicants stated at deadline (DL) 3 that the proposed development was, at that time, the largest offshore wind project currently being developed in the UK, making up almost 40% of the capacity of the UK's offshore wind Round 4 leasing projects. The ExA also queried [PD-022] whether the minimum generating capacity per array area should be 600 megawatts (MW) (or more), in accordance with the generic minimum 600MW requirement from The Crown Estate in the Dogger Bank Bidding Area [REP3-038], rather than 100MW as secured by the dDCO [REP3-004]. Also, the ExA noted that the minimum generating capacity per array area of 100MW would not secure the benefits set out in ES Chapter 2 in full.
- 3.1.17. The applicants stated [REP5-036] that the minimum generating capacity of 100MW per array area specified in the dDCO was not intended to reflect the expected or eventual commercial capacity of the proposed development. Rather, it sought to provide a flexible consenting baseline which supported phased delivery and reflected regulatory thresholds, whilst ensuring consistency with the ES which assessed a maximum generating capacity of up to 1.5GW per array area. The applicants explained that a figure of 100MW had been selected specifically because it aligned with the statutory threshold for nationally significant infrastructure projects under section 15(3) of the Planning Act (PA2008), and this threshold was therefore commonly adopted as the minimum for offshore wind projects seeking DCO consent.

- 3.1.18. The applicants said that in relation to the 600MW minimum generating capacity referenced by The Crown Estate, this would serve as strategic leasing guidance and may vary depending on project-specific circumstances. The actual generating capacity requirements applicable to the proposed development were defined in the confidential terms of the lease agreements with The Crown Estate. The applicants stated that whilst the lease terms could not be disclosed due to commercial sensitivity, they would nevertheless be under an obligation to comply with all lease provisions, including any applicable minimum capacity requirements.
- 3.1.19. The applicants confirmed that the proposed minimum capacity of 100MW would not override or weaken any lease obligations, but setting a higher statutory minimum, such as 600MW, could unnecessarily restrict delivery flexibility, such as where the array areas could be built in phases, or where early infrastructure may be delivered in advance of full generation capacity. The applicants concluded that their approach ensured regulatory robustness, supported the UK's renewable energy goals, and would allow the proposed development to respond to dynamic technical and commercial conditions.

ExA's considerations

- 3.1.20. Although the dDCO [\[REP9-003\]](#) would not secure the benefits from both array areas set out in ES Chapter 2 in full, the proposed development would nevertheless provide a meaningful and substantial contribution, even with the delivery of just one array area, towards achieving the target of up to 50GW of offshore wind by 2030. The proposed development could generate renewable energy to meet the average annual domestic energy needs of approximately 3 million UK households per year and even at half of this, would generate enough to meet the energy needs of 1.5 million UK households. The ExA agrees with the applicants' conclusion that this would have a beneficial effect, which would be significant.
- 3.1.21. The ExA accepts the applicants' stance that imposing a minimum generating capacity in the recommended draft DCO of more than 100MW could unnecessarily restrict delivery flexibility.
- 3.1.22. In terms of socio-economic benefits identified by the applicants in ES Chapter 2, the ExA notes that the Funding Statement [\[REP8-012\]](#) was updated to clarify that the estimated cost of the proposed development had increased from £7.1 billion to £12.4 billion. However, ES Chapter 2 was not updated to reflect the likely additional costs or spending (nor was ES Chapter 28 (Socio-economics) [\[APP-217\]](#)). Therefore, there is potential that the gross added value over the proposed development's lifetime could be more than the stated £1 billion. The ExA considers that although ES Chapters 2 and 28 were not updated to reflect the revised costs and any additional associated spending, this does not cause concern in relation to the overall findings regarding the socio-economic benefits of the proposed development.

CONCLUSIONS

- 3.1.23. NPS EN-1 directs that the Secretary of State (SoS) should assess all applications for development consent for nationally significant electricity infrastructure, which includes energy produced from offshore wind farms, on the basis that the government has demonstrated that there is a need for this type of infrastructure, which is urgent. In addition, substantial weight should be given to this need when considering applications for development consent under the PA2008.

- 3.1.24. NPS EN-1 also recognises the UK government ambition in the British Energy Security Strategy to deliver up to 50GW of offshore wind by 2030 and the requirement in the Energy White Paper for sustained growth in the capacity of onshore wind and solar in the next decade. The 2025 draft changes to the energy NPSs incorporated the Clean Power 2030 Action Plan, reinforcing the government's commitment to its 2050 net zero ambitions.
- 3.1.25. NPS EN-3 also recognises the urgent need for new electricity generating capacity to meet the UK's energy objectives, describing electricity generation from renewable sources as essential in the transition to net zero and to meet the UK's statutory targets for the sixth carbon budget.
- 3.1.26. The ExA recognises the urgent need for low carbon energy production to reduce greenhouse gas emissions and to address the effects of climate change. The ExA also recognises the contribution which renewable energy generation would deliver in terms of energy security and affordability.
- 3.1.27. The ExA concludes, 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 and ensuring security of supply. Therefore, the ExA considers that the overall need argument carries very great positive weight in favour of making the Order.
- 3.1.28. In accordance with NPS EN-1 paragraph 4.1.3, the starting point is therefore a presumption in favour of granting development consent unless any specific policies set out in the relevant NPSs clearly indicate that consent should be refused. The assessment must also be subject to the provisions in the PA2008.

3.2. ALTERNATIVES

INTRODUCTION

- 3.2.1. This section considers the alternatives summarised by the applicants in defining and designing the proposed development.
- 3.2.2. In its consideration of alternatives below, the ExA had regard to:
- section 4 of the Overarching National Policy Statement for Energy EN-1 (NPS EN-1)
 - the National Policy Statement for Renewable Energy Infrastructure (NPS EN-3), in particular paragraph 2.2.119
 - the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5), in particular paragraph 2.2.8
 - relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans and the UK Marine Policy Statement
 - the LIR
 - any matters prescribed in relation to the development
 - any other important and relevant matters
- 3.2.3. This section does not consider matters that arose during the examination in respect of site-specific alternatives, for example where there are specific requirements in relation to compulsory acquisition, European protected sites, or where the NPS imposes a policy requirement to consider alternatives. These are considered, where relevant, in the individual topic sections of this Recommendation. The consideration
- DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

of alternatives within Habitats Regulations derogation cases are presented at appendix C of this Recommendation.

THE APPLICATION

- 3.2.4. The applicants' consideration of alternatives was contained in ES Chapter 4 (Site Selection & Assessment of Alternatives) [APP-067], which was updated twice during examination, firstly to respond to a point of clarification from the ExA [AS-017] and then to reflect changes made to the proposed development following change requests 1 and 2 [REP7-028]. ES Chapter 4 covered the consideration of both offshore and onshore infrastructure, and the assessment of reasonable alternatives as the proposed development evolved through pre-application to the point of submission. ES Chapter 4:
- outlined the staged approach to defining the spatial boundaries and constituent parts of the proposed development
 - explained and detailed the main alternatives considered for the proposed development, including location and infrastructure options
- 3.2.5. ES Chapter 4 was supported by:
- Figures 4-1 to 4-36 [APP-068], which was updated to reflect the changes to the proposed development following change requests 1 and 2 [REP7-030]
 - Appendix 4-1 Ofgem and National Grid Electricity System Operator Holistic Network Design Statements [APP-069]
 - Appendix 4-2 Access Strategy Development [APP-070]
- 3.2.6. ES Chapter 4 explained that the siting, design and refinement of the proposed development followed a site selection process, taking account of environmental, physical, technical, commercial and social considerations and opportunities, as well as engineering requirements. The aim was to identify locations that would be environmentally acceptable, deliverable and consentable, whilst also being economic and efficient.
- 3.2.7. The applicants stated that the site selection process started with the identification of the offshore array areas as part of The Crown Estate's Offshore Wind Leasing Round 4 process. Subsequently, the National Grid Electricity Systems Operator (ESO) advised that the onshore grid connections for the proposed development would be in the vicinity of the existing National Grid Electricity Transmission substation at Creyke Beck, East Riding of Yorkshire. This informed the selection process to identify possible locations for the landfall, onshore substations, offshore export cable corridors, onshore export cable corridors and onward cable routing to the National Grid substation at Creyke Beck. ES Chapter 4 [REP7-028] plate 4-1 provided an overview of the site selection process.
- 3.2.8. Throughout the site selection process, options were subject to a comparative assessment of engineering and environmental risks, consisting of a Black-Red-Amber-Green (BRAG) test, to identify risks associated with each option. Refinement of the site selection, layout and configuration were undertaken in consultation with stakeholders, communities and landowners through the statutory and non-statutory pre-application stages. Table 4-2 of ES Chapter 4 set out key stakeholder responses and how the applicants responded to these during the site selection process.

- 3.2.9. ES Chapter 4 also provided information on alternatives considered as part of the site selection and design decision-making processes. Table 4-3 set out the strategic consideration of alternatives and decisions on these, which fed directly into the site selection process. In summary, the decisions were:
- Single development consent application rather than 2 separate applications to provide consistency in the approach, reducing the burden on stakeholders and increased transparency for the potential compulsory acquisition process.
 - Co-ordinated design and co-location of infrastructure of the 2 projects to reduce the number of receptors impacted by the proposed development.
 - Buried onshore export cables in ducts rather than overhead lines to reduce landscape and visual impacts.
 - Commitment to high voltage direct current (HVDC) technology, which reduced the overall development area for the converter station(s).
- 3.2.10. A further, more specific refinement process and consideration of alternatives for the array areas, landfall, onshore substations, offshore export cable corridors, onshore export cable corridors and onward cable routing to the National Grid substation was then carried out. This consisted of various BRAG assessments, consultation with technical expert groups and survey works, which informed the selection and refinement process.

ISSUES CONSIDERED DURING THE EXAMINATION

- 3.2.11. ERYC's LIR did not raise any concerns regarding alternatives or site selection and the signed Statements of Common Ground (SoCG) with ERYC [REP8-015] and Hull City Council [REP8-018] identified site selection and alternatives as agreed matters. The signed SoCG with Natural England (NE) [REP9-018] did not identify the strategic site selection for the proposed development or consideration of strategic alternatives as outstanding matters. The signed SoCG with the Marine Management Organisation (MMO) [REP9-013] identified the EIA site selection and assessment of alternatives chapter in the ES as agreed matters.
- 3.2.12. Representations raised concerns regarding the locations of onshore and offshore elements of the proposed development, including its proximity to designated sites (such as Dr Mounce [RR-063] and the Doggerland Foundation [AS-004]), the suitability of the proposed locations to accommodate the proposed development (such as Ms Bache [RR-060]), and the need for co-ordination of planned infrastructure (such as Ms Oliver [RR-064]).

RADIAL CONNECTION AND TRANSMISSION

- 3.2.13. Ms Oliver [RR-064] raised concerns regarding the lack of asset sharing between developers of large-scale infrastructure projects and the increased costs, disruption and environmental impacts associated with this.
- 3.2.14. Initially, the applicants proposed that the grid connection for the proposed development would have been a non-radial connection as part of the Holistic Design Network (HDN) for the East Coast Region. This approach (rather than a singular, radial connection) is supported by NPS EN-1, which states that the Centralised Strategic Network Planning for the onshore-offshore network, allows for clearer identification of needs and includes upfront consideration of environmental and community impacts.

- 3.2.15. The applicants stated [REP3-027] that further work by the ESO de-scoped the projects from the South Cluster of the HDN, recommending that the proposed development use a radial connection. Appendix 4-1 [APP-069] provided correspondence from Ofgem and National Grid ESO which confirmed that changes since 2022, when the HDN was established, including general price increases, challenges in the supply chain for transmission assets, and the identification of opportunities to realise additional electrical and physical capacity, meant that the HDN was delayed by a number of years. The conclusion was to facilitate earlier connection dates of offshore wind and due to supply chain constraints and cost of offshore infrastructure, a change was sought from a highly co-ordinated design to a radial one.
- 3.2.16. In the written representation from National Grid Electricity Transmission plc [REP1-080], it confirmed the need for a new substation close to the existing Creyke Beck substation to facilitate the connection of a number of new customers, at Birkhill Wood. This proposed new substation would also serve as the connection point for new overhead lines which would be required to reinforce the transmission network for the Humber region. Its close proximity to Creyke Beck would reduce the need for additional transmission infrastructure (such as pylons, conductors and cables) to connect the new substations to the existing 400 kilovolt overhead line network and associated environmental impacts and costs.
- 3.2.17. The applicants stated [REP3-027] that through the co-ordinated design of the proposed development, and by working with the ESO, despite proposing a radial connection, they had complied with the requirements of the relevant NPS policies.

ExA's considerations

- 3.2.18. NPS EN-5 paragraph 2.13.9 states that radial offshore transmission options to single windfarms should only be proposed where options assessment work identifies that a co-ordinated solution is not feasible. The identification of co-ordinated solution options, and any radial option, should consider the criteria for designs to be deliverable and operable, economic and efficient, minimise impact on the environment and minimise impacts on local communities. Options should seek to identify the most appropriate balance between these criteria.
- 3.2.19. The ExA considers that sufficient evidence has been provided by the applicants, notably in Appendix 4-1 [APP-069], including correspondence from Ofgem and the National Grid ESO, which confirmed that a co-ordinated grid connection option is no longer feasible due to delays to the HDN. Given the urgent need for renewable energy, delaying the grid connection until the HDN is progressed would not support the delivery of much needed renewable energy in a timely manner.
- 3.2.20. Although the proposed development does not include shared infrastructure opportunities with other large-scale infrastructure projects, the ExA notes the applicants' strategic choice to submit one application and the shared onshore infrastructure elements between Dogger Bank South East and Dogger Bank South West, which would reduce environmental impacts in comparison to these being constructed separately.
- 3.2.21. Therefore, the ExA considers that with regard to asset sharing and the proposed radial connection to the grid, the applicants have suitably considered the alternatives and demonstrated why a radial connection would be acceptable in this instance.

ONSHORE INFRASTRUCTURE SITE SELECTION

- 3.2.22. Some IPs questioned the choice of location for the onshore elements of the proposed development, including the proximity to designated sites (such as Dr Mounce [\[RR-063\]](#)) and the suitability of the proposed location to accommodate the proposed development (such as Ms Bache [\[RR-060\]](#)). Specific comments regarding the impacts of the proposed development on designated sites are dealt with in the relevant sections of this Recommendation.
- 3.2.23. The applicants stated [\[REP3-027\]](#) that they gave consideration to the Horlock and Holford Rules at an early stage of the design process when determining the appropriate locations for the converter station(s) and onshore export cables. This included the commitment to buried cables to reduce landscape and visual effects and consideration of environmental issues from the earliest stage. Technical benefits and capital cost requirements were also balanced against the consequential environmental effects, to keep adverse effects to a reasonably practicable minimum.
- 3.2.24. The ExA had a number of queries regarding the site selection process, including how the initial onshore search radius was determined and how stakeholder comments were taken on board [\[PD-014\]](#). In general, these were suitably answered at DL3 [\[REP3-027\]](#). The ExA however posed further questions regarding some of the short-listed substation zones, notably 'Substation Zone 1' and 'Substation Zone 7', the decision to discount the latter option and the final choice to move forwards with 'Substation Zone 4'. Appendix C of the applicants' responses to ExQ2 provided a comprehensive breakdown of the known constraints for each potential zone identified for the substations and why they were discounted [\[REP5-036\]](#).

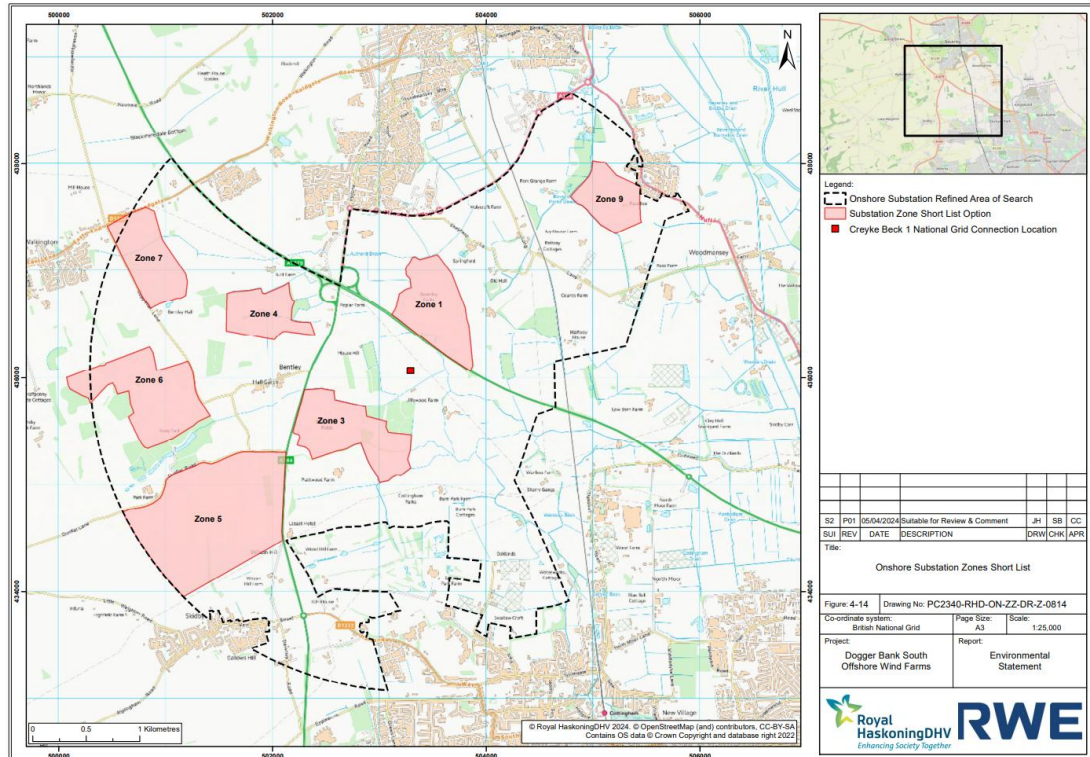


Figure 6: Onshore substation zones short list

Source: ES Chapter 4 Figures, figure 4-14 [\[REP7-030\]](#)

DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

- 3.2.25. The applicants stated [\[REP3-027\]](#) that Zone 4 had the following benefits:
- opportunity for both converter stations to be located on the same site, localising effects
 - avoided some of the most sensitive landscape and visual receptors
 - located on relatively flat landscape, with some landscape structure in place and few landscape features which would be lost
 - the landscape would be capable of accommodating large scale development
 - avoided the candidate Yorkshire Wolds National Landscape
 - avoided large numbers of residential receptors in Beverley
 - would not obstruct views of Beverley Minster, a key feature in the skyline
- 3.2.26. The applicants identified [\[REP6-057\]](#) additional constraints at Zone 7, such as the need for significant earthworks to form substation platforms, steep sections and the need to import and export additional materials. There would also have been more crossings of infrastructure required, which would have knock on effects for the size of the cables needed for the onshore export cable routes and the potential need to increase the width of the cable corridors. The applicants noted the less elevated position of Zone 4 in comparison to Zone 7, along with blocks of existing woodland around Zone 4 which provided opportunities for screening. The applicants stated [\[REP6-057\]](#) that the use of existing screening opportunities and the landform accorded with the requirements of the Horlock Rules.
- 3.2.27. Zone 1 was not able to accommodate both converter stations which would have meant positioning the 2 converter stations in different locations. The applicants concluded that co-locating the converter stations was more suitable when compared to a split design owing to health and safety management, and a number of constraints at Zone 1, including flood risk, the presence of overhead power lines and crossing of a high-pressure gas main [\[REP6-057\]](#).
- 3.2.28. The ExA also queried the decision to site the onshore cable route through a mineral safeguard area and whether it could be avoided entirely [\[PD-014\]](#). The applicants' response [\[REP3-027\]](#) confirmed that alternative options were considered in a multi-disciplinary review, including a route option further to the south which completely avoided the preferred area for sand and gravel. However, this was deemed less desirable than the chosen route alignment, as it brought the cable route closer to residential receptors on Catwick Lane, increasing potential construction phase disturbance impacts. The applicants advised [\[REP3-027\]](#) that the final alignment was chosen because it minimised impacts on the preferred area of sand and gravel (compared to the alignment in the Preliminary Environmental Information Report (PEIR)), with less potential sterilisation of sand and gravel reserves, whilst also minimising impacts on nearby residential receptors.

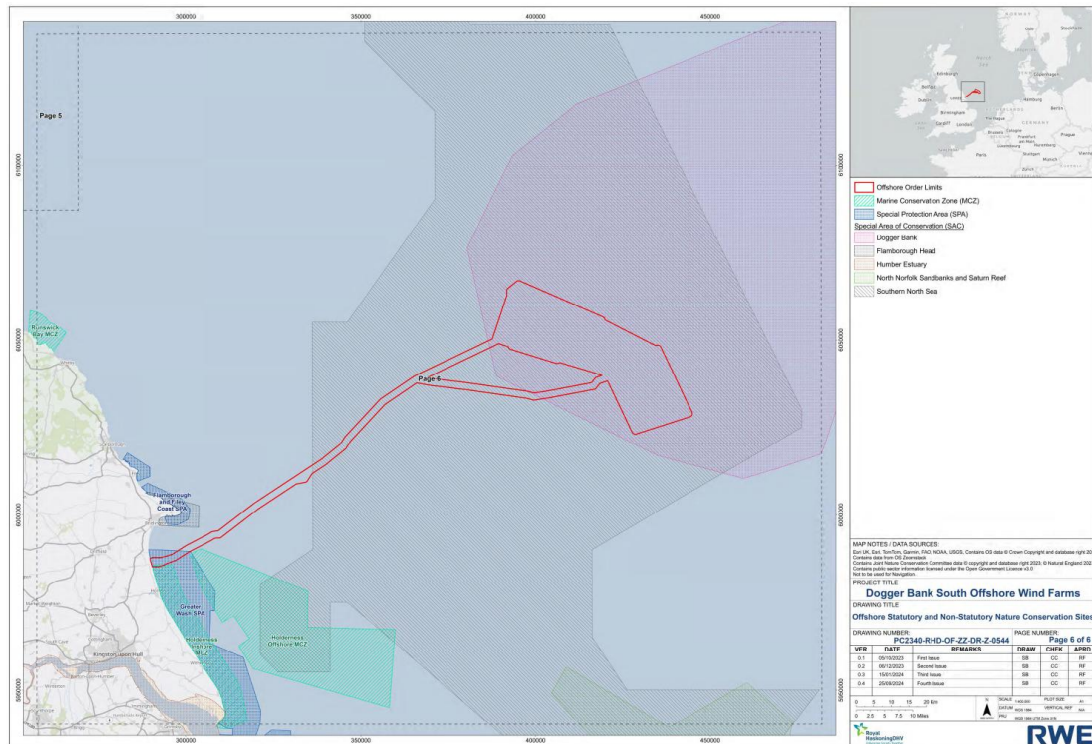
ExA's considerations

- 3.2.29. The ExA considers that the applicants have demonstrated a reasonable approach towards the consideration of alternatives and site selection for the onshore elements of the proposed development, including consideration of the Horlock and Holford Rules at an early stage in the design process.
- 3.2.30. Following the submission of additional information as referenced above, notably Appendix C of the applicants' responses to ExQ2 [\[REP5-036\]](#), this provides the ExA with suitable information to demonstrate that the consideration of alternatives has been carried out in a proportionate manner and in a logical way.

- 3.2.31. The ExA accepts the applicants' position that alternatives to siting the proposed cable corridor in a small area of the mineral safeguarding zone is unavoidable.

OFFSHORE SITE SELECTION CONSIDERATIONS

- 3.2.32. ES Chapter 4 [REP7-028] explained that the proposed location of the array areas, which would be entirely in the Dogger Bank Special Area of Conservation (SAC), was determined by The Crown Estate Offshore Wind Leasing Round 4. Natural England (NE) [REP2-065, REP6-073] identified that the proposed development was the only 'Round 4 project' where the array areas would be located in a designated site. The Doggerland Foundation [AS-004] stated that all development should be stopped in the Dogger Bank and that offshore wind development should not be permitted in vulnerable areas, as this was resulting in cumulative impacts on marine protected areas.
- 3.2.33. In response to the comments from the Doggerland Foundation, the applicants stated [PDA-013] that change request 1 reduced the impacts on the Dogger Bank SAC, that a comprehensive EIA had been undertaken to avoid, reduce, mitigate and compensate for impacts where practicable and appropriate, including mitigation measures to address the likely significant effects of the proposed development on the Dogger Bank SAC, both in-isolation and cumulatively with other developments. As a result, the identified likely significant effects would be minimised as far as is practicable, thus allowing the SAC to continue its recovery.
- 3.2.34. The proposed offshore cable route would pass through the Dogger Bank SAC, Southern North Sea SAC, Greater Wash Special Protection Area (SPA) and would be in close proximity to the Holderness Inshore Marine Conservation Zone (MCZ) and the Holderness Offshore MCZ. The landfall area would pass through the Greater Wash SPA. The Flamborough and Filey Coast SPA and the Flamborough Head SAC are located to the north of the offshore export cable route. The Holderness Inshore MCZ is located immediately to the south of the offshore export cable route and the Holderness Offshore MCZ is located seaward of the Holderness Inshore MCZ.



- 3.2.35. The ExA asked [PD-022] with regards to effects on the Flamborough Head SAC, the Humber Estuary SAC, Holderness Inshore MCZ and Humber Estuary SAC, what alternative cable routes had been considered to avoid effects on these areas.
- 3.2.36. The applicants stated [REP5-036] that the avoidance of direct impacts to sites designated for nature conservation as far as possible, was one of the core underlying principles that underpinned its decision-making regarding the development of the routing of the offshore export cable corridor. The final routing options presented in the ES, which were consulted on prior to submission of the application, did not raise concerns regarding the proposed options, with the applicants confirming [REP5-036, REP7-028] that NE welcomed that the final export cable corridor options would avoid routing through the Smithic Bank sandbank and the Holderness Inshore MCZ. The applicants also noted the avoidance of direct effects on the Flamborough Head SAC, the Humber Estuary SAC and Holderness Inshore MCZ in determining the site selection of the offshore export cable corridor.
- 3.2.37. ES Chapter 4 [REP7-028] explained that the final landfall choice was the preferred option from an environmental perspective primarily due to the considerations of ecological designated sites (avoiding overlap between the permanent burial corridor and the Holderness Inshore MCZ) and geological designated sites (avoiding the Withow Gap Site of Special Scientific Interest). The final landfall choice also avoided greater extents of areas of high potential for archaeology (based on known information at the time). ES Chapter 4 also stated that NE and the MMO confirmed their agreement during pre-application that the selected final landfall location was their preference.

ExA's considerations

- 3.2.38. The ExA notes that the proposed array areas would be the only 'Round 4' projects to be located in a designated site. The ExA is however mindful that it is not its role to consider the merits of the overarching site selection process, or the decision taken by The Crown Estate for suitable areas for offshore wind farm array areas at a strategic level. Any further refinement of the proposed array areas would still result in them being located entirely in the Dogger Bank SAC. The ExA also notes that NPS EN-1 states that the starting position (with regards to Habitats Regulations Assessment or MCZ residual impacts) is energy security, and that decarbonising the power sector to combat climate change requires a significant number of deliverable locations for Critical National Priority Infrastructure and for each location to maximise its capacity.
- 3.2.39. The ExA notes the constrained nature of the area in terms of options for avoiding designated sites for the offshore export cable route. The ExA finds that locating the offshore export cable route further to the north, avoiding direct impacts on the Greater Wash SPA and being located further from the Holderness Inshore MCZ and Holderness Offshore MCZ would result in the cable route passing through the Smithic Bank sandbank, which NE advised at the PIER stage should be avoided.
- 3.2.40. For these reasons, the ExA considers that the applicants have demonstrated a reasonable approach towards the consideration of alternatives and site selection for the offshore elements of the proposed development.

CONCLUSIONS

- 3.2.41. In light of the above, the ExA finds that adequate regard has been had to alternatives and that the legislative requirement under regulation 14(2)(d) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ('the EIA Regulations') to report on any alternatives that were considered as part of the EIA process has been met.
- 3.2.42. NPS-EN1 states that applicants are obliged to include in their ES, information about the reasonable alternatives they have studied, including an indication of the main reasons for the applicants' choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility. The ExA is satisfied that ES Chapter 4 [\[REP7-028\]](#) and the supporting information, including the applicants' responses to ExQ2 [\[REP5-036\]](#), provide sufficient detail of the reasonable alternatives the applicants have considered and the reasons for their choices, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility. The applicants have also demonstrated how they have had due regard to the Horlock and Holford Rules.
- 3.2.43. The ExA therefore considers that the applicants have met the policy requirements of NPS EN-1, NPS EN-3 and NPS EN-5 in their consideration of strategic alternatives.

3.3. GOOD DESIGN

INTRODUCTION

- 3.3.1. This section considers whether the proposed development meets the relevant criteria for good design. Good design is overarching and therefore this section is not

based on any specific chapter of the ES, drawing on consideration of several different areas.

3.3.2. In its consideration of good design, the ExA had regard to:

- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) sections 4.7 and 5.10
- National Policy Statement for Renewable Energy (NPS EN-3), section 2.5
- National Policy Statement for Electricity Networks Infrastructure EN-5 (NPS EN-5) section 2.4
- the LIR
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

3.3.3. The Design and Access Statement (DAS) [APP-233] set out good design principles for the proposed development and the various approaches which would be implemented to achieve good design. This was updated at various points of examination and the Revision Change Log in the DAS set out the changes and reasons for these in the final version [REP7-103]. Offshore elements of the proposed development were scoped out of the DAS because the array areas would not be visible from the shore. The DAS also focused primarily on the operational phase of the proposed development, considering how design and embedded mitigation measures have influenced the route selection and good design response. Some elements of construction were considered in the DAS.

3.3.4. The Outline Landscape Management Plan (oLMP) [APP-236] supported the DAS and set out the landscape strategy for the onshore elements of the proposed development, as well as providing general principles and objectives for onshore mitigation, enhancement, monitoring and management of landscape matters. It was updated during examination to respond to comments from IPs and the ExA, with the final version being submitted at DL4 [REP4-044]. An indicative landscape plan was provided (see figure 23-6 of ES Chapter 23 Figures [APP-193]), which again was updated during examination, with the final version being submitted at DL4 [REP4-039].

3.3.5. The Guide to the Application also set out the different versions of the aforementioned documents and when they were updated [REP9-002].

3.3.6. The DAS [REP7-103] set out the following overarching 7 design principles which represented how the design of the landfall, onshore export cable corridor and onshore substation zone (OSZ) had responded to the variety of technical and environmental development criteria:

- co-ordinated development
- responsive construction
- avoidance of sensitive features
- landscape restoration
- ecological enhancement
- visual mitigation
- stakeholder consultation

- 3.3.7. Table 4-1 of the DAS explained how the overarching design principles had been and would continue to be considered through to the detailed design of the proposed development.
- 3.3.8. The applicants' good design case primarily focused on the OSZ. However, the DAS [REP7-103] covered the whole of the onshore development area, including the export cable corridor, onward cable routing and landfall. The DAS set out the pre-application consultation process, how this informed the design parameters, design vision and key decisions made prior to submission of the application. The updated DAS also reported on the consultation undertaken in advance of submission of change request 2, which was broadly positive.
- 3.3.9. The DAS confirmed the site context, including constraints and set out the onshore design principles, including parameters for the converter station(s) and more detailed design information, such as how materials, colour and access would be determined at the post-consent stage. The DAS confirmed that a 'project design champion' would be appointed to assist the detailed design process, as part of a design review panel and the proposed consultation process with the local planning authority and stakeholders.

ISSUES CONSIDERED DURING THE EXAMINATION

- 3.3.10. The issues considered during the examination were:

- good design principles
- design review process
- other design matters

GOOD DESIGN PRINCIPLES

- 3.3.11. The ExA asked a number of queries on good design during issue specific hearing (ISH) 2 [EV5-001], as part of supplementary questions to ISH2 [EV5-002] and in the ExA's first written questions (ExQ1) [PD-014]. These included questions on the vision, rationale and evolution of the design of the OSZ, how the proposed development would respond to climate, people, place and value and what community benefits would be delivered in terms of providing a sense of place. The ExA also had questions on the site selection process and queried the proposed post-consent design review process. ERYC was asked if it had sufficient design expertise to ensure good design of the converter station(s) when discharging relevant requirements, which it confirmed [REP3-037] that it would have, owing to a planning performance agreement which was already in place between the applicants and ERYC.
- 3.3.12. The Planning Inspectorate published new advice on 'Good Design for nationally significant infrastructure projects' after the submission of the application. During ISH2, the ExA noted that the DAS [APP-233] set out design parameters for the individual parts of the onshore elements of the proposed development, including the landfall, onshore export cable corridor and OSZ. However, it did not provide design parameters for the onward cable connection to the proposed Birkhill Wood National Grid Substation. The DAS also provided some information on individual design elements for the converter station(s), such as materials, access, lighting and noise, but the ExA identified a lack of a holistic approach, which the new guidance on good design advocated.

- 3.3.13. The applicants updated the DAS [REP2-027] to respond to the ExA's aforementioned queries. It provided a greater level of detail and clarification on ecological management, ancient woodland and trees, reference to the scheduled monument adjacent to Butt Farm, design considerations, planting management, maximum parameters, materials, access to the converter station(s), and sustainable drainage, amongst other elements. The onshore design principles were substantially updated to give a detailed overview of their intention and approach. More detail was also provided on the 7 overarching design principles and how these could be implemented in the landscaping scheme.
- 3.3.14. In response to concerns highlighted by the ExA at ISH6 regarding the potential effects from lighting on the scheduled monument near to Butt Farm, the DAS [REP7-103] was updated again, to commit to the access track to the converter station(s) not being lit and to reduce signage and street furniture to a minimum. Furthermore, the DAS clarified that the converter station(s) would not be lit continuously at night and the intended burial depth of cables through agricultural land. The DAS included updated the cross-section drawings to provide greater clarity on the drainage systems at the OSZ and also provided various updates regarding the design review process, which is considered in more detail below.
- 3.3.15. Requirements 10 (detailed landscape management plan), 13 (details of permanent means of enclosure), 22 (details of artificial lighting), and 36 (details of the permanent access road serving the converter station(s)) of the dDCO [REP9-003] were updated at the request of the ExA [PD-028] to ensure that relevant elements of the proposed development would be in accordance with the details in the DAS.

ExA's considerations

- 3.3.16. The ExA considers that following the amendments to the DAS, it now sets out how the design process evolved, with design principles that have been incorporated at the outline stages of the design of the proposed development, and would continue to frame the detailed design, notably for the OSZ. The DAS now provides a holistic approach to good design, recognising the site constraints and how the detailed design would need to respond to the surrounding environment to ensure that the good design principles were achieved. The ExA also considers that the applicants have demonstrated compliance with the Planning Inspectorate advice on 'Good Design for nationally significant infrastructure projects'.
- 3.3.17. As set out in section 4.2 (Landscape and Visual Effects) of this Recommendation, whilst there are likely to be significant adverse effects from the converter station(s) on landscape character and visual amenity, NPS EN-1 states that the nature of energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area. The operational, safety and security requirements which the design must satisfy, mean that the converter station(s) are fairly limited in terms of the design enhancements which they can offer to the wider area. The DAS also sets out how the proposed development would respond to climate change and would employ climate resilience measures. The DAS is therefore considered to strike a balance between ensuring functionality, whilst also responding to the existing site constraints and maximising opportunities for landscape and environmental enhancements where possible.

DESIGN REVIEW PROCESS

- 3.3.18. At ExQ1, the ExA queried whether the design of the converter station(s) benefitted from independent review [PD-014] and the applicants confirmed [REP3-027] that this had not been undertaken. They considered that given the scale of the converter station(s) and design maturity of the proposed development, that input from landscape architects had been more appropriate. The applicants explained that the largest buildings on-site, the valve halls, were specifically designed to house the electrical infrastructure to convert power from HVDC to high voltage alternating current. The use of nonstandard shapes or materials would not have been viable for these buildings due to space requirements, fire risk and material cost. The DAS [REP7-103] was updated to commit to the inclusion of an independent architect on the design review panel for the detailed design process.
- 3.3.19. The DAS [REP2-027] was updated at DL2 to provide additional information on how the design review panel process would operate post-determination, to ensure that the principles of good design would be adhered to. This followed comments from ERYC at ISH2 [EV5-001] requesting that a council representative and a councillor should be part of the design review panel.
- 3.3.20. The DAS confirmed that a 'project design champion', at a suitable level of seniority would be appointed based on a competence and experience assessment to attend relevant project board meetings. The design review process would have a design review panel, whose purpose would be to provide independent and impartial expert advice at the detailed design stage and would include professionals with suitable experience in the design and build of electrical infrastructure.
- 3.3.21. The DAS stated that the 'project design champion' and design review panel would include person(s) not directly involved in the design development and person(s) with the authority to influence the design within the applicants' organisation. They would be selected based on design experience, commitment to the design principles and seniority to hold the project team to account and challenge decisions when appropriate. This would include an independent landscape architect (or equivalent) to provide impartial advice.
- 3.3.22. The applicants made further amendments to the DAS requiring a report presenting the design review panel outcomes to be issued to ERYC and the relevant ward councillors for comment prior to formal submission. Historic England would also be consulted on the detailed design proposals given the proximity of the OSZ to the scheduled monument near to Butt Farm. Clarification regarding the time frame for review of the design review panel outputs and how the process would work in practice was also included in the DAS.
- 3.3.23. The SoCG with ERYC [REP8-015] confirmed that the DAS and its content as amended was acceptable. The SoCG with Historic England [REP9-011] stated that the updated DAS and commitment to be consulted on the design review panel's report was welcomed.

ExA's considerations

- 3.3.24. Following the amendments to the DAS, the ExA considers that the applicants have adequately demonstrated that the proposed development, notably the OSZ would be subject to a robust detailed design review process. The design review panel would benefit from suitably qualified individuals who would have sufficient expertise to add value to the design review process to ensure that the principles of good
- DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

design would be achieved. The inclusion of a 'project design champion' on the panel accords with the requirements of NPS EN-1. The consultation with relevant stakeholders would also ensure a holistic approach and the applicants would need to set out how consultation responses received had been addressed in the final design.

OTHER DESIGN MATTERS

3.3.25. Ofgem commented on the proposed development [RR-043], stating that the proposed development would pose a risk to the security of UK energy supply if its design, construction and operation did not address the requirement for cybersecurity through the adoption of appropriate and proportionate cyber risk management practise. Ofgem stated that the proposed development could become designated at a specified critical national infrastructure rating, or the operator could be considered an Operator of Essential Services, which should be considered in the planning process. This could require consideration of design aspects to add redundancy or impact the selection of the location.

3.3.26. The applicants responded [PDA-013], stating that the proposed development would comply with internal cyber security policies and processes, noting that the applicants were designated as an Operator of Essential Services, which aligned with industry defined standards. The design would also be compliant with Ofgem requirements and the Network and Information Systems Regulations 2018. Preliminary communications diagrams and cyber security documents would be provided by the contracted designers, covering the network interfaces, security controls implemented and remote connection functionality. This would be approved by the applicants before any commissioning or testing took place.

ExA's consideration

3.3.27. There were no further representations from Ofgem and the ExA is satisfied that the applicants' response suitably addressed the relevant representation on this matter.

CONCLUSION

3.3.28. The ExA considers that the applicants have considered the functionality and aesthetics of the proposed development, notably the converter station(s), as far as reasonably practical through the evolution of the design process in accordance with NPS EN-1 section 4.7. Whilst there would be adverse effects on landscape character and visual amenity, the applicants have nevertheless set out how the proposed development would be sustainable, would respond to existing nearby environmental constraints and would be as attractive, durable and adaptable as it could be. In this regard, the ExA is mindful that NPS EN-5 paragraph 2.4.2 refers to NPS EN-1 regarding good design and that paragraph 2.4.3 states that the SoS should bear in mind that electricity networks infrastructure must in the first instance be safe and secure, and that the functional design constraints of safety and security may limit an applicant's ability to influence the aesthetic appearance of that infrastructure.

3.3.29. The ExA considers that the detailed design review process would ensure that the principles of good design established in the DAS would be transposed to the final design and the ExA is content that requirement 9 of the draft recommended DCO (appendix F of this Recommendation) would secure delivery of these. The ExA considers that the proposed development would be as attractive, durable, and

adaptable as it could be, whilst having regard to regulatory and other constraints in accordance with NPS EN-1 section 4.7.

- 3.3.30. The ExA therefore considers that the proposed development complies with the relevant policies regarding good design in NPS EN-1, NPS EN-3 and NPS EN-5, as well as local policies and strategies and all other relevant legislation, including section 9 of the Electricity Act 1989.
- 3.3.31. Overall, the ExA considers that good design holds neutral weight and does not weigh for or against making the Order.

4. ONSHORE ISSUES

4.1. ONSHORE ECOLOGY AND BIODIVERSITY

INTRODUCTION

4.1.1. This section considers the effects of the proposed development on matters relating to onshore ecology and biodiversity.

4.1.2. In its consideration below, the Examining Authority (ExA) has had regard to:

- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) (sections 4.6 and 5.4)
- the National Policy Statement for Renewable Energy (NPS EN-3) (section 2.8)
- the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5) (sections 2.9, 2.10 and 2.11)
- the Local Impact Report (LIR)
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

4.1.3. The application included a large number of documents that were relevant to ecology and biodiversity. The principal document was Environmental Statement (ES) Chapter 18 (Terrestrial Ecology and Ornithology) [APP-140]. This was supplemented by detailed habitat and species surveys [APP-142] to [APP-156], relevant figures [APP-141, APP-020, APP-024, APP-026], and a Biodiversity Net Gain (BNG) Strategy [APP-157]. A full list of application documents and their updates were set out in the applicants' Guide to the Application [APP-004], which was updated through the course of the examination, with the final version submitted at deadline (DL) 9 [REP9-002].

4.1.4. The applicants submitted updated versions of:

- ES Chapter 18 (original version: [APP-140], final version: [REP7-064])
- ES Chapter 18 figure 18-1 to figure 18-6 (original version: [APP-141], final version: [REP7-066])
- Appendix 18-2 Habitat Survey Report (original version: [APP-143], final version: [REP7-067])
- Appendix 18-5 Bats Report – Ground Level Tree Assessment (original version: [APP-146], final version: [REP7-069])
- Appendix 18-9 Water Voles and Otters Report (original version: [APP-156], final version: [REP2-021])
- Statutory and Non-statutory Nature Conservation Sites Plan (Onshore) (original version: [APP-020], final version: [REP7-007])
- Tree Preservation Order and Hedgerow Plan (original version: [APP-024], final version: [REP4-004])
- Habitats of Protected Species (Onshore) (original version: [APP-026], final version: [REP7-010])
- BNG Strategy (original version: [APP-157], final version: [REP5-015])

4.1.5. The assessment considered the effects of the proposed development on rare and protected species, and habitats and sites protected by legislation and policy. The ES chapter:

- presented the existing environmental baseline and identified any assumptions and limitations encountered in compiling the environmental baseline information
- presented the potential environmental effects of the proposed development on onshore ecology during the construction, operation and decommissioning phases
- highlighted any necessary mitigation measures and monitoring requirements which could avoid, reduce, or mitigate the possible environmental effects of the proposed development on onshore ecological matters

4.1.6. Matters in relation to European protected sites and the Habitats Regulations Assessment (HRA) are considered at appendix C (HRA) of this Recommendation.

BASELINE

4.1.7. The study area was based on species dependent buffers around the order limits and identified in figure 18-1 [REP7-066]. The assessment stated that it was selected according to standard industry guidance and using professional judgement and experience. The study area was agreed as part of the terrestrial ecology and ornithology expert topic group meeting with relevant stakeholders, including Natural England (NE), the Environment Agency (EA), The Yorkshire Wildlife Trust and East Riding of Yorkshire Council (ERYC), as explained at Appendix 18-1 Consultation Responses [APP-142].

4.1.8. Section 18.5 of ES Chapter 18 [REP7-064] described the baseline environment, including identification of recorded habitats, statutory and non-statutory designated sites, and protected and notable species.

4.1.9. The international statutory designated sites along the onshore order limits were shown in Figure 8 below:

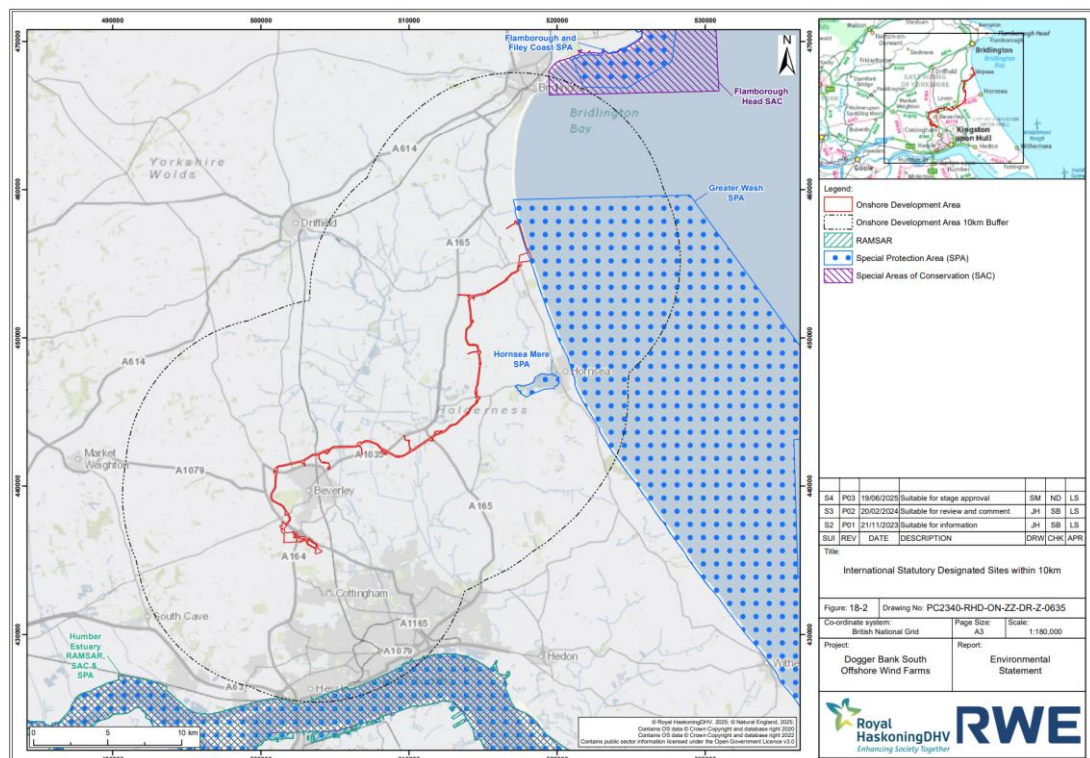


Figure 8: International statutory designates sites within 10km of the order limits

Source: ES Chapter 18, figure 18-2 [REP7-066]

DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125

REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

- 4.1.10. The national statutory designated sites along the onshore order limits were shown in Figure 9 below:

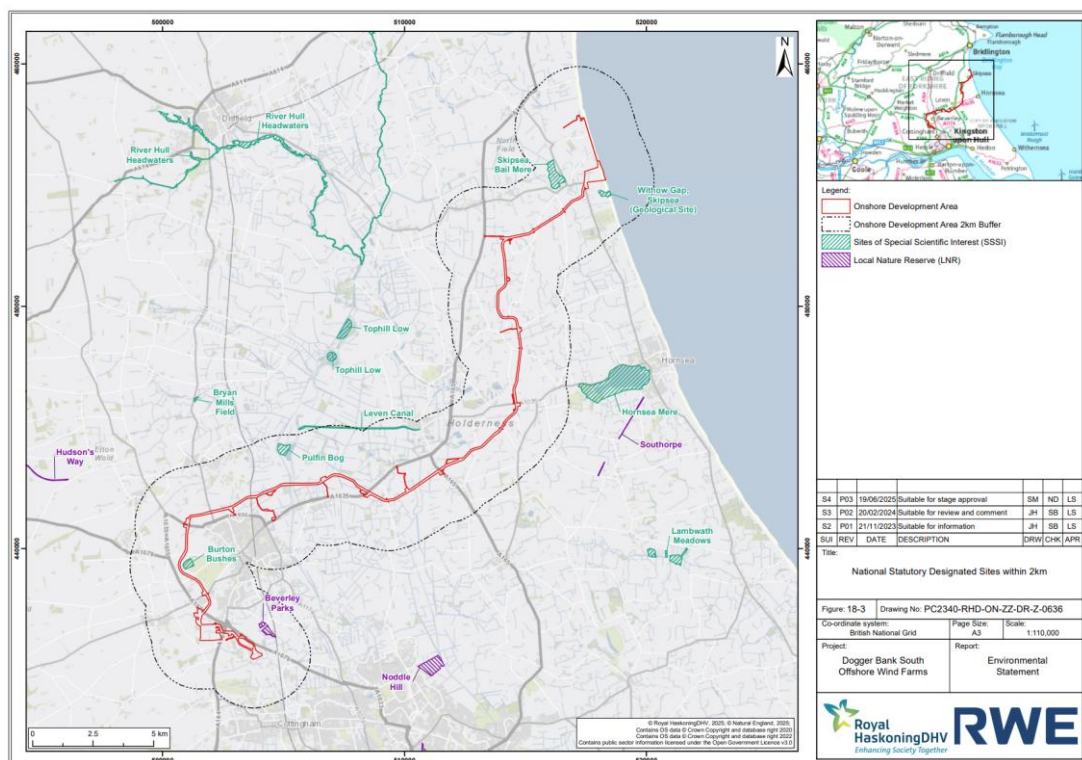


Figure 9: National statutory designated sites within 2km of the onshore order limits

Source: ES Chapter 18, figure 18-3 [REP7-066]

- 4.1.11. The assessment also identified 23 non-statutory local wildlife sites (LWS) within 2 kilometres (km) of the order limits of which 6 were wholly or partially within or adjacent to the order limits, as identified in figure 18-4 [REP7-066].
- 4.1.12. Bentley Moor Wood LWS was designated for its ancient woodland and, together with a further unnamed ancient woodland, is situated in the onshore substation zone (OSZ) within the order limits. One tree preservation order (TPO) is situated immediately adjacent, but outside the order limits. No ancient trees were recorded in the order limits. One veteran tree was recorded inside the order limits as well as a further 2 within a 50 metres (m) buffer from the order limits. Details of ancient trees and TPOs were provided in the Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment and Outline Arboricultural Method Statement [REP7-121].
- 4.1.13. In addition, the Habitat Survey Report [REP7-067] identified various habitats with the potential to meet relevant criteria for habitats of principal importance (HPI). These included: arable field margins and margins sown with tussocky grasses, wildflowers or a pollen and nectar mix; game bird mix strips and corners; lowland fens; rivers; maritime cliff and slopes; wet woodland and hedgerows.
- 4.1.14. In terms of protected species, records were identified within or close to the order limits of great crested newts (GCN), badgers, bats, water voles and otters. Regarding GCN, the applicants undertook desk studies followed by a Habitat Suitability Index assessment and GCN environmental deoxyribonucleic acid (eDNA) analysis of ponds within 250m of the onshore order limits. For badgers, the desk

study was followed by field surveys, whilst additional water course surveys were undertaken to confirm evidence of water voles and otters. Regarding roosting bats, the applicants provided desk studies followed by an additional ground level tree assessment and tree climbing inspections, and for foraging and commuting bats, additional monthly transect surveys and monthly static monitoring was undertaken. In addition, full desk studies as well as field surveys confirmed the existence of overwintering birds and breeding birds, including birds listed in the special protection areas (SPA) citations, species protected under the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), and protected or notable farmland birds.

MITIGATION AND MONITORING

4.1.15.

The applicants proposed several measures to reduce the impacts of the proposed development on onshore ecology and biodiversity. These were considered inherently as part of the design of the proposed development and were outlined in table 18-4 of ES Chapter 18 [\[REP7-064\]](#). The measures would be secured by way of requirements (R) in the draft Development Consent Order (dDCO) [\[REP9-003\]](#) and included:

- Development and adherence to a detailed Code of Construction Practice (CoCP), in accordance with the Outline Code of Construction Practice (oCoCP) [\[REP7-105\]](#) to control impacts on the environment, including construction lighting.
- Development and adherence to a detailed Ecological Management Plan (EMP), in accordance with the Outline Ecological Management Plan (oEMP) [\[REP7-107\]](#), setting out proposed pre-construction, construction and post-construction mitigation measures relating to protected habitats and species, including pre-construction surveys and onshore ecological monitoring. This would also include the provision of an invasive non-native species (INNS) management plan, if INNS were to be identified within the order limits during construction.
- Development and adherence to a detailed Landscape Management Plan (LMP), in accordance with the Outline Landscape Management Plan (oLMP) [\[REP4-044\]](#), setting out details of proposed mitigation planting, management and maintenance.
- Route planning to avoid woodlands and trees, and wherever possible, statutory designated sites and ponds.
- Use of trenchless crossing techniques to avoid the majority of non-statutory sites. Reinstatement of all LWS habitats following construction. The OSZ was designed to avoid direct impacts on Bentley Moor Wood LWS.
- Reinstatement of habitats between jointing bays within 2 years from the start of construction and avoidance of the most sensitive habitats, where possible.
- Avoidance of all lowland fen irreplaceable habitats.
- Re-surveying of the emergency beach access to understand extent of maritime cliff and slope habitat still present and changes because of coastal erosion. Monitoring of the emergency beach access during construction where it would interact with priority habitats.
- Use of trenchless crossing techniques for all main rivers. Temporary measures to maintain flow of water along ordinary watercourses if trenchless crossings were not employed.
- Ground investigations and hydrogeological risk assessments at each trenchless crossing location to reduce the potential risk to ground water and sensitive sites.
- Retention of trees wherever possible and replacement tree planting in suitable locations within the onshore order limits, if required and in line with the oEMP

[[REP7-107](#)] and Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment and Outline Arboricultural Method Statement [[REP7-121](#)].

- Preparation of a drilling fluid breakout management plan (DFBMP) prior to construction.
- Preparation of a crossing method statement prior to construction.
- Use of trenchless crossing techniques at depth greater than 5m for crossing of ancient woodland, unless a shallower depth would not adversely impact on roots, soils or rhizosphere along or above the proposed route.
- Preparation of an onshore decommissioning plan.

ASSESSMENT OF EFFECTS

Construction phase

- 4.1.16. The applicants' assessment [[REP7-064](#)] identified the following potential impacts during the construction phase:
- disturbance of statutory and non-statutory designated conservation sites
 - temporary loss and fragmentation of habitats
 - potential mortality, harm or disturbance of protected species (including GCN, badgers, roosting bats, foraging and commuting bats, breeding birds, overwintering birds, otter, reptile and water voles and other notable species), or destruction, damage or disturbance of their habitats
 - spread of INNS
- 4.1.17. A summary of the pre-mitigation effects, proposed mitigation measures and residual effects was provided in table 18-20 of ES Chapter 18 [[REP7-064](#)].
- 4.1.18. For all development scenarios, the assessment concluded that the residual effects from the disturbance of designated sites would be either negligible or minor adverse, and not significant.
- 4.1.19. In terms of construction disturbance of non-statutory designated sites, the residual effects were all considered to be negligible, except for Bentley Moor Wood LWS and ancient woodland, where potential moderate adverse effects from nitrogen deposition were identified. The applicants did not identify any additional mitigation, as they considered that effects would be temporary, relate to peak construction movement emissions and would not be continuous throughout the construction period.
- 4.1.20. The residual effects for temporary loss or fragmentation of habitats were assessed as minor adverse for all habitats considered, except for the ancient woodland at Bentley Moor Wood, where a moderate adverse residual effect remained due to nitrogen deposition. This was because the ancient woodland may be indirectly affected by activities generating fugitive emissions. However, the applicants explained the effects would be temporary, relate to peak construction movement emissions and would not be continuous throughout the construction period and no additional mitigation was proposed.
- 4.1.21. The assessment concluded that the residual effects on GCN, badgers, roosting bats, foraging and commuting bats, overwintering birds, otter, reptiles, water voles and other notable species, would all be minor adverse and not significant.
- 4.1.22. The assessment identified breeding birds in the order limits, including 2 species on schedule 1 of the Wildlife and Countryside Act 1981 (WCA), barn owl and marsh

harrier. Without additional mitigation, the significance of effects for all development scenarios would be major adverse. A range of mitigation measures such as scheduling the removal of vegetation outside the breeding bird season to reduce any potential disturbance, would reduce the residual effects to moderate adverse, remaining significant.

Operational phase

4.1.23. The applicants' assessment [REP7-064] considered potential operational effects, including:

- disturbance of habitats and species from maintenance activities
- disturbance of species from artificial lighting
- permanent habitat loss
- the effect of permanent habitat loss on species

4.1.24. The assessment concluded that the residual effects for all impacts during the operational phase would be minor adverse, and not significant.

Decommissioning

4.1.25. ES Chapter 18 [REP7-064] concluded that the magnitude of impacts from decommissioning would be comparable to, or less than those identified for the construction phase. The detailed activities and methodology for decommissioning would be determined at a later stage, and R27 of the dDCO [REP9-003] would secure the provision of those details including appropriate mitigation.

Cumulative effects

4.1.26. The applicants' assessment [REP7-064] identified cumulative effects with Hornsea Project Four offshore wind farm (OWF), the Jocks Lodge development, the Birkhill Wood National Grid substation and Scotland England Green Link 2 in relation to breeding birds during the construction phase, if they were to overlap. Similarly, the assessment stated that this could also apply to the decommissioning phase. Proposed mitigation, as secured in the oCoCP [REP7-105] included communication with neighbouring schemes. The residual effect would remain as moderate adverse, which would be significant, during the construction phase.

BNG

4.1.27. ES Chapter 18 [REP7-064] stated that temporary habitat loss during construction would be reinstated, and the applicants committed to delivering a no net biodiversity loss, or where possible, a net gain.

4.1.28. A BNG Strategy [REP5-015] was submitted with the application. The final strategy would be informed by the detailed design and landscaping proposals of the proposed development prior to construction and secured through R32 of the dDCO [REP9-003].

ISSUES CONSIDERED DURING THE EXAMINATION

4.1.29. The issues considered during examination were:

- impacts on Burton Bushes Site of Special Scientific Interest (SSSI) and ancient woodland
- impacts on Bentley Moor Wood LWS and ancient woodland
- potential effects on sensitive dune and cliff habitats

- biodiversity net gain (BNG)
- temporary hedgerow and tree removal
- protected species licences

IMPACTS ON BURTON BUSHES SSSI AND ANCIENT WOODLAND

4.1.30. Dr Mounce raised concerns regarding effects on wildlife and ecology from the proposed development at the Burton Bushes SSSI and the adjoining Beverley Westwood [RR-063, REP1-090, REP4-100, REP4-101, REP5-072, REP6-086, REP7-161].

4.1.31. The location of Burton Bushes SSSI and LWS in relation to the order limits was shown in Figure 10 below:

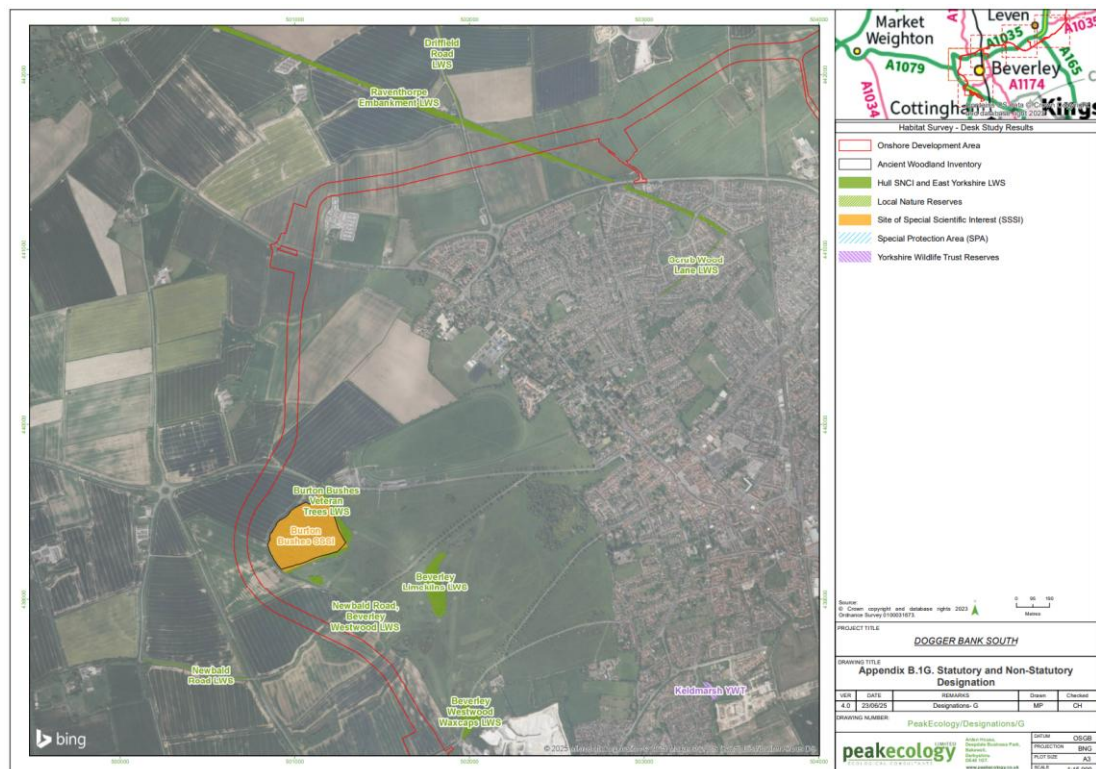


Figure 10: Statutory and non-statutory designation

Source: Appendix B.1G of ES Appendix 18-2 Habitat Survey Report (Revision 3) [REP7-067]

4.1.32. Dr Mounce stated that a poor decision had been made on the route of the onshore export cable corridor and that the project had not sufficiently considered and investigated potential impacts on biodiversity receptors. Dr Mounce also identified general key sensitivities of SSSIs and ancient woodland, including habitat and species disturbance, root zone and soil disturbance, changes in hydrology, edge effects from light, noise and pollution, and fragmentation and connectivity. Dr Mounce suggested at DL4 [REP4-100] and DL5 [REP5-072] that an arboricultural impact assessment or a statement should be provided, confirming that ancient woodland would be fully protected with appropriate buffers and mitigation. Dr Mounce also suggested that the corridor should be moved further away from Burton Bushes to protect habitats and mitigate any potential issues. Dr Mounce explained that the applicants' conclusion, that there would be no impacts on ancient woodland, was scientifically unsound and that further survey work was required to demonstrate

the applicants' position. Dr Mounce concluded that the proposed cable corridor would be located too close to Burton Bushes.

- 4.1.33. The applicants provided detailed responses [[PDA-013](#), [REP2-057](#), [REP5-037](#), [REP7-131](#)] to Dr Mounce's submissions, explaining that consideration had been given to the various sensitivities raised and confirmed that they had followed a comprehensive, iterative site selection process to develop the most appropriate onshore export cable corridor. The assessment of alternatives and site selection is presented in section 3.2 (Alternatives) of this Recommendation.
- 4.1.34. The applicants highlighted that the onshore order limits had been reduced since the Preliminary Environmental Information Report (PEIR), resulting in Burton Bushes SSSI no longer being adjacent to the order limits, and would now be located approximately 0.12km away. The applicants also confirmed that there would be no temporary construction compounds (TCC) in Beverley Westwood and there would be no horizontal directional drilling (HDD) under Burton Bushes or Beverley Westwood. The applicants referred to ES Chapter 18 [[REP7-064](#)], which identified no significant effects on Burton Bushes SSSI following the mitigation measures outlined in the oEMP [[REP7-107](#)]. An Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment and Outline Arboricultural Method Statement was submitted at procedural DL A [[PDA-034](#)]. This was updated during examination [[REP7-121](#)] and provided an assessment of the likely effects on retained trees, ancient woodland and veteran trees, with proposed mitigation.
- 4.1.35. NE provided a response regarding potential air quality impacts due to non-road mobile machinery and back-up generators at Burton Bushes SSSI at DL1 [[REP1-066](#)]. However, NE considered it would not require further information on this during the examination and would provide additional advice at permitting stage, if the machinery was required to be sited in proximity to designated sites. The assessment of potential air quality impacts, including dust and emissions, on designated sites, including Burton Bushes SSSI, is presented in section 4.10 (Air Quality) of this Recommendation.
- 4.1.36. ERYC confirmed at DL5 [[REP5-044](#)] that it agreed with the applicants that geological features of the Burton Bushes SSSI were not of relevance and that the onshore export cable corridor was situated outside the zone of physical damage for trees and other cited features. Topographically, ERYC noted that Burton Bushes SSSI was situated above the onshore export cable corridor, therefore, downstream hydrogeological impacts would be unlikely to influence interest features. ERYC noted that the wider uses of the area, such as farming activities, would align with the proposed development and that there would be no edge effects, fragmentation or impacts on the connectivity of Burton Bushes. The Statement of Common Ground (SoCG) between the applicants and ERYC [[REP8-015](#)] also raised no concerns regarding Burton Bushes SSSI.
- 4.1.37. At DL5, the Woodland Trust [[AS-180](#)] and Forestry Commission [[AS-182](#)] raised some concerns regarding proposed mitigation measures for ancient woodland. However, at DL6, the Woodland Trust clarified [[REP6-079](#)] that it would not be able to comment on impacts in relation to the SSSI designation of Burton Bushes and deferred to NE on this matter. Regarding indirect impacts on the ancient woodland at Burton Bushes, such as dust, noise and light pollution, the Woodland Trust stated that, provided there was a suitable construction ecological management plan in place, it had no evidence to suggest that indirect impacts could result in deterioration of Burton Bushes given the distances involved. The Woodland Trust confirmed at DL7 [[REP7-160](#)] it was satisfied that the development would not give
- DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

rise to deterioration of Burton Bushes ancient woodland. The Forestry Commission [REP7-146] stated that the oEMP [REP7-107] could not rule out indirect effects from dust and emissions from construction traffic and concluded likely effects on Burton Bushes ancient woodland.

- 4.1.38. At the end of examination, Dr Mounce [REP9-037] continued to disagree with the applicants' assessment regarding Burton Bushes. Dr Mounce reiterated his original concerns that there was a discrepancy in hydrogeological connectivity and the wetland nature of Burton Bushes, and that bird diversity had been underestimated. In addition, Dr Mounce questioned the sufficiency of the buffer zones for indirect impacts on the ancient woodland, the scientific basis for shallower HDD depth, requested clarification on drilling under Burton Bushes, and noted broader amenity impacts on the area.

ExA's considerations

- 4.1.39. The ExA notes that the onshore export cable corridor was moved further away from Burton Bushes SSSI and ancient woodland following pre-application discussions and the ExA is satisfied that the receptor is located a sufficient distance from the proposed development to not result in any direct potential effects on wildlife and ecology.
- 4.1.40. Whilst Dr Mounce maintained concerns regarding potential impacts on Burton Bushes and the adjoining Westwood throughout examination, the ExA accepts that proposed mitigation measures as part of the oEMP, secured through R12 of the recommended draft DCO (appendix F of this Recommendation) would appropriately consider potential effects on Burton Bushes SSSI and ancient woodland, including the consideration of protective buffer zones. The applicants also clarified during examination that drilling was not proposed under Burton Bushes.
- 4.1.41. The ExA is also mindful that the SoCG between the applicants and ERYC [REP8-015] did not raise concerns regarding potential ecological effects on Burton Bushes SSSI and ancient woodland and ERYC accepted there would be no hydrogeological impact on Burton Bushes as evidenced by the applicants. In addition, the ExA notes that NE did not require additional information regarding potential air quality impacts at Burton Bushes during examination and would provide further advice at the permitting stage.
- 4.1.42. The ExA therefore considers that the proposed development is unlikely to have a significant effect on Burton Bushes SSSI and ancient woodland from potential impacts on ecology or biodiversity.

IMPACTS ON BENTLEY MOOR WOOD LWS AND ANCIENT WOODLAND

- 4.1.43. The Woodland Trust initially welcomed [RR-058] the applicants' proposed 15m buffer to ancient woodland. The Woodland Trust stated that any proposal for HDD should be to an appropriate depth, and entry and exit pits should be located outside the buffer zone. The applicants confirmed that the oEMP [REP7-107] would commit them to the provision of a 15m buffer zone surrounding retained areas of woodland and mature broadleaved trees or at least the width of the tree root protection zone (whichever is greater) as advised by an appropriately qualified arboriculturist and was discussed with stakeholders that included NE and the Woodland Trust.
- 4.1.44. The location of Bentley Moor Wood LWS in relation to the order limits was shown in Figure 11 below:

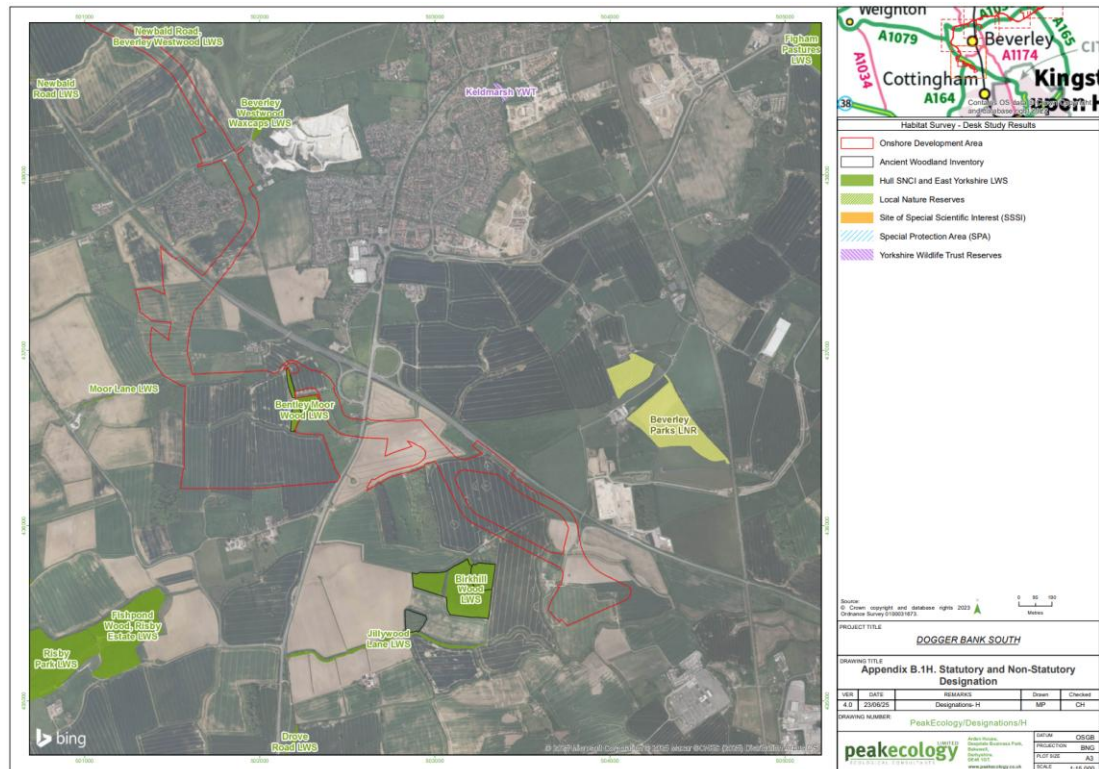


Figure 11: Statutory and non-statutory designation

Source: Appendix B.1H of ES Appendix 18-2 Habitat Survey Report (Revision 3) [REP7-067]

- 4.1.45. However, at DL1 [REP1-089], the Woodland Trust objected to the application concerning the loss and deterioration of ancient woodland due to the proposed trenchless crossing proposals at Bentley Moor Wood. The Woodland Trust stated that the proposed minimum drill depth of 1m would be insufficient and should be at least 5m unless clear evidence could be provided by the applicants to demonstrate that a shallower depth would not result in adverse impacts on roots, soils or rhizosphere along or above the proposed route. The applicants agreed [REP2-057] with the commitment to use a depth greater than 5m unless a shallower depth would be acceptable due to other constraints to ensure protection of Bentley Moor Wood ancient woodland.
- 4.1.46. The ExA explored the matter at issue specific hearing (ISH) 4 [EV9-012] to understand the potential effects of the trenchless crossing on Bentley Moor Wood and potential for shallower HDD depths. At DL4 [REP4-086], the applicants explained that the geometry for trenchless crossings under Bentley Moor Wood would be a matter for detailed design following further assessment of depths and tree roots as well as geotechnical conditions. The applicants explained [REP4-096] that consultation would be undertaken with ERYC, in consultation with NE where necessary, on the proposed depths and details of the trenchless crossing works at Bentley Moor Wood ancient woodland. The oEMP was updated to take account of these discussions throughout examination and ERYC considered at DL5 [REP5-044] that the updated oEMP would adequately ensure that any adverse impacts on the ancient woodland would be avoided.
- 4.1.47. However, in response to the ExA's second written questions (ExQ2) [PD-022], the Forestry Commission [AS-182] and Woodland Trust [AS-180] both expressed concerns regarding the wording of the oEMP and to the ability to reduce the depth
- DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

of HDD if any constraints were identified during detailed geotechnical investigations. They considered that shallower depths should only be allowed if clear evidence was provided to demonstrate that this would not result in adverse impacts on roots, soils, or the rhizosphere along the proposed route. The Forestry Commission and Woodland Trust also stated that there was no assessment of the potential hydrological or hydrogeological impacts on ancient woodland, their soils and rhizosphere, or on veteran trees, their rooting systems, health and vitality. The Forestry Commission and Woodland Trust stated that evidence had not been provided to demonstrate that the proposed 15m buffer zone for ancient woodland would be sufficient to mitigate indirect impacts, such as dust, noise or vibration and that all areas designated as ancient woodland, even those currently without trees, should be afforded the same protection as wooded areas.

- 4.1.48. The ExA also queried [\[PD-022\]](#) the potential for hydrogeological effects on ancient woodland outside the order limits and the applicants confirmed [\[REP5-036\]](#) that there was no viable linkage from the proposed development which would disrupt shallow groundwater flow pathways because there was no evidence to suggest a shallow groundwater table was present.
- 4.1.49. At DL6, the Woodland Trust [\[REP6-079\]](#) suggested that requirements should be imposed in the dDCO for the submission of hydrogeological assessments and assessment of appropriate buffer zones for ancient woodland.
- 4.1.50. In response, the applicants confirmed [\[REP6-051\]](#), [\[REP7-131\]](#) that they had already included a commitment to undertaking hydrogeological risk assessments for all trenchless crossings as part of the oCoCP and this would need to be agreed with ERYC prior to works commencing. The oCoCP was further updated at DL7 [\[REP7-105\]](#) to provide additional clarity on the matter.
- 4.1.51. The applicants stated [\[REP6-051\]](#) that any potential impacts on ancient woodland, veteran trees, woodland and individual trees had been avoided as far as practicable and where potential impacts could occur, these had been adequately assessed, mitigated and compensated where necessary, such as those regarding air quality, which had been assessed in the ES. Given the temporary and short-term nature of the trenchless crossing works, NE advised [\[REP3-057\]](#) that the potential impacts on ancient woodland had been adequately addressed.
- 4.1.52. The potential for air quality effects on designated sites, including Bentley Moor Wood ancient woodland, from TCCs and HDD works are discussed further in section 4.10 (Air Quality) of this Recommendation.
- 4.1.53. An updated oEMP [\[REP7-107\]](#) was submitted at DL7 to provide additional information on the works proposed at Bentley Moor Wood. This included a more detailed explanation on why a shallower depth may be more appropriate, and updated wording on the works proposed near the entry and exit pits, hydrogeological assessments and the proposed mitigation. On that basis, the applicants considered [\[REP7-131\]](#) that there was sufficient protection provided to ancient woodland as shallower drilling could not be undertaken without further evidence and in consultation with the relevant regulators.
- 4.1.54. The Woodland Trust [\[REP7-160\]](#) stated that, whilst it would have preferred to see an assessment of the indicative buffer width during examination, it accepted the need for agreeing the details as part of the EMP, secured through R12 of the dDCO [\[REP9-003\]](#) and therefore was not in a position to provide further comments on

mitigation proposals. The Forestry Commission [\[REP7-146\]](#) suggested a condition to carry out a hydrogeological impact assessment.

ExA's considerations

- 4.1.55. Following discussions during examination and noting the evidence from all parties, the ExA is satisfied that the applicants have adequately considered potential effects from the proposed development on Bentley Moor Wood LWS and ancient woodland through the provision of protective buffer zones and consideration of appropriate drilling depth under the woodland, as identified in the oEMP, and secured through R12 of the recommended draft DCO (appendix F of this Recommendation).
- 4.1.56. For issues relating to hydrogeological effects, the ExA considers that there would be sufficient control of any impacts through mitigation measures secured in the recommended draft DCO (appendix F of this Recommendation). R19 relating to the CoCP ensures that hydrogeological risk assessments would be undertaken at all trenchless crossings, including at Bentley Moor Wood LWS and ancient woodland prior to commencement of works. The document would need to be agreed with ERYC in consultation with the EA and NE. Therefore, the ExA does not agree that a separate requirement, as suggested by the Forestry Commission and the Woodland Trust, is necessary.
- 4.1.57. The final SoCG between the applicants and ERYC [\[REP8-015\]](#) shows the oEMP as an agreed matter, including all relevant mitigation measures.
- 4.1.58. The ExA therefore considers that the proposed development is unlikely to have a significant effect on Bentley Moor Wood LWS and ancient woodland and considers that proposed mitigation measures would be appropriate for managing potential construction impacts.

POTENTIAL EFFECTS ON SENSITIVE DUNE AND CLIFF HABITATS

- 4.1.59. NE raised concerns [\[RR-039\]](#) regarding the assessment and protection of sensitive dune and cliff habitats at the proposed emergency beach access. In response, the applicants [\[AS-048\]](#) provided additional information and clarified that the provision of an access ramp or matting would be confirmed once a contractor had been appointed post-consent.
- 4.1.60. The ExA explored the emergency beach access further at ISH2 [\[EV5-015\]](#) to understand how the provision of ramps or matting would ensure safeguarding of the priority cliff and slope habitat. The applicants highlighted [\[REP1-049\]](#), [\[EV5-018\]](#) that works would be limited and in place for only 18 months at the landfall location. Access would be via 4 x 4 vehicles or tractors, without the need to create a new access road using an existing access track and existing earth ramp onto the beach. However, the applicants acknowledged that the cliffs along the beach had significantly eroded since recent surveys. Beach access would be retained throughout any emergency access requirements and use of the TCC at this location would be limited.
- 4.1.61. In response to the ExA's first written questions (ExQ1) [\[PD-014\]](#), the applicants [\[REP3-027\]](#) referred to the proposed DFBMP which would be appended to the detailed CoCP, in accordance with the information provided as part of the oCoCP [\[REP7-105\]](#), secured through R19 of the dDCO [\[REP9-003\]](#). The DFBMP would be developed for the proposed trenchless crossing works, including at the landfall. The oCoCP was updated to require the review and assessment of the detailed elements,

including design, of the emergency beach access as part of the DFBMP to ensure limited impacts on the cliff and dune habitat. ERYC stated [REP5-044] that it would need to be assured there would be no interference with the coastal processes at this location and that ERYC would be consulted on any hard engineered techniques concerning the access. ERYC confirmed that the detailed design could be provided and agreed as part of the detailed CoCP.

- 4.1.62. The oCoCP was further updated at DL7 [REP7-107] confirming that the emergency beach access would be monitored during the construction period, where it would interact with the priority habitat. Commitment C199 was also added to the Commitments Register [REP9-009] referencing the proposed monitoring.
- 4.1.63. NE disagreed [AS-161, REP3-060] with the applicants' suggestion to provide further details post-determination and requested that a full outline contingency plan should be included as part of the application prior to consent. The applicants reiterated [REP5-036] that the cliff face in this area was highly dynamic and constantly changing and therefore, the emergency beach access design would be finalised once a contractor had been appointed to avoid any abortive works. However, NE considered [REP5-062] that more clarity was needed at this stage and that an outline contingency plan would help to identify any appropriate mitigation measures that would need to be considered prior to consent being granted. NE also referred to North Falls OWF where a contingency plan had been submitted during examination.
- 4.1.64. The applicants noted [REP6-051] that the outline HDD method statement and contingency plan provided for the North Falls OWF was required to provide mitigation for impacts associated with drilling beneath a SSSI and local nature reserve (LNR) at the landfall. However, the proposed development at the landfall would not be located under any designated sites, so was not directly comparable. On that basis, the applicants considered that the level of detail provided was sufficient.
- 4.1.65. At the end of examination, the matter remained unresolved between the applicants and NE. NE [REP8-056, REP9-031] maintained its view that in line with North Falls OWF, an outline HDD management plan should be provided.

ExA's considerations

- 4.1.66. The SoCG between the applicants and ERYC [REP8-015] and between the applicants and the EA [REP8-016] did not raise any matters of concern regarding the ES Chapter 18 [REP7-064] assessment conclusions, proposed mitigation or monitoring proposals.
- 4.1.67. The ExA accepts the applicants' assessment that the beach and cliffs had shown signs of erosion since previous surveys had been undertaken and that the erosion along the coastline would likely continue in future. This was also observed by the ExA at its unaccompanied site inspection [EV1-001]. Whilst the ExA acknowledges that the cliff and dune habitat is classed as a HPI and would need to be provided with appropriate protection during construction, the trenchless crossing works and the emergency beach access would not cross statutory or non-statutory designated conservation sites. The ExA is therefore of the view that it is more appropriate to undertake any further surveys to understand the proposed detailed design of the emergency beach access and trenchless crossing works, including the need for additional mitigation, nearer to the time of the works being undertaken.

- 4.1.68. The detailed information regarding the beach access, including provision of aids for access such as mats or ramps, would be included in the DFBMP, forming part of the detailed CoCP. As stated in the oCoCP [\[REP7-105\]](#), it would cover the potential risks from the drilling works at landfall and the adjoining emergency access. The oCoCP would be secured through R19 of the recommended draft DCO (appendix F of this Recommendation) and would need to be agreed with ERYC in consultation with the EA and NE, if necessary. Therefore, the ExA considers there would be appropriate measures in place to ensure adequate input from relevant bodies in the development of the DFBMP.
- 4.1.69. In addition, in accordance with the details provided in the CoCP, ground investigation works and hydrogeological risk assessments would be undertaken at each trenchless crossing, including at the landfall location. The applicants also committed to monitoring the emergency beach access during the construction period where it interacts with the priority habitat over the cliffs as part of the DFBMP. These mitigation measures are referred to under references C026 and C199 of the Commitments Register [\[REP9-009\]](#).
- 4.1.70. Therefore, the ExA considers that the cliff and dune habitat has been appropriately considered during examination and that the proposed mitigation and monitoring measures would ensure that the habitat would be adequately protected during the construction period.

BIODIVERSITY NET GAIN (BNG)

- 4.1.71. BNG was raised as a matter for consideration by various interested parties (IP). NE [\[RR-039\]](#) and the Lincolnshire Wildlife Trust [\[RR-028\]](#) recommended the provision of a minimum 10% net gain.
- 4.1.72. The EA [\[RR-015\]](#) raised concerns with the submitted BNG Strategy [\[APP-157\]](#), highlighting that it was incomplete and inconsistent with best practice. The EA requested the completion of river condition assessments, clarification on how strategic significance had been determined for watercourse habitat and clarification on whether correct distinctiveness multipliers had been applied to the on-site watercourse habitat.
- 4.1.73. BNG was explored at ISH2 [\[EV5-016\]](#) and the applicants explained [\[REP1-049\]](#) that the strategy was 'work in progress' and would be subject to revised assessments and detailed design based on a worst-case scenario. A commitment to no net loss or a net gain was made in the document. However, the applicants stated that they would not commit to the provision of 10% BNG, noting that it would not be mandatory for nationally significant infrastructure projects (NSIP) until at least November 2025 [\[REP1-049\]](#). ERYC [\[PDC-007\]](#) confirmed that it was in discussions with the applicants to understand the potential obligation for an off-site contribution and information required as part of the final strategy, secured through R32 of the dDCO [\[REP9-009\]](#). The final signed SoCG between the applicants and ERYC [\[REP8-015\]](#) raised no outstanding concerns regarding the conclusions and outcomes of the submitted BNG Strategy.
- 4.1.74. The updated BNG Strategy [\[REP5-015\]](#) also included the river condition assessment surveys as requested by the EA. On that basis, the SoCG between the applicants and the EA [\[REP8-016\]](#) stated that all matters regarding the BNG Strategy had been satisfactorily resolved.

- 4.1.75. NE responded at DL6 [REP6-071] and reiterated its encouragement for the applicants to consider a 10% BNG, though it acknowledged that this was not yet mandatory. NE stated a need to secure the BNG for a minimum of 30 years, which should be reflected in the DCO wording. NE also highlighted that the draft strategy had identified opportunities for the proposals to be refined throughout the detailed design stage and concluded that the submission of a final BNG strategy as part of R32 of the dDCO [REP9-003] would address the matter. However, the final signed SoCG between the applicants and NE [REP9-018] and the NE Risk and Issues Log at DL9 [REP9-031] identified the matter of BNG as not agreed, but with no material impact on the determination of this application.

ExA's considerations

- 4.1.76. The ExA notes that the provision of a 10% BNG for NSIPs is not currently mandatory, with the government's intention to introduce a mandatory BNG provision of 10% for NSIPs being from May 2026 (amended from November 2025). Therefore, the request by IPs to provide a 10% BNG as part of the proposed development, whilst desirable, is not mandatory at this stage.
- 4.1.77. The submitted BNG strategy [REP5-015] ensures that there would be no net biodiversity loss or a net biodiversity gain, which would be determined post-consent. The detailed BNG Strategy was discussed throughout the examination with relevant stakeholders, including ERYC, the EA and NE. The ExA acknowledges the applicants' confirmation that the potential obligation for offsite contribution, in addition to onsite provision, and the management of the land for 30 years, would be discussed as part of the final BNG Strategy.
- 4.1.78. The final SoCGs show that matters regarding BNG have been agreed or would not be material to the decision-making process. The ExA is satisfied that the matter has been appropriately addressed and would be secured through R32 of the recommended draft DCO (appendix F of this Recommendation).

TEMPORARY HEDGEROW AND TREE REMOVAL

- 4.1.79. The ExA raised several queries during examination regarding proposed temporary hedgerow and tree removal and explored the matter further at ISH2 [EV5-015] and ISH4 [EV9-011]. The applicants explained [REP1-049] that the areas of removal shown on the TPO and Hedgerow Plan [REP4-004] currently showed larger extents than would actually be required for removal and this would be refined once detailed topographical surveys had been prepared. However, the removal would not exceed the limits specified in the oEMP [REP7-107].
- 4.1.80. ERYC advised [EV5-015, REP1-055, REP1-056] that it accepted the identified impacts on hedgerows but welcomed the reduction of any hedgerow and tree removal wherever possible and encouraged minimisation of loss of important hedgerows near the landfall location.
- 4.1.81. An updated oEMP [REP7-107] and TPO and Hedgerow Plan [REP4-004] to take account of the discussions and to further specify the wording of the extent of temporary hedgerow removal was provided. The amendments also included proposals for monitoring of lost hedgerows in consultation with ERYC and additional detail on the proposed hedgerow removal at roads with constrained widths.
- 4.1.82. The applicants committed to the replacement of all trees that would be removed during the construction period, which would be secured through the oLMP [REP4-

[044](#)]. Replacement locations would be as close as practicable to the location of the removed tree and approved by ERYC. Any hedgerow which would be removed along the onshore export cable corridor would be reinstated in situ, comprising native shallow-rooting hedgerow species and reinstated within 2 years between jointing bays, which was also captured by the oLMP.

- 4.1.83. ERYC confirmed at DL5 [\[REP5-044\]](#) that the retention of trees due to the reduced OSZ as part of change request 2 [\[AS-015\]](#) was welcomed. ERYC would have preferred to see the retention of T246 sycamore tree, which would be removed owing to Works No. 16A/ B. The applicants confirmed [\[REP5-036\]](#) that the tree was a category B tree and would be removed because of a TCC in this location, so its loss was unavoidable.
- 4.1.84. The final signed SoCG between the applicants and ERYC [\[REP8-015\]](#) raised no outstanding concerns regarding proposed temporary hedgerow and tree removal and mitigation measures set out in the oEMP [\[REP7-107\]](#) and oLMP [\[REP4-044\]](#).

ExA's considerations

- 4.1.85. The ExA accepts that the applicants have sought to reduce the temporary loss of hedgerow and tree removal during the construction period of the proposed development to the minimum possible. However, the ExA is mindful that regrowth to previous levels, depending on the age and size of the hedgerow and tree removed, may take some time and the ExA considers this could potentially have some negative implications for wildlife and ecology until regrowth to previous levels was complete. The ExA therefore considers that subject to the proposed mitigation and monitoring, as detailed in the oEMP and oLMP, secured through R10, R11 and R12, of the recommended draft DCO (appendix F of this Recommendation), the temporary loss of hedgerow and tree removal is acceptable and necessary to implement the proposed development.

PROTECTED SPECIES LICENCES

- 4.1.86. In response to NE [\[RR-039\]](#), the applicants confirmed early in examination [\[AS-048\]](#) that they were seeking letters of no impediment (LONI) for bats and badgers. Following ongoing discussions during examination, the applicants submitted a LONI at DL9 [\[REP9-023\]](#). NE confirmed it would see no impediment to a licence being issued for either bats or badgers, should the DCO be granted, subject to further surveys and information.
- 4.1.87. In relation to GCN, NE [\[RR-039\]](#) raised concerns in relation to the detail of survey work and suggested further surveys were needed on ponds classified as dry, to determine GCN presence. In response, the applicants explained [\[AS-048\]](#) that a district level licence for GCN had been applied for, and the Impact Assessment and Conservation Payment Certificate had been accepted and countersigned by NE. NE confirmed [\[REP1-066\]](#) that a district level licence had been granted for the proposed development. A copy of the document was submitted with the application at Appendix B [\[REP1-048\]](#). In addition, the final SoCG between the applicants and NE [\[REP9-019\]](#) stated that the matter regarding additional surveys for ponds had been resolved.

ExA's considerations

- 4.1.88. With the submission of the LONI for bats and badgers and the countersigned district level licence for GCN, the ExA considers that potential impacts on all protected species have been appropriately considered and agreed with the statutory nature
- DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

conservation body (SNCB). R23 of the recommended draft DCO (appendix F of this Recommendation) would secure the provision of final pre-construction survey works to establish whether a European protected species (EPS) is present on any of the land affected, or likely to be affected. In the case of their presence, onshore works must not commence until an EPS licence has been granted by the SNCB. On that basis, the ExA is content with the applicants' conclusions regarding protected species and the need for relevant licences.

CONCLUSIONS

- 4.1.89. The ExA is satisfied that the applicants' assessment includes adequate information to understand potential effects of the proposed development on onshore ecology and biodiversity alone or cumulatively and accords with sections 4.6 and 5.4 of NPS EN-1.
- 4.1.90. The ExA is also satisfied that any identified effects would be satisfactorily mitigated, managed and monitored through the proposed implementation of the LMP, EMP and CoCP, secured through R10, R11, R12 and R19 of the recommended draft DCO (appendix F of this Recommendation).
- 4.1.91. The ExA considers the information regarding buffer zones and drilling depths, as detailed in the oEMP, would provide adequate mitigation for ancient woodland and would comply with paragraph 5.4.53 of NPS EN-1. The ExA is mindful that the cliffs at the landfall and emergency beach access are subject to erosion. Additional surveys and information to ensure appropriate protection of protected dune and cliff habitat would be adequately secured through the CoCP.
- 4.1.92. The ExA is satisfied that the applicants' assessment has followed the mitigation hierarchy in sections 4.3 and 5.4 of NPS EN-1. The ExA accepts the BNG conclusions as part of the assessment, however, as the applicants have not committed to a net gain, this cannot be offered weight in favour of the application.
- 4.1.93. The ExA notes that there would be moderate adverse effects on Bentley Moor Wood LWS and ancient woodland relating to nitrogen deposition. The ExA accepts that the effects would be temporary and not continuous throughout the construction period. The ExA also notes the occurrence of WCA schedule 1 breeding birds in the order limits, and the assessment concludes residual moderate significant adverse effects alone and cumulatively during the construction period.
- 4.1.94. The ExA notes the minor adverse but not significant effects that would result from the temporary removal of hedgerows and trees along the onshore export cable corridor and the permanent losses at the OSZ. Whilst replacement tree and hedgerow planting would be secured through the EMP and LMP, the ExA recognises that replacement planting may take some years to establish to a similar ecological value of that removed.
- 4.1.95. In summary, given the moderate adverse and significant effects alone and cumulatively on breeding birds during the construction period, the identification of moderate adverse residual effects due to nitrogen deposition at Bentley Moor Wood LWS, the temporary and permanent loss of hedgerow and tree removal which would require some years to establish to previous levels, and potential for adverse effects during decommissioning, which the applicants identified could be comparable to the effects identified during construction of the proposed development, the ExA concludes that effects on onshore ecology and biodiversity carry a little negative weight against making the Order.

4.2. LANDSCAPE AND VISUAL EFFECTS

INTRODUCTION

4.2.1. This section considers the effects of the proposed development on landscape character and visual amenity.

4.2.2. In its consideration of effects on landscape character and visual amenity, the Examining Authority (ExA) had regard to:

- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) as set out in section 5.10
- the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.8
- the National Policy Statement for Electricity Networks Infrastructure EN-5 (NPS EN-5), as set out in section 2.13
- the Local Impact Report (LIR)
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

4.2.3. The applicants' Landscape and Visual Impact Assessment (LVIA) was set out in Environmental Statement (ES) Chapter 23 (Landscape and Visual Impact Assessment) [APP-192]. This was supported by ES Chapter 23 Figures 23-1 to 23-15 [APP-193], which included drawings showing the onshore substation zone of theoretical visibility, indicative landscaping plan and visualisations of the proposed converter station(s) from various locations. ES Chapter 23 and the accompanying figures were updated a number of times during examination to respond to points from the ExA, interested parties (IP) and change request 2. The final version of ES Chapter 23 was submitted at deadline (DL) 7 [REP7-090] and the final version of ES Chapter 23 Figures was submitted at DL4 [REP4-039]. The Guide to the Application [REP9-002] set out the versions and dates of submission for these documents.

4.2.4. ES Chapter 23 [REP7-090]:

- Presented the existing environmental baseline and identified any assumptions and limitations encountered in compiling the environmental baseline information.
- Presented the potential environmental effects of the proposed development on landscape character and visual amenity during construction, operation and decommissioning phases, along with potential cumulative effects.
- Highlighted any necessary monitoring and mitigation measures which could avoid, reduce, or mitigate the possible environmental effects of the proposed development on landscape character and visual amenity.

4.2.5. Given the distance of the proposed array areas from the coastline (100 kilometres (km) minimum) and as the array areas would not be visible from the coastline, the effects on seascape were scoped out of the LVIA. Appendix 23-1 Landscape and Visual Impact Assessment Consultation Responses [APP-194] confirmed that the Planning Inspectorate agreed at the scoping stage that effects from the array areas could be scoped out of the ES.

BASELINE

Landscape character

- 4.2.6. ES Chapter 23 [\[REP7-090\]](#) identified a study area for landscape and visual effects broadly of 1km around the onshore export cable corridor and landfall site and 5km around the onshore substation zone (OSZ), which was shown in figure 23-1 [\[REP4-039\]](#). It was noted in the LVIA that this study area was not intended to provide a boundary beyond which the onshore elements of the proposed development would not be seen, but rather to define the area within which there would be potential for significant landscape or visual effects.
- 4.2.7. The applicants' assessment confirmed that there were no statutory landscape designations in the landscape and visual study area. The candidate Yorkshire Wolds National Landscape was located over 11km to the north-west of the landscape and visual study area, so was not covered in detail in the LVIA. The candidate National Landscape was 12.5km from the onshore export cable corridor and 15.5km from the OSZ.
- 4.2.8. Western parts of the study area and parts of the onshore development area, including the entirety of the OSZ, would be located in the Yorkshire Wolds Important Landscape Area (ILA), which is referred to in East Riding Local Plan policy ENV2. The applicants' assessment drew attention to the Local Plan which stated that in the Yorkshire Wolds ILA, the landscape displays varying degrees of quality, with the areas of the highest quality being on the western scarp slope and around Sledmere, which was over 24km from the landscape and visual study area of the OSZ.
- 4.2.9. The LVIA split the onshore development area into five subareas, which is shown in Figure 12 below.

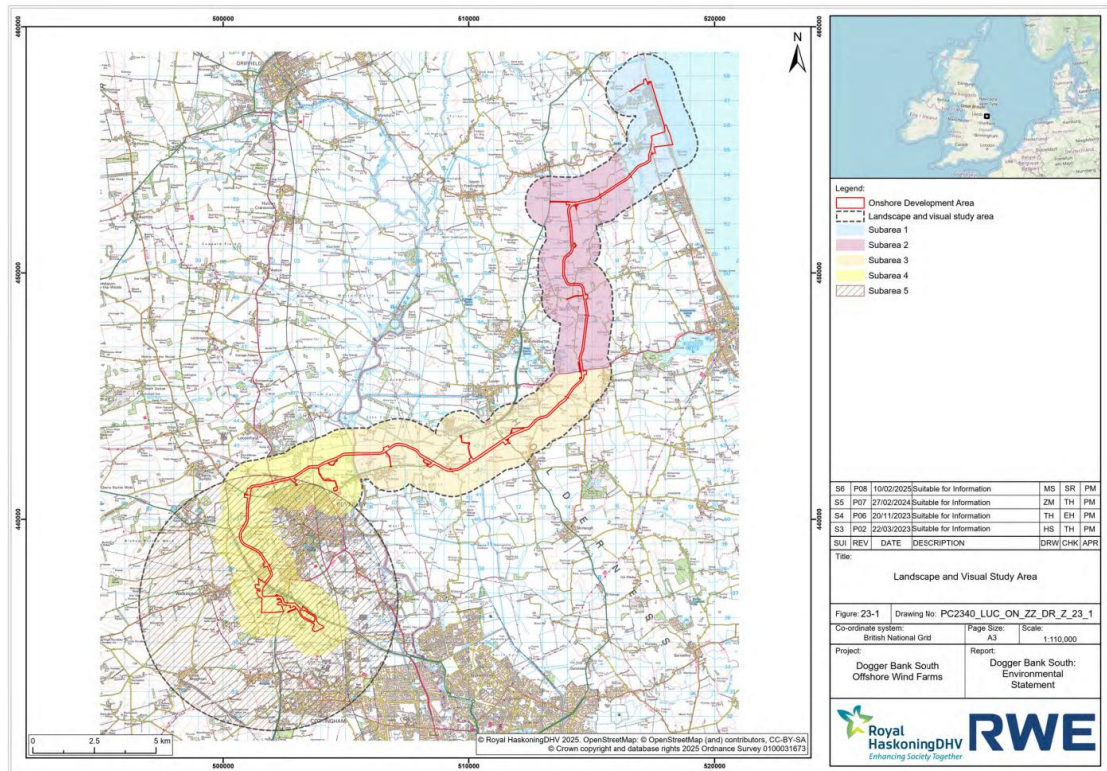


Figure 12: LVIA study area

Source: ES Chapter 23 LVIA Figures, figure 23-1 [REP4-039]

- 4.2.10. ES Chapter 23 noted that the study area lay mainly in National Character Area (NCA) 40: Holderness, and that this comprises a broad, low-lying plain. This is bounded by the escarpment of the Yorkshire Wolds to the west and Flamborough Head to the north. The ridge of the Wolds provides some elevation in contrast to the flat boulder clay plain. To the east, the North Sea erodes the soft boulder clay cliffs at a significant rate. Agriculture forms a dominant industry in the area, with farmland being interspersed by some shelter belts and hedgerows. Traditional villages are generally dispersed throughout panoramic views across gentle topography.
- 4.2.11. Part of subareas 4 and 5 lay in NCA27: Yorkshire Wolds, where gently rolling hills are cut with steep, wooded dales and there are very few surface watercourses. Agriculture dominates and the area is described as very rural in character.
- 4.2.12. The study area covered 14 local Landscape Character Areas (LCA), in 6 Landscape Character Types (LCT), which were set out in table 23-18 [REP7-090]. The key characteristics of the LCTs in the study area were presented in table 23-19. The applicants' assessment described the site-specific character of the study area across the different subareas:
- Subarea 1 - landfall zone: narrow sandy and shingle beaches used for recreation, backed by boulder clay cliffs between 7.5 meters (m) and 13m high; nearby holiday parks feature along the coastline; church steeples form prominent landmarks, with agricultural land beyond, comprising open, exposed farmland bounded by fragmented hedgerows and small trees.
 - Subarea 2 – Skipsea to West Road (onshore export cable corridor): largely open and flat arable agricultural land with few trees in large scale, rectilinear field patterns, bounded by irregular hedgerows and some trees; built development is

mainly farmsteads, hamlets and villages; flat and open landscape, with occasional woodland, copses and plantations, and several watercourses.

- Subarea 3 – West Road to River Hull (onshore export cable corridor): mainly large-scale gently undulating or flat arable farmland in large, rectilinear field patterns; semi-natural blocks of woodland and boundary trees form prominent features; various scattered farmsteads, hamlets and villages; small scale wind turbines are common and there are a number of watercourses and drains.
- Subarea 4 – River Hull to the OSZ: moves from primarily open, flat land to more undulating hills, towards the Yorkshire Wolds in the west; arable farmland of medium rectilinear field patterns defined by hedgerows and some trees; a small number of woodland blocks and scattered farmsteads, typically enclosed by mature trees; high recreational value because of the Yorkshire Wolds Way National Trail and the Westwood.
- Subarea 5 – OSZ: medium- to large-scale agricultural fields bounded by woodland and hedgerows in various conditions, drainage ditches and post and wire fencing, with some hedgerow trees; several blocks of woodland around the OSZ, which is framed by transport corridors (A1079 and A164); Creyke Beck substation and the Dogger Bank A and B offshore wind farm converter stations are located to the south-west; tall lattice structures and various large-scale overhead power lines mounted on pylons form prominent features and vehicle movement on main roads creates a modified landscape which is busy and complex; the wider landscape is less developed and more rural; the presence of transport and infrastructure is reduced in the west of the landscape and visual study area, which is on the fringe of the Wolds and more rural in character; Beverley Minster tower is a key landmark in the wider area and is highly visible across the flat landscape.

Visual amenity

- 4.2.13. The LVIA [REP7-090] identified key visual receptors which could be affected by the proposed development. In summary, these included: residential and community receptors, such as dwellings; recreational receptors such as users of public rights of way (PRoW) or cycle routes, beach users, users of public open spaces, users of public and private recreation spaces, visitors to the area, or holidaymakers; and transport receptors, such as those using the road or rail networks.
- 4.2.14. Eight representative viewpoints were identified to inform the detailed LVIA of the converter station(s) and were therefore taken from subarea 5 only. These were selected and agreed with stakeholders, including ERYC and Hull City Council. Potential significant effects at the other subareas were identified during construction only, which would be temporary, whereas significant effects from the operation and maintenance of the converter station(s) were predicted. Two additional viewpoints were provided during examination. The locations of the 10 viewpoints and the onshore substation zone of theoretical visibility are shown in Figure 13 below:

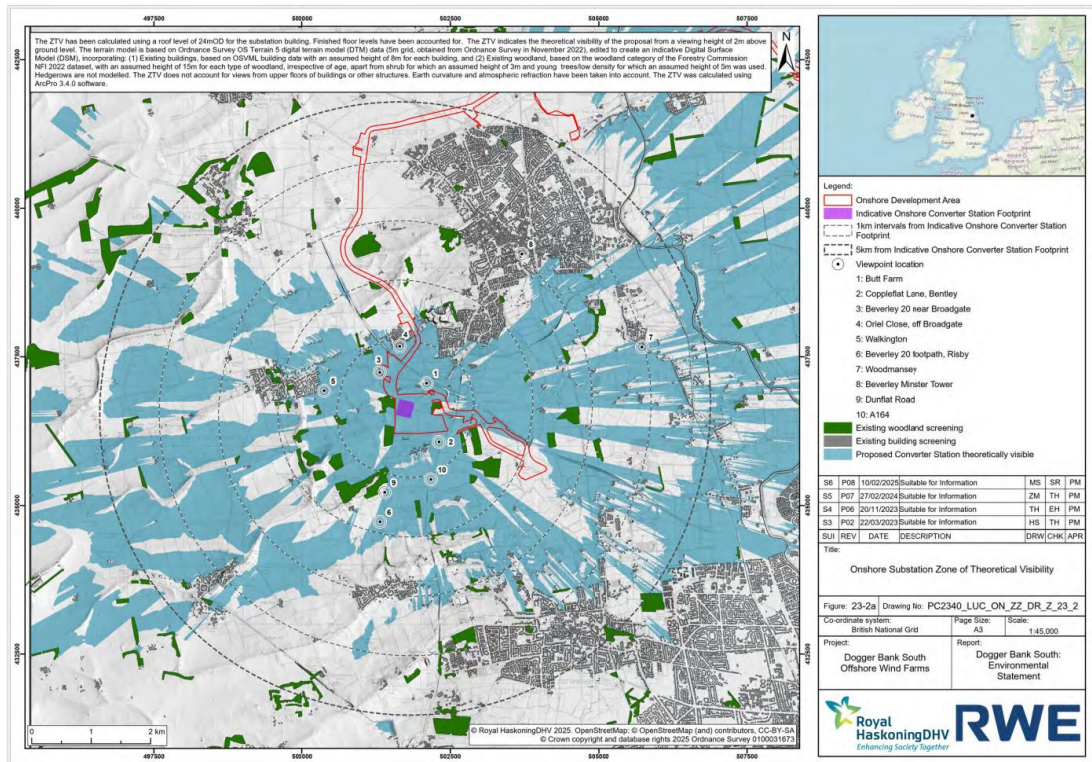


Figure 13: Onshore substation zone of theoretical visibility and location of viewpoints

Source: ES Chapter 23 LVIA Figures, figure 23-2a [REP4-039]

Mitigation

4.2.15.

The applicants proposed several mitigation measures to reduce the impacts of the proposed development on landscape character and visual amenity. These measures were defined as primary (included as part of the project design) and were outlined in table 23-3 [REP7-090] and summarised as:

- Landscape and visual considerations informed the site selection process, including the option for a single site for both onshore converter stations to avoid some of the most sensitive receptors, and localised the effects to a single area.
- The proposed development was designed to be as physically small as could reasonably be defined.
- Construction methodology and onshore cable routing avoided sensitive landscape elements, such as woodland, buildings and trees.
- Construction methodology and cable ducting were designed to limit physical disturbance to a minimum and a commitment to reinstate land to its former condition.
- Trees and hedgerows were avoided, and their losses were reduced to a minimum, including the use of trenchless crossings to minimise effects on existing areas of woodland.
- Development and adherence to a detailed Code of Construction Practice, in accordance with the Outline Code of Construction Practice (oCoCP) [REP7-105] to mitigate impacts on residential properties, recreational users and existing land uses, including:
 - A soil management plan for the appropriate handling of soil.
 - A PRoW management plan to manage disturbance and diversions.
 - A requirement for all main rivers to be crossed using trenchless crossing techniques to avoid direct interaction with watercourses.

- Development and adherence to a Landscape Management Plan, in accordance with the Outline Landscape Management Plan (oLMP) [REP4-044] to provide landscape mitigation in the form of woodland and hedgerow planting to screen and filter views of the converter station(s) and integrate them into the landscape. The oLMP also set out how proposed planting would be established and maintained, and that there would be enhancements to Bentley Moor Wood.
- The Design and Access Statement (DAS) [REP7-103] set out the design principles that would be applied to the detailed design of the proposed development to ensure that a sense of place would be considered and integrated throughout the design process and adverse environmental effects would be mitigated where possible, whilst respecting landscape character.
- Operational lighting would be designed to mitigate artificial light emissions during operation.

4.2.16. These measures would be either secured by way of requirements in schedule 2 of the draft Development Consent Order (dDCO) [REP9-003], or as part of the design of the development, secured by the authorised works set out in schedule 1 of the dDCO. As there would be a secured commitment to implementing the above measures, the applicants considered the measures inherently part of the design of the proposed development and they were therefore considered in the applicants' assessment of effects.

ASSESSMENT OF EFFECTS

Construction

Landscape character

4.2.17. ES Chapter 23 [REP7-090] identified the following residual adverse short-term effects on landscape character during construction:

- Subarea 1 (landfall): moderate adverse, significant effect for approximately 48 months affecting the local landscape character of the immediate area (within 1km of the landfall zone).
- Subareas 2 to 4 (onshore export cable corridor): minor adverse effects (not significant) for approximately 57 months (albeit the total duration of active construction works in any one location would likely be much less than this) affecting the local landscape character across a narrow geographic extent.
- Subarea 5 (OSZ): moderate adverse, significant effect for 72 months affecting the local landscape character of the immediate area (within 2km of the OSZ).

4.2.18. It was concluded that following reinstatement of subareas 1 to 4 to the same condition as they were prior to commencement of construction works (save for the installation of manhole covers), which would be secured by the oCoCP [REP7-105], the long-term effects would be reduced to negligible adverse and not significant.

4.2.19. For subarea 5 (OSZ), the applicants' assessment stated that construction disturbance would be restored to pre-existing conditions, secured by the oCoCP [REP7-105]. Landscape screening of the converter station(s) would be secured by the oLMP [REP4-044] and would reduce the significance of effects over time.

Visual amenity

4.2.20. ES Chapter 23 [REP7-090] identified the following short-term residual adverse effects on visual amenity during construction:

- Subarea 1 (landfall): moderate adverse, significant effect for approximately 48 months affecting visual amenity for local receptors.
- Subareas 2 to 4 (onshore export cable corridor): minor adverse effect (not significant) for approximately 57 months (albeit the total duration of active construction works in any one location would likely be much less than this), affecting visual amenity across a narrow geographic extent.
- Subarea 5 (OSZ): minor adverse and not significant visual amenity effect at Oriel Close, off Broadgate – Viewpoint (VP) 4 (residential receptors), for 72 months.
- Subarea 5 (OSZ): moderate adverse, significant visual amenity effect identified at Butt Farm – VP1 (PRoW users, holiday makers visiting Butt Farm, residential receptors), for 72 months.
- Subarea 5 (OSZ): major adverse significant visual amenity effect at Coppelflat Lane, Bentley – VP2 (residential receptors, road users) and Beverley 20 near Broadgate – VP3 (PRoW users), for 72 months.

4.2.21. Following reinstatement of subareas 1 to 4 to the same condition as they were prior to commencement of construction works (save for the installation of manhole covers), which would be secured by the oCoCP [REP7-105], and planting mitigation which would be captured by the oLMP [REP4-044], the applicants concluded that the long-term effects would be reduced to minor adverse or negligible adverse, which would not be significant.

4.2.22. For subarea 5 (OSZ), the applicants' assessment stated that construction disturbance would be restored to pre-existing conditions, which would be secured by the oCoCP, and that landscape screening of the converter station(s) would be secured by the oLMP. The applicants concluded that the long-term effects on receptors in subarea 5 would be reduced to minor adverse or negligible adverse effects, which would not be significant.

Operational Phase

4.2.23. ES Chapter 23 [REP7-090] confirmed that the only effects assessed for the operation and maintenance phase were those related to the permanent above-ground infrastructure in the OSZ.

Landscape character

4.2.24. The proposed development would result in the permanent loss of some landscape features such as hedgerows and arable farmland in the OSZ which were noted in the key characteristics of the Sloping Farmland LCT. Primary impacts related to the ongoing visual presence of the converter station(s) in the landscape, which would affect key characteristics such as open views across the landscape, including views of Beverley Minster.

4.2.25. The LVIA considered that theoretical visibility of the converter station(s) would be relatively extensive within 1km, however, nearby woodland at Bentley Moor Wood, Johnson's Pit, Eleven Acre Plantation, Jillywood and Birkhill Wood would provide some local screening. Beyond 1km, woodland and buildings would result in a more irregular pattern of visibility in all directions. As such, the applicants considered that effects on landscape character would be relatively localised to the OSZ.

4.2.26. The applicants' assessment stated that there would be a major adverse and significant effect at year 1 of operation, in the immediate area of the footprint of the converter station(s). The effect would reduce with distance, falling below the threshold of significance at no more than 1km from the footprint of the converter

DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

station(s). The area where significant effects on landscape character were identified was approximately defined by the northern boundary of Bentley to the south, Jock's Lodge junction to the east, the rising ground north of the A1079, and the rising ground around Bentley Parks to the west.

- 4.2.27. ES Chapter 23 stated that the impacts of the proposed converter station(s) would be large-scale locally, and of a small geographical extent, which would be long-term and partly reversible as the converter station(s) would be decommissioned after 30 to 32 years.
- 4.2.28. The applicants' assessment stated that mitigation was embedded into the design of the OSZ through the oLMP [REP4-044] and that once matured, the landscaping would help to further integrate the converter station(s) into the existing landscape. An indicative landscaping plan was provided [REP4-039] to identify where landscaping could be installed to provide mitigation and enhancements which is shown below.

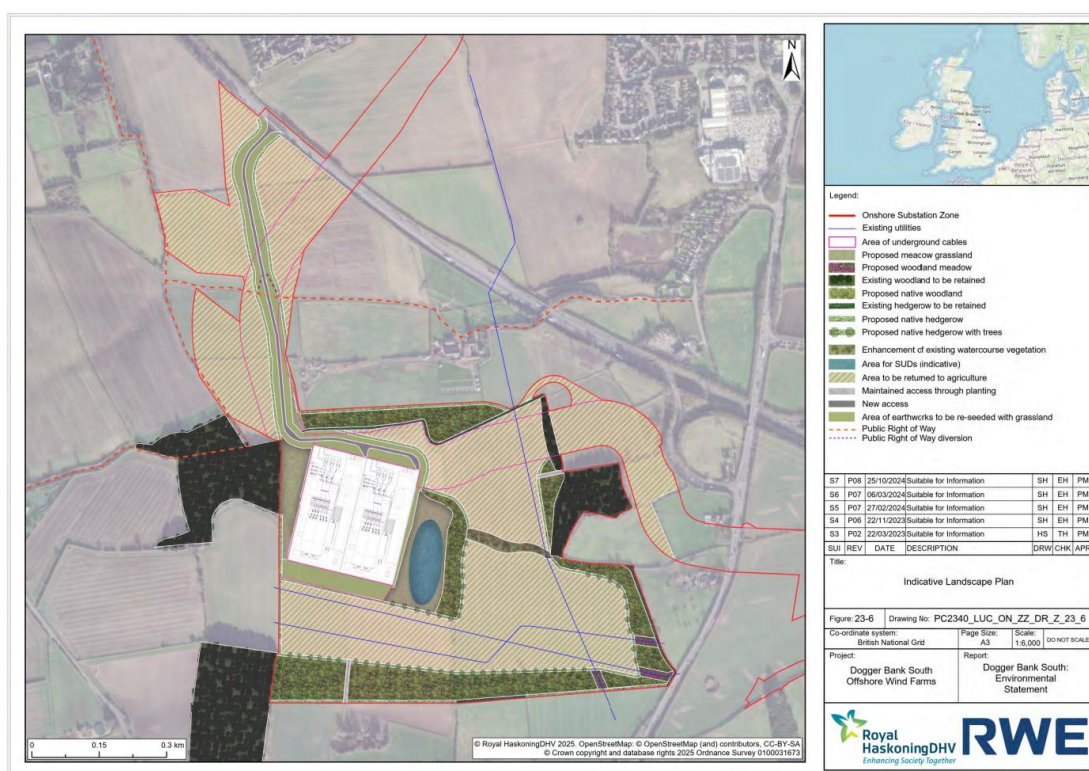


Figure 14: Indicative landscape plan

Source: ES Chapter 23 LVIA Figures, figure 23-6 [REP4-039]

- 4.2.29. The applicants' assessment concluded that at year 10 of operation, the residual effect on landscape character would reduce to moderate adverse, which would be significant.
- 4.2.30. ES Chapter 23 [REP7-090] also considered the effects during operation of the proposed development on the Yorkshire Wolds ILA. The assessment stated that there would be direct localised impacts, including the permanent loss of landscape features such as hedgerows and arable farmland, which were identified as key attributes of the Yorkshire Wolds ILA. Primary impacts would be as a result of the ongoing visual presence of the converter station(s), which would affect key characteristics such as "long distance views dominated by the sky". Given the
- DOGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

undulating character of the landscape, and presence of plantations and hedgerows, close views of the converter station(s) would be somewhat contained and relatively localised.

- 4.2.31. The applicants' assessment stated that there would be a major adverse and significant effect at year 1 of operation, in the immediate area of the footprints of the converter station(s). The effect would reduce with distance, falling below the threshold of significance at no more than 1km from the footprint of the converter station(s).
- 4.2.32. The LVIA stated that mitigation was embedded into the design of the OSZ through the oLMP [REP4-044] and that once matured, the landscaping would help to further integrate the converter station(s) into the existing landscape. The applicants' assessment concluded that at year 10 of operation, the residual effect on the Yorkshire Wolds ILA would reduce to moderate adverse, which would be significant.

Visual amenity

- 4.2.33. Illustrative photomontage visualisations were presented for the VPs, showing the worst-case scenario of the converter station(s) in ES Chapter 23 Figures [REP4-039], including indicative mitigation planting at year 1 and year 10 of operation. The converter station(s) would be decommissioned after 30 to 32 years, thus the residual impacts were considered to be long-term.
- 4.2.34. ES Chapter 23 [REP7-090] identified the following adverse and significant effects on visual amenity at year 1 of operation:
- Butt Farm – VP1 (PRoW users, holidaymakers visiting Butt Farm, residential receptors): major adverse effect.
 - Copleflat Lane, Bentley – VP2 (residential receptors, road users): major adverse effect.
 - Beverley 20 PRoW near Broadgate – VP3 (PRoW users): moderate adverse effect.
- 4.2.35. Following landscape mitigation captured by the oLMP [REP4-044], the residual effects at VP1 would reduce to moderate adverse at year 10, which would be significant. The applicants' assessment stated that despite the proposed landscaping mitigation, at VP3 the buildings would continue to appear as a notable feature above the mitigation planting and set against the skyline, therefore the residual effect would remain moderate adverse and significant. The effects at VP2 would reduce to minor adverse, which would not be significant.
- 4.2.36. The applicants' assessment stated that effects on VP4 (Oriel Close) and VP8 (Beverley Minster Tower) would be minor adverse at year 1 and year 10 of operation, which would not be significant. The applicants' assessment also identified negligible adverse effects at VP5, VP6 and VP7 at year 1 and year 10 of operation.

Decommissioning

- 4.2.37. ES Chapter 23 [REP7-090] confirmed that whilst details regarding the decommissioning of the converter station(s) were not yet determined, considering a worst-case scenario, which would be the removal and reinstatement of the current land use, it was expected that the decommissioning effects would be similar to, or less than those during construction.

Cumulative Effects

- 4.2.38. ES Chapter 23 [\[REP7-090\]](#) identified 7 schemes which could give rise to cumulative effects which could be significant during construction and operation of the proposed development. These were set out in table 23-22. The applicants' assessment predicted additional moderate and significant adverse cumulative effects in combination with Dogger Bank A and B offshore windfarm converter stations, A164 and Jock's Lodge junction improvement scheme, Creyke Beck Solar Farm and the Hornsea Project 4 offshore windfarm substation.
- 4.2.39. ES Chapter 23 also identified potential adverse cumulative effects which would be significant when taking the proposed development in combination with Tier 1, Tier 2 and Tier 3 schemes (Creyke Beck Substation Extension, Birkhill Wood National Grid Substation, North Humber to High Marnham Grid Upgrade and White Hall Solar Farm). Table 6-1-4 of ES Appendix 6-1 Onshore Cumulative Effects Assessment Methodology detailed the applicants' tiered approach to the cumulative effects assessment and provided explanations of the 3 tiers, which were defined by the extent of information likely to be available for each project considered.
- 4.2.40. No additional mitigation was proposed by the applicants to address cumulative effects.

ISSUES CONSIDERED DURING THE EXAMINATION

- 4.2.41. The ExA considered the principal issues related to:
- the scope of the LVIA
 - the significance of effects
 - the adequacy of proposed mitigation
 - arboricultural matters

SCOPE OF THE LVIA

Seascape

- 4.2.42. ES Chapter 23 [\[REP7-090\]](#) scoped out effects on seascape. The proposed offshore array areas would be located a minimum distance of 100km from the coast and the applicants therefore concluded it was unlikely that they would be visible. The proposed development originally included an offshore platform which would have been located approximately 37km from the closest point to land, but this was subsequently removed as part of change request 1 [\[AS-129\]](#). No IPs raised concerns regarding the effects on seascape.

ExA's considerations

- 4.2.43. Given the distance which the array areas would be from land, the ExA is content that there would be no significant effects on seascape.

Candidate Yorkshire Wolds National Landscape

- 4.2.44. The candidate Yorkshire Wolds National Landscape would be located over 11km to the north-west of the landscape and visual study area, and 12.5km and 15.5km from the onshore export cable corridor and OSZ respectively. ES Chapter 23 [\[REP7-090\]](#) stated that it was agreed with stakeholders prior to submission of the application that effects on the candidate National Landscape could be scoped out. ERYC and Natural England raised no concerns regarding the effects on the candidate National Landscape during examination. ERYC confirmed [\[REP1-056\]](#) that it was highly

unlikely that there would be any intervisibility between the candidate National Landscape and the proposed development given the distance and intervening landform and vegetation.

ExA's considerations

4.2.45. The statutory purposes of National Landscapes are:

- conserving and enhancing the natural beauty of the area of outstanding natural beauty, and
- increasing the understanding and enjoyment by the public of the special qualities of the area of outstanding natural beauty

4.2.46. Section 245 (Protected Landscapes) of the Levelling-up and Regeneration Act 2023 amended the duty on relevant authorities in respect of their functions which affect land in National Parks, National Landscapes, and the Norfolk and Suffolk Broads (collectively referred to as Protected Landscapes) in England. Relevant authorities must now “seek to further” the statutory purposes of Protected Landscapes, rather than “have regard to” their statutory purposes.

4.2.47. Case law handed down in March 2025 (*New Forest National Park Authority v Secretary of State for Housing, Communities and Local Government & Anor* [2025] EWHC 726), clarified that where a proposed development would at least leave a National Park’s natural beauty, wildlife and cultural heritage unharmed, this provides a proper basis for the decision maker to conclude that the development would further the purpose of conserving and enhancing those characteristics, and would properly discharge the decision maker’s duty under section 11A(1A) of the National Parks and Access to the Countryside Act 1949. These findings were similarly echoed in case law handed down in July 2025 (*Wadhurst Parish Council v Secretary of State for Housing, Communities and Local Government* [2025] EWHC 1735).

4.2.48. Applying this principle to the case in hand, the ExA is satisfied that given the lack of intervisibility between the candidate National Landscape and proposed development, the natural beauty of the National Landscape would not be harmed, nor would the proposed development impede the understanding and enjoyment by the public of the special qualities of the National Landscape. The proposed development would therefore further the statutory purposes of the candidate Yorkshire Wolds National Landscape and the ExA considers that section 85 of the Countryside and Rights of Way Act 2000 can be discharged.

Visualisations

4.2.49. The ExA had some queries regarding the chosen locations for the visualisations provided in ES Chapter 23 Figures [REP4-039], notably with regards to VP6 which showed a view from the Beverley 20 PRoW (figures 23.12a to 23.12d). During the unaccompanied site visit, the ExA noted that a view further along the footpath could result in more exposed views of the converter station(s), so queried why the applicants chose the location of VP6 [PD-022]. At DL5, the applicants acknowledged [REP5-036] that there could be greater visibility of the converter station(s) further to the north, but given the woodland screening and elevation of the view, it was unlikely that the converter station(s) would be visible against the skyline. Views of the converter station(s) would only be available from a short section of the public footpath and views towards Beverley Minster would not be interrupted. The applicants considered that the scale of change in comparison to the

chosen location would be small, and the effect would be minor adverse and not significant.

- 4.2.50. A photograph of the view which the ExA referenced along the Beverley 20 PRow was provided at DL6 at Appendix A [\[REP6-051\]](#), but this did not indicate where the proposed converter station(s) would be located. The ExA requested [\[PD-027\]](#) that a wireframe was added to the photograph to allow a better understanding of the information provided. However, the applicants stated [\[REP7-132\]](#) that sufficient information had been submitted to understand the significance of effects at this location, so did not provide a wireframe showing the proposed converter station(s).
- 4.2.51. The ExA requested [\[PD-006\]](#) that all visualisations were prepared using winter photography to present the worst-case scenario. This was accommodated by the applicants and the LVIA figures were updated at DL2 [\[REP2-024\]](#).
- 4.2.52. The ExA also invited further visualisations, including one requested by ERYC [\[PDA-007\]](#) from the A164 travelling north due to increased tree felling along this route, and one from Dunflat Road. Both were provided by the applicants [\[REP4-039\]](#). Additionally, a visualisation showing the impacts from Butt Farm campsite was provided by the applicants with a dusk view of the converter station(s) from the scheduled monument near to Butt Farm [\[REP6-054\]](#), though these were not used to inform the LVIA.
- 4.2.53. ERYC requested [\[PDC-007\]](#) that visualisations of construction works were provided to understand how any early planting would mitigate the effects during this phase. ERYC also raised some queries regarding VP3 [\[PDC-007\]](#) and the extent of landscaping shown on the visualisations [\[REP3-037\]](#). The applicants provided a visualisation which showed the extent of the construction compound from VP3, although construction works themselves were not depicted in the visualisation.
- 4.2.54. With regards to the request from ERYC [\[PDC-007\]](#) that visualisations showing construction lighting should be provided, the applicants stated [\[REP1-048\]](#) that effects from construction lighting would be temporary in nature, and the location and type of lighting equipment was not known with any certainty. Construction lighting would likely be mobile, and the applicants stated that it would be difficult to develop a scenario that could be illustrated in a meaningful way.

ExA's considerations

- 4.2.55. Although it would have been helpful for the applicants to update VP6 in line with the request to provide a view which showed the OSZ in front of existing landscaping, rather than behind it along the Beverley 20 PRow, the ExA agrees with the applicants that there is unlikely to be a significant adverse effect further along this section of the PRow.
- 4.2.56. The ExA notes that visualisations showing potential construction lighting spread were not provided by the applicants as requested by ERYC in its LIR [\[PDC-007\]](#). However, the ExA also recognises that at the close of examination, the Statements of Common Ground (SoCG) with ERYC [\[REP8-015\]](#) and Hull City Council [\[REP8-018\]](#) confirmed that matters regarding the scope, baseline environment and assessment methodology of the LVIA were agreed.
- 4.2.57. The ExA is mindful that NPS EN-1 states that a LVIA should assess the visibility and conspicuousness of the project during construction and the presence and operation of the project and potential impacts on views and visual amenity. The ExA

considers that the applicants could have gone further in providing more detailed information on the likely effects from construction by submitting the information which ERYC requested during examination.

- 4.2.58. However, on balance the ExA considers that sufficient information has been provided to assess the effects of the proposed development on landscape character and visual amenity.

SIGNIFICANCE OF EFFECTS

- 4.2.59. Rowley Parish Council [RR-048] expressed concerns regarding the visual amenity effects on users of the Beverley 20 PRow and residents of Beverley. The parish council noted the high value of the landscape, which is part of the Yorkshire Wolds.
- 4.2.60. J L White & Son and Butt Farm Caravan, Camping & Glamping Site (Butt Farm) [RR-054] stated that the effects of the converter station(s) and light pollution on visual amenity were likely to affect the viability of the caravan and camping site. Butt Farm suggested that the existing relatively remote and peaceful location and views over open countryside would become dominated by the proposed substations, with a negative impact on the peaceful and visually attractive nature of the area. Butt Farm also stated that the proposed landscaping would be ineffective in mitigating the effects of the converter station(s) on the adjacent caravan and camping site.
- 4.2.61. Sam Brewitt on behalf of St Peters House [RR-050] stated that the visual impacts of the converter station(s) would result in a deterioration in their quality of life, stress and mental health. St Peters House stated that the converter station(s) would severely affect the existing outlook of their property and its beautiful setting.
- 4.2.62. Dawn Bache [RR-060] expressed concerns about the visual impact of the proposed development on the local landscape. Ms Bache referred to the height of the proposed converter station(s), being situated on elevated ground, and the inability of the proposed landscaping to mitigate the visual impacts on the local environment. Ms Bache also stated that it would take a number of years for the proposed planting to grow tall enough to screen the converter station(s) in any meaningful way. Ms Bache said that the proposed development would be devastating for the residents of Bentley, describing the converter station(s) as an 'industrial' form of development.
- 4.2.63. Initially, ES Chapter 23 [APP-192] presented the residual effects from construction taking account of the proposed landscape mitigation. The final version of the LVIA [REP7-090] recognised that as landscape mitigation would not be fully established during the construction period, some of the residual effects during construction would not be mitigated until the point at which the landscaping had been established (during operation). The updated ES chapter highlighted that construction effects would be temporary.
- 4.2.64. The SoCGs with ERYC [REP8-015] and Hull City Council [REP8-018] stated that both councils agreed with the LVIA assessment conclusions at the close of examination.

ExA's considerations

- 4.2.65. The ExA notes that the applicants did not provide a view on whether there would be significant adverse effects on visual amenity from the additional VPs provided from Dunflat Road (VP9) and from the A164 (VP10) [REP4-039]. The ExA has therefore undertaken its own assessment, based on the applicants' approach.

- 4.2.66. With regards to Dunflat Road, VP9 was located in an elevated position. Although existing woodland would screen the most westerly proposed converter station (Works No. 25A), there would still be open views of the easterly converter station (Works No. 26A/ B), which would be highly visible. The proposed development would be visible in the lower-lying elements of the agricultural landscape, though it would sit below the skyline. The converter station(s) would be some distance from the VP and also viewed in the context of existing agricultural buildings and other existing infrastructure, such as onshore wind turbines in distant views. Nevertheless, the scale and particularly the height of the converter station(s) would appear at odds with the more modest existing agricultural buildings in the foreground. The ExA therefore considers that the impact of the converter station(s) from VP9 would be of medium scale and of small geographical extent. The ExA considers that the impact would be long-term and reversible as the converter station(s) would be decommissioned after 30 to 32 years. The magnitude is therefore considered to be medium.
- 4.2.67. VP9 is not taken from a PRoW, although it is in close proximity to public footpaths and bridleways. Views from VP9 would be relatively fleeting on this basis. The sensitivity of receptors, namely views experienced by road users, are considered to be medium. The proposed landscape mitigation would not screen the entirety of the converter station(s) and in fact, they would still be largely visible at year 10 of operation. In line with the information contained in table 23-17 [\[REP7-090\]](#), on balance, the ExA considers that the effects from VP9 would be moderate adverse, which would be significant at year 1. The proposed landscape mitigation would do little to reduce the effects from VP9 and therefore the ExA considers that the effect would remain moderate adverse at year 10, which would be significant.
- 4.2.68. Regarding VP10, the OSZ would be partly screened and intervening features such as residential properties, agricultural buildings and existing landscaping would obscure views. Infrastructure such as telephone lines and electricity pylons also feature in wider views. The converter station(s) to some extent would be nestled between these existing features and all but the tallest elements of the proposed development would be screened from VP10.
- 4.2.69. The impact of the onshore converter station(s) on VP10 would be small scale and of small geographical extent. The ExA considers that the impact would be long-term and reversible as the converter station(s) would be decommissioned after 30 to 32 years. The magnitude is therefore considered to be low. Footpaths serve the A164 on either side of the highway from where VP10 was taken. However, the ExA notes that views from VP10 are already heavily influenced by surrounding development and most notably, the transport infrastructure of the adjacent A164. The sensitivity of the receptor is considered to be medium. Given the extent of change and existing environment, on balance, the ExA considers that the effects from VP10 would be minor adverse at year 1 of operation. The proposed landscaping would not discernibly reduce the significance of effects, so the ExA considers the effect at year 10 of operation would still be minor adverse.
- 4.2.70. The ExA notes the concerns raised by IPs with regards to effects on local landscape character and visual amenity, including the impacts on residential properties, users of PRoWs and the Yorkshire Wolds ILA [\[RR-048, RR-050, RR-054, RR-060\]](#). The applicants' conclusions were that there would be significant adverse effects on landscape character and visual amenity as a result of the proposed development, including residual moderate adverse effects on the Yorkshire Wolds ILA, from VP1 which represented views from Butt Farm and the Beverley 20 PRoW from VP3. The

ExA agrees with the applicants' conclusions on the significance of effects and considers that these have been appropriately presented in the ES. The effects of the proposed development on visual amenity and landscape character on the operation of Butt Farm as a camping, glamping and caravan business are considered in section 4.8 (Socio-economics and Tourism) of this Recommendation.

- 4.2.71. The effects during construction of the converter station(s) would endure for 72 months on a worst-case scenario basis. The ExA is mindful that, whilst there may be opportunities for early replanting, it would still take a number of years (between 1 and 10) for the proposed planting to establish to a point at which it would reduce the significance of effects of the converter station(s). The applicants were unable to specify at what point between year 1 and year 10 the mitigation would be at a suitable maturity to reduce the significance of effects. As a consequence, the ExA has concluded that this would result in significant landscape character and visual amenity effects (prior to mitigation establishment) that would endure for a number of years after the completion of the 72-month construction period at the OSZ.
- 4.2.72. Other than the matters set out above, the ExA considers that the applicants have adequately assessed and presented the significance of effects in ES Chapter 23 [REP7-090]. The ExA agrees with the applicants that there would be a number of significant adverse effects on landscape character and visual amenity during construction and operation of the proposed development. Decommissioning effects would be no worse than those presented for the construction phase, so could also result in significant adverse effects, albeit that they would be on a temporary basis. The ExA agrees with the applicants' findings on the significance of effects during all stages of the proposed development, and additionally that there would be a significant adverse effect at VP9 as set out above.

ADEQUACY OF LANDSCAPE MITIGATION

Outline Landscape Management Plan

- 4.2.73. A large part of examination focused on the adequacy of the landscape mitigation measures proposed by the applicants. The oLMP [REP4-044] was updated to incorporate planting advice for hedgerows, consideration of advance planting where possible and to include details of adaptive planting monitoring and management measures.
- 4.2.74. Ms Bache [RR-060] stated that the proposed planting would be unable to mitigate the impacts of the proposed development, given the height of the converter station(s) and their proposed location on high ground. Ms Bache also stated that it would take a number of years for the proposed planting to grow tall enough to screen the converter station(s) in any meaningful way.
- 4.2.75. ERYC requested [PDC-007] a commitment to mature planting in the oLMP. The applicants contended [AS-155] that smaller planting stock tended to establish more quickly than mature planting, which was more prone to failure. The applicants stated that the creation of woodlands through the planting of large numbers of whips was a tested means of creating dense, bushy growth that would provide maximum visual screening. The applicants also highlighted that the details of the landscape planting proposals, including the size and type of planting stock, and location of planting, would be subject to approval by ERYC, which would be secured by requirement 10 of the dDCO [REP9-003].

- 4.2.76. The applicants explained at issue specific hearing (ISH) 2 [EV5-012] that the proposed landscaping would reduce the significance of effects by screening low-level infrastructure and visual clutter over time, leaving only the upper sections of the tallest buildings and lightning masts visible at year 10 of operation. This would predominantly affect views towards the converter station(s) from the north, namely VPs 1, 3 and 4.
- 4.2.77. At ISH4 [EV9-005], as the dDCO and any of supporting documents did not refer to the proposed landscaping needing to screen the low-level elements of the OSZ, the ExA asked the applicants to consider solutions to ensure that this would be secured. The ExA suggested the use of a zoning plan to identify where low-level elements could be located and which areas would need to be screened by the proposed landscape mitigation, which ERYC welcomed at ISH4. However, the applicants declined this request at ISH4, stating that it was a matter for the detailed design stage.
- 4.2.78. When asked again about this matter at the ExA's second written questions [PD-022], the applicants stated [REP5-036] that delivery of the proposed screening, as described in the LVIA and shown in the visualisations, was already secured. The applicants considered that therefore adding a further commitment to the oLMP was not required.

Cumulative effects

- 4.2.79. The ExA asked questions on potential cumulative effects and requested visualisations which showed other potential development at ISH2 [EV5-012]. The applicants stated [AS-155] that this matter was considered when preparing the LVIA, but it was concluded that there were limited suitable VPs which would usefully show the cumulative schemes considered in the LVIA.
- 4.2.80. The applicants confirmed at ISH4 [EV9-005] that the proposed mitigation sought to reduce cumulative impacts by mitigating the effects of the proposed development and by doing so, would mitigate the potential cumulative effects.
- 4.2.81. ERYC confirmed at ISH4 [EV9-005] that it considered that the proposed mitigation had occupied as much of the site area as it could and therefore the applicants had done what they could in terms of mitigating cumulative impacts.

ExA's considerations

- 4.2.82. The ExA found the applicants' stance regarding securing suitable mitigation to screen low-level elements of the converter station(s) unhelpful and disappointing. The DAS [REP7-103] or oLMP [REP4-044] could have been a suitable means to capture this detail, given that it formed an important part of the mitigation measures for landscape character and visual amenity. Whilst the applicants stated that the proposed screening of low-level elements of the converter station(s) would already be captured because this is shown in the visualisations, the proposed landscape mitigation measures and the location of the low-level elements of the OSZ are indicative and are therefore potentially subject to change.
- 4.2.83. The ExA has some concerns that the applicants were unable to provide a solution to ensure that the low-level elements of the OSZ would be screened by the proposed landscape mitigation. Although the ExA notes that ERYC would need to discharge the detailed design of the converter station(s) and the final landscape management plan, updating the DAS or oLMP could have addressed this issue and could have

given the ExA comfort that this important element of the proposed landscape mitigation would be adequately addressed when the detailed design came forward.

4.2.84. The ExA notes that NPS EN-1 paragraph 5.10.5 states that “virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation.” NPS EN-5 also states that new substations can give rise to landscape and visual impacts. The ExA therefore considers that a balance must be struck between the provision of adequate mitigation, alongside the recognition that adverse landscape and visual amenity effects from nationally significant infrastructure projects are inevitable.

4.2.85. In this regard, apart from securing screening of the low-level elements of the proposed converter station(s), the ExA accepts that the applicants have mitigated the proposed development as far as possible and would provide enhancements to Bentley Moor Wood. The ExA explored a number of options around increasing landscape mitigation, but owing to the OSZ site constraints, accepts that further mitigation would not be possible.

ARBORICULTURAL MATTERS

4.2.86. The ExA asked questions at ISH2 [EV5-002] on the extent to which ash die-back could affect woodland and the screening that it afforded, given that ES Chapter 18 (Terrestrial Ecology and Ornithology) [REP2-019] confirmed that ash die-back was observed in surveyed trees and ERYC advised that ash die-back was prevalent in East Yorkshire [REP1-056]. ES Chapter 23 [REP7-090] referred to certain areas of woodland which would provide screening (such as Bentley Moor Wood, Johnson's Pit, Eleven Acre Plantation, Jillywood and Birkhill Wood), some of which are located outside of the order limits.

4.2.87. The applicants [REP4-096] and ERYC [REP4-118] were able to provide sufficient information to address the ExA's queries on this matter, confirming that ash was not prevalent in the areas of woodland identified by the applicants as having screening opportunities.

4.2.88. The effects on ancient woodland, including at Burton Bushes and Bentley Moor Wood, are discussed in sections 4.1 (Onshore Ecology and Biodiversity) and 4.10 (Air Quality) of this Recommendation. The ExA concludes in sections 4.1 and 4.10 that the applicants have provided sufficient information to demonstrate that effects on ancient woodland would be adequately mitigated and there would be no loss or deterioration of this irreplaceable habitat and landscape feature as a result of the proposed development.

4.2.89. Mitigation measures for ancient woodland would be captured in the oEMP [REP7-107] and secured through requirement 12 of the recommended draft DCO (appendix F of this Recommendation), including suitable buffer zones and consideration of appropriate drilling depths. Requirement 19 secures the oCoCP [REP7-105] and would ensure that hydrogeological risk assessments would be undertaken at all trenchless crossings, including at Bentley Moor Wood ancient woodland prior to commencement of works. The detailed version would be agreed with ERYC in consultation with the Environment Agency and relevant statutory nature conservation bodies. Veteran trees would also be protected by these measures. The Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment and Outline Arboricultural Method Statement [REP7-121] was updated during examination which provided an assessment of the likely effects on retained

trees, ancient woodland and veteran trees, with proposed mitigation measures. Collectively these mitigation measures would ensure that there would be no loss or deterioration of any veteran trees or ancient woodland as a result of the proposed development.

ExA's considerations

- 4.2.90. The ExA concludes that all arboricultural matters were suitably addressed during examination. In coming to this conclusion, the ExA notes that there was no outstanding objection from the Woodland Trust at the close of examination and the SoCG with ERYC [\[REP8-015\]](#) confirms that arboricultural matters were agreed.

CONCLUSION

- 4.2.91. The ExA is satisfied that the applicants have undertaken an appropriate LVIA and have adequately identified the effects of the proposed development on landscape and visual receptors in accordance with the requirements of NPS EN-1, NPS EN-5 and relevant policy and guidance. This is apart from additional VPs 9 and 10, for which the applicants did not provide a view on the likely significance of effects.
- 4.2.92. The ExA considers that the proposed development has taken account of impacts on the landscape, having regard to the siting, operation and other constraints, in order to minimise the harm as much as possible, and has provided mitigation where possible in accordance with NPS EN-1 and NPS EN-3.
- 4.2.93. The ExA agrees with the applicants' findings regarding the significance of effects during construction. There would be major and moderate adverse effects, along with some minor adverse effects for up to 72 months. The ExA notes that these effects would be temporary and would be largely reversible, other than at the OSZ. The ExA considers that there would be no likely effects on the candidate Yorkshire Wolds National Landscape given the distance from the proposed development.
- 4.2.94. The OSZ would give rise to localised major adverse effects on landscape character, reducing to moderate adverse during the operation of the proposed development, including on the Yorkshire Wolds ILA, which would be significant. The reduction in the significance of effects could take up to 10 years. There would also likely be major and moderate adverse effects on visual amenity, reducing to moderate or minor adverse effects, again taking up to 10 years to mitigate. There would be some further minor adverse and negligible adverse effects on visual amenity during the operation of the proposed development.
- 4.2.95. The applicants identified potential additional cumulative adverse effects during construction and operation of the proposed development which would be significant, which the ExA agrees with.
- 4.2.96. The applicants also identified the effects during decommissioning to be no greater than those during construction. Based on this information, the ExA considers that there could be significant adverse effects during decommissioning, but notes that these would be temporary and also would likely include the removal of the converter station(s).
- 4.2.97. Mitigation and control for the avoidance and reduction of adverse landscape and visual effects, where reasonable and appropriate, would be adequately secured through the recommended draft DCO (appendix F of this Recommendation).

- 4.2.98. The ExA is satisfied that ERYC would have sufficient design content secured through the DAS [\[REP7-103\]](#) to ensure future consenting would meet landscape, visual and good design objectives in accordance with NPS EN-1, apart from the screening of low-level elements of the converter station(s), which is not fully secured.
- 4.2.99. Taking the above matters into account, the ExA is satisfied that the proposed development would accord with the provisions set out in NPS EN-1, NPS EN-3 and NPS EN-5 in respect of landscape and visual matters relating to the proposed onshore works. The ExA notes the adverse effects identified above, notably the significant adverse effects on the Yorkshire Wolds ILA and remaining significant moderate adverse effects on landscape character and visual amenity at year 10 of operation. The ExA also notes that the applicants did not secure the specific mitigation of screening the low-level elements of the converter station(s) from views from the north, which the applicants considered as a key part of their mitigation scheme. Overall, the ExA therefore concludes that effects on landscape character and visual amenity carry great negative weight against making the Order.

4.3. ONSHORE HISTORIC ENVIRONMENT

INTRODUCTION

- 4.3.1. This section considers the effects of the proposed development on the onshore historic environment, including designated and non-designated heritage assets.
- 4.3.2. In its consideration of effects on onshore heritage assets, the Examining Authority (ExA) had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) as set out in section 5.9
 - the National Policy Statement for Renewable Energy Infrastructure (NPS EN-3)
 - the National Policy Statement for Electricity Networks Infrastructure EN-5 (NPS EN-5), as set out in section 2.2
 - the Infrastructure Planning (Decisions) Regulations 2010
 - the Local Impact Report (LIR)
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 4.3.3. The applicants' assessment of the effects of the proposed development on the onshore historic environment was primarily set out in Environmental Statement (ES) Chapter 22 (Onshore Archaeology and Cultural Heritage) [\[APP-172\]](#). This was updated at various points during examination, with the latest version being submitted at deadline (DL) 7 [\[REP7-073\]](#). In addition, the following supporting documents were submitted:
- ES Chapter 22 Figures 22-1 to 22-5 [\[APP-173\]](#), superseded at DL7 [\[REP7-075\]](#)
 - Appendix 22-2 Onshore Archaeological Desk-Based Assessment [\[APP-175\]](#)
 - Appendix 22-3 Assessment of Airborne and Satellite Remote Sensing Data and Map Regression Analysis for Archaeology [\[APP-176\]](#)
 - Appendix 22-4 Heritage Walkover Survey Report [\[APP-177\]](#)
 - Appendix 22-5 Onshore Infrastructure Settings Assessment [\[APP-178\]](#), superseded at DL7 [\[REP7-076\]](#)
 - Appendix 22-6 Geoarchaeological Desk Based Assessment [\[APP-179\]](#)

- Appendix 22-7 Geophysical Assessment Report (Parts 1 to 9) [[APP-180](#) to [APP-188](#)]
- Appendix 22-8 Interim Archaeological Evaluation Report [[APP-189](#)]
- Appendix 22-9 Archaeological and Geoarchaeological Watching Brief and Deposit Model Report [[APP-190](#)]
- Statutory/ Non-statutory Features of the Historic Environment [[APP-021](#)], superseded at DL7 [[REP7-008](#)]

4.3.4. Photography from 3 cultural heritage viewpoints was provided in ES Chapter 23 Landscape and Visual Impact Assessment Figures [[REP4-039](#)] (Cultural Heritage Viewpoints 2, 3 and 5). This included baseline photography from the heavy anti-aircraft gunsite 350 metres (m) from Butt Farm (a scheduled monument), the Black Mill (scheduled monuments and listed buildings (LB)), and from Risby Hall registered park and garden (RPG). A photomontage of the proposed development from the heavy anti-aircraft gunsite near to Butt Farm ('the anti-aircraft gunsite') was provided, but not for the other cultural heritage viewpoints, because the applicants considered that there would be no visibility of the proposed development.

4.3.5. ES Chapter 22 [[REP7-073](#)]:

- Presented the existing environmental baseline and identified any assumptions and limitations encountered in compiling the environmental baseline information.
- Presented the potential environmental effects of the proposed development on onshore heritage assets during construction, operation and decommissioning phases, along with potential cumulative effects.
- Highlighted any necessary monitoring and mitigation measures which could avoid, reduce, or mitigate the possible environmental effects of the proposed development on onshore heritage assets.

BASELINE

4.3.6. ES Chapter 22 [[REP7-073](#)] confirmed that the onshore development area covered 455 hectares (ha), of which approximately 434ha was suitable for geophysical survey.

4.3.7. The designated heritage assets study area extended 1 kilometre (km) beyond the onshore development area and 5km beyond the onshore substation zone (OSZ). The non-designated heritage assets study area extended beyond 500m of the onshore development area.

4.3.8. ES Chapter 22 identified that there were 602 designated heritage assets in the study area, including:

- 32 scheduled monuments
- 557 LBs
- 2 RPGs
- 11 conservation areas

4.3.9. There were no designated heritage assets in the onshore development area. The applicants' assessment identified 19 heritage assets where a change in setting could lead to harm to their significance, (see figures 22-2a to 22-2c and associated reference numbers [[REP7-075](#)]):

- The Black Mill (reference 1310087 – grade II LB)
- Square barrow on Westwood Common, 50m west of Blackmill (reference 1013996 – scheduled monument)

- Oval barrow on Westwood Common, 55m north-west of Blackmill (reference 1014000 – scheduled monument)
- Bowl barrow on Westwood Common, 150m north of Blackmill (reference 1013991 – scheduled monument)
- Square barrow on Westwood Common, 120m south of Blackmill (reference 1013995 – scheduled monument)
- Bowl barrow on Westwood Common, 50m north of Blackmill (reference 1013992 – scheduled monument)
- Heavy anti-aircraft gunsite, 350m west of Butt Farm (reference 1019186 – scheduled monument)
- Walkington Conservation Area
- Beverley sanctuary limit stone, Walkington Cross (reference 1012591 – scheduled monument)
- Beverley sanctuary limit stone, Bentley Cross (reference 1012590 – scheduled monument)
- Bowl barrow 400m north of Highfield House (reference 1007731 – scheduled monument)
- The Minster Church of Saint John (Beverley Minster) (reference 1084028 – grade I LB)
- Risby Hall (reference 1001419 – grade II RPG)
- Risby Jacobean gardens, hall and medieval settlement remains (reference 1018600 – scheduled monument)
- ‘Cellar Heads’ moated site and related ridge and furrow earthworks at Risby Park, 700m north-west of Risby Park Farm (reference 1015312 – scheduled monument)
- Old Hall (reference 1103420 – grade II LB)
- Low Hall (references 1103419, 1310090, 1346992 – grade II LBs)

4.3.10. There were 316 historic environment record entries located in the non-designated heritage assets study area, of which 26 were in the onshore development area and therefore could be subject to direct physical impacts from the proposed development. These comprised potential subsurface archaeological remains and above ground non-designated heritage assets, such as earthworks or structures.

4.3.11. The applicants’ heritage walkover survey confirmed the presence of 2 pillboxes in the landfall and intertidal zone which survived in good condition and comprised above ground non-designated heritage assets.

4.3.12. In addition to the desktop assessment of existing archaeological surveys, assessment of aerial imagery and geophysical surveys were undertaken. Trial trenching was also carried out at the landfall zone and OSZ prior to submission of the application. ES table 22-11 [\[REP7-073\]](#) summarised the identified potential archaeological remains. Figure 15 below shows the identified heritage assets in relation to the proposed order limits.

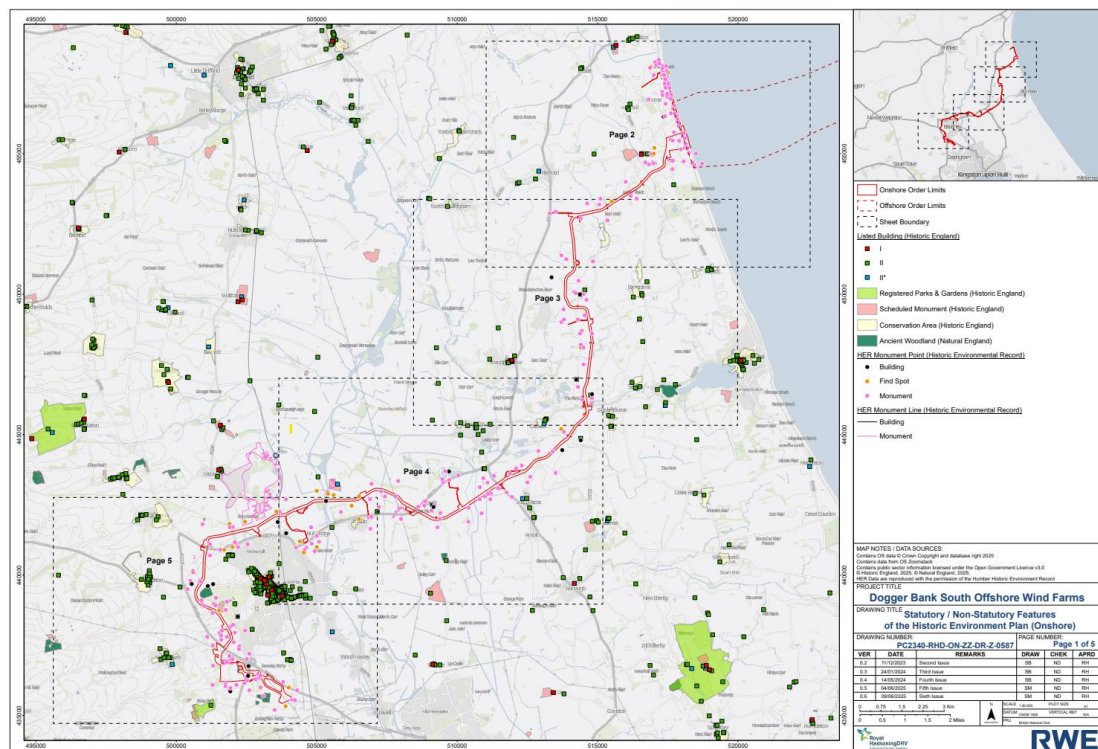


Figure 15: Statutory and non-statutory features of the onshore historic environment

Source: Statutory Non-statutory Features of the Historic Environment Plan (Onshore), page 1 of 5 [REP7-008]

- 4.3.13. The applicants' assessment also considered the effects on Historic Landscape Character (HLC). The HLC data, held by the Humber Historic Environment Record, identified a distinctly rural landscape, the history of which was mostly related to the period of enclosure and there were also surviving earthworks of medieval villages and medieval moated manors. The order limits passed through fields of modern agricultural character, with large fields bounded by hedgerows, some of which were considered important.

MITIGATION

- 4.3.14. The applicants proposed several mitigation measures to reduce the impacts of the proposed development on onshore heritage assets. These measures were defined as primary (included as part of the project design) and were outlined in table 22-3 [REP7-073]. The measures would be either secured by way of requirement 18 in the draft Development Consent Order (dDCO) [REP9-003], or as part of the design of the development, secured by the authorised works set out in schedule 1 of the dDCO, including:

- The site selection process included consideration and avoidance of any direct physical impacts on designated heritage assets. Site selection also sought to avoid direct physical impacts on non-designated heritage assets and potential heritage assets. Where this was not possible, site selection had been carried out to minimise direct impacts.
- For the sequential build scenario, the cable ducts for both projects would be laid as part of the first project, to reduce impacts associated with temporary change to the setting of designated and non-designated heritage assets along the onshore export cable corridor.

- Provision of an Outline Written Scheme of Investigation (oWSI) for the onshore area [REP4-048], which detailed the strategy for additional programmes of survey and evaluation and included a range of likely mitigation options and responses to be utilised under various scenarios.
- Avoidance of 9 out of 18 areas which were identified as areas of possible high archaeological significance from the phase 1 geophysical surveys.

4.3.15. As there would be a secured commitment to implementing the above measures, the applicants considered the measures inherently part of the design of the proposed development and they were therefore considered in the applicants' assessment of effects.

ASSESSMENT OF EFFECTS

Construction phase

Direct physical impacts on designated and non-designated heritage assets

4.3.16. ES Chapter 22 [REP7-073] confirmed that there would be no direct physical impacts on designated heritage assets from the proposed development because the onshore development area would avoid these assets.

4.3.17. On a worst-case scenario basis, direct impacts on non-designated heritage assets (which included buried archaeological remains, and historic earthworks and structures), without mitigation had the potential to result in major adverse effects, which would be significant.

4.3.18. The applicants proposed additional programmes of survey and evaluation of sub-surface archaeological remains, which would include any remaining geophysical survey and a scheme-wide programme of trial trenching, which would be captured by the oWSI (onshore) [REP4-048]. Mitigation included:

- Advance and enacting of preservation in situ options and requirements, such as avoidance, micro-siting, or trenchless construction techniques where possible.
- Archaeological excavation, including subsequent post-excavation assessment, analysis, publication and archiving.
- Archaeological monitoring, or a watching brief, including subsequent post-excavation assessment, analysis, publication and archiving, where appropriate.
- Earthwork condition surveys, including subsequent reporting and archiving followed by backfilling and reinstatement, where required on a case-by-case basis.

4.3.19. Effects on HLC would be mitigated by returning field boundaries, areas and hedgerows to their pre-construction condition and character post-construction, noting the limitations of replanting directly over the cables. Areas of ancient woodland would also be avoided. This was captured in the Outline Code of Construction Practice (oCoCP) [REP7-105], which would be secured by requirement 19 of the dCO [REP9-003].

4.3.20. Following these mitigation measures, the applicants' assessment concluded that there would be residual minor adverse effects from direct impacts on non-designated heritage assets, which would not be significant.

Indirect physical impacts on designated and non-designated heritage assets

4.3.21. ES Chapter 22 [REP7-073] advised that construction activities could result in effects on below ground deposits of archaeological and geoarchaeological interest over a
 DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
 REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

wider area than that of just the footprint of the proposed development. This included hydrological changes that could cause desiccation and drying out of wetland deposits and associated preserved waterlogged archaeological or geoarchaeological remains, or impacts from vibration from groundworks on the fabric of a heritage asset.

- 4.3.22. Potential moderate adverse, significant effects would be mitigated through measures captured by the oWSI (onshore) [REP4-048], including preservation by record and a project-wide approach to geoarchaeological assessment and palaeoenvironmental surveying. The applicants stated that effects would be reduced to minor adverse with this mitigation.

Temporary changes to the setting of designated and non-designated heritage assets affecting their significance

- 4.3.23. ES Chapter 22 stated that temporary changes to the setting of heritage assets could occur through the presence of machinery, construction traffic and general construction activities taking place within and adjacent to the proposed development. The sight, sound, dust and smell during the construction phase could temporarily change the setting of heritage assets and their associated heritage significance.
- 4.3.24. The applicants' assessment concluded that any impacts to the setting of designated heritage assets from lighting would be too infrequent and discontinuous to contribute to harm.
- 4.3.25. ES Chapter 22 also stated that any changes in setting due to construction activities would be temporary and of sufficiently short duration that they would not harm the significance of any heritage assets. The assessment noted that there would be a temporary minor adverse residual effect, which would not be significant, and that once landscaping had been reinstated, there would be no change to the setting of any heritage assets.
- 4.3.26. Traffic management and movement of construction traffic and machinery would be temporary and localised, and managed through the Construction Traffic Management Plan which would be secured by requirement 14 of the dDCO. A landscape scheme would be developed to secure the restoration and, where possible, enhancement of the landscape post-construction. An Outline Landscape Management Plan (oLMP) [REP4-044] was submitted with the application and would be secured by requirement 10 of the dDCO.

Operational phase

- 4.3.27. ES Chapter 22 [REP7-073] stated that the permanent above ground infrastructure at the OSZ could have an ongoing impact on the setting of heritage assets for the duration of the operational phase because of its presence within the landscape and its day-to-day use. Effects in other parts of the onshore development area were scoped out of assessment during the operation of the proposed development as these areas would not be affected by above ground works post-construction.
- 4.3.28. The applicants anticipated a moderate adverse effect on the setting of the anti-aircraft gunsite prior to mitigation. The applicants proposed mitigation in the form of landscaping enhancements and landscape screening of the converter station(s) such as hedgerow and woodland planting to mitigate the effects, by integrating the converter station(s) into the landscape. The applicants also noted that the converter

station(s) would be designed to reduce the overall height and massing of associated structures as far as possible. These mitigation measures would be captured in the oLMP [REP4-044] and by the Design and Access Statement (DAS) [REP7-103], which would be secured by requirements 9 and 10 of the dDCO. The anti-aircraft gunsite and proposed landscape mitigation is shown in Figure 16 below:

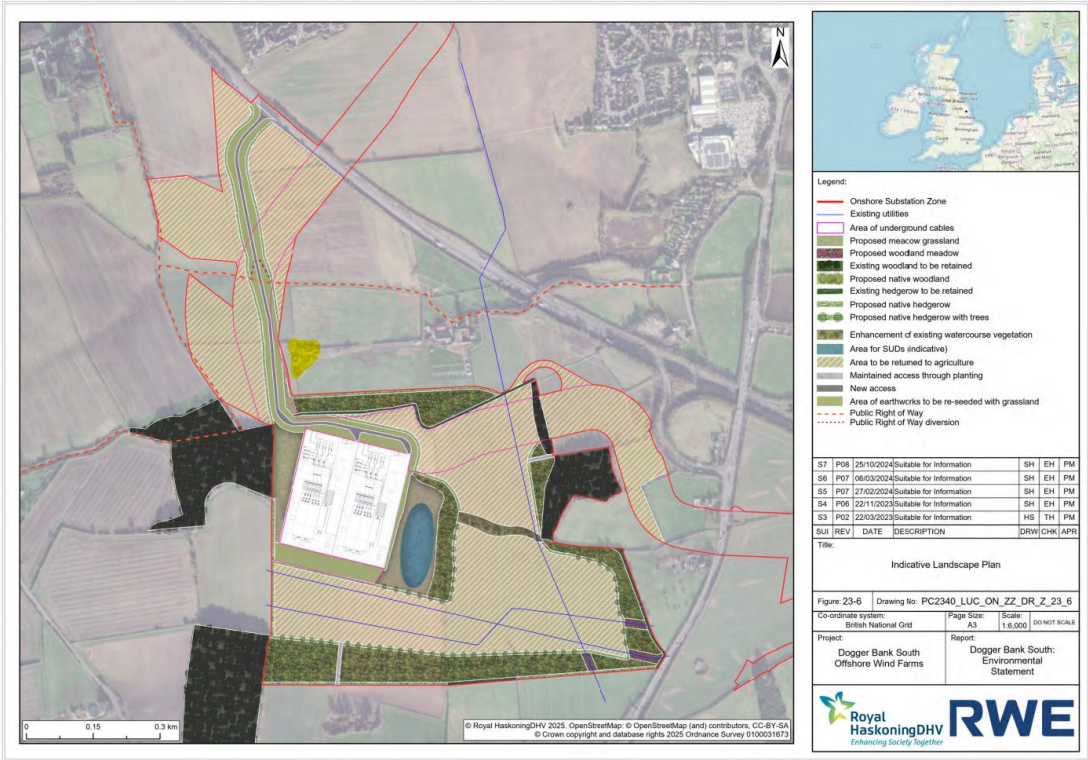


Figure 16: Location of the anti-aircraft gunsite (highlighted in yellow) and proposed landscape mitigation

Source: ES Chapter 23 LVIA Figures, figure 23-6 [REP4-039]

- 4.3.29. The applicants’ assessment concluded that following mitigation, there would be a residual minor adverse effect on the scheduled monument, which would not be significant.
- 4.3.30. The applicants determined that there would be no harm to the setting of any other heritage assets during operation of the proposed development.

Decommissioning

- 4.3.31. ES Chapter 22 [REP7-073] stated that the programme for decommissioning was expected to be similar in duration to the construction of the converter station(s). The applicants considered that the worst-case scenario as outlined for the construction phase in relation to temporary changes to the setting of heritage assets was unlikely to be exceeded due to decommissioning activities. Assuming that provision would be made for methods of removal which minimise further impact to the wider area, the applicants stated that any potential damage to designated and non-designated heritage assets would have already occurred as part of construction activities.

Cumulative effects

- 4.3.32. The cumulative impact assessment [REP7-073] for onshore archaeology and cultural heritage did not identify any schemes where significant cumulative effects would arise.

ISSUES CONSIDERED DURING THE EXAMINATION

- 4.3.33. At the close of examination, Historic England (HE) and East Riding of Yorkshire Council (ERYC) confirmed in their Statements of Common Ground (SoCG) [REP9-011 and REP8-015] that there were no concerns regarding the assessment methodology which would have a material impact on the conclusions of the ES. There remained disagreement between ERYC, HE and the applicants regarding the extent of the harm which would be caused to the anti-aircraft gunsite, which is discussed below. There was also disagreement between ERYC and the applicants regarding whether there would be harm to 3 LBs during construction, which are discussed below. However, other than this, ERYC agreed with the applicants' conclusions on the effects on heritage assets [REP8-015].
- 4.3.34. Dr Mounce raised concerns [RR-063, REP1-090, REP4-100, REP4-101, REP5-075, REP6-086, REP7-161, REP9-037] throughout examination on the potential effects on archaeology, particularly at Burton Bushes. This is discussed in more detail below.
- 4.3.35. The ExA considers that the principal issues related to:
- the extent of harm to heritage assets
 - protection of items of archaeological importance

EXTENT OF HARM TO HERITAGE ASSETS

Defining the extent of harm to heritage assets

- 4.3.36. Initially, ES Chapter 22 [APP-172] did not set out the extent of harm (substantial or less than substantial) to the significance of heritage assets as a result of the proposed development. ES Chapter 22 was updated [AS-092], though, in some instances the extent of harm was set out under the magnitude of impact, while in other instances the level of harm was referred to in the significance of effect. There were also no conclusions on the extent of any harm to significance pre- or post-mitigation measures.
- 4.3.37. At DL2, the applicants provided [REP2-059] additional information on the matter. The applicants stated that temporary changes to the setting of designated heritage assets during construction would be short-term and reversible, thus would not result in loss of the contribution to significance which the wider rural agricultural context makes to the settings of designated heritage assets. The applicants concluded that any change to setting, and associated heritage significance, would result in a negligible adverse magnitude of impact, and that no harm to the significance of designated heritage assets would arise.
- 4.3.38. Table 1-2 [REP2-059] set out harm to the significance of designated heritage assets pre- and post-mitigation during operation of the proposed development. In all instances, the applicants concluded that pre-mitigation, there would be no harm to the significance of any designated heritage assets, apart from the anti-aircraft gunsite scheduled monument which would experience less than substantial harm at the lower end of the scale, reducing to no harm following mitigation.

- 4.3.39. Regarding the applicants' conclusions on temporary effects on the significance of designated heritage assets during construction, the ExA [EV5-004] drew the applicants' attention to the conclusions drawn by the Secretary of State (SoS) for the Hornsea Project Four Offshore Wind Farm DCO. For that application, the ExA considered that, as effects on the setting of the Beverley Sanctuary Limit Stone scheduled monument during construction would be temporary and for a limited period, there would be no harm to its setting. However, the SoS took a different view and stated that where there was harm identified to a heritage asset, this should be offered considerable importance and weight, concluding that there would be harm to the setting of the scheduled monument during construction of the development. This harm was offered moderate negative weight against making the Order in the planning balance.
- 4.3.40. The applicants stated [AS-155] that they agreed that harm should be considered in any balancing exercise, and that the duration and reversibility of any harm, in addition to its magnitude, should go to the weighting of any harm in that decision. However, the applicants considered that there were different circumstances for the Hornsea Project Four Offshore Wind Farm, as the Beverley Sanctuary Limit Stone was located inside the order limits. Conversely, for the applicants' application, the significance of the setting of designated heritage assets, which could be affected by the proposed development, would not be impacted. The applicants considered this was because the contribution which the agricultural landscape makes to the setting of the heritage assets, which was identified as being potentially affected by the proposed development, allows the viewer to place them into the regionally distinctive agricultural landscape of Holderness. Any change to this setting would be observed as works within a wider agricultural landscape and would not affect that contribution to significance.
- 4.3.41. The applicants explained [REP3-027] that on a worst-case scenario basis, construction along the onshore export cable corridor would last 33 months, 18 months at the landfall (not continuously) and 72 months at the OSZ. Works would be phased along the onshore export cable corridor resulting in shorter phases of activity in specific areas. The nature, intensity and duration of works at landfall and the OSZ would vary across that construction timetable, with site preparation and commissioning works comprising much less perceptible activities or works in the completed structures.

ExA's considerations

- 4.3.42. The ExA finds the applicants took an overly general and somewhat confused approach to presenting the harm to significance of heritage assets, particularly the references to the harm to significance in ES Chapter 22 [REP7-090], which the ExA finds the applicants lacked a consistent approach to.
- 4.3.43. The ExA does not agree with the applicants' general finding that effects from construction would not harm significance of heritage assets, purely because the impacts would be temporary and read in a wider rural context. Whilst the Infrastructure Settings Assessment [REP7-076] provides a more detailed assessment on the impacts of the proposed development on the significance of some specific designated heritage assets, this purely focuses on the impacts from the converter station(s) during operation. The ExA considers the applicants' assessment in this regard to be overly simplistic and does not adequately consider the impacts from construction on the significance of heritage assets on a case-by-case basis. These impacts are considered in more detail below.

Catfoss Hall

- 4.3.44. There remained disagreement between the applicants and ERYC at the close of examination on whether the proposed construction works would cause harm to the setting of Catfoss Hall, a grade II LB. The signed SoCG with ERYC [REP8-015] confirmed that ERYC considered that there would be less than substantial harm at a low level, whereas the applicants considered that there would be no harm to the setting of this heritage asset. Figure 17 below shows the location of Catfoss Hall in relation to the proposed order limits.

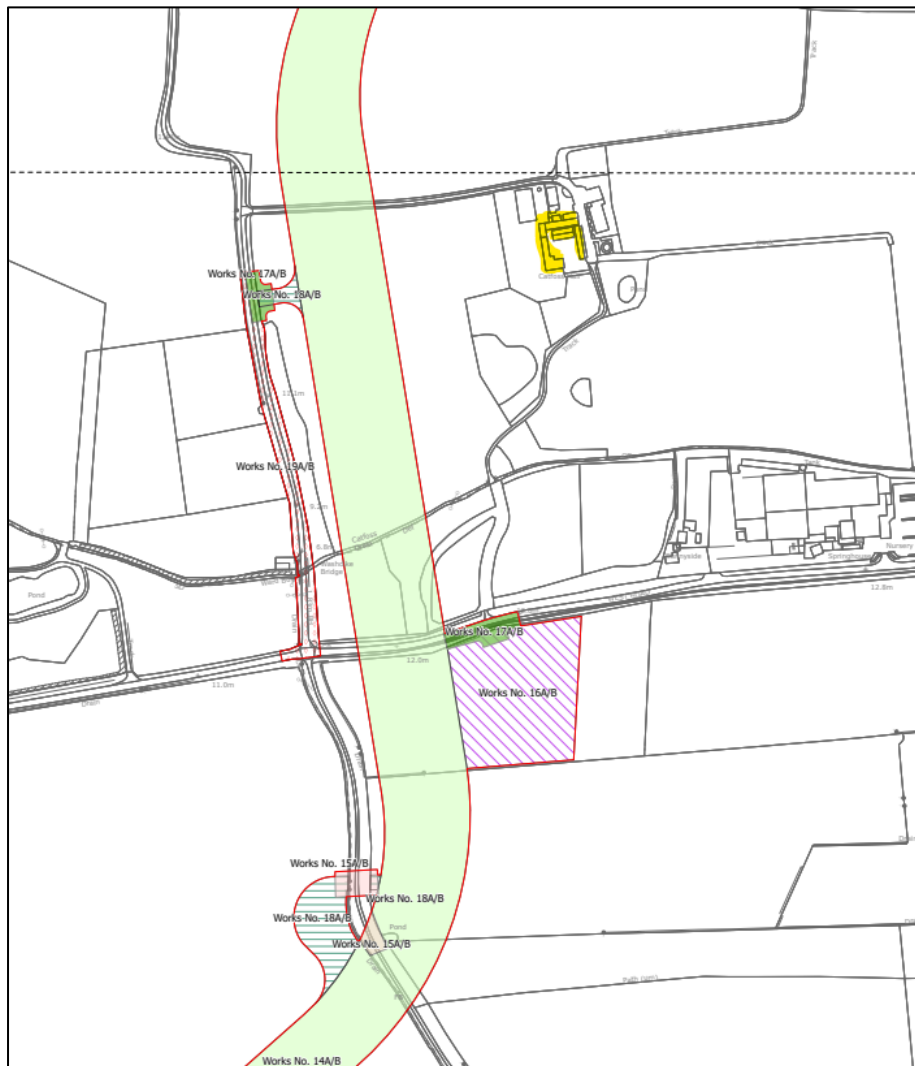


Figure 17: Location of Catfoss Hall (highlighted in yellow) and the order limits

Source: Onshore Works Plans, extract from page 8 of 19 [REP2-005]

- 4.3.45. ERYC identified [REP1-056] that the property was a late eighteen century house with later additions, and its setting was strongly defined by its relationship to its associated complex of buildings. ERYC also stated that its setting was characterised by its open and agricultural nature, and by its sense of separation and isolation. ERYC considered that construction could affect the asset's setting through audial and visual interactions, but recognised that there would be some separation between the proposed development and the LB. ERYC explained [REP3-037] that works from the nearest proposed construction compound and along the onshore export cable corridor route would impact on the sense of isolation and separation

which contributes positively to the ability to understand its historic function and relationship with its landscape. ERYC described the construction works as visually intrusive and stated that they would increase noise and activity in the LB's immediate setting.

- 4.3.46. The applicants considered [REP1-051] that viewers would still be able to recognise the regionally distinctive agricultural landscape of Holderness and that any change to setting arising from the construction works would be observed but would be read by a viewer as works within a wider agricultural landscape and would not affect that contribution to significance. At issue specific hearing (ISH) 4 [EV9-009] the applicants confirmed that Catfoss Hall would be 170m from the onshore export cable corridor and 350m from the nearest construction compound. The applicants considered that the extensive screening around the LB would limit the effects, that there would be a minor change to the sense of isolation, but that the LB would still be read in the context of a wider agricultural setting.
- 4.3.47. Both parties accepted that any change to the setting of Catfoss Hall would be temporary and during the construction period only [EV9-009].

ExA's considerations

- 4.3.48. The ExA agrees with ERYC that the significance of Catfoss Hall is derived from its relationship to its associated complex of buildings and is characterised by its open and agricultural nature, and by its sense of separation and isolation.
- 4.3.49. Viewers would generally experience Catfoss Hall from Catfoss Lane. The proposed onshore export cable corridor would pass directly in front of the LB, severing the main driveway to the property and would notably interrupt views to and from the LB. Whilst the ExA accepts that the LB is well screened by trees, views of Catfoss Hall would be dominated by the works from the onshore export cable corridor. Additional vehicular traffic and noise associated with construction of the onshore export cable corridor and the nearby construction compound would also introduce industrial-type distractions which would harm the sense of isolation and tranquillity currently experienced by the heritage asset. The ExA does not consider that this would be a minor change, rather this would dominate the immediate landscape in which the LB is viewed and would dominate direct views from the LB during construction.
- 4.3.50. For these reasons, the ExA concludes that there would be harm to the setting of Catfoss Hall. The ExA considers that this would be less than substantial harm at the lower end of the scale, albeit on a temporary basis, which would remain until the reinstatement of the landscape to pre-construction conditions.

Cobble Hall

- 4.3.51. At the close of examination, there remained disagreement between the applicants and ERYC on whether the proposed construction works would cause harm to the setting of Cobble Hall, a grade II LB. The signed SoCG with ERYC [REP8-015] confirmed that ERYC considered that there would be less than substantial harm at a low level, whereas the applicants considered that there would be no harm to the setting of this heritage asset. Figure 18 below shows the location of Cobble Hall in relation to the proposed order limits.

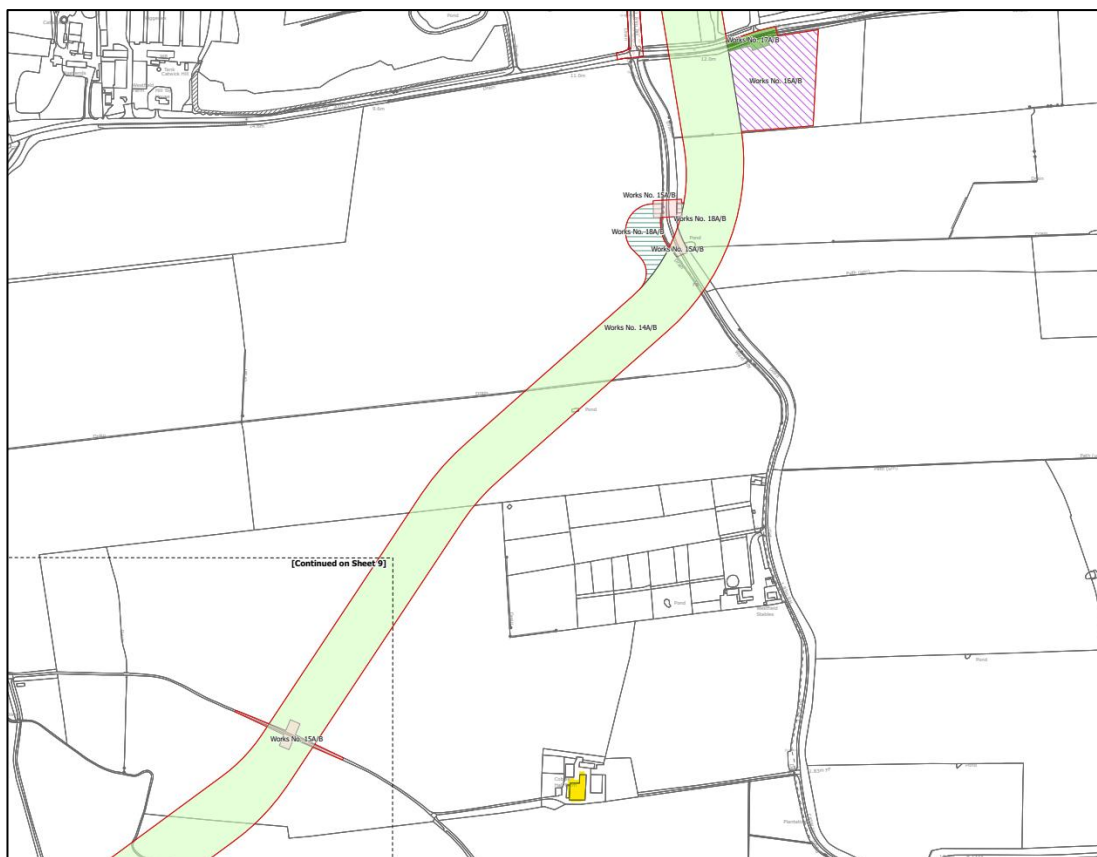


Figure 18: Location of Cobble Hall (highlighted in yellow) and the order limits

Source: Onshore Works Plans, extract from page 8 of 19 [REP2-005]

4.3.52. ERYC identified [REP3-037] that the LB was a cobble and brick-built house, sat on a slight rise in the landscape. ERYC considered that its setting was defined by its relationship to the open landscape in which it sits, allowing its architecture to be better appreciated, as well as providing evidence of its historic context. ERYC considered that the introduction of the onshore export cable corridor would result in visual intrusion into this setting, an intensification of activity and an increased audial impact from construction works. ERYC stated that this would affect the ability to appreciate the building within the wider landscape, altering the calm and open setting in which it was presently experienced.

4.3.53. At ISH4 [EV9-009], the applicants confirmed that Cobble Hall would be located 330m from the proposed onshore export cable corridor and that the LB was experienced in a modern agricultural setting which would not be affected by the proposed construction works. The applicants stated that the proposed development would not affect views of the attractive frontage of the LB and there was established screening which would limit the effects.

ExA's considerations

4.3.54. The proposed onshore export cable corridor would not interact with views of Cobble Hall from Rise Lane and there would be a sense of separation between the proposed works and the LB. In this instance, the ExA agrees with the applicants that Cobble Hall would be experienced in the wider agricultural setting which would remain unaffected owing to the separation of the proposed works from the LB. Whilst there would be some increased audial impacts from additional traffic in the

nearby area, the ExA does not consider that this would result in harm to the significance or setting of the LB.

The Black Mill

- 4.3.55. There also remained disagreement between the applicants and ERYC regarding whether the proposed construction works would cause harm to the setting of the Black Mill, a grade II LB. ERYC considered [\[REP1-056\]](#) that the proposed development would result in less than substantial harm to the setting of the LB of a low level, whereas the applicants considered that there would be no harm to the heritage asset. Figure 19 below shows the location of the Black Mill in relation to the proposed order limits.

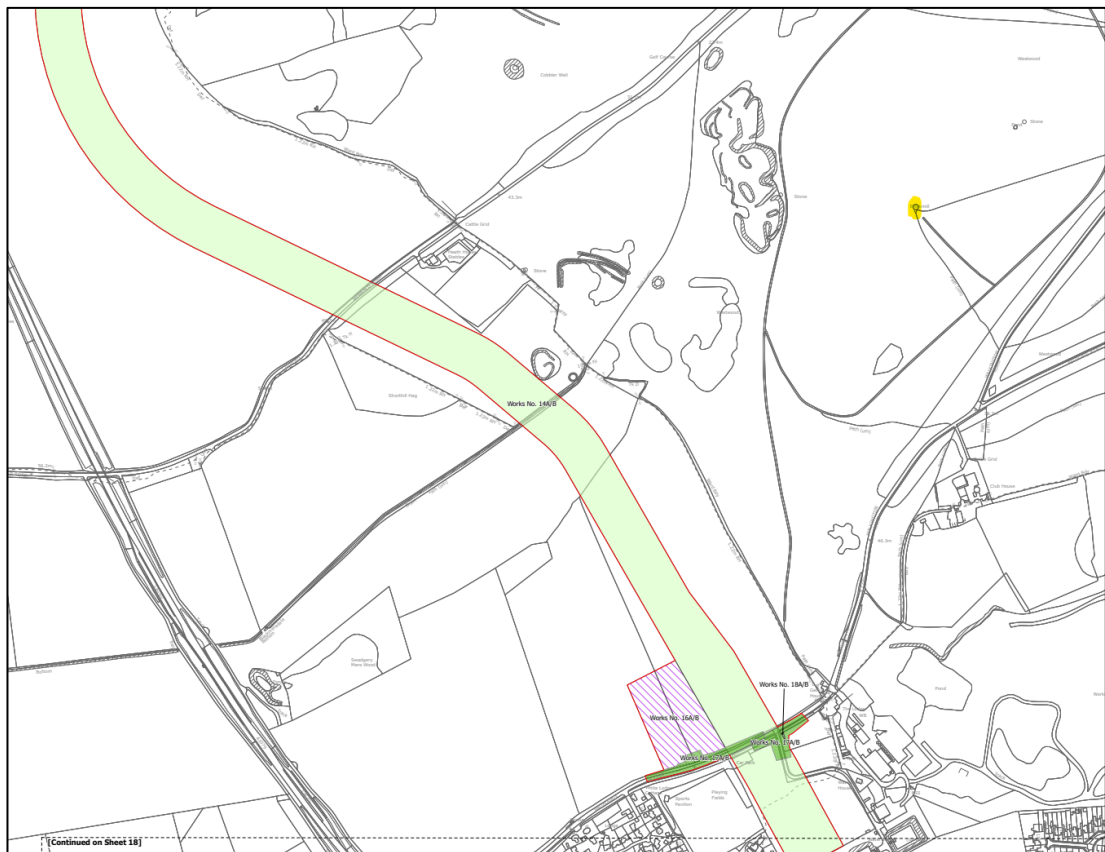


Figure 19: Location of the Black Mill (highlighted in yellow) and the order limits

Source: Onshore Works Plans, extract from page 17 of 19 [\[REP2-005\]](#)

- 4.3.56. ERYC explained [\[REP1-056\]](#) that the Black Mill was a surviving section of an early nineteenth century mill, tarred and now crenelated. ERYC described the Black Mill as an important landmark in views looking across the Westwood, particularly when approaching from the south and west. ERYC stated that construction would result in the introduction of distracting works within these longer views of the Black Mill, which would potentially impact on how the asset would be viewed and experienced during the construction phase of the works. ERYC accepted that the works would not affect the ability to appreciate the significance of the asset during operation, nor would it have a major impact on the contribution that the setting makes to the significance of the LB.

- 4.3.57. The applicants stated [\[REP3-027\]](#) that the LB would be located approximately 635m from the onshore export cable corridor and 830m from the nearest construction
- DOGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

compound. The applicants considered that visibility of the proposed development in views of, or from the Black Mill, would be limited because of screening from existing landscaping around the fringes of the Westwood. The applicants explained that there would be simultaneous visibility of the works and the Black Mill from Walkington Road, in which the Black Mill would be seen as an element of the background to views against a horizon broken by trees and the distant Hall Farm Wind Farm turbines, while the construction works and compound would be partially screened by intervening hedgerow. The applicants concluded that, whilst some change to setting arising from the construction works would be visible, this would be read by a viewer as works within a wider agricultural landscape and would not affect that contribution to significance.

- 4.3.58. At ISH4 [EV9-009], ERYC accepted that there are other forms of infrastructure in views of the Black Mill and the applicants stated that there would be one or two locations where the construction works would be visible, but these views were from busy roads.

ExA's considerations

- 4.3.59. The ExA agrees with the applicants that owing to the existing wider landscape setting, along with a sense of separation between the proposed development and intervening landscaping, there would not be a harmful impact on the setting or significance of Black Mill as a result of the proposed development.

Heavy anti-aircraft gunsite scheduled monument near to Butt Farm

- 4.3.60. At the close of examination, it was agreed between all parties that the effects from the proposed development would have less than substantial harm on the significance of the setting of the anti-aircraft gunsite at year 1 of operation. However, the applicants' position [REP8-042] differed to that of ERYC [REP3-037] and HE [REP9-025], who considered the impact would be at the higher end of the scale, rather than the applicants' opinion that it would be at the lower end of the scale. Moreover, ERYC and HE considered that the proposed landscaping mitigation would not reduce the level of harm to the significance of the asset, whereas the applicants considered that the proposed mitigation would reduce the level of harm to none by year 10 of operation. Figure 20 below shows the location of the scheduled monument in relation to the proposed order limits.

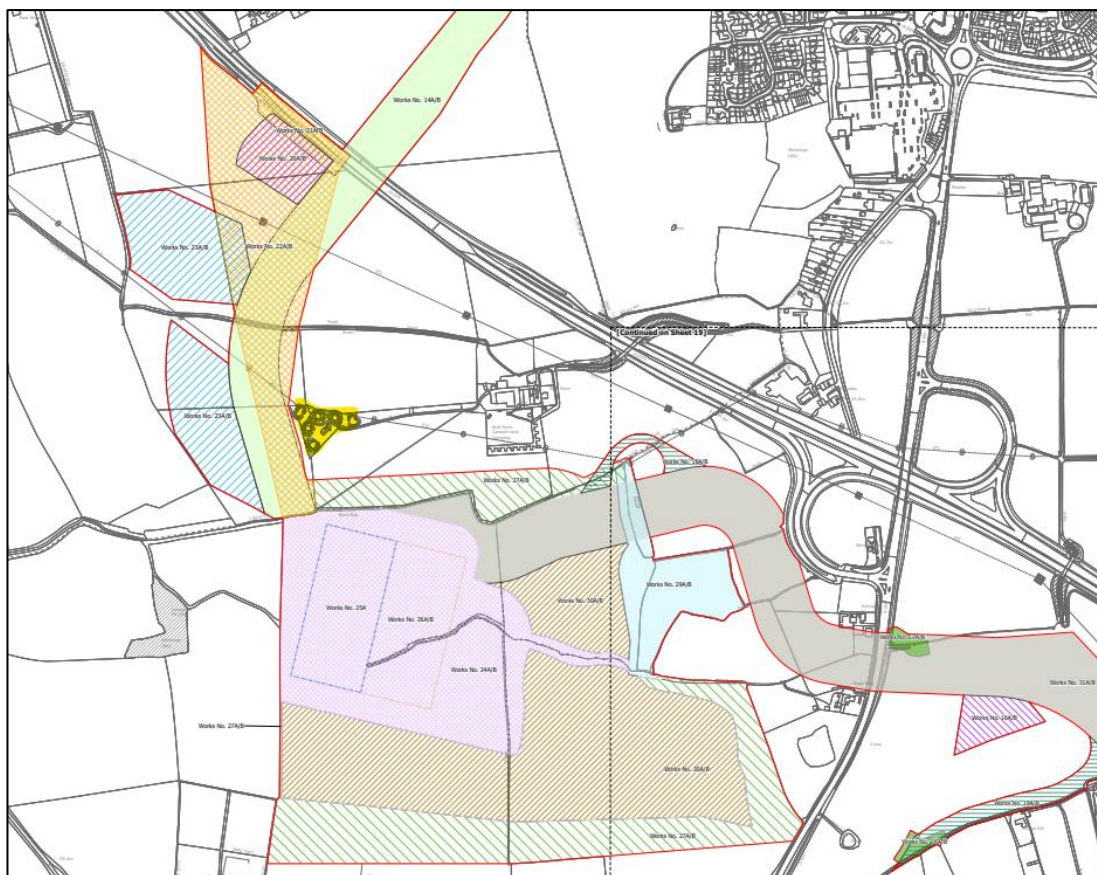


Figure 20: Location of the heavy anti-aircraft gunsite near to Butt Farm (highlighted in yellow) in relation to the order limits

Source: Onshore Works Plans, extract from page 18 of 19 [REP2-005]

Significance of the designated heritage asset

- 4.3.61. The [listing entry](#) refers to the standing, earthwork and buried remains of a World War 2 (WW2) heavy anti-aircraft gunsite, including the functional core of the gunsite of 4 emplacements and the command post, located 350m west of Butt Farm. It had 4 mobile guns and radar used as defensive equipment during WW2, and was later used as a battery headquarters, with control over 2 other nearby gunsites. A mixed sex regiment used the site which took women from the Auxiliary Territorial Service to operate radar, communications systems and other support roles, with men operating the guns.
- 4.3.62. The site was also used as a training facility and in 1946 it was confirmed to be one of the 192 gunsites in England to be retained as part of the post-war Nucleus Force. The listing entry suggests that the site would probably have been abandoned in 1950, by which time 78 gunsites were operational nationally.
- 4.3.63. The listing entry states that there are now around 60 similar sites which provide an understanding of their original form and function and only 30 which continued in use until the 1950s. The listing entry states that surviving examples are therefore sufficiently rare to suggest that all 60 well-preserved examples are of national importance. Specifically, regarding the anti-aircraft gunsite 350m west of Butt Farm, the listing entry describes this as a well-preserved example.

- 4.3.64. The applicants' Infrastructure Settings Assessment [REP7-076] stated that the significance of the asset is primarily derived from its historic and architectural interest. The applicants considered that it holds historical interest from its well-documented key role as a battery headquarters in 1942 and in training other batteries from around the country in operations. The location of the gunsite at the north-west edge of Hull's principal anti-aircraft defences meant that the principal arcs of fire were towards the north and west of the city. The applicants noted that the setting of the gunsite contributes to its value through its rural context and its orientation to defend the skies to the north and west of Hull.
- 4.3.65. HE stated [REP1-059] that the significance of the anti-aircraft gunsite is derived from evidential value of its buried archaeological and standing building archaeological potential, and from historical value associated with its major international conflagration and was one in a chain of defences around Hull. HE also identified that it has aesthetic value as it evokes awe and because its place in the open landscape is easy to understand.
- 4.3.66. HE explained [REP3-043] that the heritage asset formed part of a number of air defences for the Humber region, and therefore part of its historic character is this relationship. Figure 21 below, provided by the applicants, mapped the heavy anti-aircraft emplacements and the arc of fire for the gunsite near to Butt Farm.

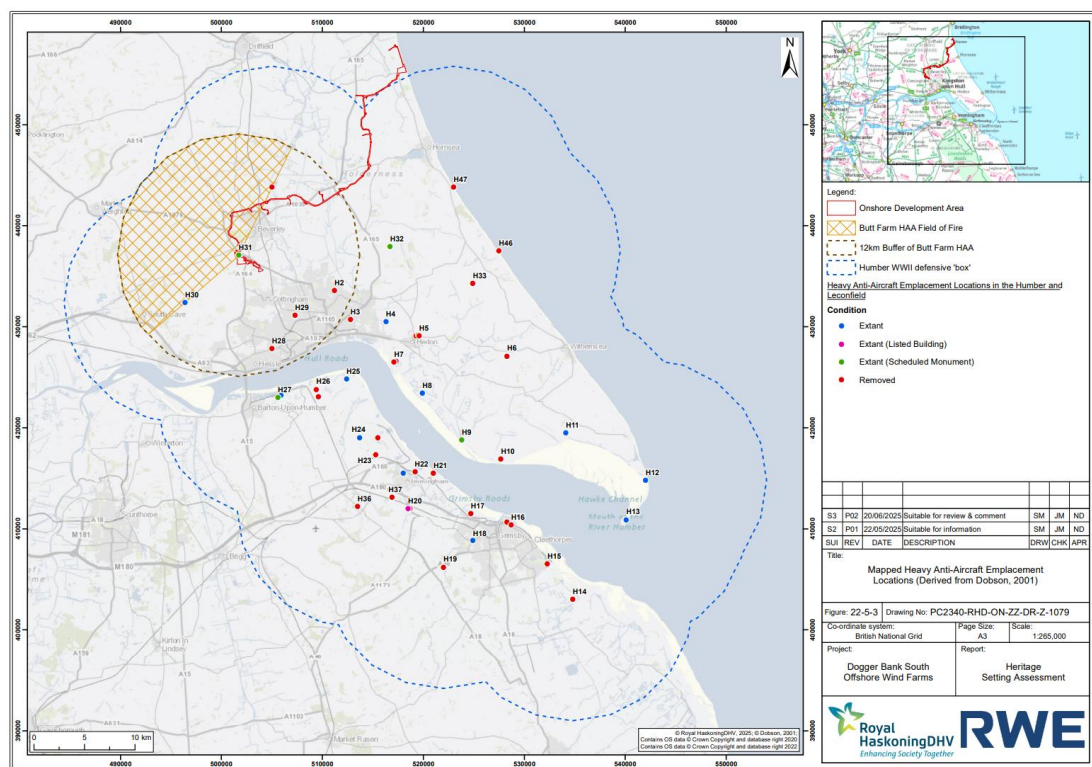


Figure 21: Mapped heavy anti-aircraft emplacement locations

Source: Onshore Infrastructure Settings Assessment, figure 22-5-3 [REP7-076]

- 4.3.67. HE emphasised [REP3-043] that the sites in this network were subject to change, and some were only made use of for a short period. Conversely, the anti-aircraft gunsite near to Butt Farm was in continual use from 1941 and developed into the post-war period, making it one of the rarest surviving heavy anti-aircraft gunsites in England. HE stated that the scheduled monument adjacent to Butt Farm was hugely important in the development of defensive infrastructure, and the visible elements

form part of a much larger site, which extended south towards the OSZ and east including the current farmhouse. It also extended to the north of the current site, but not appreciably so.

- 4.3.68. HE stated that remains to the south of the visible elements of the scheduled monument included a radar mat (which was subsequently replaced with a radar platform), appearing as a diamond pattern and other radar buildings, as shown in the aerial photograph from 1946 below. There was also a camp for the women, a football field, and hockey field, which HE considered were integral to the operation of the gunsite and as part of the setting of the standing remains.



Figure 22: Aerial photograph of the anti-aircraft gunsite near to Butt Farm, 1946

Source: Response to Examining Authority's First Written Questions, Appendix A [\[REP3-043\]](#)

Impact on the scheduled monument and the efficacy of the proposed mitigation

- 4.3.69. The applicants considered [\[REP1-048\]](#) that much of the value of the heritage asset that is intrinsic to its fabric would not be affected by the proposed development. The applicants explained that key elements of the setting including the fields of fire to the north-west, the relationship to the wider battery site and views of the gun emplacements from that wider battery site that contribute to its setting, would be preserved.

- 4.3.70. The applicants stated [\[REP8-042\]](#) that prior to mitigation, harm would arise because of the impact on the setting of the heritage asset, which contributes primarily to the viewer's ability to understand and read the strategic and tactical function of the asset, and the understanding of the wider gun battery site and its fields of fire to the north and west. The Infrastructure Settings Assessment stated [\[REP7-076\]](#) that prior to mitigation, the converter station(s) would detract from the viewer's ability to appreciate the historic purpose of the asset to a degree. The applicants accepted [\[REP8-042\]](#) that the converter station(s) would be visually intrusive, but concluded

that the limited contribution which the setting to the south of the scheduled monument would make to its historic interest meant that it could be mitigated by screening planting of the lower-level elements of the converter station(s) and the agreement of appropriate surface finishes post-consent.

- 4.3.71. The applicants recognised [\[REP8-042\]](#) that not all parts of the converter station(s) would be screened by the proposed landscaping but considered that concealing the lower-level elements would reduce the visual extent of the built form and would increase the sense of separation between the proposed development and the scheduled monument. The applicants concluded that the proposed woodland landscaping would provide an effective visual screen for the converter station(s) from the anti-aircraft gunsite even during winter months, owing to the proposed mix of species. The applicants submitted visualisations showing winter views from the scheduled monument prior to construction of the proposed development, and at year 1 and year 10 of operation towards the OSZ (see Figure 23, Figure 24 and Figure 25 below).



Figure 23: Baseline photography from the anti-aircraft gunsite near to Butt Farm towards the location of the proposed development (OSZ)

Source: ES Chapter 23 LVIA Figures, figure 23-15a1 [\[REP4-039\]](#)



Figure 24: Visualisation of the proposed development (OSZ) and landscape mitigation from the anti-aircraft gunsite near to Butt Farm at year 1 of operation

Source: ES Chapter 23 LVIA Figures, figure 23-15a3 [\[REP4-039\]](#)



Figure 25: Visualisation of the proposed development (OSZ) and landscape mitigation from the anti-aircraft gunsite near to Butt Farm at year 10 of operation

Source: ES Chapter 23 LVIA Figures, figure 23-15a4 [[REP4-039](#)]

- 4.3.72. The applicants considered [\[REP8-042\]](#) that the proposed landscaping reflected the HLC of the area, noting that there had previously been a wood located south of the scheduled monument, would preserve the designated field of fire of the gunsight, would break up the bulk of the converter station(s), would screen lower-level elements and activity from the converter station(s) and would maximise the sense of separation from the scheduled monument. The applicants stated [\[REP2-057\]](#) that the landscape planting reflected the existing hedgerow and woodland mosaic that was currently present in the landscape and accorded with HE's request to consider naturalistic planting.
- 4.3.73. The ExA asked [\[PD-014\]](#) the applicants to explain what they meant when referring to low-level elements of the OSZ. The applicants stated [\[REP3-027\]](#) that this could comprise the switchgear, security fencing, the proposed access road, signage and vehicle and staff movements, leaving the larger structures visible above the proposed planting, with the woodland breaking up the appearance of any limited elements of switchgear that would appear above the tops of the screening. The applicants stated that this would create a sense of separation by screening the parts of the development which would be closest to the viewer in views of and from the scheduled monument and precluding visibility of any activity at the converter station(s).
- 4.3.74. As referred to in the Landscape and Visual Effects section of this Recommendation (section 4.2), at ISH4 [\[EV9-005\]](#) the ExA asked the applicants to consider solutions to find a way to ensure that the low-level elements of the OSZ would be screened by the proposed mitigation. The ExA suggested the use of a zoning plan to identify where low-level elements could be located and which areas would need to be screened by the proposed landscape mitigation, which ERYC welcomed at ISH4. However, the applicants declined this request at ISH4, stating that it was a matter for the detailed design stage.
- 4.3.75. When asked again about this matter at the ExA's second written questions [\[PD-022\]](#), the applicants stated [\[REP5-036\]](#) that delivery of the proposed screening, which was described in the ES and shown in the visualisations, was already secured. The applicants considered that therefore adding a further commitment to the oLMP was not required. The ExA suggested [\[PD-028\]](#) amended wording to requirement 10(3)(b) of the dDCO for the provision of a detailed landscape management plan, which would require that landscaping for Works Nos. 25A or 26A and 26B ensured that external structures, other than the lightning mast(s) and valve hall(s), would be screened from the anti-aircraft gunsight to the satisfaction of the relevant planning authority. The applicants responded [\[REP7-130\]](#) that sufficient protection was already in place through the implementation of the DAS and oLMP which would be secured by the dDCO [\[REP9-003\]](#), and therefore the proposed changes were not necessary. The applicants also considered that the proposed amended wording was subjective and that they would likely be in breach of the requirement when the screening planting was establishing during years 1 to 10 of operation of the proposed development, making it unreasonable.
- 4.3.76. At ISH2 [\[EV5-013\]](#), the ExA asked the applicants to clarify their stance that the proposed converter station(s) would distract somewhat from the scheduled monument. In response, the applicants suggested that visibility from the heritage asset alone was not the determining factor in understanding the extent of the impact and stated that the proposed development would not be located in areas most important for its value. The applicants highlighted [\[REP2-057\]](#) that communal value was not referenced in either NPS nor the National Planning Policy Framework, and

reflected a community engagement that is addressed by technical Environmental Impact Assessments (EIA), outside of archaeology and cultural heritage.

- 4.3.77. The applicants maintained [\[REP2-057\]](#) throughout examination that the proposed development would still allow the heritage asset to be experienced in a rural context, in a regionally distinctive and discernibly rural setting, leaving the arcs of fire intact, and with views to the asset from the remainder of the battery site, such as the former command, accommodation and radar sites, unchanged.
- 4.3.78. ES Chapter 22 [\[REP7-073\]](#) did not identify the effect on the significance (substantial or less than substantial harm) of the scheduled monument during operation. Table 1-2 [\[REP2-059\]](#) stated that prior to mitigation there would be less than substantial harm to the heritage asset and that after mitigation, there would be no harm to the anti-aircraft gunsite, albeit ES Chapter 22 stated that the residual effect on the scheduled monument would be minor adverse.
- 4.3.79. The ExA queried the applicants' position at ISH4 [\[EV9-009\]](#), and the applicants confirmed that 'post-mitigation' referred to in table 1-2 of [\[REP2-059\]](#) meant after the mitigation measures in the DAS [\[REP7-103\]](#) had been applied. The ExA also asked the applicants to explain their conclusion that a minor adverse effect identified in the ES did not equate to any harm to the significance of the heritage asset after mitigation. The applicants referred to the magnitude of impact, which was considered to be negligible following mitigation, and that although the changes would be discernible, these would not affect the significance of the heritage asset.
- 4.3.80. The ExA also asked at ISH4 at what point post-construction would the landscape mitigation have matured sufficiently to reduce the impact on the scheduled monument to none. The applicants explained that this was difficult to pinpoint, and would depend on the rate at which the landscaping achieved mitigation of views of the converter station(s) from the heritage asset. The applicants later clarified [\[REP4-069\]](#) that the final design treatment of the converter station(s) would have been agreed by relevant parties and be in place at year 1 of operation, and therefore the pre-mitigation effect would already be reduced somewhat, but would remain significant and adverse. The applicants stated that woodland planting would take longer to mature, and that year 10 of operation should be considered the point at which the mitigation would be sufficiently mature to be fully effective and reduce the residual effect to not significant.
- 4.3.81. The ExA asked [\[EV9-009\]](#) the applicants about the rarity of the scheduled monument. The applicants stated that much of the heritage asset at Butt Farm was not unusual for sites of this nature which had survived, and that these types of scheduled monuments were 'over-represented'. The applicants stated that the visibility of the converter station(s) would not affect a viewer's understanding of the operation of the anti-aircraft gunsite and also stated that the converter station(s) would not compete with the heritage asset, being largely indiscernible. The applicants explained that the proposed development would not be in view when a visitor walked towards the scheduled monument from Butt Farm and would only be in view if an individual scanned across the site. The applicants stated [\[REP3-027\]](#) that any sense of awe of the scheduled monument comes from the understanding of the function and operation of the site and from the viewer's imaginative reconstruction of the experience of the site in operation, which would not be affected by the proposed development.
- 4.3.82. Throughout examination the applicants maintained their position that after landscape mitigation had established at year 10 of operation, there would be no

harm to the heritage asset. However, in the applicants' closing statement [REP8-042], their position on this matter appeared to change, which stated that there would be less than substantial harm, at the lower end of the scale, to the scheduled monument after mitigation had fully established at year 10 of operation. However, after the ExA asked [PD-030] the applicants to clarify why their position had changed, a follow up submission [REP9-022] stated that this was an editing error and should be disregarded.

- 4.3.83. HE accepted [REP1-059] the applicants' conclusion that the proposed converter station(s) could not be positioned in a location other than that which had been proposed with regards to site selection. However, HE considered [REP1-059] that the extent, massing and scale of the proposed converter station(s) and their proximity to the anti-aircraft gunsite would result in less than substantial harm to the significance of the heritage asset, at the higher end of the scale. HE considered that the experience of the asset would be diminished by the over-bearing presence and scale of the converter station(s) and would reduce the open quality of the landscape setting of the scheduled monument, hindering the interpretation of its wartime use.
- 4.3.84. HE accepted [REP5-046] that there would be no harm to the evidential or historic value of the scheduled monument, as there would be no physical impact on the heritage asset. HE stated that the biggest impact on the significance of the heritage asset would be on the diminution of the aesthetic value due to the presence of the converter station(s). HE stated that the proposed development would change the setting of the scheduled monument, making it more limited and constrained, and it would appear and feel diminished. HE also suggested that the communal value of the heritage asset could be affected by the proposed development, referring to people who currently have a deep and close attachment to the anti-aircraft gunsite, and visit the site regularly.
- 4.3.85. HE concluded [REP3-043] that the proposed screening planting would not be effective in reducing the extent of the impact of the converter station(s). HE considered [REP1-057] that the proposed landscaping was generic and lacked nuance. HE considered that the applicants' landscaping approach did not recognise the seasonal variation or lifespan of the planting which could be susceptible to wind throw, climate change and loss through disease. HE acknowledged that the proposed planting would provide some degree of mitigation, but did not go sufficiently far in mitigating the impacts from the converter station(s) on the scheduled monument.
- 4.3.86. HE suggested [REP1-057] that parkland-style planting with blocks of trees and individual specimens in addition to a screen could be more appropriate, which would also be more suitable for the landscape at the decommissioning phase, or that earth banding could assist in reducing the extent of the impacts. HE also referred [REP1-059] to the use of more naturalistic or estate planting, which could be more beneficial.
- 4.3.87. ERYC stated in its LIR [PDC-007] that the proposed converter station(s) would be harmful to the scheduled monument owing to their size and closeness to the heritage asset. ERYC stated that it was unlikely that the proposed landscaping would adequately mitigate the impact on the anti-aircraft gunsite. ERYC explained [REP3-037] that the proposed converter station(s) would considerably reduce the wider visibility looking out of the site, which was key to understanding its functionality, and relied on wide visibility splays. ERYC referred to the considerable scale and massing of the converter station(s), which would curtail the contribution made to the setting of the scheduled monument.

- 4.3.88. At ISH4 [\[EV9-009\]](#), ERYC stated that the converter station(s) would draw a viewer's eye, as the scheduled monument was purposefully designed to be low-level and discrete. ERYC also stated that the proposed landscaping and scale of the converter station(s) would draw attention due to its imposing nature, which would detract from a visitor's experience of the asset.
- 4.3.89. ERYC disagreed [\[REP3-037\]](#) with the applicants' position that much of the value of the heritage asset was intrinsic to its fabric, stating that the function of the anti-aircraft gunsite was best understood as part of its wider, open setting, allowing an understanding of why it was situated in this location and how it functioned when in operation, which were both key elements of understanding its historic significance.
- 4.3.90. Following the submission of a night-time lighting visualisation technical note [\[REP6-054\]](#), which included visualisations of the converter station(s) showing potential effects from lighting at night, ERYC stated [\[REP7-147\]](#) that at year 1 of operation, the converter station(s) would be a relatively looming element, and that lighting would reinforce the sense of activity at the site. ERYC considered that this impact would reduce by year 10 of operation, but that the extent of the impact was predominately tied to the overall scale of the converter station(s), rather than the lighting itself. ERYC noted that visits to the converter station(s) would generally be during the day and that any operational lighting required at night would be utilised in a sequential manner. ERYC accepted that the lighting in isolation would not meaningfully increase the harm caused by the wider development to the significance of the heritage asset.
- 4.3.91. ERYC raised during ISH4 [\[EV9-009\]](#) that the access road to the converter station(s), which would be located in close proximity to the scheduled monument, including any paraphernalia, signage and lighting, may cause additional harm to the setting of the heritage asset. HE also raised a similar concern [\[REP5-046\]](#).
- 4.3.92. The DAS [\[REP7-103\]](#) was subsequently updated to include consideration of mitigation for the scheduled monument as part of the detailed design process for the converter station(s), which was a point of omission previously identified by HE [\[REP1-059\]](#). HE would also be consulted on the detailed design plans for the converter station(s), which HE welcomed [\[REP9-011\]](#). HE confirmed that lighting at the converter station(s) could be suitably controlled by requirement [\[REP9-011\]](#). The signed SoCG with ERYC [\[REP8-015\]](#) confirmed that the council was satisfied with the updates to the DAS for the treatment of the landscaping for the proposed access road. The signed SoCG with HE [\[REP9-011\]](#) welcomed the commitment in the DAS for no permanent lighting or signage along the access track. HE also confirmed [\[REP6-064\]](#) that whilst the access road and its landscaping would create a sense of enclosure, this was limited to one part of the site and these elements did not add substantially to the harm generated by the converter station(s).
- 4.3.93. In the signed SoCG [\[REP8-015\]](#), ERYC accepted that woodland planting had been a historic feature to the south of the converter station(s), as evidenced by Ordnance Survey mapping, but that this did not meaningfully change its conclusions on the proposed landscape planting. ERYC considered that the landscape screening would be read as part of the wider intensification of the site, in a manner which would not replicate the way in which a historic area of woodland would have been read as part of the historic natural and undeveloped landscape and thus would alter the way in which the heritage asset would be experienced.

Enhancements

- 4.3.94. The applicants considered [REP8-042] that additional mitigation and enhancements to the scheduled monument were not required, as they had adequately mitigated the effects, but recognised the benefits that could be achieved from including the anti-aircraft gunsite in the public outreach and engagement strategy in the oWSI (onshore) [REP4-048]. The proposed enhancements in the oWSI included physical enhancements to the asset, archaeological and historical research, and a digital 3D model of the gunsite. The applicants advised that these had been negotiated between HE and the landowner of Butt Farm.
- 4.3.95. HE explained [REP3-043] that any physical enhancements of the gunsite would be reliant on agreement from the landowner for permission and access, and scheduled monument consent from the Department for Culture, Media and Sport. The creation of a 3D model would not be reliant on access issues, although the production of such a model would require landowner agreement. Archaeological and historical research could be undertaken at any time.
- 4.3.96. In the signed SoCG with HE [REP9-011], HE confirmed that the proposed enhancements were agreed in principle, and that all that remained outstanding was agreement of the detailed proposals and their implementation. The SoCG confirmed that a meeting had been held on site to discuss early conservation options.

Significance of effect

- 4.3.97. ES Chapter 22 [REP7-073] concluded that only changes in the setting of designated heritage assets during the operation of the proposed development would be of sufficient duration to merit more detailed assessment, and that changes in setting from construction would be temporary and of sufficiently short duration that they would not give rise to material harm. ES Chapter 22 stated that the magnitude of effect on designated heritage assets during construction would be negligible for these reasons. At worst, the applicants concluded that there would be a residual minor adverse effect on the setting of designated heritage assets during construction.
- 4.3.98. During operation, the applicants concluded [REP7-073] that the magnitude of impact on the anti-aircraft gunsite would be low, resulting in a moderate adverse effect, which would be significant without mitigation. With mitigation, the applicants concluded that the magnitude of impact would reduce to negligible, reducing the effect to minor adverse and not significant.
- 4.3.99. HE explained [REP3-043] that it considered the magnitude of effect on the anti-aircraft gunsite to be medium adverse, as the experience of the scheduled monument would be dramatically altered and diminished by the presence of the proposed converter station(s). HE considered that the harm would remain at major adverse, and not minor adverse as suggested by the applicants.
- 4.3.100. In response, the applicants stated [REP2-057] that for an effect from a change in setting to reach the magnitude expressed by HE, the contribution of that setting would have to be affected to a very large degree. The applicants stated that the assessment of effects on onshore heritage assets had been carried out in accordance with HE guidance notes 'GPA2 Managing Significance in Decision-Taking in the Historic Environment' (Historic England 2015) and 'GPA3 The Setting of Heritage Assets' (Historic England 2017) and it was clear that the principal contribution which setting makes to the heritage asset would remain unaffected by the proposed development.

4.3.101. At the close of examination, both parties maintained their positions on this matter.

ExA's considerations

4.3.102. Whilst the ExA agrees with the applicants that the arc of fire to the north-west of the scheduled monument forms an important contribution to its setting, the ExA considers that the wider rural setting also forms an important part of its setting and significance. Views to the south add to this setting and the scheduled monument's significance as this allows the viewer to appreciate and understand the original location as being purposefully far enough away from the city of Hull and region of Humber to protect them against attack.

4.3.103. The ExA agrees with HE's interpretation of the significance of the heritage asset, which holds evidential, historical and aesthetic value, derived from the archaeological potential of the site, importance of its former use and sense of awe. The ExA notes the scheduled monument's rarity and that it represents a well-preserved example of the network of defences used during WW2. The ExA considers that this holds value for current and future generations.

4.3.104. Construction works at the OSZ could take up to 72 months. Given the position of the scheduled monument in relation to the proposed onshore export cable corridor and the OSZ, including the access road which would run in very close proximity to the heritage asset, this would result in noticeable audial and visual disturbance to the existing local rural environment, which the ExA does not consider would be read in the wider rural setting. The construction works would result in large numbers of vehicles passing close to the scheduled monument on a regular basis, creating an urbanising effect which would detract from the historic setting of the anti-aircraft gunsite, which was specifically sited away from the urban area of Hull, to provide protection during WW2.

4.3.105. The views to the north-west, which the applicants referred to as being the most important element of the setting because of the arc of fire from the original use, would be interrupted by these passing vehicles. There would also be 3 construction compounds located to the west, north-west and north of the scheduled monument which would cause visual and audial disturbance. The construction compounds would distract from the rural setting in which the scheduled monument is experienced.

4.3.106. Construction of the converter station(s) themselves would also be a distracting feature, which would be at odds with the open, rural character of the area. The construction works would surround the scheduled monument to the south, west and north. The ExA notes that as construction progressed, more of the OSZ buildings and structures would be finished, thus intensifying the level of impact as construction comes to an end. Although there is commitment in the oLMP [[REP4-044](#)] to advance planting during construction, the ExA finds that this is unlikely to provide meaningful screening at an early stage of installation to reduce the impact of the proposed development.

4.3.107. The ExA therefore considers that the proposed construction works would result in harm to the setting of the scheduled monument. The ExA concludes that this would be less than substantial, at the higher end of the scale, although the ExA recognises that this would be a temporary effect, which would last up to 72 months. The ExA considers that in EIA terms, there would be a moderate adverse effect on the setting of this designated heritage asset during construction of the proposed development on a temporary basis.

- 4.3.108. The ExA agrees with HE and ERYC that during operation of the proposed development and prior to mitigation, the proposed OSZ would cause less than substantial harm to the heritage asset, at the higher end of the scale. The ExA agrees with HE and ERYC that the proposed mitigation measures, which would comprise the detailed design of the converter station(s) and landscaping proposals, would not meaningfully reduce the scale or significance of the effect on the heritage asset. The applicants rely on the low-level elements of the converter station(s) being screened from the anti-aircraft gunsite to create a sense of separation, however, this was not secured in the dDCO or specifically referenced in any of the supporting documents to inform the detailed landscaping plans.
- 4.3.109. The ExA agrees with HE and ERYC that the converter station(s) would create an over-bearing, distracting and incongruous feature in the setting of the scheduled monument. The ExA does not agree with the applicants that when walking towards the scheduled monument, the converter station(s) would only be viewed when scanning across the site. The ExA considers that this is an overly simplistic understanding of the way in which the heritage asset would be experienced when accessing the scheduled monument. A viewer would not remain solely fixated ahead of themselves when approaching the heritage asset, particularly given that the scheduled monument was purposefully constructed to be as discrete and low-level as possible, thus the converter station(s) and proposed mitigation would draw a viewer's eye.
- 4.3.110. The ExA considers that the landscape mitigation does little to increase the sense of separation between the scheduled monument and the OSZ given the scale of the converter station(s) which would still be visible, which is evident in the visualisations provided by the applicants.
- 4.3.111. Even if the ExA had concluded that the proposed mitigation measures reduced the scale of the effect, the ExA finds that there would still be harm to the setting of the heritage asset for up to 10 years whilst the landscaping matures.
- 4.3.112. The applicants appeared to try and downplay the importance of the heritage asset, describing it as 'over-represented', which the ExA strongly disagrees with. The listing entry describes the scheduled monument as rare and one of the most well-preserved examples of heavy anti-aircraft gunsites in the country, a point which was emphasised by HE.
- 4.3.113. For these reasons, the ExA concludes that there would be a moderate adverse and significant effect on the anti-aircraft gunsite at year 1 of operation, which would not be reduced by the proposed mitigation. The ExA considers that this results in less than substantial harm to the heritage asset, at the higher end of the scale, again which would not be mitigated by the proposed landscaping or detailed design of the converter station(s).
- 4.3.114. Whilst the ExA welcomes the proposed enhancements referred to in the oWSI, as the majority of these are subject to third-party agreement which has not been obtained, these can only be afforded limited weight.

Other designated heritage assets

- 4.3.115. Although ERYC stated in its LIR [[PDC-007](#)] that there would be less than substantial harm to Risby Hall RPG and that Beverley Minster would not be "substantially harmed", ERYC later confirmed that it considered that there would be no harm to

the significance of these assets as a result of the proposed development [[REP1-056](#)].

- 4.3.116. The ExA was not presented with any evidence to suggest that these conclusions were not reasonable or justified. The ExA therefore considers that, other than the heritage assets identified above, there would be no harm caused to any other designated heritage assets as a result of the proposed development during construction, operation, or decommissioning.

ARCHAEOLOGY

Assessment of effects

- 4.3.117. In table 1-1 of 'Appendix A Heritage assets, the effects and the attributed level of harm in response to ISH2' [[REP2-059](#)], the applicants set out each non-designated heritage asset (which included potential archaeological remains, historic earthworks and structures) which had been identified from survey work as being affected by the proposed development, their importance and any pre-mitigation harm or residual harm. The applicants stated that there would be substantial, or less than substantial harm (at different levels of the scale) to various archaeological deposits, but that following mitigation captured by the oWSI (onshore) [[REP4-048](#)], the proposed development would not harm the significance of most of these non-designated heritage assets. However, there were 46 instances where the applicants identified that there would be less than substantial harm to these non-designated heritage assets, at the lower end of the scale, post-mitigation.
- 4.3.118. The ExA asked [[PD-014](#)] the applicants if collectively the harm identified to 46 non-designated heritage assets could lead to a significant effect. The applicants stated [[REP3-027](#)] that in all cases harm could be effectively mitigated and therefore any residual harm would be very limited, whether considered in terms of individual heritage assets, or the wider archaeological resource of the study area as a whole. The applicants considered that there was no potential for significant cumulative effects on non-designated heritage assets.
- 4.3.119. Dr Mounce made various submissions during examination regarding archaeological matters. In summary, Dr Mounce considered [[REP4-100](#), [REP5-075](#)] that the proposed onshore export cable corridor would be located too closely to assets of archaeological importance in and around Burton Bushes, and could result in harm from the following impacts:
- direct physical damage, such as from site levelling, digging, or landscaping
 - vibration and structural impacts
 - changes to the burial environment, such as changes to the hydrological environment
- 4.3.120. Dr Mounce stated [[REP4-100](#), [REP5-075](#)] that a comprehensive archaeological survey of the cable corridor was required, along with an archaeological mitigation strategy. Dr Mounce stated that the applicants' conclusions that there would be no impacts on assets of archaeological importance was scientifically unsound. Dr Mounce stated that there was an absence of impact assessments on soils and hydrology.
- 4.3.121. The ExA questioned [[PD-022](#)] the applicants on this matter, and they responded [[REP5-036](#)], that there were no known heritage assets that would depend on waterlogging that shared surface water or hydrogeological connectivity with the onshore development area for any potential effects which could arise from

construction works. The applicants referred to ES Chapter 20 (Flood Risk and Hydrology) [REP5-017], which set out potential changes to the groundwater environment throughout construction and operation, which were assessed as negligible. The applicants stated that it was reasonable to conclude that there would be no effects on any buried archaeological remains or geoarchaeological features beyond the footprint of the proposed development. The applicants also noted that ES Chapter 20 identified that there was no surface water connectivity to Burton Bushes.

- 4.3.122. The applicants stated that there was no activity being undertaken which would potentially cause an interaction with the shallow soil profile underlying Burton Bushes as the geology was glacial till which was generally formed of clay of limited permeability. Therefore, the applicants considered that there would be no hydrogeological connectivity between the proposed development and Burton Bushes, which would be located approximately 120m away.
- 4.3.123. The applicants highlighted [REP5-036] that the oWSI (onshore) [REP4-048] set out approaches and commitments to archaeological survey and investigation to be undertaken post-consent. Mitigation from effects of hydrological or hydrogeological changes, if needed, would be developed following further investigation and included in the final WSI, secured by requirement 18 of the dDCO [REP9-003].
- 4.3.124. The applicants referred [REP5-037] to the archaeological desk-based assessment, historic map regression and the interpretation of aerial photograph and lidar data, and walkover survey which had been carried out to inform further survey work and the conclusions in ES Chapter 22 [REP7-073]. The applicants also referred to the oWSI (onshore) which had been developed to provide mitigation where significant effects were predicted.
- 4.3.125. Humber Archaeology Partnership on behalf of ERYC confirmed at ISH6 [EV11-010] that effects on items of archaeological importance had been adequately considered, which was repeated in the signed SoCG [REP8-030]. The SoCG with HE [REP9-011] stated that matters regarding the assessment of effects on assets of archaeological importance had been agreed.
- 4.3.126. Dr Mounce maintained [REP9-037] their original position at the final DL of examination, adding that the Westwood was often waterlogged with a waterway opening to the bottom of Burton Bushes, which directly conflicted with the applicants' assertion that there would be no hydrological connectivity between the proposed development and Burton Bushes.

Mitigation

- 4.3.127. Appendix 3 of the oWSI (onshore) [REP4-048] provided an overview of the applicants' proposed public outreach and community engagement strategy. This would facilitate information sharing with the wider community regarding archaeological finds of interest during construction of the proposed development through social media, publicly available talks, conferences, open days or documentary research projects, amongst others. The proposed strategy would facilitate collaboration between the applicants, HE, Humber Archaeology Partnership and other infrastructure developers, with the aim of developing a better understanding of the links between onshore and offshore archaeological landscapes, not only for the proposed development, but in the region more widely.

4.3.128. HE had initially raised concerns [RR-022] that the strategy required greater clarification and that better opportunities to deliver wider public benefits had been missed. The oWSI (onshore) was updated at DL4 [REP4-048] to provide more information on the research themes for the outreach strategy. The signed SoCG with HE [REP9-011] stated that considerable advances had been made with regards to this matter and that the oWSI (onshore) now included an outreach strategy.

4.3.129. HE confirmed at DL9 [REP9-025] that requirement 18 of the dDCO and the oWSI (onshore) appropriately secured the provision of public outreach and community engagement strategies. The signed SoCG with HE also identified that offshore archaeological mitigation measures were agreed.

ExA's considerations

4.3.130. Whilst the ExA notes the concerns from Dr Mounce, particularly regarding the hydrological and hydrogeological connectivity between the proposed development and Burton Bushes, the ExA considers that the applicants have provided sufficient evidence to demonstrate that there would not be a significant effect on assets of archaeological importance outside of the order limits with mitigation, which would be captured in the oWSI (onshore) [REP4-048]. As highlighted by the applicants, in the event that hydrological changes were identified, further investigation would be included in the final WSI.

4.3.131. The ExA considers that the applicants' conclusions on the impacts to archaeological assets are somewhat confusing; the applicants stated [REP3-027] that "in all cases" harm to non-designated assets during construction could be effectively mitigated, whereas table 1-1 [REP2-059] suggests that with mitigation, there would still be residual harm to potentially 46 identified non-designated heritage assets.

4.3.132. However, the ExA notes that the 46 archaeological remains which have been identified through survey work or aerial assessment may not in reality constitute non-designated heritage assets in their own right, given the limitations of survey work. The identified non-designated heritage assets have been generally ascribed low importance, with some being of medium importance and one being of high importance (a possible iron age settlement). The ExA also notes that further trial trenching and micro-siting of the cable route would allow further refinement to avoid these items where possible, which is confirmed in the oWSI (onshore) [REP4-048] and would be secured by requirement 18 of the dDCO [REP9-003].

4.3.133. The ExA notes the findings of ES Chapter 22 [REP7-073] that whilst preservation in situ would be the preferred form of mitigation, this may not be possible in all instances. ES Chapter 22 states that where avoidance would not be possible, alternative mitigation measures such as preservation by record could off-set significant impacts. The applicants' assessment also states that acquisition of a robust archaeological record of an asset may be considered to adequately compensate identified harm to a heritage asset. The applicants concluded that with the application of mitigation through preservation by record, there would be a negligible adverse residual magnitude of impact, which would result in a minor adverse effect.

4.3.134. At the close of examination, the ExA notes that Humber Archaeological Partnership, ERYC and HE all agreed that the assessment of effects and proposed mitigation measures for assets of archaeological importance were acceptable.

- 4.3.135. The ExA considers that the applicants' presentation of effects on archaeological assets during construction has taken a somewhat contradictory approach. However, given the range of effective measures available to mitigate effects on these items, which would be agreed by ERYC in consultation with HE, the ExA considers that the effects on archaeological assets would be able to be suitably controlled and mitigated post-consent. The ExA notes that ES Chapter 22 assessed the residual effects on items of archaeological importance on a worst-case scenario basis in terms of the mitigation options available and concluded that there would be a negligible magnitude of effect.
- 4.3.136. The ExA therefore concludes that the ES has provided an acceptable assessment of the likely effects and there would be suitable protection of items of archaeological importance.

CONCLUSION

- 4.3.137. Despite a somewhat generalist and, at times, confused approach, the ExA considers that the applicants have provided a satisfactory assessment of the effects of the proposed development on onshore heritage assets. The applicants have provided an acceptable description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance, with a level of detail proportionate to the importance of the heritage asset, which meets with the relevant requirements of NPS EN-1 and NPS EN-5.
- 4.3.138. The ExA agrees with the applicants that the proposed development would not lead to substantial harm or total loss of significance of any designated heritage assets as defined in NPS EN-1. However, the ExA concludes there would be harm to the scheduled monument near to Butt Farm during construction. The harm to the anti-aircraft gunsite would be less than substantial and at the higher end of the scale. The ExA also concludes there would be less than substantial harm, at the higher end of the scale, during operation of the proposed development to the scheduled monument on a long-term basis.
- 4.3.139. The ExA concludes in EIA terms that there would be a moderate adverse effect on the setting of the anti-aircraft gunsite during construction, over a maximum period of 72 months, which would be significant. This would be preceded by a moderate adverse effect on the designated heritage asset during operation of the proposed development, which would have a long-term effect and would be significant. The ExA concludes that this effect would not be effectively mitigated by the applicants' proposed mitigation measures.
- 4.3.140. The ExA also concludes that there would be harm to the setting of Catfoss Hall during construction of the proposed development. The ExA considers that this would be less than substantial and at the lower end of the scale, on a temporary basis, which would remain until the reinstatement of the landscape to pre-construction conditions. The ExA considers that this represents a minor adverse effect in EIA terms, which would not be significant.
- 4.3.141. When taking all of these matters into account, the ExA concludes that the proposed development would have an adverse effect on the onshore historic environment. Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 states that when deciding an application for development consent which affects or is likely to affect a scheduled monument or its setting, the decision-maker must have regard to the desirability of preserving the scheduled monument or its setting. Regulation 3 also states that when deciding an application which affects a listed building or its

setting, the decision-maker must have regard to the desirability of preserving the listed building or its setting or any features of special architectural or historic interest which it possesses.

- 4.3.142. Paragraph 5.9.27 of NPS EN-1 states that when considering the impact of a proposed development on the significance of a designated heritage asset, the SoS should give great weight to the asset's conservation. The more important the asset, the greater the weight should be, and this is irrespective of whether any potential harm amounts to substantial or less than substantial harm to its significance. Paragraph 5.9.28 states that the SoS should give considerable importance and weight to the desirability of preserving all heritage assets, and that any harm or loss of significance of a designated heritage asset should require clear and convincing justification. Paragraph 5.9.36 states that the SoS should give appropriate weight to the desirability of preserving the setting of such assets and treat favourably applications that preserve those elements of the setting that make a positive contribution to, or better reveal the significance of, the asset. When considering applications that do not do this, the SoS should give great weight to any negative effects, when weighing them against the wider benefits of the application.
- 4.3.143. Although the proposed development would include some enhancements to the scheduled monument, these are not guaranteed owing to the need for third-party agreement, so can only be offered limited weight. Therefore, the ExA concludes that given the harms to the identified designated heritage assets, including but not limited to, long-term less than substantial harm at the higher end of the scale to a scheduled monument, which must be given considerable importance, effects on onshore heritage assets carry great negative weight against making the Order.
- 4.3.144. Paragraph 5.9.32 of NPS EN-1 states that any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset the greater the justification will be needed for any loss. This judgement is carried out in the planning balance section of this Recommendation, in section 10(Summary of Findings and Conclusions).

4.4. LAND USE AND AGRICULTURE

INTRODUCTION

- 4.4.1. This section considers the effects of the proposed development on land use and agriculture. In its consideration of the effect on land use and agriculture, the ExA has had regard to:
- the Overarching National Policy Statement for Energy (NPS EN-1) as set out in section 5.11
 - the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.8
 - the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)
 - the National Planning Policy Framework (NPPF)
 - the Local Impact Report (LIR)
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 4.4.2. The applicants' assessment was first set out in ES Chapter 21 Land Use and Agriculture [\[APP-169\]](#), ES Chapter 21 Land Use and Agriculture Figures 21-1 to 21-

6 [APP-170] and ES Appendix 21-1 Land Use Consultation Responses [APP-171]. The supporting documents are referenced in section 21.1 of ES Chapter 21.

- 4.4.3. The applicants submitted updated versions of ES Chapter 21 [REP5-022], ES Chapter 21 Figures 21-1 to 21-6 [REP5-024] and other supporting documents during the examination. For the sake of brevity, only the final versions of these are listed here but previous iterations are set out in the Guide to the Application [REP9-002] and will be referred to in this Recommendation as appropriate.

BASELINE

- 4.4.4. The applicants defined the study area in section 21.3 of ES Chapter 21 [REP5-022] on the basis of the distance over which impacts may occur and by the location of any receptors that may be affected by those potential impacts. This included land in the onshore development area and 1 kilometre (km) from the proposed development footprint.
- 4.4.5. The applicants defined the baseline environment in section 21.5 of ES Chapter 21 [REP5-022]. The agriculture subsection identified the agricultural land cover, details of the agricultural land classification (ALC) and soil types and distribution. The land use subsection identified high level land use within the onshore development area, agri-environmental stewardship schemes and the utilities present.
- 4.4.6. Table 21-11 of ES Chapter 21 [REP5-022] and Figure 26 below, identified 432 hectares (ha) of affected land within the onshore development area that were ALC grades 2 and 3 using data from Natural England (NE). A further 7 hectares were identified as non-agricultural land.

ALC grade	Landfall Zone		Onshore Export Cable Corridor (including Onward Cable Connection)		Onshore Substation Zone		Onshore Development Area	
	Ha	%	Ha	%	Ha	%	Ha	%
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	10	32	241	71	69	100	320	73
3	21	68	91	27	N/A	N/A	112	25
4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Urban	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Non-agricultural	N/A	N/A	7	2	N/A	N/A	7	2
Total	31		339		69		439	

Figure 26: A table identifying the ALC grades within the proposed onshore development area.

Source: ES Chapter 21, table 21-11 [REP5-022]

- 4.4.7. The applicants explained updated information from soils surveys undertaken during 2024 had been used to provide an indication of likely ALC grading using the method detailed in the 'Revised Guidelines and Criteria for Grading the Quality of Agricultural Land' (MAFF 1988) [REP7-105]. This identified:

- the proposed onshore substation zone and landfall zone are dominated by ALC grade 3b not best and most versatile (BMV) agricultural land

- the proposed onshore export cable corridor and onward cable connection are predominantly grade 3b not BMV land agricultural land (82%), with grades 2 (4.3%) and 3a (12%) BMV agricultural land also present.

4.4.8. Table 21-12 of ES Chapter 21 [REP5-022] provided details on the characteristics of the soil types found in the proposed onshore development area and identified a dominance of arable and grassland cover.

4.4.9. The applicants identified 20 agri-environmental stewardship schemes covering 237ha of land within the onshore development area in table 21-14 of ES Chapter 21 [REP5-022]. These include Entry Level Stewardship, Higher Level Stewardship, Mid Tier and Higher Tier Countryside Stewardship schemes, and countryside stewardship capital grants. Table 21-15 of ES Chapter 21 identified the majority of the agri-environmental stewardship schemes were expected to end by December 2028 or earlier.

4.4.10. Figure 21-6 [REP5-024] identified electricity and gas transmission infrastructure within the proposed onshore development area. This included:

- high pressure gas pipelines bisecting the onshore export cable corridor west of Dunnington and east of Nunkeeling
- other high pressure gas pipelines crossing the proposed onshore substation zone to the north of Bentley
- National Grid Electricity Transmission overhead infrastructure crossing the proposed onshore substation zone
- a clean water pipeline traversing the proposed onshore substation zone
- other smaller or domestic utilities identified throughout the onshore development area

4.4.11. Section 21.5.3 of ES Chapter 21 [REP5-022], acknowledged numerous Nationally Significant Infrastructure Projects, consented or otherwise, in the East Riding of Yorkshire Council (ERYC) area that may lead to a reduction in the total area of land available for agricultural use. In addition, paragraph 86 of ES Chapter 21 explained the expected population growth demand in the area was likely to drive urban expansion and result in the loss of some agricultural land.

ASSESSMENT OF THE CONSTRUCTION AND OPERATION PHASES

4.4.12. For the purposes of the assessment, the applicants considered the worst-case maximum design parameters identified in table 21-1 of ES Chapter 21 [REP5-022]. This considered the proposed development being constructed in isolation, sequentially or concurrently.

4.4.13. The applicants defined the construction and operational impacts assessed in section 21.3 of ES Chapter 21 as follows:

- agricultural drainage
- temporary and permanent loss of agricultural land
- soil degradation and loss of soil to erosion
- impact on agri-environment schemes
- disruption to existing utilities
- disruption to users of recreational routes
- soil heating (operation phase only)

4.4.14. To inform the assessment of likely effects, the applicants considered the embedded mitigation measures in table 21-3 of ES Chapter 21 [REP5-022], which would be

secured by schedule 1 of the dDCO [REP9-003] and by way of requirements in schedule 2. This included mitigation and working practices for:

- construction methodology and reinstatement
- surface and foul water, groundwater and land drainage management
- soil management

- 4.4.15. Table 21-22 of ES Chapter 21 [REP5-022] summarised the significance of effect for all impacts during construction and operation phases as minor adverse. The only exception was the loss of agricultural land, which was assessed as a major adverse effect during both the construction and operation phases. Furthermore, paragraph 227 of ES Chapter 21 explained residual impacts to agri-environmental schemes during operation would potentially be major adverse, though this was not reflected in table 21-22.
- 4.4.16. Table 21-16 of the final ES Chapter 21 [REP5-022] identified 439ha of agricultural land would be affected during the construction phase of the proposed development. Section 21.6.1.2.3 of the final ES Chapter 21 explained developing the projects sequentially presented the worst-case scenario with construction periods of 48 months and 57 months for the landfall and onshore export cable corridor respectively.
- 4.4.17. Section 21.6.2.2 of ES Chapter 21 [REP5-022] explained the footprint of the proposed onshore converter stations, associated SuDS basin and landscaping represented a permanent 37.6ha of land take for the duration of the operation phase. In addition, jointing bays would be required every 0.75km to 1.5km along the onshore export cable corridor and up to 4 transition joint bays at the landfall.
- 4.4.18. The applicants explained land take and the potential for land sterilisation as a result of construction activity had been minimised through the site selection process. Additional mitigation measures were presented in paragraph 123 of the final ES Chapter 21 [REP5-022] which included:
- maintaining access to severed land where possible for agricultural vehicles
 - a commitment to appropriate planning and timings of construction activities through consultation with landowners and occupiers
 - private agreements (or compensation in line with the compulsory purchase completion code) with landowners and occupiers
 - a commitment to return 84% of agricultural land within the first 2 years of construction.
- 4.4.19. Paragraphs 124 and 188 of ES Chapter 21 [REP5-022] explained the major adverse significant effect in relation to the loss of agricultural land during the construction and operation of the proposed development, 439ha and 37.6ha respectively, could not be reduced with the additional mitigation as the land would be unavailable for use in the short to long-term.
- 4.4.20. Section 21.8 and table 21-20 of ES Chapter 21 concluded cumulative effects and interactions between phases or project lifetime interrelated effects would be no greater than individually assessed. The only exception was agricultural land which was identified to have a significant cumulative effect and greater significance level for phase and lifetime assessments. Three projects were identified with a spatial overlap with the proposed onshore development area:

- A164 and Jocks Lodge Improvement Scheme
- proposed Birkhill Wood National Grid Substation

- Peartree Hill Solar Farm

- 4.4.21. Paragraph 218 of ES Chapter 21 [REP5-022] explained the area of land potentially impacted would be greater than 20ha, therefore reducing the significant cumulative effect may not be possible. Furthermore, the various sizes of farm businesses in the affected area had the potential to impact each to a variable extent.
- 4.4.22. Table 21-20 of ES Chapter 21 explained interactions between phases or project lifetime to related agri-environment schemes would remain unknown until the final landowner agreements were in place.
- 4.4.23. The applicants concluded that no potential for transboundary effects exist for land use and agriculture from the construction, operation and decommissioning of the proposed development.

DECOMMISSIONING PHASE

- 4.4.24. Section 21.6.3 of the ES [REP5-022] explained the detailed decommissioning activities and methodology would be agreed with the relevant authorities and statutory consultees through a decommissioning plan. The onshore decommissioning activities and methodology were expected to include:
- onshore export cables removed with the ducts left in situ
 - dismantling, demolition and removal of all buildings, cabling, equipment, fencing, hardstanding and services from the onshore converter station
 - landscaping and reinstatement of the onshore converter station
- 4.4.25. The applicants proposed these activities would represent a worst-case scenario and the anticipated impacts would be similar or less than those during construction.

ISSUES CONSIDERED DURING THE EXAMINATION

- 4.4.26. The main issues for land use and agriculture in the examination were:
- loss of agricultural land (including sterilisation and duration of effects)
 - impact on agri-environmental stewardship schemes
 - proposed onshore export cable depth

LOSS OF AGRICULTURAL LAND

Land sterilisation

- 4.4.27. During the examination, interested parties raised concerns that land currently in agricultural use would become sterilised or impractical to farm during all phases of the proposed development [RR-001, RR-002, RR-054, REP1-068 and REP1-069]. During compulsory acquisition hearing 1 [EV3-004], the ExA highlighted parcels of land on pages 5, 9 and 10 of the Land Plans [PDA-004] that could become sterilised between haul roads and the proposed onshore export cable corridor. The ExA further examined whether the assessment in ES Chapter 21 [AS-111 and REP5-022] had considered sterilisation and farm practicalities [EV5-017, EV9-011 and EV11-010].
- 4.4.28. The ExA requested interested parties to identify the land which they believed would become sterilised or impractical to farm [PD-014]. Ulliyotts responded on behalf of J L White and Son [AS-181], identifying 3 areas totalling 1.36ha and partly outside the proposed development area. Ulliyotts explained a further area forming part of plot 18-010 [PDA-004] could be impractical to farm.

- 4.4.29. The applicants acknowledged [\[REP1-068\]](#) that in some instances it may not be possible to maintain access to all severed land, and this had not specifically been assessed in ES Chapter 21 [\[AS-111\]](#). Furthermore, that there would be some severance of land outside of the proposed order limits, but this would be reinstated as soon as possible [\[REP4-086\]](#).
- 4.4.30. The applicants contested the proposed development had been designed to avoid creating awkward shapes of land, however this had not always been possible when taking into consideration other environmental and engineering constraints [\[REP5-037\]](#). The applicants believed the proposed development design envelope took a holistic approach and on balance achieved the optimum design [\[REP6-056\]](#).
- 4.4.31. The applicants submitted a final ES Chapter 21 [\[REP5-022\]](#) at deadline 5 that included further details on land sterilisation. This acknowledged that land outside the proposed development area could become inaccessible or impractical to farm due to the proposed development. The applicants did not quantify either of these effects.
- 4.4.32. Albanwise Limited and Albanwise Synergy Limited maintained their objection to the proposed development at the close of examination, citing scale and configuration of land take and the impact on farming operations [\[REP8-058\]](#).

ExA's considerations

- 4.4.33. The ExA agrees that land in and out of the proposed development area could be difficult to farm during construction and operation of the proposed development. Furthermore, access may not be maintained during the construction phase for parcels of land between haul roads and the export cable corridor. The ExA finds these effects have not been quantified in the assessment. The significance of effect is already identified as major adverse during construction and operation phases therefore the ExA findings do not change the overall outcome of ES Chapter 21 [\[REP5-022\]](#). The ExA is persuaded that the applicants have sought to identify the proposed onshore cable corridor route taking consideration of agriculture challenges, however harmful effects remain. The ExA therefore concludes this weighs against the proposed development.

Duration of effects on agricultural land

- 4.4.34. A representation [\[REP1-073\]](#) on behalf of interested parties raised concerns that agricultural land temporarily possessed would not be returned within the stated time periods, based on their experience of similar national significant infrastructure projects. During the examination [\[EV5-017, EV5-002, EV9-011 and PD-022\]](#), the ExA probed the applicants' commitment to returning land for agricultural use within 2 years of commencement as stated in ES Chapter 21 [\[AS-111\]](#) and [\[REP2-022\]](#). In summary the ExA questioned:
- if the two-year period allowed for the reinstatement and aftercare periods as described in the Outline Soil Management Plan [\[AS-094\]](#) and [\[REP1-025\]](#)
 - if limiting soil reinstatement occurring between April and October due to soil type and seasonal wetness would inhibit land being returned within the stated two-year period
 - how the commitment to returning the land for agricultural use was secured
- 4.4.35. In response to the first 2 points above, the applicants conceded there was the potential for aftercare continuing, or soil reinstatement delaying the return of land, beyond the two-year period for some parcels [\[AS-155\]](#). The updated version of ES

Chapter 21 [REP2-022] confirmed farms would have the majority of their agricultural land returned within 2 years or following the completion of construction, followed by a period of aftercare to return the land to its previous land use.

4.4.36. During issue specific hearing (ISH) 4 [EV9-011], the ExA questioned why the reference of “2-5 years loss” had been removed from the definition for a medium magnitude of impact in table 21-8 of ES Chapter 21 [REP2-023]. In response during ISH4, the applicants explained the project understanding had evolved from the original application, hence the assessment process had been updated. Following ISH4, the applicants’ position changed, instead explaining the removal of 2-5 years loss from the definition had been an error [REP4-096, action point (AP) 45].

4.4.37. As a consequence, the residual significance of effect was reassessed as major adverse in the final ES Chapter 21 [REP5-022] compared with minor adverse in the previous revision [REP2-023]. Furthermore, the quantity of land temporarily restricted for agricultural use during construction for longer than 2 years was estimated as 69.3 ha, different from the 41ha and 72ha previously identified [REP1-050 and REP4-096]. The applicants confirmed some of that land would be best and most versatile (BMV) but the extent of which could not be accurately quantified until the detail design stage [REP5-036].

4.4.38. In responses [REP4-096, REP5-036, REP6-056 and REP8-042] to the ExA’s questioning of how the commitment to returning the land for agricultural use would be secured, the applicants’ position could be summarised as follows:

- Requirement 25 of the dDCO [REP9-003], stated that land must be reinstated to its former condition, or such condition as the relevant planning authority may approve as soon as reasonably practicable and in any event within 12 months of completion of the relevant phase of the proposed onshore works.
- Article 30(3) of the dDCO stipulated the undertaker must not remain in possession of any land subject to temporary possession for longer than is reasonably necessary and in any event, without the agreement of the landowners, the undertaker may not remain in possession of the land for longer than one year post-completion of the relevant part of the proposed development.
- Commitment within the oCoCP [REP7-105] for reinstatement of agricultural land between the proposed jointing bays within 2 years from the point that topsoil is stripped, which was secured by requirement 19 of the dDCO. The applicants argued this would account for 84.2% of land within the order limits and had been assumed in ES Chapter 21 [REP5-022].

4.4.39. In response to the ExA’s recommended amendment to requirement 25 of the dDCO [PD-028], to expressly secure a minimum 80% of agricultural land would be returned within 2 years of construction commencement, the applicants contested this was not necessary or reasonable [REP7-130]. The principal reasons cited by the applicants included that the return of land was already secured through existing commitments in article 30, requirement 25 and through the CoCP, secured by requirement 19.

4.4.40. The ExA questioned [PD-022 and EV11-010] the definition of pre-commencement works in the dDCO and whether any potential adverse effect on agricultural land had been assessed in ES Chapter 21 [REP5-022]. The applicants explained that any pre-commencement fencing or screening could include the whole proposed development area, but this would need to be in accordance with a plan agreed with ERYC [REP5-036 and EV11-010]. Furthermore, access to agricultural land may be restricted during these works. The applicants however, would be incentivised to

minimise such effects due to the associated compensation obligations to affected parties. The applicants did not confirm these effects had been assessed in ES Chapter 21 but concluded that similar definitions of pre-commencement works had been included in other offshore wind farm DCOs [\[REP6-055\]](#).

ExA's considerations

- 4.4.41. The ExA finds the applicants' suggested change to the definition of magnitude of impacts during the examination would have resulted in a reduced significance of effect from major to minor adverse for loss of agricultural land. The ExA considers the iterative approach to the assessment methodology taken during an examination to be unhelpful and inexpedient. Moreover, the ExA finds that the inconsistency of oral and written evidence provided by the applicants in relation to land use and agriculture, casts considerable doubt on the robustness of the assessment.
- 4.4.42. The ExA finds that requirement 25 and article 30 of the dDCO [\[REP9-003\]](#) would impose the reinstatement and return of land within 12 months of the relevant phase or part of the proposed development being completed. The ExA therefore disagrees with the applicants that requirement 25 and article 30 of the dDCO would secure the return of land within 2 years from commencement of the relevant phase of construction work.
- 4.4.43. In addition, the ExA considers that the "two years from the point that topsoil is stripped", as stated in the oCoCP [\[REP7-105\]](#), would not necessarily correlate to when the land could be first lost for agricultural use. For example, land may be occupied or fenced for a period of time prior to soil stripping occurring. Moreover, this is inconsistent with paragraph 123 of ES Chapter 21 [\[REP5-022\]](#) which explains land would be returned to agriculture and the associated landowner within the first 2 years of construction commencing.
- 4.4.44. The ExA notes the interested parties' concern related to land temporarily possessed not being returned within the stated time periods. Whilst it is useful to understand landowner experiences from similar infrastructure developments, the ExA considers that the circumstances of each development can differ, therefore experiences would not necessarily be repeated for the proposed development.
- 4.4.45. The ExA concludes that affected land being returned to agricultural use in 2 years would not be expressly secured. On this basis, the ExA disagrees with the applicants that only a small portion of the proposed development area would be affected for more than 2 years. As a consequence, the assessment of effects may be underestimated in ES Chapter 21 [\[REP5-022\]](#) and casts further doubt on its robustness. The significance of effect is already identified as major adverse during all phases of the proposed development therefore the ExA findings do not change the overall outcome of ES Chapter 21 [\[REP5-022\]](#).
- 4.4.46. The ExA agrees with the applicants that they would be incentivised to not restrict access to agricultural land to facilitate pre-commencement works for long periods due to associated compensation payments. Considering the figures provided in the funding statement [\[REP8-012\]](#), the ExA finds that the total estimated property cost of £24.3m is equivalent of 0.2% in context of the total proposed development cost of £12.4bn. The ExA considers that any compensation due to possession of, and effects on, land during pre-commencement works is only a small portion of this amount. The ExA is therefore not persuaded the compensation cost alone would be sufficient to avoid this effect and disappointed the applicants did not present a plan or process to control the extent of the pre-commencement works.

- 4.4.47. The ExA accepts the applicants' comments [REP7-130] in relation to the proposed amendment to requirement 25 of the dDCO but disagrees that commitments in article 30, requirement 25 and requirement 19 are sufficient to secure the return of affected land in 2 years from construction commencement. In the absence of alternative wording from the applicants or an interested party, the ExA has decided to not include an amendment to requirement 25. The ExA therefore concludes the commitment from the applicants to return 84% of affected land to agricultural use is not secured in the dDCO [REP-003] and this weighs against the making of the Order.
- 4.4.48. The ExA finds access to land could be restricted during the pre-commencement works of the proposed development. The ExA considers the loss of agricultural land, including BMV, during these works could be up to 7 years, consistent with the commencement time limit in requirement 1 of the dDCO [REP9-003]. Whilst the ExA recommends the commencement time limit in requirement 1 of the recommended draft DCO (appendix F of this Recommendation) is reduced to 5 years, this would not change the principal considerations on this matter. The ExA accepts that compensation could be paid to affected persons, however this would not address the associated adverse environmental land use effects. The ExA therefore finds the effects on agricultural land are likely to be longer than the construction phase period assessed in ES Chapter 21 [REP5-022].

IMPACT ON AGRI-ENVIRONMENTAL STEWARDSHIP SCHEMES

- 4.4.49. During ISH2 [EV5-017], the ExA questioned how the effects on agri-environmental stewardship schemes from the proposed development had been assessed in the absence of scheme objective and timescale information. In addition, given ES Chapter 21 [APP-169] identified several agri-environmental stewardship schemes that were actively improving land in the proposed development area, the ExA queried how this changing baseline environment was assessed and whether any additional mitigation could be secured [PD-014].
- 4.4.50. During the examination the applicants submitted updated versions of ES Chapter 21 [AS-111, REP2-022, and REP5-022] with additional agri-environmental stewardship scheme information obtained from publicly available sources and interested parties. The original ES Chapter 21 [APP-169] identified 9 agri-environmental stewardship schemes covering 49ha, whereas the final ES Chapter 21 [REP5-022] identified 20 schemes covering 237ha, equivalent to 54% of the proposed onshore development area. Paragraph 90 of the final ES Chapter 21 explained the types of agri-environmental stewardship schemes expected across the proposed development area were based on the information received from one landowner and the applicants' judgement.
- 4.4.51. Section 21.6.1.4.2 of the final ES Chapter 21 [REP5-022] explained the effects on agri-environmental stewardship schemes may be linked to supporting benefits to habitats, the historic environment and promoting public access to the countryside. Therefore, the applicants explained measures in the oCoCP, Outline Landscape Management Plan, Outline Environmental Management Plan and the Public Right of Way Management Plan would mitigate or reinstate land to its previous condition. Furthermore, pre-construction surveys would record changes in the baseline environment and any necessary amendments to the relevant plans submitted to ERYC [REP3-044].
- 4.4.52. In response to ExA questioning [PD-022], the applicants detailed how the proposed development supported the delivery of the aims, goals, measures and targets of the

government's Environment Improvement Plan 2023 (EIP) [REP5-036]. In relation to agri-environmental stewardship schemes, the applicants explained Goal 1 'Thriving plants and wildlife' was to evolve the countryside stewardship scheme to increase biodiversity. The applicants further explained that habitats under an existing scheme affected by the proposed development would be restored following the construction phase. Moreover, landowners would be able to sign up to schemes on completion of the construction phase.

ExA's considerations

- 4.4.53. The ExA finds the applicants have sought to avoid agri-environment stewardship schemes in context of other environmental constraints and the number of schemes in the proposed onshore development area. Furthermore, the proposed pre-construction surveys would validate the baseline environment and mitigation measures detailed in the oCoCP and other relevant plans are secured in the dDCO [REP9-003].
- 4.4.54. The ExA considers the applicants' iterative approach to identifying the number and extent of affected agri-environmental stewardship schemes during the examination was unhelpful. The ExA appreciates scheme information may not be publicly available, nevertheless the iterative approach and omission of scheme type and objectives casts doubt on the robustness of the assessment in the final ES Chapter 21 [REP5-022].
- 4.4.55. The ExA considers multi-year public funded agri-environment stewardship schemes could require extended periods to fully reinstate the environmental benefits achieved through completed and ongoing schemes. For instance, the ExA is not persuaded that providing a reinstated habitat would necessarily lead to the repopulation by fauna in the same time period.
- 4.4.56. The ExA therefore finds that the effects on agri-environmental stewardship schemes may have been underestimated in ES Chapter 21. Moreover, the ExA finds the proposed development would be in slight conflict with Goal 1 of the government's EIP in the short to medium term. As a consequence, the ExA concludes this matter weighs against the proposed development.

PROPOSED ONSHORE EXPORT CABLE DEPTH

- 4.4.57. Representations were made by interested parties during the examination in relation to the depth of the proposed onshore export cable below agricultural land [REP1-073, REP4-107, REP7-145 and REP8-061]. Specifically, these sought a commitment from the applicants for a minimum 1.6 metre (m) depth to enable agricultural activities to continue safely and uninhibited. Furthermore, the interested parties suggested this depth should be maintained by the applicants for the duration of the proposed development to account for settlement. The representations referred to other renewable energy developments which reportedly committed to maintaining a 1.5m depth.
- 4.4.58. The applicants explained the minimum depth below agricultural land would be 1.1m between the restored surface and the uppermost part of the proposed cable duct and 0.9m between the restored surface and the duct's protective tile [REP3-027]. Table 5-27 of the final ES Chapter 5 [REP7-032] identified the average cable depth would be between 1.3m and 1.7m or the aforementioned minimum depths where engineering challenges were found.

4.4.59. The applicants contended they would not have control of the surface of the land and what agricultural activities a landowner may undertake [REP9-021]. Furthermore, these activities could alter the level of topsoil therefore the applicants were unable to commit to maintaining the depth of the cables for the duration of the proposed development. Paragraph 270 of the final oCoCP [REP7-105] explained the applicants would undertake periodic inspections during the operational phase and remediate cable depths where they deemed necessary.

4.4.60. At the close of the examination, interested parties maintained their objection to the proposed development, citing the cable depth as a main reason [REP8-061].

ExA's considerations

4.4.61. The ExA has not been presented with substantive evidence to justify a minimum of 1.6m cable depth below agricultural land. The ExA considers the average and minimum cable depths stated in ES Chapter 5 [REP7-032] are appropriate and that general agricultural practices could continue at these depths.

4.4.62. The ExA notes the proposed onshore export cable corridor easement restrictive covenants would control excavations deeper than 0.6m [REP9-003]. The ExA agrees with the applicants that a commitment to maintaining the cable depth during the operation phase would be inappropriate due to their inability to control activities on the land. The ExA considers that the applicants would remediate reduced cable depths where necessary following an inspection or notification from a landowner or occupier.

CONCLUSIONS

4.4.63. The ExA is generally satisfied that the applicants have identified effects on land use and agriculture as required by NPS EN-1 paragraph 5.11 and NPS EN-5. The ExA notes the inconsistency of oral and written evidence provided by the applicants, the changing of assessment definitions in ES Chapter 21 [REP5-022], and the omission of agri-environmental stewardship schemes information. The ExA finds these matters collectively cast considerable doubt on the robustness of the assessment.

4.4.64. The ExA finds the relevant requirements in the recommended draft DCO (appendix F of this Recommendation), secure the relevant mitigation measures and commitments described in ES Chapter 21 [REP5-022] and the oCoCP [REP7-105]. The exception is the applicants' intention to return 84% of land to agricultural use within 2 years of commencing the relevant element of the construction phase, which the ExA finds is not secured. Furthermore, the applicants did not agree with the ExA's amendment to requirement 25 to help address this issue [REP7-130]. The ExA considers that even if the return of 84% of land to agricultural use within 2 years of commencing the relevant element of the construction phase was secured, the residual major adverse effect would remain due to the magnitude of the impact and sensitivity of land. The ExA nonetheless concludes that the applicants have not minimised the effects on the existing land use, contrary to paragraph 5.11.23 of NPS EN-1, which weighs against the making of the Order.

4.4.65. The ExA is satisfied with the applicants' assessment conclusion of major adverse effects for the loss of agricultural land for all phases of the proposed development. In relation to the loss of BMV agricultural land, the ExA considers that the applicants have generally sought to avoid it where possible or suitable reinstatement measures have been identified. The ExA therefore finds that the proposed development accords with relevant requirements of NPS EN-1 in this respect.

- 4.4.66. There would however, be unavoidable significant adverse effects relating to the loss of agricultural land, including BMV, for the proposed development in isolation and cumulatively. The ExA also finds there could be a sterilising effect due to the residual shape and size of some land parcels in and outside the order limits during all phases of the proposed development. Furthermore, the applicants provide no firm commitment for land affected by the proposed onshore converter station to be restored to its previous ALC grade, which does not accord with paragraph 2.9.25 of NPS EN-5. As a consequence, and considering the economic and other benefits of lost BMV agricultural land in accordance with paragraph 5.11.34 of NPS EN-1, the ExA concludes these matters weigh against the making of the Order.
- 4.4.67. The ExA considers the definition of pre-commencement works in the dDCO [[REP9-003](#)] could lead to a loss of agricultural land use in addition to the temporal extent assessed in ES Chapter 21. The ExA accepts pre-commencement works are not unique to the proposed development but nevertheless finds these would result in harm which has not expressly been assessed. The ExA concludes this weighs against the making of the Order.
- 4.4.68. Unless stated otherwise above, the ExA concludes that the proposed development, both alone and cumulatively, is in accordance with NPS EN-1, NPS EN-3, NPS EN-5, the NPPF, and relevant national and local policies and legislation concerning land use and agricultural matters. There are no additional significant or relevant considerations.
- 4.4.69. The ExA considers that appropriate mitigation measures are secured for the majority of the assessed effects and statutory consultees have not objected to the proposed development in relation to land use and agriculture. The ExA concludes land use and agricultural matters weigh against the making of the Order as a consequence of the issues discussed above, including the assessment robustness, the residual significant effects and policy non-compliance. The ExA therefore attributes great negative weight against making the Order in relation to land use and agriculture matters.

4.5. TRAFFIC AND TRANSPORT INCLUDING PUBLIC RIGHTS OF WAY

INTRODUCTION

- 4.5.1. This section considers the effects of the proposed development on traffic and transport matters including public rights of ways (PRoW).
- 4.5.2. In its consideration below, the Examining Authority (ExA) has had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) (sections 5.11 and 5.14)
 - the Local Impact Report (LIR)
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 4.5.3. The applicants' assessment regarding traffic and transport matters was in ES Chapter 24 (Traffic and Transport) [[APP-195](#)]. Matters relating to PRoWs were covered in ES Chapter 21 (Land Use) [[APP-169](#)] and supporting figures [[APP-170](#)]. ES Chapter 24 was supplemented by 3 appendices [[APP-198](#) to [APP-200](#)], and relevant figures [[APP-196](#)]. A full list was set out in the applicants' Guide to the

Application [APP-004]. This was updated through the course of the examination, with the final version submitted at deadline (DL) 9 [REP9-002].

4.5.4. The applicants submitted updated versions of:

- ES Chapter 24 (Traffic and Transport) (original version: [APP-195], final version [REP6-025])
- Appendix 24-2 Transport Assessment (TA) (original version: [APP-198], final versions: part 1 [REP7-092] and part 2 [REP7-094])
- ES Chapter 24 figures 24-1 to 24-5 (original version: [APP-196], final version: [REP6-027])
- ES Chapter 21 (Land use) (original version: [APP-169], final version: [REP5-022])
- ES Chapter 21 figures 21-1 to 21-6 (original version: [APP-170], final version: [REP5-024])

4.5.5. The chapters:

- presented the existing environmental baseline and identified any assumptions and limitations encountered in compiling the environmental baseline information
- presented the potential environmental effects of the proposed development on traffic and transport matters, including PROWs, during the construction, operation and decommissioning phases
- highlighted any necessary monitoring and mitigation measures which could avoid, reduce, or mitigate the possible environmental effects of the proposed development on traffic and transport matters including PROWs

4.5.6. Effects of traffic and transport matters during the operational phase of the proposed development and potential onshore effects associated with offshore construction, operation and decommissioning activities were scoped out of the assessment by the applicants in agreement with the relevant highway authorities.

BASELINE

4.5.7. The traffic and transport study area (TTSA) was defined in section 24.3.2 of ES Chapter 24 [REP6-025] and considered the most probable routes for traffic, including the transportation of materials and employees. The TTSA was agreed with the relevant highway authorities, as detailed at Appendix 24-1 Consultation Responses [APP-197]. The TTSA identified 66 separate highway sections (links) which were of similar characteristic and traffic flow, totalling approximately 150 kilometres (km) of highway network, including the immediate local and strategic road network. The links were assessed in relation to the effects of severance, amenity, road safety and driver delay (including capacity, road closures and highway geometry).

4.5.8. The TTSA in relation to the onshore order limits, including the location of identified links, was shown on the following Figure 27:

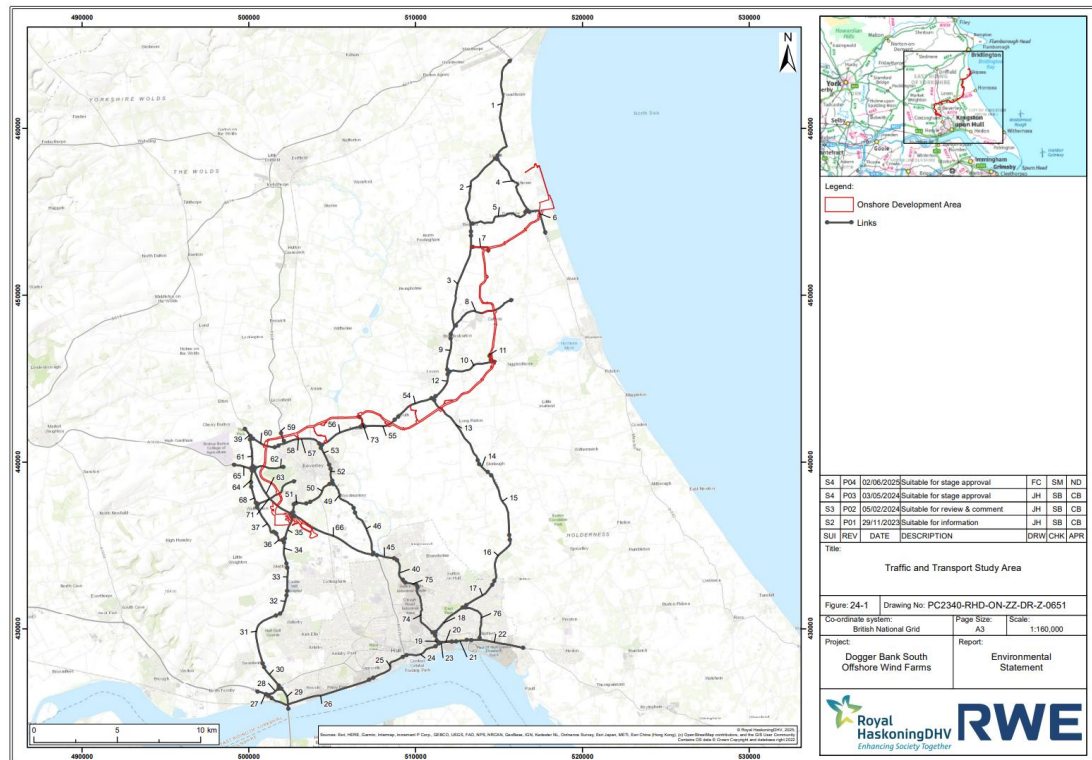


Figure 27: TTSA

Source: ES Chapter 24, figure 24-1 [REP6-027]

- 4.5.9. Baseline traffic data collection was based on the Environmental Assessment of Traffic and Movement (EATM) guidelines to establish the potential impacts associated with changes from the proposed development.
- 4.5.10. The assessment adopted a base year of 2026 for background traffic and, with reference to the EATM, a screening process was undertaken for the TTSA to identify routes likely to have significant changes in traffic flow. The TA [REP7-092] contained full details of the road safety and traffic flow baseline, including collision rates and collision cluster locations. The applicants' assessment [REP6-025] predicted that the proposed development in a concurrent scenario would generate the highest traffic flows.
- 4.5.11. The applicants had agreed the scope and methodology with the relevant stakeholders, including National Highways (NH), Hull City Council (HCC) and East Riding of Yorkshire Council (ERYC) at the expert topic group meetings, as detailed in Appendix 24-1 Consultation Responses [APP-197].
- 4.5.12. For recreational routes, ES Chapter 21 [REP5-022] considered the effects of the proposed development on PRowWs (including bridleways, footpaths and byways), national trails and cycle paths.

MITIGATION AND MONITORING

- 4.5.13. The applicants proposed several measures to reduce the impact of the proposed development on traffic and transport matters. These measures were defined as embedded mitigation measures and considered to be an inherent part of the design of the proposed development. For traffic and transport matters, these were detailed in table 24-3 of ES Chapter 24 [REP6-025]. For PRowWs, these were detailed in table 21-3 of ES Chapter 21 [REP5-022] and table 29-3 of ES Chapter 29 (Tourism
- DOGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

and Recreation) [REP6-033]. The measures were secured by way of management plan control documents and requirements, and included:

- Development and adherence to a detailed Construction Traffic Management Plan (CTMP), in accordance with the Outline Construction Traffic Management Plan (oCTMP) [REP6-041] providing details of measures to control, monitor and enforce heavy goods vehicle (HGV) movements, details of mechanisms for managing the design of accesses and offsite highway works and travel plan measures to manage the number of single occupancy car trips.
- Provision of an access strategy to manage HGV traffic by construction of a haul road, creation of vehicle crossovers and controls of vehicle routing.
- Use of trenchless crossing techniques under the majority of road and all rail infrastructure to avoid disruption.
- Maintenance of access to Park Lane during construction.
- Traffic management at Jillywood Farm access.
- Development and adherence to a detailed PRoW Management Plan, in accordance with the Outline PRoW Management Plan (included at Appendix C of the Outline Code of Construction Practice (oCoCP) [REP7-105]) providing details of the temporary management measures for recreational routes to be employed during the construction phase.
- Commitment to only short-term temporary closures with short diversions lasting up to 2 months for crossings of PRoWs and reinstatement following completion of works.

ASSESSMENT OF EFFECTS

- 4.5.14. The applicants' assessment [REP6-025] considered potential traffic and transport effects during the construction period as follows:
- severance
 - amenity
 - road safety
 - driver delay (capacity)
 - driver delay (highway geometry)
 - driver delay (road closures)
- 4.5.15. A summary of the potential pre-mitigation effects, proposed mitigation measures and residual effects was provided in table 24-42 of ES Chapter 24 [REP6-025].
- 4.5.16. ES Chapter 24 concluded that the residual effects in all development scenarios would be either negligible or minor adverse for severance, amenity, road safety and driver delay (capacity, highway geometry and road closures) and not significant.
- 4.5.17. Similarly, ES Chapter 21 [REP5-022] identified minor adverse and not significant residual effects for disruption to users of recreational routes during the construction phase of the proposed development.
- 4.5.18. The applicants' assessment concluded that the magnitude of impacts from decommissioning would be comparable to, or less than those identified for the construction phase. The detailed activities and methodology for decommissioning would be determined at a later stage, and requirement (R) 27 of the draft Development Consent Order (dCO) [REP9-003] would secure the provision of those details.

ISSUES CONSIDERED DURING THE EXAMINATION

4.5.19. The principal issues considered during the examination were:

- sensitive junction modelling
- emergency beach access
- construction implications for Burton Bushes and Beverley Westwood
- permanent access for onshore substation zone (OSZ)
- cumulative effects
- outline construction traffic management plan
- impacts on public rights of way (PRoW)

SENSITIVE JUNCTION MODELLING

4.5.20. The applicants stated in ES Chapter 24 [REP6-025] that they had taken a proportionate approach to the assessment of driver delay (capacity) effects and that this had been agreed with the relevant highway authorities. The approach sought to undertake capacity assessments for junctions 1 to 13 to be secured post consent to allow for the inclusion of undetermined changes in baseline conditions, resultant from a major highway scheme on the A63 Castle Street in Hull. Consequently, no assessment of driver delay (capacity) was presented for junctions 1 to 13 as part of the application.

4.5.21. The identified sensitive junctions and the location of the A63 Castle Street improvement works were shown on the following Figure 28:

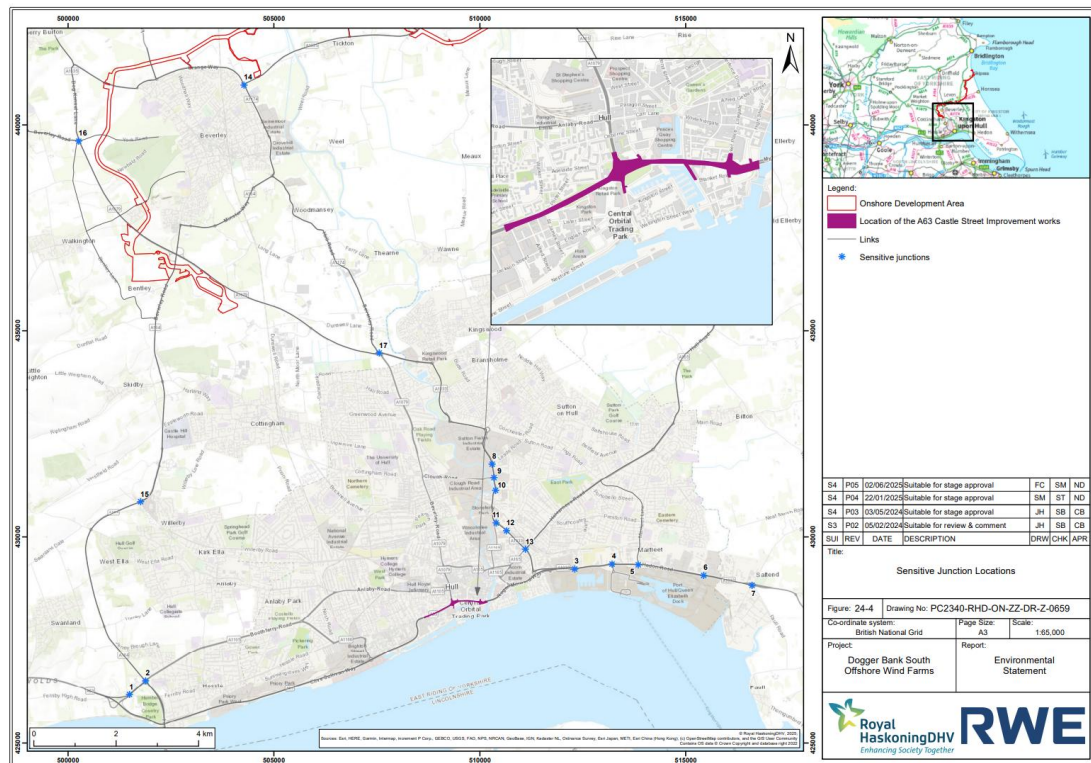


Figure 28: Sensitive junction locations

Source: ES Chapter 24, figure 24-4 [REP6-027]

4.5.22. The ExA sought explanation at issue specific hearing 2 (ISH2) [EV5-017] on the reasoning and appropriateness of the proposed delayed junction assessments of junctions 1 to 13. The applicants stated [REP1-049, EV5-017] that due to the works,

traffic around A63 Castle Street was not currently performing in the usual manner and, consequently, there was no confidence in the current baseline data. The applicants explained that the approach to the future assessment of these junctions had been detailed in the oCTMP [REP6-041] and would include a commitment to require the submission of detailed information regarding forecast traffic flows and timings to HCC and NH. As part of their consultation responses, NH and HCC would be able to advise if further junction modelling would be required prior to commencement of works and whether mitigation for any significant effects would be needed. Proposed demand management measures could include the use of minibuses, staggering shift times and peak hour restrictions, which had been applied to junctions 14 to 17 and which had already been assessed as part of ES Chapter 24 [REP6-025]. The pre-mitigation effects for junctions 14 to 17 were concluded to be moderate adverse significant, and the residual effects were assessed as minor adverse.

- 4.5.23. The applicants also highlighted [REP1-049] potential benefits from the delayed assessment of the sensitive junctions. These included a greater certainty on various construction aspects of the proposed development as a contractor was likely to be appointed at this stage.
- 4.5.24. There was also some uncertainty about when the A63 Castle Street highways works would be completed. The applicants noted at DL3 [REP3-027] that NH had publicly announced a delay to the works, originally to be completed by Spring 2025, however, this was now delayed to Spring 2026. As there was one year left, the degree of certainty in relation to the completion of the works by NH would be higher and almost complete by the time a decision would be reached on the proposed development. NH confirmed the same timescales [REP3-049].
- 4.5.25. In the ExA's first written questions (ExQ1) [PD-014], the ExA asked whether junctions 1 to 13 had been considered as part of the cumulative effects assessment. The applicants' response at DL3 [REP3-027] acknowledged that no assessment of the potential for cumulative effects with junctions 1 to 13 was presented. However, reference was provided to the oCTMP [REP6-041] that in the event of further assessments being required, this would be discussed with NH and HCC and would include the approach to gathering baseline data and factoring survey data to a future year. Proposed early traffic surveys would reduce the need to factoring to future baseline or to include cumulative projects. Any requirement to factor beyond this to include cumulative schemes not captured as part of the baseline surveys would also be discussed. The applicants confirmed that should potentially significant effects be identified, as detailed above, proposed mitigation measures would be applied following agreement with the relevant local authorities as part of the detailed CTMP.

ExA's considerations

- 4.5.26. The ExA notes that the assessment of identified sensitive junctions 1 to 13 would be delayed to the post-consent stage. The ExA is mindful that current data may not be appropriate, and the ongoing highways works at the A63 Castle Street in Hull may alter current baseline data. The ExA notes the applicants' proposed way forward, including the assessment of junctions 1 to 13 once the highway works at the A63 Castle Street have finished. This also includes the implementation of appropriate mitigation measures, if required, provided as part of the oCTMP. The detailed CTMP would be secured through R14 of the recommended draft Development Consent Order (DCO) (appendix F of this Recommendation).

- 4.5.27. The ExA also notes the detailed mitigation measures proposed for the already assessed junctions 14 to 17, which have been discussed and accepted during examination. Similar mitigation would also be considered for junctions 1 to 13. The measures include the use of minibuses, staggering shift times and peak hour restrictions.
- 4.5.28. The final Statement of Common Ground (SoCG) between the applicants and NH [\[REP8-023\]](#) and between the applicants and HCC [\[REP8-018\]](#) did not raise any matters of concern with the approach to the junction modelling of sensitive junctions. In addition, no other IPs had outstanding objections at the end of examination.
- 4.5.29. The ExA therefore considers that, with the proposed mitigation measures, the assessment of junctions 1 to 13 can be appropriately delayed to the post-consent stage. The ExA accepts the approach taken by the applicants and agreed with relevant highway authorities.

EMERGENCY BEACH ACCESS

- 4.5.30. As detailed in ES Chapter 5 (Project Description) [\[REP7-032\]](#), the applicants propose utilising an intertidal access point from North Turnpike Road in Ulrome to access the landfall location from the beach in case of an emergency during construction. Ms Merrick [\[RR-062\]](#) raised concerns with the location, being situated at Ulrome and not Skipsea and potential access difficulties due to the weather and tide. Considering the many local dog walkers, Ms Merrick also questioned why a permanent access to the beach from Skipsea could not be provided as part of the proposed development. The applicants explained [\[PDA-013\]](#) that an access point directly from Skipsea would not be feasible, as it would require a hard-engineered solution which would be technically difficult given the presence of cliffs and ongoing coastal erosion. The applicants stated that use would be made of an existing access point and the infrequent use of the emergency access during construction would not justify the construction of a new access over the cliffs at landfall.
- 4.5.31. In addition, concerns were raised by NE [\[RR-039\]](#) regarding the assessment and protection of sensitive dune and cliff habitats at the proposed emergency beach access. The matter is discussed and considered in section 4.1 (Onshore Ecology and Biodiversity) of this Recommendation.

ExA's considerations

- 4.5.32. The ExA considers that the proposed emergency beach access location would be appropriate. The ExA accepts the applicants' evidence and agrees that a different location, nearer to landfall at Skipsea, would unlikely be suitable or feasible due to the difference in height of the cliffs, ongoing risk of coastal erosion and preferred use of an existing access point to reduce potential impacts.

CONSTRUCTION IMPLICATIONS FOR BURTON BUSHES AND BEVERLEY WESTWOOD

- 4.5.33. Dr Mounce raised concerns [\[RR-063\]](#), [\[REP1-090\]](#), [\[REP4-100\]](#), [\[REP5-072\]](#), [\[REP6-086\]](#), [\[REP7-161\]](#) regarding the potential for up to 12 months of construction activities and transport disruption to the roads around Burton Bushes and the Beverley Westwood, including York Road. Dr Mounce was also concerned regarding the provision of various temporary construction compounds (TCC) near Burton Bushes and Beverley Westwood. Dr Mounce considered that the proposed construction traffic could result in damage or soil compaction to designated sites and the buffer

zones to ancient woodland would not be sufficient to mitigate indirect impacts such as dust, noise, or air pollution from construction traffic.

- 4.5.34. The applicants provided detailed responses [[PDA-013](#), [REP2-057](#), [REP5-037](#), [REP7-131](#)] to Dr Mounce's submissions and acknowledged that there was potential for the generation of fugitive emissions and noise disturbance from construction traffic. However, this would be controlled through detailed mitigation measures in the oCoCP [[REP7-105](#)] and oCTMP [[REP6-041](#)]. The applicants concluded that any effects were not considered to be significant. The applicants further clarified that there would be no TCCs located in Burton Bushes or Beverley Westwood, with the nearest TCC located approximately 1.2km away. The applicants also noted that construction traffic would only interact with agricultural land and not with the shallow soil profile underlying Burton Bushes. Traffic and transport matters in relation to Burton Bushes or Beverley Westwood were not raised as a concern by any of the relevant highway authorities, including ERYC [[REP8-015](#)] or NH [[REP8-023](#)] as part of their final signed SoCGs with the applicants.
- 4.5.35. At the end of examination, Dr Mounce [[REP9-037](#)] continued to raise concerns regarding Burton Bushes including sufficient buffer distances to ancient woodland and the SSSI, the potential for indirect impacts, such as noise, dust or air pollution from construction traffic, and disruption from large-scale construction activities to the amenity of the area.
- 4.5.36. Matters regarding dust and emissions at designated sites, including Burton Bushes, are presented in section 4.10 (Air Quality) of this Recommendation and matters affecting wildlife and ecology at Burton Bushes SSSI and ancient woodland are discussed in section 4.1 (Onshore Ecology and Biodiversity) of this Recommendation.

ExA's considerations

- 4.5.37. The ExA is satisfied that the applicants have provided sufficient evidence to ensure there would be no significant effects from construction traffic on Burton Bushes and Beverley Westwood. The ExA accepts that proposed measures as part of the oCTMP and oCoCP, secured through R14 and R19 of the recommended draft DCO (appendix F of this Recommendation) would appropriately mitigate any potential impacts from construction activities including indirect impacts and disruption to the amenity of the area around Burton Bushes and Beverley Westwood from traffic.

PERMANENT ACCESS FOR ONSHORE SUBSTATION ZONE (OSZ)

- 4.5.38. J L White & Son and Butt Farm Caravan, Camping and Glamping Site raised concerns [[RR-054](#)] regarding the location of the proposed permanent access road as it would present an increased security risk by creating a second route onto the adjacent Butt Farm. They requested that the road should be secured to reduce any security risks.
- 4.5.39. In response, the applicants explained [[PDA-013](#)] that there would be no public access to the converter station(s). The proposed security fencing and gate, installed during construction, would remain in place throughout operation. In addition, the applicants confirmed at DL3 [[REP3-027](#)] that no further means of access to or from the OSZ would be provided, including no direct access to Butt Farm. The applicants stated that during the construction phase, the gate would be opened at the start of the working day and closed at the end by onsite security personnel. During the operational phase, the gate would be opened and immediately closed by operational staff when accessing and exiting the site. The applicants confirmed that

an operations and maintenance procedure would be developed to allow access for emergency services, if required. Additional details of the proposed permanent access to the OSZ were also included in the Design and Access Statement [REP7-104] and shown in the figures included at Appendix 5-3 (Engineering Drawings) [REP2-016].

- 4.5.40. Matters regarding potential impacts on heritage assets from the permanent access road are presented in section 4.3 (Onshore Historic Environment) of this Recommendation.

ExA's considerations

- 4.5.41. The ExA is satisfied with the applicants' evidence that the location of the proposed permanent access road to the OSZ would not result in any security risks to surrounding properties. The ExA also accepts that the access would be appropriately managed during the construction and operational phase of the proposed development. Measures to ensure security risks are kept to a minimum during construction, including provision of fencing and lighting, is provided as part of the oCoCP [REP7-105] and secured through R19 of the recommended draft DCO (appendix F of this Recommendation). Lighting during the operational period is secured through R22 of the recommended draft DCO and commitment C146 of the Commitments Register [REP9-009]. In addition, R33 of the recommended draft DCO seeks the provision of an onshore operational monitoring plan which must be submitted and approved by the relevant local planning authority.

CUMULATIVE EFFECTS ASSESSMENT

- 4.5.42. On 21 March 2025, an application for Peartree Hill solar farm was accepted by the Planning Inspectorate for examination. The solar farm would be located largely to the east of Beverley, overlapping a section of the onshore export cable corridor of the proposed development. The ExA asked the applicants at ExQ1 [PD-014] and ExQ2 [PD-022] whether the submission of the application would result in any altered cumulative effects with construction traffic from the proposed development.
- 4.5.43. The applicants stated at DL5 [REP5-036] that they had reviewed the application documents and noted a spatial overlap at the junction of the A165 and A1035. However, the forecast change in peak cumulative flows averaged across all arms would be less than 10% in the worst-case scenario of peak traffic between the solar farm and proposed development coinciding. On that basis, the applicants considered that the impact, on balance, would be assessed as negligible with a high receptor sensitivity. The residual effects were considered to be minor adverse, not significant and the applicants concluded that there would be no implications in relation to the assessment of traffic and transport cumulative effects as presented in ES Chapter 24 [REP6-025].
- 4.5.44. ERYC suggested [REP5-044] that any cumulative effects with the solar farm could be assessed as part of the final CTMP as timescales for construction could not currently be fully understood and an assessment during examination may not be robust. In response, the applicants stated at DL6 [REP6-051] that they did not consider the cumulative effects assessment would need to be revisited as part of the final CTMP noting that the applicants' assessment did not identify any significant cumulative effects between the proposed development and the solar farm. Any future material changes to the traffic data submitted should be discussed with ERYC during the examination of Peartree Hill solar farm. ES Chapter 24 [REP6-025] was updated at DL6 to include Peartree Hill solar farm in the cumulative effects assessment.

ExA's considerations

- 4.5.45. The ExA notes ERYC's suggestion to assess the cumulative effects as part of the detailed CTMP. Whilst the signed SoCG between the applicants and ERYC [REP8-015] showed matters regarding cumulative effects assessments as agreed, the ExA notes that this was based on the original ES Chapter 24 [APP-195], which had not been updated with the consideration of the cumulative effects of Peartree Hill solar farm. No further comments or updates were received from ERYC in response to the applicants' conclusions that no additional works as part of the detailed CTMP were required, as the applicants did not identify any significant effects.
- 4.5.46. However, the ExA notes that the assessment of cumulative effects of Peartree Hill solar farm was undertaken in line with the methodology stated in ES Chapter 24, which did not change during examination. This matter is shown as agreed between the applicants and ERYC [REP8-015].
- 4.5.47. The ExA therefore concurs with the applicants' explanation and accepts the applicants' conclusions on the cumulative effects assessment with Peartree Hill solar farm. The ExA does not consider further consideration would need to be given to the assessment as part of the detailed CTMP.

OUTLINE CONSTRUCTION TRAFFIC MANAGEMENT PLAN

- 4.5.48. Various IPs, including Beeford Parish Council, Rowley Parish Council, Tickton and Routh Parish Council and Ms Oliver [RR-003, RR-048, RR-051, RR-064], raised general concerns with traffic management and potential traffic implications for roads and villages along the onshore export cable corridor. The applicants addressed these matters [PDA-013] and explained the proposed mitigation measures for the individual areas within the order limits. These were detailed in the oCTMP [REP6-041]. For example, for the village of Beeford, there would be restrictions on the number of HGVs and a one-way system for proposed construction traffic, whilst for the village of Bentley, the proposed access strategy would ensure that no construction traffic would be allowed to travel through the village. None of the IPs raised any further concerns. The ExA was satisfied with the applicants' responses and did not question this further.
- 4.5.49. HCC raised concerns [RR-024, REP4-062, REP6-060] regarding the proposed consultation process as part of agreeing the detailed CTMP and considered that the wording provided as part of the dDCO had not appropriately covered the range of potential consultation scenarios. The applicants discussed the matter with HCC during examination and updated the wording of R14 of the dDCO at DL6 to ensure consultation with HCC would be undertaken in line with the details provided as part of the oCTMP [REP6-041]. The final SoCG between the applicants and HCC raised no outstanding concerns regarding the wording of R14 of the dDCO [REP9-003] or the details contained in the oCTMP [REP6-041].
- 4.5.50. At ExQ1 [PD-014], the ExA queried whether the applicants had appropriately considered the provision of a travel plan to mitigate transport impacts and improve access by active, public and shared transport in line with paragraph 5.14.7 of NPS EN-1. In addition, ERYC [REP4-037] suggested that a travel plan should be submitted once further details of the construction phase was known and that this should be added to the DCO requirements list before construction began.
- 4.5.51. The applicants responded [REP3-027, REP4-087] that the oCTMP included both the elements of a travel plan for managing employee travel as well as measures to manage HGV traffic and did not consider 2 separate documents would be needed.

The applicants also did not consider a separate requirement for a travel plan would be necessary as the detailed measures would be secured as part of the oCTMP [REP6-041]. ERYC remained concerned [REP5-044] that the proposed measures to reduce single occupancy travel of workers would not be robust enough to ensure that the best practice and measures identified would be utilised. Whilst the principles would be acceptable, ERYC continued to suggest further detail through a DCO requirement.

- 4.5.52. At DL6, the applicants [REP6-051] and ERYC [REP6-058] confirmed that updated wording to the oCTMP had been agreed to strengthen the commitment regarding the proposed travel plan measures. The final SoCG between the applicants and ERYC [REP8-015] showed the matter regarding the proposed travel plan measures as part of the oCTMP as agreed.

ExA's considerations

- 4.5.53. The ExA notes that the SoCGs between the applicants and NH [REP8-023], ERYC [REP8-015] and HCC [REP8-018] showed all matters regarding the details of the oCTMP [REP6-041] as agreed. The ExA is satisfied that the measures included as part of the oCTMP [REP6-041], which would be secured through R14 of the recommended draft DCO (appendix F of this Recommendation), would appropriately mitigate any potential effects from traffic during the construction period.

IMPACTS ON PUBLIC RIGHTS OF WAYS (PROW)

- 4.5.54. East Riding of Yorkshire and Kingston upon Hull Joint Local Access Forum (JLAF) raised various matters [RR-013, REP1-072] regarding the management of the PRowWs affected by the proposed development. The applicants' responses [PDA-013, REP2-057, REP2-058] sought to clarify the concerns raised and confirmed that measures would be temporary, except for one permanent diversion to Walkington Footpath No.4 in the OSZ to allow for the change in levels at the new internal access road. In addition, control measures for all individual PRowWs would be agreed as part of the detailed PRowW Management Plan, following consultation with the relevant local planning authority and its countryside access team.
- 4.5.55. At DL5 [REP5-073], the JLAF confirmed that most of its previous concerns had been addressed. However, there remained outstanding disagreement on the request to identify how the proposed development would be able to enhance PRowWs within the order limits in line with the National Planning Policy Framework. The JLAF provided a list of suggested potential improvements, which the JLAF argued, could be provided through the applicants' commitment to a ringfenced annual monetary contribution to ERYC and its countryside access team. The JLAF stated that this should be secured through the DCO.
- 4.5.56. The applicants disagreed [PDA-013, REP2-058, REP6-051] and explained that they did not consider PRowW enhancements would be required due to the temporary nature of the proposed works. The applicants also highlighted that the application had considered the National Policy Statement requirements and, with the measures proposed as part of the Outline PRowW Management Plan (Appendix C of the oCoCP [REP7-105]), the effects on PRowWs were not considered to be significant. Any impacts would be short-term and affected PRowWs would be reinstated fully following construction. The applicants also referred to the preparation of a community benefits package which would be developed following engagement with the local community which would be separate from the planning process.

- 4.5.57. At DL5, the applicants explained [\[REP5-036\]](#) that community benefits would not be a legal or DCO requirement and would be distinct from the consenting process as explained in the government's 'Community Fund for Transmission Infrastructure: Guidance (2025)'. However, the applicants stated that they were intending to develop and implement a community benefits package to support the local community, as defined in the guidance document. The applicants confirmed that the JLAF would be consulted as part of its development. The applicants highlighted that the assessment in the ES did not refer to the community benefits package or rely on it as mitigation and, therefore, it should not be given any weight.

ExA's considerations

- 4.5.58. The ExA agrees with the applicants' assessment [\[REP5-022\]](#) of no significant effects from the disruption to users of recreational routes during the construction phase and on that basis, that no additional mitigation would be required. In addition, the ExA notes the applicants' proposal to develop and implement a community benefits package outside the DCO process and has not given this any weighting in the planning balance.
- 4.5.59. The ExA is satisfied that recreational routes within the order limits could be appropriately managed through the detailed PRoW Management Plan which would be secured through R24 of the recommended draft DCO (appendix F of this Recommendation).

CONCLUSIONS

- 4.5.60. The ExA is satisfied that the applicants' assessment has appropriately considered the potential effects of the proposed development on transport and traffic matters, including PRoWs, alone and cumulatively, in accordance with section 5.11 and section 5.14 of NPS EN-1.
- 4.5.61. The ExA considers that potential traffic and transport effects would be satisfactorily mitigated, managed and monitored through the measures in the CTMP, which would be secured through R14 of the recommended draft DCO (appendix F of this Recommendation). These measures include the provision of demand management and controlling the number and routing of HGV movements in line with section 5.14 of NPS EN-1.
- 4.5.62. In addition, the ExA is satisfied that potential effects on PRoWs would be appropriately managed and mitigated through the detailed PRoW Management Plan, which would be secured through R24 of the recommended draft DCO (appendix F of this Recommendation).
- 4.5.63. In summary, the ExA considers that there would be no significant adverse effects or significant cumulative effects on the highway network or PRoWs from the proposed development. However, the ExA notes some minor adverse effects during the construction period on the TTSA and PRoWs and resulting inconvenience to existing road and recreational route users. The ExA therefore concludes that effects on traffic and transport carry a little negative weight against the making of the Order.

4.6. GEOLOGY AND LAND QUALITY

INTRODUCTION

4.6.1. This section looks at the effects of the proposed development on geology and land quality. In its consideration of the effect on geology and land quality, the Examining Authority (ExA) has had regard to:

- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) as set out in sections 5.4, 5.11 and 5.16
- the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.8
- the National Policy Statement for Renewable Energy (NPS EN-5)
- The National Planning Policy Framework (NPPF)
- the Local Impact Report (LIR)
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

4.6.2. The applicants' assessment was first set out in Environmental Statement (ES) Chapter 19 Geology and Land Quality [\[APP-158\]](#) and ES Chapter 19 Geology and Land Quality Figures 19-1 to 19-9 [\[APP-159\]](#).

4.6.3. The applicants submitted updated versions of ES Chapter 19 [\[REP6-020\]](#), ES Chapter 19 Figures 19-1 to 19-9 [\[REP6-022\]](#) and other supporting documents during the examination. For the sake of brevity, only the final versions of these are listed here but previous iterations are set out in the Guide to the Application [\[REP9-002\]](#) and will be referred to in this Recommendation as appropriate.

4.6.4. The supporting documents and appendices are referenced in section 19.1 of ES Chapter 19, including:

- Appendix 19-1 Geology and Land Quality Consultation Responses [\[APP-160\]](#)
- Appendix 19-2 Geo-Environmental Desk Study and Preliminary Risk Assessment Report [\[REP6-023\]](#)
- Appendix 19-3 Onshore Waste Assessment [\[APP-162\]](#)

BASELINE

4.6.5. The applicants defined the study area in section 19.3 of the ES [\[REP6-020\]](#) on the basis of the distance over which impacts may occur and by the location of any receptors that may be affected by those potential impacts. A general 250m buffer around the proposed onshore development area was utilised with the exception of; a 100m buffer for the review of historical mapping, and a 1km buffer for assessing the presence of Control of Major Accident Hazard (COMAH) sites and identifying groundwater and surface water abstractions.

4.6.6. The applicants provided a summary of the baseline environment in table 19-11 of ES Chapter 19 [\[REP6-020\]](#) and potential sources of contamination in table 19-12.

CONSTRUCTION AND OPERATION PHASES

4.6.7. For the purposes of the assessment, the applicants considered the worst-case design maximum parameters for the proposed projects being constructed in isolation, sequentially or concurrently, as described in table 19-1 of ES Chapter 19 [\[REP6-020\]](#).

- 4.6.8. The applicants defined the construction and operational impacts assessed in section 19.3 of the ES [\[REP6-020\]](#) as follows:
- exposure of workforce, landowners, land users and neighbouring land users to contaminated soils and groundwater and associated health impacts
 - direct impacts on groundwater quality and groundwater resources (referred to as impact on controlled waters during operation)
 - impacts on surface water quality and the ecological habitats they support from contamination
 - sterilisation of mineral resources
 - built environment
 - designated geological sites
- 4.6.9. To inform the assessment of likely significant effects, the applicants considered the embedded mitigation measures in table 19-3 of the ES [\[REP6-020\]](#) which would be secured by way of a requirement in schedule 2 of the draft Development Consent Order (dDCO) [\[REP9-003\]](#). This included mitigation and working practices for:
- piling and contaminated land
 - material and waste management
 - soil management
 - pollution prevention
 - surface and foul water, groundwater and land drainage management
 - cable and access crossings of surface water bodies
- 4.6.10. The Onshore Waste Assessment [\[APP-162\]](#) found most of this material was likely to be inert or non-hazardous and anything deemed not suitable for use or surplus to requirements for the construction phase would be sent off-site in accordance with the waste hierarchy. In addition, options for material reuse or recovery were identified to be prioritised in accordance with the Outline Site Waste Management Plan [\[REP7-105\]](#). Waste from the operation phase was reported to be limited and would be managed in line with general principles of waste duty of care.
- 4.6.11. The Geo-environmental Desk Study and Preliminary Risk Assessment [\[APP-161\]](#) identified potential contaminants of concern that could be present within the proposed onshore development area and could represent a risk to construction workers, landowners, land users and neighbouring land users if exposed during construction activities. Moreover, exposed soils, stockpiled construction waste and ground gases were reported to present potential risks to human health. In addition, the potential sources of contamination and nature of the construction works were identified as potential risks to agricultural land. The applicants concluded the risks to human health and agricultural land during construction as moderate adverse effects in sections 19.6.1.1 and 19.6.1.6 of ES Chapter 19 respectively [\[REP6-020\]](#).
- 4.6.12. Section 19.6.1.2 of the ES [\[REP6-020\]](#) identified direct impacts on groundwater quality and resources may occur during construction due to intrusive trenching and trenchless crossing techniques, excavations that remove surface layers, piling activities, dewatering activities and accidental pollution. The risks to groundwater quality within the Principal Aquifers and Source Protection Zones during construction were assessed as a moderate adverse effect in section 19.6.1.2 of ES Chapter 19 [\[REP6-020\]](#).
- 4.6.13. The Outline Code of Construction Practice (oCoCP) [\[REP7-105\]](#) committed to targeted ground investigations prior to construction to determine the extent and source of any contamination. Furthermore, ground gas and groundwater monitoring wells would be installed. Section 19.6.1.1.5 of ES Chapter 19 [\[REP6-020\]](#) explained

additional mitigation would be identified and developed through a risk assessment and a remediation strategy in accordance with the 2023 Environment Agency Land Contamination Risk Management Framework and agreed with the relevant bodies. The applicants assessed this additional mitigation would reduce the likely effects to minor adverse for human health, groundwater quality and agricultural land.

- 4.6.14. Section 19.6.2.3 of ES Chapter 19 [REP6-020] identified sterilisation of future mineral resources in safeguard areas due to the proposed development as a moderate adverse effect during operation. The minerals associated with the designations were reported to be sands and gravels throughout the proposed onshore development area and chalk within the proposed onshore substation zone. In the worst-case scenario, the sterilisation was reported to equate to 4.08% of the preferred area south of Catwick (ref SG-A), as identified in the Joint Minerals Local Plan 2016 –2033. For all the preferred areas SG-A to SG-E, 2.43% of the total would be sterilised.
- 4.6.15. The applicants explained the extraction of the mineral resources prior to the proposed construction would be unviable and any minerals extracted by virtue of the proposed development would be reinstated within the vicinity. As such, the mineral resources would remain in-situ for future extraction by a third party post decommissioning [REP6-020]. No further mitigation measures were proposed to reduce the effect on mineral resources.
- 4.6.16. With the additional mitigation measures proposed, table 19-18 of ES Chapter 19 [REP6-020] summarised the significance of effects on geology and land quality for all impacts as minor adverse for construction and operation phases of the proposed development, with the exception of mineral sterilisation during operation which was assessed as moderate adverse and significant in environmental impact assessment (EIA) terms.
- 4.6.17. The applicants concluded that no potential for cumulative effects or transboundary effects, compared to the impacts considered alone, existed for geology and land quality from the construction and operation of the proposed development. Interactions between phases or project lifetime interrelated effects were concluded to be no greater than individually assessed.

DECOMMISSIONING PHASE

- 4.6.18. Section 19.6.3 of ES Chapter 19 [REP6-020] explained the detailed decommissioning activities and methodology would be agreed with the relevant authorities and statutory consultees through a decommissioning plan, as secured in requirement 27 of the dDCO [REP9-003]. The onshore decommissioning activities and methodology were explained to include:
- onshore export cables removed with the ducts left in situ
 - dismantling, demolition and removal of all buildings, cabling, equipment, fencing, hardstanding and services from the proposed onshore converter station
 - landscaping and reinstatement of the proposed onshore converter station
- 4.6.19. The applicants reported these activities represented a worst-case scenario and the anticipated effects would be similar or less than those during construction.

ISSUES CONSIDERED DURING THE EXAMINATION

- 4.6.20. The main issues for geology and land quality in the examination were:

- sterilisation of mineral resources
- geological interaction with Sites of Specific Scientific Interest (SSSI)

STERILISATION OF MINERAL RESOURCES

- 4.6.21. The ExA questioned during the examination [EV5-017, PD-014 and EV9-011] how undertaking the proposed mineral resource assessment would reduce the moderate adverse effect, as described in revision 1 of ES Chapter 19 [APP-158]. This was asked in the context that the mineral resource would still be lost if that assessment found extraction to be unviable. The applicants changed their position following issue specific hearing (ISH) 4 to explain extraction of minerals was no longer deemed viable, therefore a mineral resource assessment was no longer proposed [REP4-096]. The applicant concluded that the proposed onshore export cable ducts would be left in-situ following decommissioning, but an operator of any future extraction activity could remove the ducts as required.
- 4.6.22. East Riding of Yorkshire Council (ERYC) requested the potential sterilisation of the preferred area for sand and gravel south of Catwick (ref SG-A) to be quantified in context of all preferred areas in its Joint Minerals Local Plan [REP5-044]. In addition, ERYC explained it did not have a 7 year supply of sand and gravel, therefore the potential loss of area was an important factor in its opinion.
- 4.6.23. The applicants highlighted that the relevant landowner had not objected to the proposed development and from direct consultation, understood their intention was to expand any further extraction to the north of the current operation, away from the proposed onshore cable corridor [REP5-036]. This was supported by ERYC's explanation that a recent planning application (23/03254/CME) was approved to extend the timeframe for working the quarry from 2024 to 2039 [REP5-044]. This included an area to the north of the existing extraction area away from the cable route. ERYC also confirmed a planning application related to mineral extraction at North Cave had been received although this was not an allocated site [REP6-059].
- 4.6.24. Sections 19.6.1.4 and 19.6.2.3 of the final ES Chapter 19 [REP6-020] quantified the mineral sterilisation due to the proposed development for the construction and operational phases respectively. ERYC concluded it agreed with the applicants' assessment that the partial loss of the SG-A preferred area of search would have a moderate adverse effect during operation [REP6-059]. Furthermore, ERYC explained much of the land identified as preferred areas remained available and it believed these areas would likely come forward in line with demand. ERYC believed the true level of supply was likely much higher than the 3.58 years identified. The Statement of Common Ground (SoCG) with ERYC noted all matters relating to geology and land quality as agreed [REP8-015].
- 4.6.25. Alnwick Farming and Property Consultants, acting on behalf of the landowner for land parcel 04-12, explained in its closing statement [REP8-061] that matters in relation to mineral sterilisation remained unresolved in the discussions to reach voluntary agreements. As such it objected to the proposed development.

ExA's considerations

- 4.6.26. Developments incorporating linear elements may face challenges in fully avoiding mineral safeguarding areas entirely. The ExA finds the proposed development has reasonably sought to avoid such areas.
- 4.6.27. The ExA agrees with the applicants' assessment of sterilisation of mineral resources during the construction and operation phases, which in the worst-case scenario

would be moderate adverse. The ExA considers the mineral resources would be sterilised for the lifetime of the proposed development.

- 4.6.28. The ExA agrees with EYRC that the current lack of sand and gravel supply is an important consideration. In the context of the proposed development's effect on preferred areas of search and the final agreed position in the SoCG with ERYC, the ExA afford this matter limited weight.
- 4.6.29. The ExA agrees with the applicants that a commercial quarry operator is likely to have the means to remove the proposed ducts if left in-situ post decommissioning therefore the minerals would not be permanently sterilised. Furthermore, the ExA considers this approach would likely have fewer wider environmental effects compared with excavating the proposed export cable corridor only to remove the ducts.
- 4.6.30. The ExA notes the outstanding objection from the affected person which relates to a mineral sterilisation clause in a requested voluntary agreement with the applicants. Objections related to the contents of voluntary agreements are discussed in section 8 of this Recommendation. The ExA concludes that the objection from Alnwick Farming and Property Consultants is not a material consideration in the planning balance.

GEOLOGICAL INTERACTION WITH SSSI

- 4.6.31. The ExA probed where in revision 1 of ES Chapter 19 [\[APP-158\]](#) the potential geological effects on Withow Gap SSSI and Skipsea Bail Mere SSSI had been assessed, as stated in paragraph 118 of the Terrestrial Ecology and Ornithology ES Chapter 18 [\[PD-014\]](#). The applicants explained both SSSIs were beyond the 250 metre (m) buffer used to identify possible receptors in ES Chapter 19, therefore these had not been assessed [\[REP3-027\]](#). As such, the applicants confirmed references to Withow Gap SSSI and Skipsea Bail Mere SSSI within Chapter 18 Terrestrial Ecology and Ornithology [\[REP2-019\]](#) would be removed.
- 4.6.32. During the examination, the ExA explored whether there were likely effects on Burton Bushes SSSI related to geological factors [\[PD-014\]](#), [EV9-011](#) and [PD-022](#). In addition, representations were made by Dr Mounce [\[REP4-100\]](#), [REP5-072](#), [REP6-086](#), [REP7-161](#), [REP9-037](#) which included concerns that the proposed development could lead to changes in groundwater flows and affect Burton Bushes SSSI. Furthermore, Dr Mounce was concerned that the applicants' assessment was not comprehensive.
- 4.6.33. Following examination of these matters during the ExA's second written questions (ExQ2) [\[PD-022\]](#), the applicants added paragraph 12 to the final ES Chapter 19 [\[REP6-020\]](#). This explained groundwater within the vicinity of Burton Bushes SSSI designated site had been recorded within the deeper principal chalk aquifer and not within the shallow geology of the glacial till. As such, the applicants considered there to be no viable linkage by which the onshore export cable corridor would disrupt shallow groundwater flow pathways.
- 4.6.34. The final SoCGs with the Environment Agency [\[REP8-016\]](#), ERYC [\[REP8-015\]](#) and Natural England (NE) [\[REP9-018\]](#) all noted no outstanding matters relating to groundwater or geological interaction with Burton Bushes SSSI nor the assessment methodology in ES Chapter 19.

ExA's considerations

- 4.6.35. The ExA finds that substantive evidence was not submitted to the examination to disagree with the applicants' assessment of likely groundwater or geological effects on Burton Bushes SSSI. Similarly, the ExA finds the screening out of Withow Gap SSSI and Skipsea Bail Mere SSSI based on the 250m buffer in ES Chapter 19 [REP6-020] was uncontested. The ExA is satisfied with the applicants' assessment of likely effects presented in ES Chapter 19 and the supporting documents.

CONCLUSIONS

- 4.6.36. The ExA is satisfied the applicants' have appropriately assessed the potential effects on geology and land quality in ES Chapter 19 [REP6-020], concluding that all residual effects of the proposed development in isolation would be minor during construction and operation phases. The exception would be the sterilisation of future mineral resources which is assessed as moderate adverse during operation. The ExA has not been presented with evidence to disagree with the applicants' conclusion of no potential for significant cumulative or transboundary effects in ES Chapter 19.
- 4.6.37. The ExA finds the relevant requirements in the final dDCO [REP9-003] secure the proposed mitigation measures and commitments described in ES Chapter 19 [REP7-051] and the OCoCP [REP7-105]. The final SoCGs with the Environment Agency [REP8-016], ERYC [REP8-015] and NE [REP9-018] all note no outstanding matters relating to geology and land quality.
- 4.6.38. The ExA is content the applicants have reasonably sought to safeguard mineral resources in the proposed onshore development area. The ExA considers the residual moderate adverse effect during operation in context of ERYC's current lack of sand and gravel supply, weighs against making the Order. The ExA is satisfied the sterilisation would only be for the lifetime of the proposed development.
- 4.6.39. The ExA concludes that the proposed development, both alone and cumulatively, is in accordance with NPS EN-1, NPS EN-3, NPS EN-5, the NPPF, and relevant national and local policies and legislation concerning geology and land quality matters. There are no additional significant or relevant considerations.
- 4.6.40. The ExA considers that due to the presence of residual impacts, including the sterilisation of mineral resources which is reported as significant in EIA terms, geology and land quality matters weigh against the making of the Order. The proposed development however remains compliant with relevant statutory and policy requirements in relation to geology and land quality. The ExA therefore concludes that effects on geology and land quality carry a little negative weight against making the Order.

4.7. HYDROLOGY AND FLOOD RISK

INTRODUCTION

- 4.7.1. This section looks at the effects of the proposed development on water resources, water quality, flood risk, hydrology and hydrogeology. For conciseness these will be collectively referred to as the onshore water environment in this section.
- 4.7.2. In its consideration of the effect on the onshore water environment, the Examining Authority (ExA) has had regard to:

- the Overarching National Policy Statement for Energy (NPS EN-1) as set out in sections 5.8 and 5.16
- the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.4
- the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5), as set out in section 2.3
- the National Planning Policy Framework (NPPF)
- the Local Impact Report (LIR)
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

- 4.7.3. The applicants' assessment of the onshore water environment was first set out in the Environmental Statement (ES) Chapter 20 [\[APP-163\]](#) and ES Chapter 20 Figures 20-1 to 20-6 [\[APP-164\]](#).
- 4.7.4. The applicants submitted updated versions of ES Chapter 20 [\[REP5-017\]](#), ES Chapter 20 Figures 20-1 to 20-6 [\[REP5-019\]](#) and other supporting documents during the examination. For the sake of brevity, only the final versions of these are listed here but previous iterations are set out in the Guide to the Application [\[REP9-002\]](#) and will be referred to in this Recommendation as appropriate.
- 4.7.5. Other relevant application documents included:
- Appendix 20-1 Flood Risk and Hydrology Consultation Responses [\[APP-165\]](#)
 - Appendix 20-2 Geomorphological Baseline Survey Technical Report [\[APP-166\]](#)
 - Appendix 20-3 Water Environment Regulations Compliance Assessment [\[REP5-020\]](#)
 - Appendix 20-4 Flood Risk Assessment (FRA) [\[REP7-071\]](#)
 - Outline Drainage Strategy (Revision 3) [\[REP7-109\]](#)

BASELINE

- 4.7.6. The applicants defined the study area in section 20.5 of ES Chapter 20 using surface hydrological catchments identified in the Humber River Basin Management Plan. It comprises those catchments which intersect the proposed onshore development area or are hydrologically connected downstream. When considering the potential effects on groundwater, the study area was limited to those groundwater bodies that lie directly beneath the proposed onshore development area.
- 4.7.7. The majority of the proposed onshore development area was identified to be within the catchments of the River Hull or the Barnston Sea Drain and an onshore coastal catchment which drains directly to coastal or estuarine waters. The proposed development was identified to cross several main rivers, ordinary watercourses and Beverley and North Holderness Internal Drainage Board (IDB) watercourses.
- 4.7.8. The baseline surface water quality for the catchments of interest was identified in table 20-10 of ES Chapter 20 [\[REP5-017\]](#) as moderate for ecological status and fail for chemical status.
- 4.7.9. Section 20.5.6.3 of ES Chapter 20 [\[REP5-017\]](#) identified groundwater vulnerability as medium or medium-high across the onshore development area and some associated soluble rock risk. A single groundwater body (Hull and East Riding

Chalk) was identified of interest with baseline quantitative and chemical classifications elements as poor.

- 4.7.10. The Tophill Low Drinking Water Safeguard Zone (surface water) and Cottingham Drinking Water Safeguard Zone (groundwater) were acknowledged to overlap the proposed onshore development area. Section 20.5.4 of ES Chapter 20 [REP5-017] and Figures 20-1a to 20-2c [REP5-019] identified several surface and groundwater abstractions within 1 kilometre of the onshore development area, of which 20 were noted as licensed for potable use.
- 4.7.11. The majority of the onshore development area was identified in Flood Zone 1 and at low risk of flooding from other sources. Some locations were identified in Flood Zone 2 and 3 or at risk from surface or groundwater flooding. Section 20.5.5 of ES Chapter 20 [REP5-017] reported this to be more prevalent in close proximity to the coast, waterbodies and surface water flow paths.

CONSTRUCTION AND OPERATION PHASES

- 4.7.12. For the purposes of the assessment, the applicants considered worst case design maximum parameters for the proposed development being constructed in isolation, sequentially or concurrently, as identified in table 20-1 of ES Chapter 20 [REP5-017].
- 4.7.13. To inform the assessment of likely effects, the applicants considered the embedded mitigation measures stated in table 20-3 of ES Chapter 20 [REP5-017], which were secured by way of requirements in schedule 2 of the draft Development Consent Order (dDCO). This included mitigation and working practices for:
- soil management
 - pollution prevention
 - surface and foul water, groundwater and land drainage management
 - cable and access crossings of surface water bodies
 - flood defence monitoring
 - drilling fluid breakout
 - piling and contaminated land
 - flood risk management including emergency response and evacuation
- 4.7.14. The FRA [REP7-071] concluded that based on the risk of flooding both to and from the proposed development, and consideration of both the sequential test and exception test, the proposed development was appropriate in terms of flood risk.
- 4.7.15. The Water Environment Regulations (WER) Compliance Assessment [REP5-020] reported that, following the implementation of the control measures during construction, secured in the Outline Code of Construction Practice (oCoCP) [REP7-105] and Outline Drainage Strategy [REP7-109], there would be no activities that had the potential to cause non-temporary effects to the status of any of the river and groundwater bodies assessed. Furthermore, the construction and operation activities would not prevent the achievement of waterbody status objectives in the future. The assessment therefore concluded that the proposed development was considered compliant with the requirements of the WER.
- 4.7.16. Table 20-29 of ES Chapter 20 [REP5-017] concluded that the residual effects of the proposed development on the onshore water environment would be no change to minor adverse for all construction and operation phase impacts. In addition, the cumulative assessment in section 20.8 of ES Chapter 20 [REP5-017] found that significant cumulative effects were not anticipated for any of the matters assessed.

- 4.7.17. Interactions between phases or project lifetime effects were concluded to be no greater than individually assessed in table 20-27 of ES Chapter 20 [REP5-017]. The applicants identified a potential for flood risk and hydrology effects to interrelate with ground conditions and water dependent biological communities and designated sites in table 20-28 of ES Chapter 20.

DECOMMISSIONING PHASE

- 4.7.18. Section 20.6.3 of ES Chapter 20 [REP5-017] explained the detailed decommissioning activities and methodology would be agreed with the relevant authorities and statutory consultees through a decommissioning plan. The applicants concluded that residual effects during decommissioning would be no worse and very likely less than the construction phase. The same conclusion was found in paragraph 92 on the WER Compliance Assessment [REP5-020].

ISSUES CONSIDERED DURING THE EXAMINATION

- 4.7.19. The main issues for flood risk and hydrology in the examination were:

- surface water drainage
- watercourse crossing method and assessment
- flood risk data, the sequential test and exception test

SURFACE WATER DRAINAGE

- 4.7.20. The ExA noted early versions of the Outline Drainage Strategy [APP-237 and AS-098] had not included supporting calculations for the proposed permanent onshore converter station access road drainage to demonstrate the risk of flooding would not be increased elsewhere nor lead to hydrological changes. The ExA also questioned if and how predevelopment discharge rates and volumes would be accommodated in the drainage strategy.

- 4.7.21. During issue specific hearing (ISH) 4, the applicants explained increasing discharge rates to 1 litre per second (l/s) would result in a minor increase in flows to the receiving watercourses during the 1 in 1 year and 1 in 2 year storm events [REP4-086]. The applicants contended any increase in flood risk was expected to be low, and considerably lower than the risk of overflow from regular blockages. East Riding of Yorkshire Council (ERYC) raised that the risk of blockage could be addressed through filtration or silt management, thus avoiding the need for, or mitigating the downstream effects of, increased discharge rates [EV8-002].

- 4.7.22. The applicants submitted a final Outline Drainage Strategy [REP7-109] which identified the predevelopment discharge rates associated with the proposed onshore converter station access road as below. This included that a minimum discharge rate of 1l/s would be applied to avoid the risk of blockage and inform the drainage strategy. The proposed access road was divided into north and south drainage catchment areas.

- North Access Road (Watercourse 3) = 1.01 l/s
- South Access Road (Watercourse 3) = 0.41 l/s
- South Access Road (Watercourse 2) = 0.34 l/s
- South Access Road (Watercourse 1) = 0.66 l/s

- 4.7.23. Paragraph 45 of the final Outline Drainage Strategy [REP7-109] explained the ERYC Lead Local Flood Authority (LLFA) and the IDB did not consider the minimum discharge rate of 1l/s would increase the risk of flooding. Furthermore, the final statements of common ground (SoCG) with ERYC [REP8-015] and the Environment

Agency [REP8-016] did not identify any outstanding matters related to the proposed drainage strategy.

- 4.7.24. Alnwick Farming and Property Consultants raised land drainage concerns throughout the examination on behalf of 3 affected landowners [REP1-073, REP4-107, REP7-145]. Alnwick Farming and Property Consultants' closing statement [REP8-061], maintained an objection on behalf of 3 affected landowners at the close of examination. This cited land drainage matters including design concepts and maintenance arrangements during the operation of the proposed development.

ExA's considerations

- 4.7.25. The ExA finds the proposed development could lead to an increased surface water discharge rate for events up to the 1 in 2 year storm. The ExA however agrees with the applicants that an increased discharge in the realm of 0.4 to 0.6 l/s is likely to be low in the context of the receiving catchment. Furthermore, the ExA agrees with ERYC that an opportunity to address the risk of blockage may arise during the detailed design stage. Nonetheless, the ExA finds the proposed development would increase the discharge rate and specific off-site arrangements that result in the same net effect have not been made. The ExA therefore must conclude non-compliance with paragraph 5.8.27 of NPS EN-1 which requires peak discharge flow rates of surface water leaving the site to be no greater than the rates prior to the proposed development.
- 4.7.26. The ExA notes the objection to the proposed development in Alnwick Farming and Property Consultants' closing statement [REP8-061] in part relates to land drainage matters. The ExA finds a final drainage strategy for each phase of the proposed development would need approval by ERYC, in consultation with other drainage authorities and discussion with landowners. This is secured by requirement 16 of the dDCO [REP9-003] and the Outline Drainage Strategy [REP7-109]. The ExA therefore concludes that the relevant land drainage matters raised in the closing statement on behalf of these interested parties have been addressed.

WATERCOURSE CROSSING METHOD AND ASSESSMENT

- 4.7.27. During the examination, the Environment Agency [RR-015 and REP4-108] and the IDB [REP1-052 and REP3-062] both raised matters regarding the crossing methodology for their relevant watercourses and reinstatement post-construction. Further concerns were raised in relation to how the proposed development would interact with existing assets including their future maintenance and construction of new assets, if deemed necessary.
- 4.7.28. The applicants' final oCoCP [REP7-105] addressed these matters including the need to agree crossing method statements with the Environment Agency, IDB or planning authority following site investigations and detailed design. In addition, commitment was included for clear span temporary crossings of Stream Dike, Holderness Drain and Monk Dike (references Wx-025, Wx-035 and Wx-029 respectively in the Obstacle Crossing Register [REP4-030]).
- 4.7.29. The Environment Agency confirmed it did not object to the culvert crossing of Meaux and Routh East Drain (Wx-30), though it requested commitment that all clear span and culvert crossings would be reinstated and monitored [REP4-108]. The applicants' response [REP5-037] explained any reinstatement would be designed to remain in place for the duration of the operational phase and would not require monitoring. This was reflected in the final oCoCP [REP7-105].

- 4.7.30. In response to the IDB's concerns, the Obstacle Crossing Register [REP4-030] was updated to include trenchless methods for crossing Dunnington Sewer (Wx-007), Arnold and Riston Drain (Wx-028), Turf Gutter and Eske River Side Drain (Wx-039) and other unnamed drains. In response to action point 6 of ISH4 [REP4-096], the applicants explained flexibility to revisit the crossing method during the detailed design had been agreed with the IDB for the watercourses which it had responsibility for.
- 4.7.31. The ExA questioned the assessment methodology for temporary watercourse crossings in ES Chapter 20 [APP-163], including why trenched crossings for the onshore export cable and those to facilitate haul road access were assessed differently [EV5-015, PD-014 and EV9-003]. Following ISH4, ERYC also suggested that temporary watercourse crossings should be assessed the same as permanent crossings, considering both the number of crossings and durations [REP4-118].
- 4.7.32. In response to action point 10 of ISH4, the applicants acknowledged [REP4-096] the assessment approach may not capture the level of direct disturbance associated with the proposed temporary watercourse crossing frequency in each catchment or level of disturbance once installed. The assessment and subsequent outcomes were updated in the final ES Chapter 20 [REP5-017]. This concluded the likely significant effects for all temporary crossings were no greater than minor adverse for the proposed development in isolation and cumulatively.
- 4.7.33. The final SoCGs with ERYC [REP8-015] and the Environment Agency [REP8-016] did not identify any outstanding matters related to the proposed crossings of watercourses. No further representations were received from the IDB following submission of the final ES Chapter 20 [REP5-017], oCoCP [REP7-105] and Obstacle Crossing Register [REP4-030].

ExA's considerations

- 4.7.34. The ExA finds the crossing methodologies set out in the Obstacle Crossing Register [REP4-030] and oCoCP [REP7-105] sufficiently addresses the related concerns raised by the Environment Agency and the IDB. Whilst there remains some flexibility around the final crossing method for some watercourses, the ExA finds the protective provisions of the dDCO [REP9-003] would afford relevant parties adequate control. Furthermore, the Environment Agency could seek remediation of failed works related to proposed watercourse crossings, through paragraph 7, part 3 of the protective provisions. The ExA therefore agrees a monitoring programme for the proposed watercourse crossings is not necessary in this case.
- 4.7.35. The ExA has not been presented with a reason to disagree with the applicants' updated assessment of effects from direct disturbance of water bodies. The ExA therefore concurs with the applicants' conclusion that effects would not be significant in Environmental Impact Assessment (EIA) terms.

FLOOD RISK DATA, THE SEQUENTIAL TEST AND EXCEPTION TEST

- 4.7.36. The ExA questioned during the examination [PD-014, EV5-013, EV5-015 and EV9-003] how local flood risk data, the latest climate change predictions and the Environment Agency's latest national flood risk assessment (NaFRA) had been considered in the FRA and application of the sequential test. In response to the ExA's concerns, the applicants submitted an updated FRA [REP7-071] and ES Chapter 20 [REP5-017] to address these matters.

- 4.7.37. The Environment Agency representations [RR-015 and REP4-108] noted 2 temporary construction compounds (TCC) were located in Flood Zone 3 and requested analysis of the flood risk to and from the proposed development. In section 20.4.4.4 and Appendix A of the final FRA [REP7-071], the applicants confirmed their further assessment found there was no mechanism for fluvial flooding to affect the 2 TCCs. Furthermore, there would be no displacement of flood water during the 1 in 100 year event, thus there would be no increased risk off-site.
- 4.7.38. The Environment Agency was satisfied with the findings in the further analysis but requested clarification whether the risk from a potential failure of flood defences should be assessed for one of the TCC (ref section 8-TCC-B) [REP6-063]. The applicants' response explained defence failure had been considered and found the topography provided a barrier to flood water reaching the TCC [REP7-131]. Moreover, the applicants noted this had been agreed with the Environment Agency during a meeting on 19 June 2025.
- 4.7.39. The Environment Agency explained its representations to the ExA were based on the proposed development being decommissioned by 2061 and suggested a requirement be added to the dDCO to secure decommissioning of the permanent proposed development, or further assessment by this date. This was due to the 32 year life assessed in the ES and the absence of detailed hydraulic modelling to support the proposed development beyond that date [REP4-108]. The applicants' response [REP5-037] explained the expected 30 to 32 year lifetime was stated in documents to be certified if the Order were made. Furthermore, if the onshore converter station was to be repurposed or remain in-situ beyond the operation of the proposed development, it would be subject to a future planning application.
- 4.7.40. Section 20.4.5.2.1 of the FRA [REP7-071] detailed the sequential test for the proposed development. The applicants contended that due to the large scale and linear nature of the proposed development, it was not possible to avoid Flood Zone 3 or localised areas of surface water flooding. The FRA concluded the proposed development was appropriate and in accordance with the Planning Practice Guidance (PPG), specifically:
- the proposed onshore converter stations (OCS) would be located in Flood Zone 1
 - the proposed onshore export cable corridor (ECC), onward connection corridor and landfall zone would be located in Flood Zone 1, 2 and 3
 - areas of localised surface water flooding were identified throughout the proposed development area
 - all other sources of flooding were reported as low risk
- 4.7.41. Section 20.4.5.2.2 of the FRA [REP7-071] detailed the exception test for the proposed development. This explained it was only the onshore export cables that were likely to be located in Flood Zone 3 or surface water risk area, therefore once operational, these would be below ground and not identified at risk.
- 4.7.42. During the construction phase, works associated with the proposed onshore ECC would be located in Flood Zone 3 or surface water risk area. The applicants explained that any temporary risk of flooding would be managed through mitigation measures set out in the oCoCP [REP7-105].
- 4.7.43. Paragraph 311 of the FRA [REP7-071] concluded the proposed development would provide wider sustainability benefits to the community associated with the provision

of renewable energy. Furthermore, the design would ensure the proposed development would be safe for its lifetime without increasing flood risk elsewhere.

ExA's considerations

- 4.7.44. The ExA considers the final FRA [REP7-071] has used appropriate data to inform the assessment, sequential test and exception test. Furthermore, this includes relevant climate change predictions, the latest NaFRA findings and ERYC's local flood risk data. The ExA notes ERYC and the Environment Agency had no outstanding concerns related to the sequential test at the close of the examination.
- 4.7.45. The ExA is satisfied that the locations for the proposed development permanent and temporary works have been chosen to minimise flood risk from all sources as much as possible, considering the available alternatives and technical constraints. The ExA therefore concludes the sequential test has been met.
- 4.7.46. The ExA agrees with the applicants and is satisfied that the proposed development would provide wider sustainability benefits in the form of renewable energy generation and improvements to energy security, which would outweigh the risk of flooding. The ExA therefore concludes the first part of the exception test has been met.
- 4.7.47. The ExA finds the final FRA [REP7-071] has appropriately assessed the risk of flooding to and from the proposed development. Furthermore, the mitigation measures in the oCoCP [REP7-105] and the Outline Drainage Strategy [REP7-109], combined with the relevant requirements and protective provisions in the dDCO [REP9-003], provide sufficient certainty that the effect on the risk of flooding would be addressed and appropriately controlled.
- 4.7.48. The ExA finds that the proposed development will be safe for its lifetime taking account of the vulnerability of its users. As concluded in paragraph 4.7.25 of this Recommendation, the proposed rate of surface water discharge would be greater than pre-development. The ExA however finds it has not been provided evidence to be persuaded this would lead to a demonstrably increased risk of flooding elsewhere. The ExA therefore concludes the second part of the exception test has been met.
- 4.7.49. The ExA agrees with the Environment Agency that the assessment has only considered climate change predictions for the anticipated 30 to 32 year lifetime for the proposed onshore converter station. The ExA finds the proposed onshore converter station is identified in Flood Zone 1 and at low risk from flooding, now, in the future and without the presence of flood defences [REP7-071]. Furthermore, if the proposed onshore converter station were to be repurposed beyond the operational lifetime of Dogger Bank South East or West, then a future planning application would likely need to assess the risk of flooding, and propose any mitigation based on information and techniques available at that time. The ExA is therefore not persuaded that a requirement to control the operational lifetime of the proposed onshore development is justified for the onshore water environment reasons.

CONCLUSIONS

- 4.7.50. The ExA is satisfied that the applicants' assessment considers all relevant potential environmental impacts in respect of the onshore water environment, during the construction, operation and decommissioning phases of the proposed development

in isolation and cumulatively with other plans and projects, in accordance with sections 5.8 and 5.16 of NPS EN-1.

- 4.7.51. The applicants' SoCGs with the ERYC LLFA [\[REP8-015\]](#) and Environment Agency [\[REP8-016\]](#) confirm that matters in relation to onshore water environment are agreed. The ExA considers matters raised by the IDB have been addressed.
- 4.7.52. The ExA finds the proposed increased surface water discharge rate would not be compliant with paragraph 5.8.27 of NPS EN-1. Whilst the ExA is sympathetic to the risk of blockage associated with small orifices contested by the applicants, it is not persuaded this could not be avoided through suitable sustainable drainage design. The ExA considers the approval of the final drainage strategy by ERYC and the relevant protective provisions in the dDCO [\[REP9-003\]](#) provide an opportunity to address this in the final design. Moreover, considering the LLFA and Environment Agency have not objected to the proposed development, the ExA affords limited weight to this matter.
- 4.7.53. In all other matters, the ExA finds the proposed development's potential impacts on the onshore water environment, including relevant climate change predictions, would be satisfactorily mitigated and managed through the measures and commitments in ES Chapter 20 [\[REP5-017\]](#), the Outline Drainage Strategy [\[REP7-109\]](#) and oCoCP [\[REP7-105\]](#), secured by relevant requirements of the final dDCO [\[REP9-003\]](#).
- 4.7.54. The ExA notes the residual likely effects on the water environment are identified between negligible and minor adverse in table 20-29 of ES Chapter 20 [\[REP5-017\]](#). While these are not significant in EIA terms, they nonetheless carry a degree of harm.
- 4.7.55. The ExA is satisfied that the sequential test and the exception test have both been met. Furthermore, the ExA is content that the proposed development would not have an adverse effect on the achievement of the objectives under the Water Environment Regulations in relation to relevant waterbodies.
- 4.7.56. The ExA finds that the proposed development generally satisfies the relevant policies and requirements concerning the onshore water environment as set out in NPS EN-1, NPS EN-3, NPS EN-5, the NPPF and the ERYC Local Plan. The ExA further considers that the proposed development aligns with other applicable national and local policies and strategies, as well as all other relevant legislation in relation to the onshore water environment, and that there are no other important or relevant considerations. Due to the presence of residual impacts, the ExA concludes onshore water environment effects bear a little negative weight against making the Order.

4.8. SOCIO-ECONOMICS AND TOURISM

INTRODUCTION

- 4.8.1. This section considers the effects of the proposed development on socio-economic matters including tourism.
- 4.8.2. In its consideration below, the Examining Authority (ExA) has had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) (sections 5.6 and 5.13)

- the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans and the UK Marine Policy Statement (MPS)
- the Local Impact Report (LIR)
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

- 4.8.3. The applicants' assessment of socio-economic matters was in Environmental Statement (ES) Chapter 28 (Socio-economics) [APP-217] and the assessment of tourism and recreational matters was in ES Chapter 29 (Tourism and recreation) (original version: [APP-219], final version: [REP6-033]). The chapters:
- presented the existing environmental baseline and identified any assumptions and limitations encountered in compiling the environmental baseline information
 - presented the potential environmental effects of the proposed development on socio-economic and tourism matters during the construction, operation and decommissioning phases
 - highlighted any necessary monitoring and mitigation measures which could avoid, reduce, or mitigate the possible environmental effects of the proposed development on socio-economic and tourism matters
- 4.8.4. Matters in relation to public rights of ways (PRoW) and recreational routes are considered in section 4.5 (Traffic and Transport) of this Recommendation.
- 4.8.5. The applicants stated that operational effects from disruption and pressure on local infrastructure and to offshore activities, disturbance on social infrastructure, and disruption to tourism and recreation, including visual impacts for offshore assets, were scoped out of the assessment.

BASELINE

- 4.8.6. For socio-economics, ES Chapter 28 [APP-217] considered evidence on demography, the economy and social infrastructure of the Humber region, comparing it against United Kingdom (UK)-level performance, based on sectoral evidence and industry best practice.
- 4.8.7. For tourism and recreation matters, ES Chapter 29 [REP6-033] defined the study area based on receptors within one kilometre (km) of the onshore export cable corridor and 5km from the onshore substation zone (OSZ). For marine recreation matters, the study area was defined based on the offshore study area covering a 10 nautical mile buffer around the array areas, and a 2 nautical mile buffer around the offshore export cable corridor.
- 4.8.8. ES Chapters 28 [APP-217] and 29 [REP6-033] identified that:
- In terms of the Humber region when compared to the UK, the role of the manufacturing sector was greater, the level of educational attainment was lower, and the level of job growth was less than half.
 - In terms of the UK economy, this was stated to be well balanced between sectors, and educational attainment and job growth were in line with UK average.
 - The Humber region had a population of just under one million and was projected to grow. The working age population was predicted to decline, and the population generally was older than the UK average.

- In terms of social and community assets, the value of house prices had increased at a similar rate to the UK, the ratio of teachers to pupils was similar to the UK, and the number of general practitioners (GP) was similar to that of England.
- The tourism economy accounts for a larger share of employment in the study area compared to the UK average and tourists spent more on average.
- Tourism sector employment had grown at a faster rate than the wider economy in the onshore study area.
- Recreational activities, including marine recreation, played a role in the local tourism offer.
- The tourism economy in the study area was not considered to be particularly sensitive to the performance of any particular tourism asset.

4.8.9. ES Chapter 28 [\[APP-217\]](#) noted some uncertainty in relation to the location of the ports for both the construction, and operation and maintenance phase. The applicants considered that the location would be most likely to fall in the Humber region.

MITIGATION AND MONITORING

4.8.10. The applicants proposed several measures to reduce the impact of the proposed development, defined as embedded mitigation measures, considered inherently as part of the design of the proposed development.

4.8.11. Embedded mitigation measures in relation to tourism matters were set out in table 29-3 of ES Chapter 29 [\[REP6-033\]](#) and included:

- Trenchless crossing techniques at landfall to allow for continued beach access during construction works, and under road and rail infrastructure to avoid disruption to transport users.
- Commitment to only short-term temporary closures with short diversions lasting up to 2 months for crossings of PRoWs and reinstatement following completion of works.
- Development and adherence to a detailed Code of Construction Practice (CoCP), in accordance with the Outline Code of Construction Practice (oCoCP) [\[REP7-105\]](#), to control impacts on the environment and mitigate effects on recreational users including localised screening and construction noise management measures.
- Development and adherence to a detailed Landscape Management Plan (LMP), in accordance with the Outline Landscape Management Plan (oLMP) [\[REP4-044\]](#) to mitigate indirect effects on tourism and recreation assets.
- Selection of a single site for the onshore converter station(s).
- Consideration of the detailed design of the onshore converter station(s) including artificial lighting provisions.
- Provision of a temporary haul road to reduce construction vehicles travelling via the public highway.
- Trenchless crossing techniques for all main rivers.
- Development and adherence to a detailed Construction Traffic Management Plan (CTMP), in accordance with the Outline Construction Traffic Management Plan (oCTMP) [\[REP6-041\]](#) to manage construction traffic.

4.8.12. The applicants stated in ES Chapter 28 [\[APP-217\]](#) that in terms of socio-economic matters, no embedded mitigation measures had been incorporated into the design. However, the applicants would seek to work with the supply chain to boost opportunities for UK suppliers. In this regard, the applicants developed an Outline Skills and Employment Strategy [\[APP-230\]](#) to facilitate commitments and activities

in the Humber region. In addition, as part of the 'Contracts for Difference' (CfD) regime, separate to the Development Consent Order (DCO) process, there would be a requirement to produce a supply chain plan.

- 4.8.13. The assessments [\[APP-217\]](#), [\[REP6-033\]](#) concluded that based on the findings, no monitoring was required.

ASSESSMENT OF EFFECTS

Construction phase

- 4.8.14. ES Chapter 28 [\[APP-217\]](#) predicted that total economic spending associated with construction activities would contribute approximately £200 million (Humber region) and £488 million (UK) gross value added (GVA) in an in-isolation scenario and £400 million (Humber region) and £976 million (UK) GVA in a concurrent or sequential scenario. The assessment concluded that this would result in a minor beneficial effect for the Humber region in the in-isolation and sequential scenario and a moderate beneficial effect for the Humber region in the concurrent scenario. In addition, for all 3 scenarios, it concluded a negligible effect in terms of the UK economic expenditure.
- 4.8.15. At its peak, the number of jobs created during the construction phase was estimated to be 760 (Humber region) and 1190 (UK) in the in-isolation scenario and 1520 (Humber region) and 1550 (UK) in a concurrent or sequential scenario. For all scenarios, the significance of effects associated with employment from construction activities was assessed as minor beneficial for the Humber region and negligible beneficial for the UK.
- 4.8.16. The assessment also identified minor beneficial effects for all scenarios relating to changes to demographics from immigration due to an expected decrease in the working age population in the region. In addition, negligible adverse, not significant effects were identified for the loss, disruption to, or pressure from local infrastructure and any potential disturbance, such as noise, air quality, traffic or transport, on social infrastructure.
- 4.8.17. ES Chapter 29 [\[REP6-033\]](#) assessed the significance of effects at identified tourism and recreation receptors along the order limits, with particular regard to land use, landscape and visual impacts, traffic and transport, noise and vibration, air quality and socio-economic impacts. The effects on tourism receptors were not assessed in the separate ES Chapters relating to these topics. The assessment noted that Butt Farm Caravan, Camping and Glamping site (Butt Farm) was predicted to experience moderate adverse significant landscape and visual effects during the construction phase. However, no additional mitigation was proposed and the residual effects on the tourism receptor would remain as moderate adverse for all scenarios, and significant.
- 4.8.18. In addition, for Butt Farm and Strawberry Fields Holiday Park, the assessment identified major adverse significant effects for temporary night-time noise levels and minor adverse, not significant effects for daytime noise levels during construction. Additional mitigation would include measures detailed in the oLMP [\[REP4-044\]](#) and ES Chapter 25 (Noise) [\[REP6-028\]](#). In addition, the construction programme, once a contractor was appointed, would seek to minimise any noisy activities as far as practical and the programme would be shared with the tourism sites as far in advance as possible. The applicants also proposed to introduce a communication and grievance mechanism. However, these measures would not change the significance of effects, which would remain as major adverse, and significant.

- 4.8.19. The assessment concluded minor adverse, not significant effects on the recreational receptors of Skipsea beach and Beverley 20 footpath (East Riding Heritage Way) during construction. For marine recreation receptors, the assessment concluded negligible effects.

Operational phase

- 4.8.20. ES Chapter 28 [\[APP-217\]](#) predicted the total economic expenditure during the operation and maintenance phase to be £48 million (Humber region) and £73 million (UK) for the in-isolation scenario, and £74 million (Humber region) and £103 million (UK) if the projects were constructed together, either in a concurrent or sequential scenario. The peak employment during the operation and maintenance phase was estimated to be 510 jobs (Humber region) and 790 jobs (UK) for the in-isolation scenario and 1,030 jobs (Humber region) and 1,550 jobs (UK) for the concurrent or sequential scenario. For all scenarios, in relation to economic expenditure and employment during operation, the effects were concluded to be minor beneficial for the Humber region and negligible beneficial for the UK.
- 4.8.21. In terms of a potential change in demographics due to immigration, the assessment concluded minor beneficial effects and negligible adverse effects for potential disturbance on social infrastructure for all development scenarios during the operational phase.
- 4.8.22. ES Chapter 29 [\[REP6-033\]](#) identified moderate adverse significant landscape and visual effects on the tourism receptor at Butt Farm during the operational phase. Whilst no additional mitigation was proposed, the assessment considered that the amount of screening provided by the planting would mature with age and that the magnitude of impact at year 10 would have reduced to low, resulting in minor adverse, not significant effects. The operational effects on the Beverley 20 footpath (East Riding Heritage Way) from views towards the onshore converter station(s) were assessed as minor adverse, not significant.

Decommissioning

- 4.8.23. ES Chapter 28 [\[APP-217\]](#) assumed that the decommissioning period would last 4 years and, at its peak, would support 135 jobs in the Humber region and 170 jobs across the UK. The estimated costs associated with decommissioning were identified to be £455 million for an in-isolation scenario and £909 million for a concurrent scenario. The assessment concluded that the effects on the economic expenditure would be minor beneficial for the Humber region and negligible beneficial for the UK.
- 4.8.24. The detailed decommissioning programme was expected to be comparable to the construction phase in terms of its magnitude of impacts. The detailed activities and methodology would be determined at a later stage, and requirement (R) 27 of the draft Development Consent Order (dCO) [\[REP9-003\]](#) would secure the provision of those details.

ISSUES CONSIDERED DURING THE EXAMINATION

- 4.8.25. The principal issue considered during the examination were:
- supply chain strategy
 - skills and employment strategy
 - proposed port location
 - impacts on tourism businesses

SUPPLY CHAIN STRATEGY

- 4.8.26. At the ExA's first written questions (ExQ1) [PD-014], it was queried how the supply chain strategy, which was referenced throughout ES Chapter 24 [APP-217], would be prepared and secured as part of the dDCO. In their response [REP3-027] the applicants highlighted that the preparation of the document was required as part of the applicants' application for future CfD rounds. Since the submission of the application, the CfD requirement to submit a supply chain plan had been replaced by the Clean Industry Bonus (CIB) scheme. The applicants explained that, whilst the approach between the 2 strategies would differ slightly, the overall aims, requiring investment into supply chain capability, investment in infrastructure and requirement for sustainability benefits, would be the same.
- 4.8.27. The applicants also added at deadline (DL) 5 [REP5-036] that to qualify for the CfD allocation round, a commitment to spending £100 million per gigawatt on contracts with companies and ports located in deprived areas in the UK or companies globally that are committed to more sustainable means of production, would need to be adhered to. According to the applicants, noting the CIB eligibility criteria and capabilities of the UK supply chain, the shortlist of qualifying suppliers would be narrowed down, without the need for consultation. In addition, the applicants stated that they were already engaging with a wide range of companies and had placed the maximum allowable number of bids for contract subsidies to be potentially awarded to local companies. The applicants also highlighted that they had prepared an Outline Skills and Employment Strategy [APP-230] which included measures to ensure the consideration of local suppliers in the supply chain.

ExA's considerations

- 4.8.28. The ExA is satisfied that the information provided by the applicants regarding the proposed supply chain plan during examination is appropriate. The ExA is content that this would be considered separately to the DCO process as part of the CfD regime and CIB scheme and therefore, that the mechanism to ensure this would be prepared and adhered to, is sufficient.

SKILLS AND EMPLOYMENT STRATEGY

- 4.8.29. East Riding of Yorkshire Council (ERYC) raised concerns with the wording of the proposed requirement in the dDCO for a local skills and employment strategy in its initial SoCGs (revisions 1 and 2) with the applicants [REP1-028, REP4-059], querying the enforceability of the document. Following discussions, the applicants confirmed [REP5-036] that an agreement on the wording had been reached with ERYC. In addition, ERYC explained [REP5-044] that it was confident that the strategy identified how positive outcomes could be achieved by the proposed development in relation to skills and employment opportunities and that it was satisfied with the information provided as part of the proposed Outline Skills and Employment Strategy [APP-230]. The final signed SoCG between the applicants and ERYC [REP8-015] did not raise any further concerns regarding this matter.
- 4.8.30. The ExA recommended changes [PD-028] to the wording of R26 (skills and employment) as it was not considered that a clear justification had been provided as to why a strategy would be required for each phase during construction and that one strategy prior to commencement of construction could be more appropriate. However, the applicants [REP7-131] disagreed with the suggested amendments and explained that the focus on the type of skills, and location of efforts for the skills and employment strategy may vary by the phase of the proposed development. The applicants also considered that it would be appropriate to phase out costs from the

implementation of the strategy reaching certain milestones, and as further detail of the scheme developed, including the location of the ports, this may require engagement with other relevant stakeholders. Therefore, the applicants stated that this could not all be agreed prior to any works commencing. However, the applicants amended [\[REP7-131\]](#) R26 of the dDCO [\[REP9-003\]](#), splitting the requirement, with separate discharge for each project (DBS East and DBS West) and extending its remit to cover both the onshore and offshore works.

ExA's considerations

- 4.8.31. The ExA is satisfied that the Outline Skills and Employment Strategy has appropriately considered all relevant matters and whilst the ExA notes that no outstanding concerns remain from any interested parties (IP), any further amendments, if required, could be discussed and agreed post-consent as part of the final document. The ExA considers that the final Skills and Employment Strategy would be suitably secured through R26 of the recommended draft DCO (appendix F of this Recommendation).
- 4.8.32. In addition, the ExA accepts the applicants' explanation as to the need to maintain the proposed phasing of the Skills and Employment Strategy. The ExA also accepts the amendments to R26 requiring discharge for each project separately and considering both onshore and offshore works. The ExA's recommended draft DCO (appendix F of this Recommendation) therefore reflects the applicants amended wording.

PROPOSED PORT LOCATION

- 4.8.33. The ExA noted that the applicants had not committed to a primary port location, neither for the construction nor the operation and maintenance phase of the proposed development. ES Chapter 28 [\[APP-217\]](#) stated that the assumption was this would be in the Humber region study area. At ExQ1 [\[PD-014\]](#), the ExA asked the applicants how any commitments to a specific area for the primary port location had been secured and the potential implications if the primary port was not located in the Humber region.
- 4.8.34. The applicants explained [\[REP3-027\]](#) that the primary port for the operation and maintenance phase was unlikely to be selected until the time of the final investment decision, around early 2027. However, the applicants confirmed that it would be in England, with several options both within and outside the Humber region under consideration. The applicants referred to ES Chapter 28 [\[APP-217\]](#) which stated that "the exact port locations for both construction and operations are currently unknown, however given the proximity of the Humber Region to the Projects and onshore export cable corridor, this is considered the most appropriate local study area. This is also the case with regard to any knock-on effects on infrastructure and demographics".
- 4.8.35. The applicants considered [\[REP3-027\]](#) that the assessment had been carried out based on reasonable and appropriate assumptions and had assessed impacts over an appropriate study area given the information available. The applicants explained that it would be normal practice to maintain flexibility, noting the nature and scale of the proposed development. The applicants also stated that in the event a port was selected outside the Humber region, some of the impacts identified for the Humber region would occur in other regions of England instead and the effects on the Humber region would be negligible.

- 4.8.36. The ExA also queried the need and clear justification for a Port Construction Traffic Management Plan (R30 of the dDCO) during examination. However, the applicants considered [\[AS-155, REP7-131\]](#) that R30 should be kept as the requirement was agreed with stakeholders during the pre-application process, as the construction and operational port traffic had been scoped out of the assessment and the port location would not be known or expected to be confirmed until after the DCO determination.

ExA's considerations

- 4.8.37. The ExA recognises the need for flexibility to account for uncertainties in specific project details, as advocated by paragraph 4.3.18 of NPS EN-1 and when choosing the location of the primary port during construction and operation and maintenance. The ExA is mindful that this has not been queried by any IPs during examination. The ExA notes the applicants' position that the primary port would be very likely located in the Humber region, however, this would not be formally agreed or secured through the dDCO. Therefore, the ExA considers there could be some limited risk that the location could be chosen outside of the Humber region. This could potentially reduce the economic benefits for the Humber region, as detailed in the assessment. However, the ExA is mindful that any benefits would then occur in other regions of England and has been considered at UK level in the ES assessment.
- 4.8.38. Regarding R30, the ExA accepts the discussions between the applicants and relevant stakeholders and the ExA is therefore satisfied with the applicants' explanation as to the need for the requirement as part of the recommended draft DCO (appendix F of this Recommendation).

IMPACTS ON TOURISM BUSINESSES

- 4.8.39. Concerns were raised by J L White & Son and Butt Farm Caravan, Camping and Glamping Site [\[RR-054\]](#) in relation to potential impacts on and disruption to tourism sites with particular regard to Butt Farm. These concerns related to the long-term viability of the business, land take, landscape and visual amenity, traffic and access, as well as noise and vibration during the construction and operational phases.

Landscape and visual impacts

- 4.8.40. The applicants acknowledged at procedural DL A [\[PDA-013\]](#) that there would be moderate adverse significant visual effects during the construction and operational phases on Butt Farm. Landscaping proposals were set out in the Outline Landscape Management Plan (oLMP) [\[REP4-044\]](#) and would provide some mitigation which would mature over time. However, early in the examination, the applicants stated the effects would remain significant through to the operational phase at year one and year 10.
- 4.8.41. The ExA questioned this further at ExQ1 [\[PD-014\]](#) and sought to understand why no additional mitigation measures had been considered for the camping site during the construction period such as fencing or other screening to reduce any potential significant effects. The applicants responded at DL3 [\[REP3-027\]](#) and explained that proposed mitigation planting would assist in reducing potential impacts over time. However, at year 10, mitigation planting would only be effective in partly screening the onshore converter station(s). The applicants remained of the view that the effects would be moderate adverse during construction and operation. Regarding mitigation, the applicants highlighted that permanent fencing would not provide for appropriate screening, noting the maximum height of the converter station(s) would

be 24m. However, screening with existing and newly planted vegetation would be set out in the detailed LMP and separate agreements with landowners would be sought to consider compensation, if required.

- 4.8.42. At DL6, the applicants submitted an updated ES Chapter 29 [\[REP6-033\]](#) which continued to identify significant landscape and visual effects during the construction period for Butt Farm. However, the assessment for the operational period was updated following the submission of an additional viewpoint of the Butt Farm site [\[REP6-035\]](#) which reduced the identified moderate adverse significant effects at year 10 to minor adverse, not significant. The applicants stated that the magnitude of impact at year 10 would reduce to low. This was based on the expectation that the mitigation planting at year 10 would be effective in fully screening and filtering views from the tourism receptor on the onshore converter station(s).
- 4.8.43. ERYC confirmed at DL7 [\[REP7-142\]](#) that it agreed with the updated significance of effects assessment for tourism assets and the changes to the assessment of landscape and visual impacts during the operational phase for Butt Farm. However, ERYC acknowledged that small businesses would be sensitive to change and what might be deemed a minor issue from an external perspective, could potentially have a detrimental effect. ERYC therefore considered that careful consideration should be given to any impacts on the existing business, suggested that mitigation proposals should be reviewed and that the applicants work closely with the business to provide an acceptable solution.
- 4.8.44. The applicants agreed at DL8 [\[REP8-043\]](#) that it was their intention to work closely with the existing businesses and referred to the Outline Communications & Public Relations Procedure (Appendix B of the oCoCP [\[REP7-105\]](#)), which provided details on communication with businesses, such as nearby caravan parks and chalet sites.

Noise and vibration impacts

- 4.8.45. The ExA noted that tourism receptors, including Butt Farm and Strawberry Fields Holiday Park, were identified and assessed as part of the noise assessment as residential receptors, and sought clarification at ExQ1 [\[PD-014\]](#) on how the applicants had attempted to assess potential noise effects on tourism receptors related to these sites and whether it was appropriate to include tourism uses as part of the residential classification.
- 4.8.46. At DL3 [\[REP3-027\]](#), the applicants stated that noise sensitive receptors assessed as part of the noise assessment were identified based on being permanent buildings and their residential designation. However, tourism facilities, allowing for occasional overnight stays were not identified as noise sensitive receptors as the short-time noise exposure would unlikely impact on the guests' health and wellbeing (further discussed in section 4.9 (Noise and Vibration) of this Recommendation). The applicants stated that this approach was also taken forward on other major schemes such as High Speed 2. The applicants further stated that even if Butt Farm was identified as a separate noise sensitive receptor, noting its closer proximity to the OSZ than the host dwelling, the baseline noise data of the main residential property would be representative of the camping and caravan facility. ERYC accepted [\[REP3-037\]](#) the applicants' assessment and raised no further concerns.
- 4.8.47. At DL5 [\[REP5-036\]](#), the applicants acknowledged that noise and vibration impact on caravan and camping facilities had been considered in ES Chapter 29 [\[APP-219\]](#) by using residential receptors, however, that noise impacts on these tourism receptors

would be further reviewed based on predicted noise levels and qualitative noise data at the actual camping and caravan receptor locations.

- 4.8.48. ES Chapter 29 was updated at DL6 [\[REP6-033\]](#) and altered the assessment, identifying potential major temporary adverse significant noise effects during the construction phase at night-time for both Butt Farm and Strawberry Fields Holiday Park. Proposed mitigation including programming of works and a communication and grievance mechanism would be implemented, captured as part of the oCoCP [\[REP7-105\]](#). However, this would not reduce the significance of effects, which would remain major adverse for night-time construction noise at the 2 receptors. The assessment concluded minor adverse effects for noise for both receptors during the daytime.
- 4.8.49. ERYC confirmed at DL7 [\[REP7-142\]](#) that it agreed with the updated significance of effects assessment for tourism assets and the additional consideration of noise impacts during the construction phase for Butt Farm and Strawberry Fields Holiday Park.
- 4.8.50. Similarly to the identified landscape and visual impacts, ERYC considered [\[REP7-142\]](#) that appropriate consideration should be given to individual mitigation measures for the identified receptors. The applicants agreed at DL8 [\[REP8-043\]](#) that it was their intention to work closely with the existing businesses and referred to the Outline Communications & Public Relations Procedure (Appendix B of the oCoCP [\[REP7-105\]](#)), which provided detail on communication with businesses, including nearby caravan parks and chalet sites.

Other matters

- 4.8.51. Regarding traffic and access concerns, the applicants considered [\[PDA-013\]](#) that, with the implementation of the measures set out in the oCoCP [\[REP7-105\]](#) and Outline Construction Traffic Management Plan (oCTMP) [\[REP6-041\]](#), the effects during construction for any of the identified tourism receptors would not be significant.
- 4.8.52. Regarding the long-term viability of businesses, the applicants confirmed [\[PDA-013\]](#) and explained in the updated ES Chapter 29 [\[REP6-033\]](#) that compensation for any loss of business would be payable on a proven loss basis and evidence provided by the business. In relation to Butt Farm, the Land Rights Tracker [\[REP8-033\]](#) confirmed that discussions between the applicants and owners were ongoing.
- 4.8.53. The concerns raised regarding land take at Butt Farm are discussed in section 4.4 (Land Use and Agriculture) of this Recommendation.

ExA's considerations

- 4.8.54. The ExA notes the updated assessment in ES Chapter 29 [\[REP6-033\]](#) regarding landscape and visual impacts on Butt Farm. The ExA agrees with the applicants that the additional viewpoint provided may show that proposed planting, as detailed in the oLMP and secured through R10 and R11 of the recommended draft DCO (appendix F of this Recommendation), would reduce views directly from the camping site towards the OSZ at year 10. However, the ExA considers that a camping experience does not solely relate to the camping pitch itself, but also to the wider arrangements, including the arrival experience, the facilities ancillary to the campsite, and surrounding area when explored from the campsite by visitors. Therefore, there would be various areas, from further away or adjoining sites associated with the campsite and near the identified viewpoint, where views with

visibility onto the OSZ would remain to tourists and which would be less screened. This has not been considered in the assessment, and no further mitigation has been provided by the applicants. Consequently, the ExA considers that the visual effects from the OSZ on Butt Farm at year 10 would remain moderate adverse and significant.

- 4.8.55. The ExA agrees with the updated assessment in ES Chapter 29 [\[REP6-033\]](#) regarding noise effects on tourism receptors. The ExA is satisfied with the applicants' explanation as to how this would be managed, including the information contained in the oCoCP, secured through R19 of the recommended draft DCO (appendix F of this Recommendation). However, the ExA considers that the effects from temporary night-time noise on Butt Farm and Strawberry Fields Holiday Park would remain major adverse and significant during construction.
- 4.8.56. The ExA is satisfied with the assessment of transport and traffic effects on tourism receptors and the ExA considers that the proposed mitigation, as detailed in the oCTMP and oCoCP, secured through R14 and R19 of the recommended draft DCO (appendix F of this Recommendation) is appropriate.

CONCLUSIONS

Socio-economics

- 4.8.57. The ExA is satisfied that the applicants' assessment has addressed the potential socio-economic effects associated with the proposed development in accordance with section 5.13 of NPS EN-1. In addition, the ExA finds that the applicants have addressed the relevant provisions of policy in the MPS and the marine plans. The ExA is content that the proposed development would likely result in some minor beneficial effects for the Humber region and negligible beneficial effects for the UK regarding expenditure and employment during the construction and operational phases. In addition, the ExA notes that the proposed development would likely result in minor beneficial effects for the Humber region regarding changes in demographics during the construction and operational phase due to an expected decrease in the working age population in the region, with all other effects considered to be negligible adverse and not significant.
- 4.8.58. The ExA is content that the applicants have considered opportunities for local employment and skills development, as advocated by paragraph 5.13.12 of NPS EN-1 and which would be secured through R26 of the recommended draft DCO (appendix F of this Recommendation). In addition, the ExA notes that the applicants have considered local suppliers in the supply chain, as advocated by paragraph 5.13.6 of NPS EN-1, with the proposed submission of a supply chain strategy as part of the CfD regime post-consent.
- 4.8.59. The ExA notes that the primary port locations during the construction, and operation and maintenance phases are not currently secured and there could be potential for less benefits for the region than assessed in the ES, if the chosen location was to be outside the Humber region. However, the ExA is mindful that section 4.3.18 of NPS EN-1 provides for some flexibility in the consent to account for uncertainties in specific project details. In addition, the ExA notes that any benefits would be considered at UK-level if the port locations were to be moved to another region in England.
- 4.8.60. On balance and when concluding the matter overall, the ExA therefore considers that socio-economic effects carry a little positive weight for making the Order.

Tourism

- 4.8.61. The ExA is satisfied that the updated assessment has appropriately considered all relevant effects regarding tourism matters associated with the proposed development in accordance with sections 5.6 and 5.13 of NPS EN-1 and the relevant provisions of policy in the MPS and the marine plans.
- 4.8.62. The ExA disagrees with the applicants that the visual effects on tourism receptors would reduce to minor adverse and not significant at year 10 of operation and is of the view that effects would likely remain moderate adverse and significant, even with the implementation of the proposed planting scheme as detailed in the oLMP which would be secured through R10 and R11 in the recommended draft DCO (appendix F of this Recommendation).
- 4.8.63. In summary, given the assessment of moderate adverse landscape and visual effects during construction and operation on the camping and caravan business at Butt Farm, as well as the assessment of major adverse temporary night-time noise effects on Butt Farm and Strawberry Fields Holiday Park during construction, the ExA concludes that effects on tourism receptors carry a little negative weight against making the Order.

4.9. NOISE AND VIBRATION

INTRODUCTION

- 4.9.1. This section considers the effects of the proposed development on onshore human receptors from airborne noise and vibration. The impacts from underwater noise are considered in section 5 (Offshore Issues) of this Recommendation (where relevant).
- 4.9.2. In its consideration, the Examining Authority (ExA) has had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) (section 5.12)
 - the National Policy Statement for Renewable Energy Infrastructure EN-3 (NPS EN-3) (section 2.8)
 - the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5) (sections 2.9, 2.10 and 2.11)
 - the Local Impact Report (LIR)
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 4.9.3. The applicants' assessment of noise and vibration matters was in Environmental Statement (ES) Chapter 25 (Noise) [APP-201]. This was supplemented by 4 appendices [APP-204] to [APP-207] and relevant figures [APP-202]. A full list was set out in the Guide to the Application [APP-004]. This was updated through the course of the examination, with the final version submitted at deadline (DL) 9 [REP9-002].
- 4.9.4. The applicants submitted updated versions of ES Chapter 25 (Noise) [REP6-028] and the Construction Noise Assessment [REP1-021].
- 4.9.5. Vibration affecting human receptors, road traffic impacts and nearshore airborne noise for the operational phase and for offshore noise activities on onshore receptors were scoped out of the assessment by the applicants.

BASELINE

4.9.6. The study area was defined by applying buffer distances to relevant noise sensitive receptors, which were identified in figure 25-1 [\[APP-202\]](#):

- For construction noise, up to 300 metres (m) beyond the order limits, from elements that would generate noise for more than one month or at night during the construction phase.
- For construction vibration, up to 100m beyond the order limits, from elements that would generate vibration during the construction phase.
- For operational noise, up to 500m from the order limits from elements that would generate noise during the operational phase.
- For construction road traffic noise, the extent was based on road traffic links, identified as part of ES Chapter 24 (Traffic and Transport) [\[REP6-025\]](#).

4.9.7. The detailed assessment methodology with reference to relevant legislation and guidance documents was considered in section 25.4 of ES Chapter 25 [\[REP6-028\]](#) and identified that:

- Construction noise levels were informed by the methods and guidance in British Standard (BS) 5228-1 (Code of practice for noise and vibration control on construction and open sites, Part 1: Noise). The following lower end of range noise levels were considered by the applicants to represent the significant observed adverse effect level (SOAEL) and would result in a medium impact:
 - daytime: greater than or equal to 75 decibel (dB) to less than 80dB (07:00 to 19:00 weekdays, 07:00 to 13:00 Saturdays)
 - evenings and weekends: greater than or equal to 65dB to less than 70dB (19:00 to 23:00 weekdays, 13:00 to 23:00 Saturdays, and 07:00 to 23:00 Sundays)
 - night-time: greater than or equal to 55dB to less than 60dB (23:00 to 07:00)
- Construction vibration would derive from activities such as piling, excavation or ground compaction. The assessment was based on the guidance provided in BS 7385-2 (Evaluation and Measurement for Vibration in Buildings – Part 2: Guide to Damage Levels from Ground Borne Vibration). The human perception of vibration in residential environments was considered in line with the threshold levels of BS 5228-2 (Code of practice for noise and vibration control on construction and open sites, Part 2: Vibration) to determine potential significant effects. The assessment indicated that it had applied criteria for human annoyance, as building level damage levels would be significantly above levels which are considered tolerable by occupants. Vibrations levels above 1.0 millimetre per second would result in a significant effect.
- Construction road traffic noise was based on the 'Calculation of Road Traffic Noise 1988' (CRTN) and assessed the change in basic noise levels compared to the 2026 future base for all development scenarios. The assessment suggested that a 'low-flow correction' could be applied to annual average weekday traffic (AAWT) total vehicular 18 hours flows between greater than or equal to 1000 to less than or equal to 4000 vehicles. For road links outside the CRTN range (less than 1000 vehicles per 18 hours), Noise Advisory Council guidance was used to calculate noise levels of road traffic noise.
- Operational noise from the onshore converter station(s) was based on BS 4142 (Method for Rating and Assessing Industrial and Commercial Sound) and the World Health Organisation Night Noise Guidance for Europe. The magnitude of impact was considered in line with the predicted level of operational noise

sources and absolute night-time sound levels as detailed in table 25-15 of ES Chapter 25 [\[REP6-028\]](#).

- 4.9.8. The assessment stated that the methodology and baseline monitoring requirements had been agreed with East Riding of Yorkshire Council (ERYC) and Hull City Council (HCC) as explained in Appendix 25-1 Noise Consultation Responses [\[APP-203\]](#).

MITIGATION AND MONITORING

- 4.9.9. The applicants proposed several measures to reduce the impact of the proposed development on onshore receptors from noise and vibration. These measures were defined as embedded mitigation measures, considered inherently as part of the design of the proposed development and were outlined in table 25-3 of ES Chapter 25 [\[REP6-028\]](#). The measures were secured by way of requirements (R) in schedule 2 of the draft Development Consent Order (dDCO) [\[REP9-003\]](#). These included:
- The provision of acoustic enclosures to provide localised screening for stationary plant and noise barriers around work areas for mobile plant.
 - The development and adherence to a final Code of Construction Practice (CoCP), in accordance with the Outline Code of Construction Practice (oCoCP) [\[REP7-105\]](#) detailing noise management measures including site specific best practicable means noise control measures for the construction period, such as programming of works.
 - The development and adherence to a final Construction Traffic Management Plan (CTMP), in accordance with the Outline Construction Traffic Management Plan (oCTMP) [\[REP6-041\]](#) detailing methods to manage peak construction traffic flows and minimise significant transport impacts including traffic noise.
- 4.9.10. Construction noise and vibration would be monitored in line with the details to be agreed as part of the final CoCP. Construction working hours for the onshore works would be controlled through R20 of the dDCO [\[REP9-003\]](#). Control of noise during the operational phase, requiring the provision of a noise management plan, would be secured through R21 of the dDCO [\[REP9-003\]](#).

ASSESSMENT OF EFFECTS

- 4.9.11. ES Chapter 25 [\[REP6-028\]](#) stated that construction noise would principally derive from the operation of temporary construction compounds (TCC), laying and use of access and haul roads, excavation of trenches, and laying and pulling of cables including horizontal directional drilling (HDD) works. The potential impacts associated with noise and vibration during the construction phase were identified as follows:
- construction noise at the landfall zone
 - construction noise at the onshore cable corridor including from TCCs, HDD works and haul roads
 - construction noise at the onshore converter station(s)
 - construction road traffic noise
 - construction vibration
- 4.9.12. A summary of the potential pre-mitigation effects, proposed mitigation measures and residual effects was provided in table 25-30 of ES Chapter 25 [\[REP6-028\]](#).
- 4.9.13. Following inclusion of identified mitigation and monitoring measures, the assessment concluded that the residual effects would be minor adverse for all
- DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

scenarios, and no significant effects would arise from the proposed development during the construction phase at any sensitive receptors.

- 4.9.14. In order to control noise during the operational phase, R21 of the dDCO [REP9-003] would secure the preparation and implementation of a noise management plan. Consequently, the applicants' assessment [REP6-028] concluded no significant noise or vibration effects from any future development scenario from the operation of the onshore converter station(s) on any sensitive receptors.
- 4.9.15. The applicants' assessment [REP6-028] concluded that the magnitude of impacts from decommissioning would be comparable to, or less than those identified for the construction phase. The detailed activities and methodology for decommissioning would be determined at a later stage, and R27 of the dDCO [REP9-003] would secure the provision of those details.

ISSUES CONSIDERED DURING THE EXAMINATION

- 4.9.16. The principal issues considered during examination were:

- construction phase noise assessment methodology
- construction working hours
- noise effects on tourism receptors

CONSTRUCTION PHASE NOISE ASSESSMENT METHODOLOGY

- 4.9.17. The ExA had several queries regarding the applicants' construction phase noise assessment methodology, raised at issue specific hearing 2 (ISH2) [EV5-002]. The applicants responded to these at DL1 [REP1-050] and clarified the baseline for the methodology and noise impact criteria. The applicants provided examples of other large-scale schemes, such as High Speed 2, where a similar approach to the prediction of construction noise levels was taken and preceded.
- 4.9.18. At ISH2 [EV5-018], the ExA asked the applicants to clarify the approach to the assessment methodology for HDD night-time working. The applicants explained [EV5-018, REP1-049] that the longer the proposed trenchless crossing, the more likely would be the requirement for 24 hours working. The methodology was based on the likelihood of the duration, concluding that crossings less than 200m would be of low likelihood and those more than 200m would be of medium likelihood. In the absence of any concerns raised to the approach by any interested parties (IP), the ExA had no further queries on these matters.

ExA's considerations

- 4.9.19. The ExA considers that the matters raised regarding the construction phase assessment methodology have been suitably addressed and that the applicants' assessment of effects from noise and vibration is acceptable. No IPs raised any outstanding concerns at the end of examination, and therefore the ExA has no evidence to disagree with the applicants' methodology.

CONSTRUCTION WORKING HOURS

- 4.9.20. In its LIR [PDC-007], ERYC raised concerns with the proposed core construction working hours and did not consider that a generic 07:00 to 19:00 construction window from Monday to Saturday for the entire onshore works area would be appropriate in all locations. Therefore, ERYC suggested prior agreement of construction working hours, as part of the oCoCP [REP7-105], which would then allow an assessment in relation to individual noise sensitive receptors.

- 4.9.21. Following discussions at ISH2 [EV5-018], both ERYC [REP1-055] and the applicants [AS-155] initially agreed that additional information would be included in the oCoCP [REP7-105] to establish a process for determining areas where, in advance of construction, core working hours may not be appropriate and a consent under section 61 of the Control of Pollution Act 1974 (s61 consent) would need to be obtained by the principal contractor for certain activities in sensitive areas. This would allow ERYC the opportunity to raise with the applicants any areas of concern in relation to noise and the potential for either additional mitigation measures or the amendment of proposed working hours in these locations.
- 4.9.22. The applicants and ERYC were asked at the ExA's first written questions (ExQ1) [PD-014] to explain why any potential noise sensitive areas, where core working hours may not be appropriate, could not be agreed during examination. ERYC explained [REP3-037] that details of plant and equipment had not yet been identified for proposed elements of work in each location which would be useful when considering the circumstances of individual areas and potential mitigation required. The applicants highlighted [REP3-027] that, whilst they did not consider there to be any sites where core working hours would not be appropriate and that the applicants' assessment had not identified any residual significant effects, they would be willing to commit to obtaining s61 consent if required by ERYC. The applicants agreed with ERYC that this would be more effective when additional detail on the proposed development and construction techniques was available. The final signed Statement of Common Ground (SoCG) between the applicants and ERYC [REP8-015] suggested no outstanding matters regarding the proposed construction working hours.

ExA's considerations

- 4.9.23. The ExA recognises that the control of working hours during the construction period is important to limit potential impacts from construction noise on noise sensitive receptors, particularly for residential properties.
- 4.9.24. The oCoCP [REP7-105] details the proposed construction working hours as 07:00 to 19:00 Monday to Saturday, apart from specific circumstances for which further details have been provided in the oCoCP, and at no time on Sundays or Bank Holidays.
- 4.9.25. Following agreement between the applicants and ERYC, the ExA considers that the proposed s61 consent route, included in the oCoCP [REP7-105], and secured through R19 of the recommended draft Development Consent Order (draft DCO) (appendix F of this Recommendation), is appropriate to ensure there would be no unacceptable significant effects from noise during the construction period on identified noise sensitive receptors. The ExA is also mindful that no other IPs raised concerns with specific areas where construction working hours may not be appropriate or with construction working hours generally.
- 4.9.26. The applicants' assessment [REP6-028] did not identify any residual significant effects from the construction activities on the noise sensitive receptors and the ExA notes that the final signed SoCG between the applicants and ERYC [REP8-015] raised no concerns regarding the conclusions of the significance of effects assessment or the proposed construction working hours.
- 4.9.27. The ExA therefore considers that, subject to the proposed mitigation measures, the proposed development is unlikely to have a significant effect on noise sensitive receptors as a result of the proposed working hours during construction.

NOISE EFFECTS ON TOURISM RECEPTORS

- 4.9.28. The applicants clarified at DL3 [\[REP3-027\]](#) in response to ExQ1 [\[PD-014\]](#) that facilities that were used for occasional overnight stays, such as camping and caravan sites, were not identified as noise sensitive receptors as part of ES Chapter 25 [\[REP6-028\]](#) as the short-term duration of any noise impacts would be unlikely to negatively impact tourists' health and wellbeing. However, an update to ES Chapter 29 (Tourism and Recreation) at DL6 [\[REP6-033\]](#) separately set out the potential effects, including from noise on tourism receptors, and this has been considered further in section 4.8 (Socio-economics and Tourism) of this Recommendation.

ExA's considerations

- 4.9.29. NPS EN-1, paragraph 5.12.6, requires applicants to include an assessment of the effect of predicted changes in the noise environment on any noise sensitive receptors, including an assessment of any likely impact on health and quality of life and well-being, where appropriate. In addition, the Noise Policy Statement for England (2010) seeks to avoid significant adverse impacts on health and quality of life, mitigate and minimise adverse impacts on health and quality of life and, where possible, contribute to the improvement of health and quality of life.
- 4.9.30. With particular regard to the relevant policies, the ExA agrees with the applicants' conclusion that tourism receptors are not classified as noise sensitive receptors as part of the assessment in ES Chapter 25 [\[REP6-028\]](#) due to the limited time tourists and visitors would likely be exposed to construction and operational noise during their stay with limited impact on their health, quality of life and well-being.
- 4.9.31. On that basis, the ExA recognises the separate assessment on noise on tourism receptors as part of ES Chapter 29 [\[REP6-033\]](#) and has considered the potential effects in section 4.8 (Socio-economics and Tourism) of this Recommendation.

CONCLUSIONS

- 4.9.32. The ExA is satisfied that the applicants' assessment of the proposed development on sensitive receptors from airborne noise and vibration is consistent with the policies in section 5.12 of NPS EN-1, section 2.8 of NPS EN-3 and sections 2.9, 2.10 and 2.11 of NPS EN-5. The ExA considers that proposed mitigation and monitoring measures as set out in the oCoCP [\[REP7-105\]](#) and the oCTMP [\[REP6-041\]](#) are satisfactory and there would be no likely significant effects from noise and vibration on the health and well-being of sensitive receptors during either construction or operation of the proposed development.
- 4.9.33. Implementation of the oCoCP and oCTMP would be secured by R19 and R14 of the recommended draft DCO (appendix F of this Recommendation). In addition, construction hours for the onshore works would be secured by R20 and the control of noise during the operational phase would be secured by R21 of the recommended draft DCO.
- 4.9.34. The ExA therefore considers that the effects of the proposed development from noise and vibration on sensitive receptors are neutral and do not weigh for or against making the Order.

4.10. AIR QUALITY

INTRODUCTION

4.10.1. This section considers the effects of the proposed development on air quality.

4.10.2. In its consideration of air quality, the Examining Authority (ExA) had regard to:

- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1), as set out in section 5.2
- the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.8
- the Local Impact Report (LIR)
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

4.10.3. The applicants' assessment of the effects from the proposed development on air quality was presented in Environmental Statement (ES) Chapter 26 (Air Quality) [APP-208]. This was subsequently updated at deadline (DL) 7 [REP7-096] to reflect amendments to the proposed development following change request 2. ES Chapter 26 was supported by a number of appendices ([REP7-098 and APP-210 to APP-213]), including the Construction Dust and Fine Particulate Matter Assessment Methodology, Air Quality Assessment Traffic Data and Construction Phase Road Traffic Emissions Receptor Locations.

4.10.4. The conclusions drawn in ES Chapter 26 also cross-referenced the findings from ES Chapters 9 (Benthic and Intertidal Ecology) [REP7-038], 18 (Terrestrial Ecology and Ornithology) [REP7-064], 24 (Traffic and Transport) [REP6-025], 27 (Human Health) [APP-214] and 30 (Climate Change) [APP-222]. The Guide to the Application [REP9-002] set out where these documents were updated during examination.

4.10.5. Effects on air quality during the operational phase of the proposed development and all effects relating to offshore infrastructure were scoped out of the assessment. The chapter:

- Presented the existing environmental baseline and identified any assumptions and limitations encountered in compiling the environmental baseline information.
- Presented the potential environmental effects of the proposed development on air quality during the construction and decommissioning phases, and considered cumulative effects.
- Highlighted any necessary monitoring and mitigation measures which could avoid, reduce, or mitigate the possible environmental effects of the proposed development on air quality.

BASELINE

4.10.6. ES Chapter 26 [REP7-096] stated that baseline data sources and the assessment of potential air quality impacts were agreed with East Riding of Yorkshire Council (ERYC) and Hull City Council (HCC). The chapter set out the following baseline information:

- There were no Air Quality Management Areas (AQMA) in the area covered by ERYC.

- The Hull AQMA No.1 was located within the air quality study area for exceedances of the nitrogen dioxide (NO₂) annual mean around the A63 trunk road, which runs through the centre of Hull.
- Monitoring data in the East Riding showed that concentrations of NO₂ were below the annual mean objective at locations of relevant exposure, monitoring data collected by HCC showed that NO₂ concentrations were falling across the city, and there were no exceedances of the objective in 2022, including within the AQMA.
- Particulate matter concentrations were also well below the annual mean objectives for ERYC and HCC.

4.10.7. The applicants' assessment identified that there would be several human receptors located within 250 metres (m) of the onshore development area in and around Beverley, Routh, Skipsea and also on isolated farmsteads (see figures 26-3a to 26-3f [[REP7-098](#)]).

4.10.8. There would also be ecological receptors which could be sensitive to dust impacts within 200m of the onshore construction works (or within 50m of access routes), including Burton Bushes Site of Special Scientific Interest (SSSI) and areas of ancient woodland such as Birkhill Wood and Bentley Moor Wood (see figures 26-4a to 26-4c [[REP7-098](#)]).

MITIGATION

4.10.9. The applicants included several mitigation measures to reduce the impacts of the proposed development on air quality. These measures were defined as primary (included as part of the project design) and were outlined in table 26-3 of ES Chapter 26 [[REP7-096](#)]. The measures would be either secured by way of a requirement in schedule 2 of the draft Development Consent Order (dDCO) [[REP9-003](#)] or in schedule 1 of the dDCO (authorised development), including:

- Site selection to adhere to the Horlock Rules for the converter stations. Key principles informed the location of the onshore export cable corridor route, including having the shortest corridor possible to minimise the overall footprint and number of affected receptors, avoiding key constraints and designated sites for nature consideration and avoiding populated areas where possible.
- Development and adherence to a detailed Code of Construction Practice, in accordance with the Outline Code of Construction Practice (oCoCP) [[REP7-105](#)] to mitigate impacts on human receptors and nature conservation sites, including:
 - Commitment to use best practice dust management mitigation measures and site-specific dust mitigation measures.
 - Control over the use of non-road mobile machinery (NRMM) and their emissions.

4.10.10. As there would be a secured commitment to implementing the above measures, the applicants considered them to be inherently part of the design of the proposed development, and they were therefore considered in the applicants' assessment of effects.

ASSESSMENT OF EFFECTS

4.10.11. ES Chapter 26 [[REP7-096](#)] identified that construction activities could result in effects on sensitive receptors from dust emissions as a result of excavation, construction and earthworks, emissions from exhaust pollutants from construction traffic and emissions from on-site plant or NRMM operating in the order limits.

Subject to mitigation, there were predicted to be no significant effects on air quality during construction.

- 4.10.12. The applicants' assessment concluded that the magnitude of impacts during decommissioning on air quality would be comparable to, or less than those identified for the construction phase, and that the duration of decommissioning would be similar to the construction phase. The detailed activities and methodology for decommissioning would be determined at a later stage, and requirement 27 of the dDCO [\[REP9-003\]](#) would secure the provision of these details.
- 4.10.13. ES Chapter 26 concluded that there would be no significant cumulative effects on the basis that each project considered in the cumulative effects assessment would implement best practice measures and mitigation.
- 4.10.14. A summary of the potential impacts, proposed measures that would be adopted as part of the proposed development and residual effects in respect of air quality was set out in table 26-55 of ES Chapter 26 [\[REP7-096\]](#).
- 4.10.15. Overall, the applicants concluded that there would be no significant effects arising from the proposed development alone or alongside other projects or plans during the construction and decommissioning phases. As a result, no further mitigation was proposed.

ISSUES CONSIDERED DURING THE EXAMINATION

- 4.10.16. The principal issues considered during the examination were:
- designated sites
 - ancient woodland and Burton Bushes SSSI
 - control of emissions

DESIGNATED SITES

- 4.10.17. Natural England (NE) raised concerns [\[RR-039\]](#) regarding the methodology used for the applicants' air quality assessment for designated sites. NE did not accept the applicants' decision-making threshold approach and advised that the modelling which had been undertaken for the pollutants be tested against NE's thresholds for impacts in relation to the effects on designated sites from exhaust emissions.
- 4.10.18. The applicants provided a detailed response to NE's concerns [\[AS-048\]](#) including a technical note, comparing NE's guidance and the applicants' chosen decision-making threshold approach. NE was content [\[REP1-066\]](#) that the updated information demonstrated that the applicants' approach was sufficient to conclude that construction traffic associated with the proposed development would not impact on adjacent European sites.
- 4.10.19. NE requested [\[RR-039\]](#) more information regarding vessel movements and potential air quality effects on the Humber Estuary Special Area of Conservation and Special Protection Area. NE raised concerns regarding air quality effects from back-up generators and effects from NRMM on designated and national sites.
- 4.10.20. Regarding air quality effects from back-up generators on designated sites, NE stated [\[REP1-066\]](#) that following the response from the applicants, given the low level of use and the control measures outlined in the oCoCP [\[REP7-105\]](#), it did not require further information and would provide additional advice at the permitting stage, if required. NE also confirmed that, given the information provided on the

small number of vessel movements required for the landfall elements, it had no further comments on this matter.

- 4.10.21. NE stated [\[REP1-066\]](#) at DL1 that as the applicants had confirmed that there would be no temporary construction compounds within 200m of any designated sites, it did not intend to provide further information regarding air quality impacts from NRMM.

ExA's considerations

- 4.10.22. The ExA notes that the signed Statements of Common Ground (SoCG) with ERYC [\[REP8-015\]](#), HCC [\[REP8-018\]](#) and NE [\[REP9-018\]](#) confirm the baseline, assessment methodology and scope in ES Chapter 26 [\[REP7-096\]](#) were agreed matters. The ExA considers that the concerns raised by NE have been suitably addressed and that the applicants' assessment and conclusions of the likely effects on designated sites from impacts on air quality are acceptable.

ANCIENT WOODLAND AND BURTON BUSHES SSSI

- 4.10.23. Regarding Burton Bushes SSSI, NE confirmed [\[REP1-066\]](#) that given the distance of 200m from any temporary construction compounds, and considering the low-level of use of NRMM and back-up generators, and the control measures in the oCoCP [\[REP7-105\]](#), it did not require any further information regarding air quality impacts on the SSSI. NE stated that it would provide additional advice at the permitting stage, if required.
- 4.10.24. NE referred [\[REP1-066\]](#) to its standing advice regarding air quality impacts on Bentley Moor Wood ancient woodland. NE later noted [\[REP3-057\]](#) the potential proximity of the trenchless crossing compounds to Bentley Moor ancient woodland, but advised that owing to the applicants' proposed embedded mitigation measures outlined in ES Chapter 26 [\[REP7-096\]](#) (table 26-3), along with the temporary and short duration of the work, it considered the impacts on ancient woodland had been adequately addressed.
- 4.10.25. The Forestry Commission [\[RR-019\]](#) raised concern regarding the potential for air quality effects on ancient woodland, stating that if traffic emissions caused adverse effects on ancient woodland, then larger buffer areas than 15m would be required. At the relevant representation stage, the Woodland Trust [\[RR-058\]](#) welcomed the 15m buffer around ancient woodland.
- 4.10.26. Dr Mounce raised concerns regarding effects on ancient woodland and Burton Bushes SSSI from dust and pollution [\[RR-063\]](#), [\[REP1-090\]](#), [\[REP4-100\]](#), [\[REP5-072\]](#), [\[REP6-086\]](#), [\[REP7-161\]](#), [\[REP9-037\]](#), and stated that there had been inadequate assessment of the impacts of the proposed development. Concerns regarding impacts from construction on ancient woodland and Burton Bushes SSSI, other than air quality effects, are dealt with in section 4.1 (Onshore Ecology and Biodiversity) of this Recommendation.
- 4.10.27. Dr Mounce stated that dust could affect flora, and that there could be adverse effects as a result of the proposed development from chemical pollutants and nitrogen deposition. Dr Mounce considered that mitigation such as physical barriers, dust suppression and control over the timings of the proposed works would be needed. Dr Mounce also suggested that an arboricultural impact assessment should be provided from a suitably qualified arborist confirming that the ancient woodland would be adequately protected, with appropriate buffers and mitigation. Dr Mounce disagreed with the findings of the ES that there would be no impact on designated sites and stated that there had been insufficient evidence to demonstrate

satisfactory assessment of the impacts. At DL6, Dr Mounce suggested that a buffer of 200m to Burton Bushes SSSI and ancient woodland would be more appropriate than the distance of 120m currently proposed between the export cable corridor and Burton Bushes.

- 4.10.28. The applicants provided comprehensive responses [[PDA-013](#), [REP2-058](#), [REP5-037](#), [REP7-131](#)] to Dr Mounce's comments, stating that ES Chapter 26 [[REP7-096](#)] and ES Chapter 18 (Terrestrial Ecology and Ornithology) [[REP7-064](#)] confirmed that the effects on Burton Bushes SSSI arising from changes to nitrogen oxides, ammonia, nitrogen deposition and acid deposition from road traffic emissions and construction equipment would not be significant. For all construction scenarios, the magnitude of impact for disturbance caused by works associated with the proposed development would be negligible, as construction activities would not adversely affect the integrity or conservation status of the statutory sites. Any fugitive emissions would be controlled by the measures set out in table 18-4 of ES Chapter 18, including the Outline Ecological Management Plan (oEMP) [[REP7-107](#)], the oCoCP [[REP7-105](#)] and the Outline Construction Traffic Management Plan (oCTMP) [[REP6-041](#)].
- 4.10.29. At DL5, the Woodland Trust [[AS-180](#)] suggested that the mitigation measures proposed by the applicants were insufficient and that it had not been demonstrated by the applicants that the proposed buffer width of 15m was sufficient to protect ancient woodland, which was contrary to its earlier position [[RR-058](#)]. The Forestry Commission [[AS-182](#)] also raised similar points. At DL6 the Woodland Trust then confirmed [[REP6-079](#)] that regarding indirect impacts on ancient woodland, such as dust, noise and light pollution, provided that there were suitable controls in place, it did not have evidence to suggest indirect impacts could result in deterioration of Burton Bushes, given the distances involved. At DL7, the Woodland Trust accepted [[REP7-160](#)] that regarding impacts on Bentley Moor Wood ancient woodland, the final buffer width would be determined post-DCO consent through the discharge of requirements. Whilst it would have preferred to agree the buffer width prior to determination, it did not object to this approach.
- 4.10.30. The oEMP [[REP7-107](#)] was updated at DL7 to address comments from the Woodland Trust and included a section on 'Protective Buffer Zones' and ancient woodland at Bentley Moor Wood, stating that buffer zones surrounding retained areas of woodland and mature broadleaved trees would be at least 15m in width, or at least the width of the tree root protection zone (whichever was greater), as advised by an appropriately qualified arboriculturist. The protective buffer zones would be based on standard industry guidance including 'BS 5837:2012 —Trees in Relation to Design, Demolition and Construction' and would be informed by pre-construction surveys.
- 4.10.31. Dr Mounce maintained their objection at DL9 [[REP9-037](#)], stating that both the Forestry Commission and the Woodland Trust explicitly questioned whether the proposed 15m buffer zone would be sufficient to mitigate indirect impacts such as dust, noise, or air pollution from construction traffic and industrial processes, requesting supporting analysis to demonstrate this sufficiency. Dr Mounce stated that the applicants' commitment to the 15m buffer zone was based only on general guidance and did not provide the specific analysis requested by the Forestry Commission and Woodland Trust to demonstrate its effectiveness against wider-ranging indirect impacts.

ExA's considerations

- 4.10.32. The ExA notes that a comprehensive Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment and Outline Arboricultural Method Statement [REP7-121] was provided during examination, which assessed the impacts on ancient woodland. ERYC confirmed that the report and the associated impacts were acceptable. The ES also demonstrated that there would be a negligible impact on ancient woodland and Burton Bushes SSSI from emissions.
- 4.10.33. The ExA recognises that NE referred to its standing advice regarding the air quality impacts on ancient woodland, which states that 15m is the minimum buffer required, and that a larger buffer zone could be required where other impacts are identified, such as air pollution from a significant increase in traffic. The ExA notes that with mitigation, ES Chapter 24 (Traffic and Transport) [REP6-025] concluded that there would not be a significant adverse effect from additional traffic, and similarly, ES Chapter 26 (Air Quality) [REP7-096] concluded that with mitigation, there would not be significant effects on air quality during construction and operation of the proposed development.
- 4.10.34. The ExA has considered Dr Mounce's concerns and request to provide a buffer of 200m to Burton Bushes SSSI and ancient woodland. However, no evidence was presented to justify why this specific distance should be imposed. Whilst the Woodland Trust would have preferred to agree an appropriate buffer zone for ancient woodland prior to determination, the buffer would be at least as large as the minimum required by the relevant standing advice (15m), or larger if pre-commencement surveys found this to be required, which would be secured through the draft DCO [REP9-003] and would need to be agreed by ERYC. The ExA considers that this would give ERYC sufficient opportunity to consider if a larger buffer zone would be needed, based on up-to-date survey work at that time.
- 4.10.35. The ExA therefore considers that subject to the proposed mitigation measures, the proposed development is unlikely to have a significant effect on Burton Bushes or areas of ancient woodland due to impacts on air quality.

CONTROL OF EMISSIONS

- 4.10.36. NPS EN-1 paragraph 5.7.9 states that construction should be undertaken in a way that reduces emissions, such as the use of low emission mobile plant during construction, and that consideration should be given to making this mandatory in DCO requirements. The ExA queried [PD-014] whether the use of low emission mobile plant should be a mandatory requirement. ERYC considered [REP3-037] that it should be a mandatory requirement within the oCoCP, however, the applicants stated [REP3-027] that as final construction methodology would not be known until the detailed design stage post-consent, it would not be possible to commit to low emission plant being obligatory. The applicants highlighted that the oCoCP [REP1-025] stated that NRMM should comply with the appropriate regulations and that diesel or petrol powered generators should be avoided.
- 4.10.37. The ExA questioned this point further in its second written questions [PD-022] and the applicants agreed to update the oCoCP to state that the use of low emission NRMM would be mandatory to an agreed minimum standard. This was subject to an exemption clause, such as where vehicles are not available or could not be retrofitted, or where equipment was only needed for rapid deployment for short periods. The final oCoCP was updated on this basis and also would prohibit bonfires and the burning of waste materials which ERYC had requested [REP3-037].

- 4.10.38. Ms Bache [\[RR-060\]](#) suggested that there would be harm from dust emissions during construction on local residents. However, Ms Bache did not provide evidence to suggest that the applicants' proposed mitigation measures would be unsatisfactory or inadequate in controlling dust emissions.
- 4.10.39. ERYC's LIR [\[PDC-007\]](#) raised no concerns regarding the applicants' air quality assessment conclusions of no significant effects. ERYC welcomed the proposed mitigation measures set out by the applicants. The signed SoCGs with ERYC [\[REP8-015\]](#) and HCC [\[REP8-018\]](#) also confirmed that there were no outstanding concerns between the parties in relation to air quality mitigation measures.

ExA's considerations

- 4.10.40. The ExA notes that the likely effects from construction emissions as detailed in the applicants' assessment were negligible following the implementation of mitigation measures. There was no evidence presented during examination which leads the ExA to conclude differently. Following the amendments made to the oCoCP [\[REP7-105\]](#), the ExA considers that emissions as a result of the proposed development would be suitably controlled, and that construction would be undertaken in a way that reduces emissions as far as possible in accordance with NPS EN-1 paragraph 5.7.9.

CONCLUSION

- 4.10.41. The ExA is satisfied that the applicants' assessment of the impact of the proposed development on air quality is consistent with paragraphs 5.2.9 and 5.7.6 of NPS EN-1. The ExA considers that satisfactory mitigation and monitoring measures are included in the oCoCP [\[REP7-105\]](#), the oEMP [\[REP7-107\]](#) and the oCTMP [\[REP6-041\]](#). Implementation of the agreed final version of the CoCP would be secured by requirement 19 of the recommended draft DCO (appendix F of this Recommendation). As such, the ExA is satisfied that there would be no likely significant effects on air quality from dust or emissions associated with the proposed development.
- 4.10.42. The ExA considers that the proposed development has fully mitigated any likely direct and indirect effects from air quality on irreplaceable habitats in accordance with NPS EN-1 paragraph 5.4.32. The ExA concludes that, subject to mitigation, there would be no loss or deterioration of irreplaceable habitats as a result of effects on air quality in accordance with NPS EN-1 paragraph 5.4.53.
- 4.10.43. The ExA therefore considers that the effects of the proposed development on air quality do not weigh for or against making the Order.

4.11. HUMAN HEALTH

INTRODUCTION

- 4.11.1. This section considers the effects of the proposed development upon human health.
- 4.11.2. In its consideration of this topic, the Examining Authority (ExA) had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1), in particular section 4.4
 - the Local Impact Report (LIR)
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 4.11.3. The applicants' assessment of the effects from the proposed development on human health was in Environmental Statement (ES) Chapter 27 (Human Health) [APP-214], which identified that there could be effects on health from construction activities and during operation of the proposed development. ES Chapter 27 was supported by 2 appendices which provided information on the health study areas [APP-215] and consultation responses received prior to submission of the application [APP-216].

BASELINE

- 4.11.4. ES Chapter 27 identified that construction could result in, or impact on:
- recreational enjoyment of public open spaces and public rights of way (PRoW)
 - offshore recreational activities
 - highway, PRoW and cycle routes safety and access
 - onshore air quality
 - onshore and nearshore water quality from potential pollution releases
 - new or historic soil-based pollutants or toxins
 - noise disturbance
- 4.11.5. ES Chapter 27 section 27.3.1 set out the matters scoped in and out of the assessment. Of note, offshore air quality effects on human health were scoped out on the basis that there would be no pathway for a significant impact on human health receptors as there would be a relatively small number of vessels utilised as part of the proposed development, and there would be considerable distances to receptors. Operational onshore air quality effects on population health were scoped out due to limited onshore maintenance requirements which would not have potential for significant population health effects. Ground condition and soil effects were scoped out on the basis that risks of pollutant mobilisation, including direct exposure and food contamination, would be highly likely to be addressed by standard good practice mitigation measures. For onshore electrical infrastructure, 'actual' electro-magnetic field (EMF) risks (rather than perceived risks) were scoped out on the basis that the proposed development would adopt the International Commission on Non-ionizing Radiation Protection (ICNIRP) guidelines (ICNIRP, 1998) and Government voluntary Code of Practice on EMF public exposure (Department for Energy and Climate Change, 2012).
- 4.11.6. The human health study area was defined on the basis of relevant human populations that could be affected directly or indirectly by the proposed development.

MITIGATION AND ASSESSMENT OF EFFECTS

- 4.11.7. Mitigation would be provided to minimise impacts during the construction phase, including best practice measures to control dust emissions, equipment noise and pollution which could adversely affect human health and wellbeing. Measures were also set out in the Outline Code of Construction Practice (oCoCP) [REP7-105], including the Outline PRoW Management Plan and the Outline Construction Traffic Management Plan [REP6-041], to reduce and minimise the impact from construction traffic on local roads and active travel routes. The applicants concluded that given the temporary nature of the construction works, and occasionality of any potential disruption, effects were not likely to be significant.

- 4.11.8. The applicants' assessment [APP-214] identified that there could be negative effects on human health from the operation of the converter station(s), including noise disturbance and public perception of EMF risks. Mitigation was proposed to address concerns regarding perceived effects from EMFs in the Outline Communications and Public Relations Procedure contained in the oCoCP [REP7-105]. Effects during operation were considered to be minor adverse or negligible adverse and therefore would not be significant.
- 4.11.9. The applicants' assessment also identified that the proposed development could have beneficial effects on health from the following:
- reducing the effects of climate change
 - additional upskilling and educational support of the operational workforce
 - increased employment and economic impacts
 - wider energy security
- 4.11.10. The applicants' assessment concluded that, generally, there would be minor beneficial and negligible beneficial effects on health, which would not be significant. However, the applicants' assessment concluded that the effects from wider energy security would have a moderate beneficial effect which would be significant to vulnerable groups, particularly those at risk during temperature extremes, including heatwaves and cold weather, as well as people in poor health, including when accessing healthcare.
- 4.11.11. The applicants' assessment concluded that the magnitude of impacts on human health during decommissioning would be comparable to, or less than those identified for the construction phase, and that the duration of decommissioning would be similar to the construction phase. The detailed activities and methodology for decommissioning would be determined at a later stage, and requirement 27 of the draft Development Consent Order (dDCO) [REP9-003] would secure the provision of these details.
- 4.11.12. The applicants' assessment [APP-214] concluded that there would be no significant cumulative effects, following best practice measures and mitigation which each project would be expected to implement.

ISSUES CONSIDERED DURING THE EXAMINATION

- 4.11.13. The ExA raised queries regarding the applicants' health impact assessment which were dealt with at the ExA's first written questions (ExQ1) [PD-014]. The applicants suitably responded to these at deadline (DL) 3 [REP3-027], therefore the ExA had no further queries on these matters.
- 4.11.14. ERYC raised no concerns in its LIR [PDC-007] regarding the applicants' health impact assessment or its conclusions. The signed Statement of Common Ground (SoCG) with ERYC [REP8-015] confirmed agreement between the parties on the relevant policies, the baseline environment, assessment methodology, assessment conclusions, cumulative effects conclusions, mitigation and monitoring.
- 4.11.15. Dr Mounce [RR-063, REP1-090, REP4-100, REP5-072, REP9-037] suggested that the applicants' assessment provided limited consideration of the effects of the proposed development on human health, though Dr Mounce did not provide any specific information to demonstrate why they considered this to be the case. Sam Brewitt on behalf of St Peters House [RR-050] stated that the visual impacts of the converter station(s) would result in a deterioration in their quality of life, stress and impact on mental health. Whilst the ExA acknowledges these points, they were not
- DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

expanded on in detail and the ExA had no other evidence presented to it to suggest that the applicants' assessment was inadequate, so did not pursue these matters further.

CONCLUSION

- 4.11.16. The ExA finds in respect of human health that the requirements of NPS EN-1 have been met.
- 4.11.17. Section 4.15.6 of NPS EN-1, requires the Secretary of State (SoS) to consider possible sources of nuisance under section 79(1) of the Environmental Protection Act 1990 and how they may be mitigated or limited so that appropriate requirements can be included in any subsequent order granting development consent. Cross-reference is made to section 5.7 of NPS EN-1 on dust, odour and artificial light. The ExA has considered these possible sources of nuisance and recommends that, subject to mitigation and monitoring, nuisance from matters including dust, odour, artificial light, noise and vibration would not be an inevitable consequence of the proposed development.
- 4.11.18. NPS EN-1 paragraph 5.7.4 states that some impact on amenity for local communities is likely to be unavoidable. Impacts should be kept to a minimum, and at a level that is acceptable. The ExA is satisfied that the identified mitigation and controls would achieve that aim. The majority of the adverse effects identified by the applicants are likely to occur during the construction period, have been suitably mitigated and would not be significant. Conversely, the identified positive health benefits from wider energy security would have a moderate beneficial effect which would be significant for vulnerable groups during the operational phase of the proposed development.
- 4.11.19. Consequently, the ExA concludes that, overall the effects on human health weigh in favour of making the order. However, given the limited nature of this benefit, the ExA concludes that effects on human health carry a little positive weight in favour of making the Order.

4.12. CLIMATE CHANGE

INTRODUCTION

- 4.12.1. This section considers the effect of the proposed development on climate change.
- 4.12.2. In its consideration of this topic, the Examining Authority (ExA) has had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1), in particular sections 4.10 and 5.3
 - the National Policy Statement for Renewable Energy (NPS EN-3), in particular sections 2.4 and 2.8
 - the National Policy Statement for Electricity Networks Infrastructure EN-5 (NPS EN-5), in particular section 2.3
 - the relevant policies of the UK Marine Spatial Plan (MSP)
 - the Local Impact Report (LIR)
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 4.12.3. The applicants' climate change impact assessment was provided in ES Chapter 30 (Climate Change) [APP-222]. This was subsequently updated during the examination [REP6-036].
- 4.12.4. ES Chapter 30 considered both the impacts of the proposed development on climate change, through a greenhouse gas (GHG) assessment and the consideration of any potential impact of climate change on the proposed development, through a climate change resilience assessment (CCRA).
- 4.12.5. Further information to support the GHG and CCRA were provided in:
- Appendix 30-1 Climate Change Consultation Responses [APP-223]
 - Appendix 30-2 Greenhouse Gas Assessment Methodology [REP6-038]
 - Appendix 30-3 Climate Change Resilience Assessment [APP-225]
- 4.12.6. This section should be read in conjunction with the following:
- ES Chapter 20 Flood Risk and Hydrology [REP5-017]
 - ES Chapter 24 Traffic and Transport [REP6-025]
 - ES Chapter 26 Air Quality [REP7-096]

BASELINE

- 4.12.7. The GHG assessment considered the potential effects of the proposed development on climate change via GHG emissions created and avoided. The assessment considered the emissions which would arise from construction, operation and decommissioning activities associated with the proposed development.
- 4.12.8. The GHG assessment determined the change in GHG emissions resulting from the implementation of the proposed development and considered the impact of replacing electricity from fossil fuel sources with electricity from offshore wind. The study area of the GHG assessment was not geographically defined as emissions released or avoided due to the proposed development were considered to have the same effect on atmospheric GHG concentrations and the net effect on climate change, regardless of where they occurred.
- 4.12.9. The scope of the assessment encompassed GHG emissions from both the onshore and offshore elements of the proposed development, and included material extraction and manufacturing, transport and installation, operation and maintenance and end of life and decommissioning. Plate 30-1 in ES Chapter 30 [REP6-036] provided a schematic diagram to explain the assessment.
- 4.12.10. In addition, the change in GHG emissions from the loss of yield due to wake effects at ten offshore wind farms was also considered in the assessment following the requests of interested parties (IPs) and the ExA during the examination process.
- 4.12.11. The CCRA evaluated the resilience and vulnerability of the design and infrastructure of the proposed development to the projected effects of climate change over the construction, operation and maintenance, and decommissioning phases.

MITIGATION AND ASSESSMENT OF EFFECTS

- 4.12.12. In terms of minimising greenhouse gas emissions, embedded mitigation included following industry guidance to eliminate, reduce, substitute and compensate for greenhouse gases from the proposed development. The applicants also followed

frameworks and sustainability guidelines, for example by developing processes to ensure that resources were conserved and carbon savings could be obtained.

- 4.12.13. In terms of ensuring that the proposed development was resilient to the effects of climate change, embedded mitigation included using industry standards in the design process that would allow the design to prioritise resilience against hazards posed by climate conditions. Construction management plans such as Outline Project Environmental Management Plan [REP2-041] and Outline Code of Construction Practice [REP7-105] provided details of health and safety protocols, including measures to minimise the effects of extreme weather events on site workers.
- 4.12.14. In relation to the resilience of offshore structures, the applicants had considered extreme weather events, including those caused by climate change, such as heightened wave heights. The design of the offshore structures incorporated an estimated sea level rise attributed to climate change. Furthermore, the mobility of the seabed at the offshore wind farm was considered throughout the design lifespan. The applicants also committed to regular inspections and maintenance of offshore and onshore components during their operational lifetime to identify and remediate any damage and to ensure optimal working conditions.
- 4.12.15. A summary of potential likely significant effects on climate change was set out in Table 30-35 of ES Chapter 30 [REP6-036].
- 4.12.16. The GHG assessment calculated the potential for the avoided emissions by replacing electricity that would have been generated from natural gas. Avoided emissions were estimated to be approximately 91.8 million and 183.4 million tonnes for the in-isolation and sequential scenarios respectively. The applicants concluded this to be a beneficial effect, which was considered to be significant in EIA terms.
- 4.12.17. In relation to emissions associated with the loss of yield due to wake loss at ten neighbouring offshore wind farms, the applicants concluded that, even when accounting for wake loss, the proposed development would still represent a benefit in GHG emissions.
- 4.12.18. A summary of the proposed development vulnerability and resilience to climate change was provided in Table 30-32 of ES Chapter 30 [REP6-036]. The assessment concluded that, accounting for embedded mitigation, the vulnerability rating of the proposed development to identified climate hazards would be low. Therefore, there was a low likelihood that climate change impacts would adversely affect the proposed development during its construction and operation and maintenance phase. As such the applicants concluded that any effect of climate change on the proposed development would not be significant

ISSUES CONSIDERED DURING THE EXAMINATION

- 4.12.19. The principal issues considered during the examination were:
- GHG emissions
 - wake effects

GHG EMISSIONS

- 4.12.20. At ExQ1 [PD-014], the ExA sought clarification from the applicants in relation to the proposed development's contribution to combating climate change and reduction of greenhouse gas emissions.

- 4.12.21. In response [REP3-027], the applicants confirmed that the proposed development would have a capacity of 3GW. As such it would make a significant contribution to the achievement of both the national renewable energy targets and to the UK's contribution to global efforts to reduce the effects of climate change, generating enough clean renewable energy to power around 3 million typical UK households per year.
- 4.12.22. In relation to estimated avoided emissions, the applicants referred to their estimated figures of approximately 91.8 million and 183.4 million tonnes for the in-isolation and sequential scenarios respectively (over the operational lifetime). In their view, the applicants considered this was a beneficial effect, which was significant in EIA terms.

WAKE EFFECTS

- 4.12.23. Concerns around wake effects were raised by both Ørsted IPs [RR-044 and RR-045] and Projcos IPs [REP1-071], who own and operate a number of offshore wind farms (OWF) in the North Sea. These concerns related to the potential wake effects on the operation of their offshore arrays, including loss of energy yield.
- 4.12.24. The ExA examined the implications of wake effects on the applicants' climate change assessment as part of its consideration of other offshore infrastructure and activities (section 5.4).
- 4.12.25. At DL5, the Ørsted IPs submitted an assessment of the potential implications of wake effects from the proposed development on the energy yield and GHG emissions of their OWFs [REP5-120].
- 4.12.26. The applicants prepared a Greenhouse Gas Sensitivity Analysis of Wake Effects [REP4-095], along with an Additional Wake Loss Scenarios [REP6-040], to the Chapter 30 Climate Change (Revision 2) [REP6-036] at DL6.
- 4.12.27. The applicants considered three hypothetical wake effect scenarios, assuming a uniform wake loss at each of the neighbouring OWF. The applicants considered the 1% scenario to be the most representative of the total CO₂ emissions avoided for both projects and concluded that emissions were reduced from 183.5 tonnes CO₂e to 168.4 tonnes CO₂e. The applicants acknowledged that whilst this was lower than originally assessed, when considering wake effects, the proposed development would still enable the provision of renewable energy to the UK electricity grid and significantly contribute to the UK's progress in meeting its net zero targets. On that basis, the applicants' position was the overall significance of effect remained beneficial, which was significant in EIA terms.
- 4.12.28. The issue of wake effects and the potential implications on GHG emissions is considered in this Recommendation in section 5.4 Other offshore infrastructure and activities, which explores the ExA's examination of wake effects in more detail and concludes that even in accepting wake effects at the scale alleged by the Ørsted IPs, there would not be any change to the overall outcome of the applicants' assessment of GHG emissions.

CONCLUSION

- 4.12.29. The ExA is satisfied that the proposed development is in accordance with NPS EN-1, NPS EN-3 and NPS EN-5 concerning climate change effects, both from and on the proposed development. The ExA finds that GHG emissions have been adequately assessed by the applicants and that they have taken reasonable steps
- DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

to reduce the GHG emissions associated with the construction, operation and maintenance, and decommissioning of the proposed development.

- 4.12.30. The ExA agree with the applicants that the proposed development would generate GHG emissions, the majority of which would be during the construction phase. The ExA is satisfied that the likely construction emissions would not exceed the emissions that would be avoided through the operation of the proposed development. The ExA therefore accepts the applicants' position that the proposed development would ultimately provide a net beneficial effect to the reduction of GHGs.
- 4.12.31. Through the introduction and adoption of embedded mitigation measures, the ExA is satisfied that the applicants have sought to reduce carbon emissions and, as such, the proposed development meets the requirement set out in paragraph 5.3.5 of NPS EN-1.
- 4.12.32. The ExA is satisfied that the consideration of offshore wake effects does not have any implications for the conclusions of the GHG assessment undertaken for the proposed development.
- 4.12.33. The ExA is aware of the Finch Judgement (2022 EWCA Civ 187) of 20 June 2024 in respect to the issue of the environmental statement omitting the GHG emissions when the oil extracted is eventually used producing downstream emissions. No IP raised the Finch Judgment as an issue during the examination or the issue of downstream emissions. As the proposed development relates to an OWF, the ExA is satisfied that the ES [\[REP6-036\]](#) considers the full scope of GHG emissions from the proposed development through construction, operation and maintenance, and decommissioning has been assessed. The ExA is satisfied there would be no downstream emissions from this proposed development and concludes that the SoS can be satisfied on this basis.
- 4.12.34. The ExA considers there are no residual effects or issues which affect the planning balance to avoid "double counting" the substantial positive weight which has been taken into account in the NPS EN-1 in respect to identifying the need for energy including offshore wind.
- 4.12.35. Overall, the ExA considers that the proposed development would have a beneficial effect on reducing GHG emissions and would make a contribution to achieving the Government's ambition to deliver 50GW of offshore wind capacity by 2030. As this benefit has already been attributed weight in the overarching need case for the proposed development, it cannot be counted twice. Therefore, the ExA concludes that there are no matters relating to climate change which would weigh for or against the Order being made.

5. OFFSHORE ISSUES

5.1. MARINE ARCHAEOLOGY

INTRODUCTION

5.1.1. This section considers the effects of the proposed development on marine archaeology, including offshore cultural heritage.

5.1.2. In its consideration, the Examining Authority (ExA) has had regard to:

- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) (section 5.9)
- the National Policy Statement for Renewable Energy (NPS EN-3) (section 2.8)
- the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans and the UK Marine Policy Statement (MPS)
- the Local Impact Report (LIR)
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

5.1.3. The applicants' assessment was in Environmental Statement (ES) Chapter 17 (Offshore Archaeology and Cultural Heritage) (application version: [\[APP-133\]](#), final version [\[REP7-062\]](#)). The chapter:

- presented the existing environmental baseline and identified any assumptions and limitations encountered in compiling the environmental baseline information
- presented the potential environmental effects of the proposed development on marine archaeology during the construction, operation and decommissioning phases, and considered cumulative effects
- highlighted any necessary monitoring and mitigation measures which could avoid, reduce, or mitigate the possible environmental effects of the proposed development on marine archaeology

5.1.4. This assessment drew from information in:

- Appendix 17-2 Archaeological Assessment of Geophysical Data for Environmental Impact Assessment (EIA) [\[APP-136\]](#)
- Appendix 17-3 Palaeolandscapes Assessment of 2022 Marine Geophysical Data [\[APP-137\]](#)
- Appendix 17-4 Stage 1 Geoarchaeological Review of Geotechnical Data [\[APP-138\]](#)
- Appendix 17-5 Gazetteer of Recorded Losses [\[APP-139\]](#)

BASELINE

5.1.5. The study area for the offshore archaeology and cultural heritage assessment was defined in section 17.3.1 of ES Chapter 17 [\[REP7-062\]](#) as the offshore development area, including the intertidal zone at the landfall up to mean high water springs (MHWS), as shown in figure 5-1 of ES Chapter 5 (Project Description) [\[REP7-032\]](#). There was an overlap at the landfall with the onshore archaeological study area (as defined in ES Chapter 22 (Onshore Archaeology and Cultural Heritage) [\[REP7-073\]](#)), between MHWS and mean low water springs (MLWS).

- 5.1.6. Surveys which informed the baseline environment were detailed in section 17.4.2 [REP7-062]. The approach to the assessment of heritage assets was defined in section 17.4.3 and considered heritage assets and their settings likely to be impacted by the proposed development, including any direct and indirect (physical) impacts. The approach to the assessment of historic seascape character in section 17.4.4 considered its ability to accommodate change.
- 5.1.7. Section 17.5 of ES Chapter 17 [REP7-062] described the existing environment and defined this as “the known archaeological and cultural heritage resource and the potential for previously unrecorded heritage assets and finds to be present within the Offshore Development Area” relating to seabed prehistory, maritime and aviation archaeology, intertidal archaeology and historic seascape character. The applicants’ assessment identified:
- No known in situ prehistoric sites within the study area, though, a multi-age sequence of channel features was identified in the array area with potential to represent periodic sub-aerial exposure of the Dogger Bank from the Eemian interglacial to the early Holocene. The palaeolandscape potential of the offshore export cable corridor was lower in comparison, but localised pockets of alluvium were preserved, potentially associated with palaeochannel features. The nearshore part of the offshore export cable corridor showed evidence of relict channels and other potentially former terrestrial features.
 - 847 seabed features of archaeological interest (categorised as ‘A1 – anthropogenic origin of archaeological interest’) or potential archaeological interest (categorised as ‘A2 – anomaly of likely anthropogenic origin but of unknown date (A2_h)’ or ‘anomaly of possible anthropogenic origin but interpretation is uncertain (A2_I)’ and ‘A3 – historic record of possible archaeological interest with no corresponding geophysical anomaly’) including 9 confirmed, but unidentified, wrecks. One wreck (categorised as ‘A3’) was identified to exist in the construction buffer zone, beyond the geophysical study area (Feltre, reference 70659, shown in figure 17-3d of [APP-134]). The location was last surveyed in September 2016 but was not covered by the 2022 datasets.
 - Fragmented remains of World War 2 coastal defences and activity of iron age and roman, medieval and post-medieval settlements in the intertidal zone.
- 5.1.8. The identified receptors taken forward in the assessment included known and potential heritage assets, in situ prehistoric, maritime or aviation sites below MHWS, subsurface archaeology and geoarchaeological and palaeoenvironmental deposits, and isolated finds.

MITIGATION AND MONITORING

- 5.1.9. The applicants proposed reducing the impact on marine archaeology by incorporating embedded mitigation measures, considered inherently as part of the design of the proposed development. As detailed in table 17-3 of ES Chapter 17 [REP7-062], this included the avoidance of historic wrecks as a design principle for route selection of the offshore export cable corridor.
- 5.1.10. Proposed monitoring proposals were set out in the Outline Written Scheme of Investigation (oWSI) (offshore) [APP-246] and would be further developed prior to construction. The oWSI (offshore) would be secured in the Deemed Marine Licences (DML) as part of the draft Development Consent Order (dDCO). They would consist of archaeological analysis of any pre- and post-construction geophysical and geotechnical survey data to identify known and potentially

unknown heritage assets, seabed and palaeolandscape features and monitoring any potential effects.

ASSESSMENT OF EFFECTS

Construction phase

- 5.1.11. The applicants' assessment [REP7-062] identified that construction activities could result in direct (physical) impacts on known and potential offshore heritage assets, and indirect impacts on offshore heritage assets from changes to physical processes from the siting of the offshore parts of the proposed development.
- 5.1.12. For known heritage assets, proposed additional mitigation, set out in the oWSI (offshore) [APP-246] would avoid all direct impacts and for all development scenarios, the residual effects would be not significant. A total of 56 area exclusion zones (AEZ) (43 in the array area and 13 in the offshore export cable corridor) were recommended by the archaeological consultants, with buffers of 25, 50 and 100 metres (m) as shown in table 17-19 of ES Chapter 17 [REP7-062]. Features of possible interest would be avoided through micro-siting of the final design. The applicants' assessment stated that, where micro-siting would not be possible, the archaeological interest of the feature would need to be established by additional investigation through remotely operated vehicle (ROV) or diver surveys post-consent. Based on its individual nature, appropriate mitigation would then be determined on a case-by-case basis, if required.
- 5.1.13. Further assessment of pre-construction high-resolution geophysical and geotechnical data would be required post-consent to avoid impacts on potential heritage assets. Any unexpected discovery would be reported using a formal protocol for archaeological discoveries to establish potential archaeological interest and recommend appropriate mitigation measures. Temporary exclusion zones would be established for any possible unexpected discoveries, if encountered. The applicants' assessment [REP7-062] noted that following confirmation of archaeological material, additional mitigation measures to record or conserve the site would be agreed in consultation with Historic England (HE). Together with the implementation of additional mitigation, secured in the oWSI (offshore) [APP-246], the applicants concluded that the residual effects for potential heritage assets for all development scenarios during construction would not be significant.
- 5.1.14. For indirect impacts on heritage assets from changes to physical processes, the applicants' assessment concluded that there would be no impact, and the identified significance would be that of no change. On that basis, no additional mitigation would be required.

Operational phase

- 5.1.15. ES Chapter 17 [REP7-062] concluded that all known heritage assets would be avoided throughout the lifetime of the proposed development through the retention of AEZs as there would be no pathway for impact during routine or unscheduled maintenance activities.
- 5.1.16. There could be impacts on potential heritage assets if archaeological material was found to be present within the footprint of jack-ups or vessel anchors deployed during planned or unscheduled maintenance activities. The applicants' assessment stated that review of proposed post-construction monitoring, as set out in the oWSI (offshore) [APP-246] and the In Principle Monitoring Plan (IPMP) [REP7-115], would further reduce, as far as possible, the potential for unintended impacts during

operation. The approach to unexpected discoveries and implementation of a formal protocol was also set out in the oWSI (offshore) [APP-246]. The assessment concluded that, with the proposed mitigation, the residual effects would not be significant.

Decommissioning

- 5.1.17. ES Chapter 17 [REP7-062] identified that there would be no pathway for impact on known heritage assets during decommissioning as they would be avoided through the retention of AEZs. Impacts on potential heritage assets would have already occurred during the construction phase. Potential remains for jack-up vessels or anchors to be deployed during decommissioning activities not previously subject to disturbance would have the potential for direct impacts. The assessment concluded that the magnitude of impact would be comparable to, or less than those identified for the construction phase.
- 5.1.18. The detailed methodology and activities for offshore decommissioning would be determined at a later stage, and one or more offshore decommissioning programme(s) would be submitted prior to commencement of the offshore works. Requirement 7 of the dDCO [REP9-003] would secure the provision of these details.

Transboundary effects

- 5.1.19. ES Chapter 17 [REP7-062] highlighted the potential for the proposed development to contribute to the accumulation and sharing of data for offshore archaeology from various offshore developments in the North Sea with the potential to result in significant beneficial transboundary effects.

ISSUES CONSIDERED DURING THE EXAMINATION

- 5.1.20. The principal issues considered during the examination were:
- impact assessment methodology
 - outreach and engagement programme
 - written scheme of investigation

IMPACT ASSESSMENT METHODOLOGY

- 5.1.21. HE in its deadline (DL) 1 submission [REP1-059], and the ExA's first written questions (ExQ1) [PD-014], queried whether the applicants' assessment had appropriately considered direct impacts on unknown or unrecorded heritage assets. Should any impact on unknown heritage assets occur, it was questioned by the ExA and HE whether the anticipated changes would be of negligible magnitude and minor adverse significance, as stated in the assessment. HE considered there would likely be potential for a greater degree of harm to unknown heritage assets than suggested in the assessment, noting that the harm would be irreversible, and offsetting would only be fully possible prior to an impact occurring. In addition, HE stated it would not seem possible in broader terms to conclude that no significant adverse residual effects would result from the impacts identified, noting that high resolution survey work had not been completed for areas of the seabed planned to be disturbed by construction activities. There would likely be long term reduced access to geoarchaeological and paleoenvironmental deposits of heritage interest.
- 5.1.22. The applicants responded [REP2-057, REP3-027] to highlight that further archaeological assessments of pre-construction data and ground-truthing would be undertaken post-consent to better understand possible archaeological interest and identify appropriate mitigation measures to avoid or offset impacts. In consultation

with HE, appropriate recording, conservation and mitigation of any archaeological material that may be encountered would be undertaken to ensure that the cultural significance of the find would not be lost. The applicants confirmed that the detailed Written Scheme of Investigation (WSI) (offshore) would contain measures to manage and mitigate residual impact to the lowest practicable level and changes in cultural heritage significance would not be considered material. A commitment to post-construction monitoring was set out in the IPMP [REP7-115]. On that basis, the applicants concluded that the effects would not be greater than minor adverse and not significant. The applicants agreed with HE that although the probability would be low, impacts of higher magnitude could still occur.

- 5.1.23. HE confirmed at DL3 [REP3-043], following discussions with the applicants, that the matter was resolved. The updated ES Chapter 17 was submitted at DL7 [REP7-062] and the final signed Statement of Common Ground (SoCG) between the applicants and HE [REP9-011] also suggested no outstanding concerns on this matter.

OUTREACH AND ENGAGEMENT PROGRAMME

- 5.1.24. HE expressed concerns [RR-022, REP1-059] that any suggested proposals for public benefit and engagement would be limited and would need considerable modification befitting the scale of the project. In relation to the offshore matters, the applicants responded [PDA-013, REP2-058] to highlight that section 6.4 of the oWSI (offshore) [APP-246] already set out commitments to developing an approach to engagement with academic and industry-wide research initiatives to deliver public benefit through data sharing and enhancement of the marine archaeological record. The oWSI (offshore) [APP-246] included the implementation of a programme of public outreach and opportunities to integrate both onshore and offshore archaeology as part of the outreach and engagement programme. This matter is discussed further in section 4.3 (Onshore Historic Environment) of this Recommendation.

- 5.1.25. In relation to offshore archaeology, HE accepted at DL5 [REP5-046] that through the provision already set out in the oWSI (offshore) and commitment C20 of the Commitments Register [REP9-009] opportunities to realise public benefits from the project would be established post-consent and in consultation with key stakeholders, including HE. The final signed SoCG between the applicants and HE [REP9-011] also raised no outstanding concerns on this matter.

OFFSHORE WRITTEN SCHEME OF INVESTIGATION

- 5.1.26. HE [RR-022] raised concerns that the proposed compensation measures for kittiwake [REP9-007], and guillemot and razorbill [REP6-012] could have adverse effects on elements of the historic environment and requested that a requirement to prepare a WSI (offshore) in relation to the proposed compensation measures should be included in the dDCO. In addition, HE stated that the oWSI (offshore) [APP-246] would need to appropriately consider mitigation and offsetting works in relation to pre-construction, construction, operation and maintenance, and decommissioning phases of the proposed locations for the installation of artificial nesting structures (ANS).
- 5.1.27. The applicants confirmed at procedural DL A [PDA-013] that any potential offshore ANS would be applied for under a separate marine licence outside the development consent order (DCO) application. This would include the assessment of effects of any proposed works on the historic environment. The applicants anticipated that a WSI for the works would be a condition on the corresponding marine licence.

Alongside the marine licence application for the ANS, separate WSIs would be submitted for the pre-construction, construction, operation and maintenance, and decommissioning phases. The applicants therefore considered that an obligation to conduct WSIs as part of the DCO was not required.

- 5.1.28. HE acknowledged the applicants' response [\[REP1-059\]](#) and requested to be consulted on the proposed locations of ANS prior to any marine licence application being submitted. The applicants confirmed [\[REP2-057\]](#) that an introduction to the site selection and planned licensing route for the ANS was held with HE in January 2025 and further consultation would be undertaken throughout the marine licence application process. HE confirmed at DL5 [\[REP5-046\]](#) that the approach set out by the applicants was acceptable.

CONCLUSIONS

- 5.1.29. The ExA is satisfied that the applicants' assessment of the impact of the proposed development on marine archaeology considers all relevant potential effects during the construction, operation maintenance, and decommissioning phases alone and cumulatively with other projects in accordance with section 5.9 of NPS EN-1 and section 2.8 of NPS EN-3, the MPS and relevant marine plans and any other important and relevant matters.
- 5.1.30. The ExA is also satisfied that all previously raised matters of concerns have been suitably addressed, and any potential effects would be satisfactorily mitigated and monitored through the measures contained in the detailed WSI (offshore), secured as part of the 6 DMLs in the recommended draft DCO (appendix F of this Recommendation).
- 5.1.31. The ExA therefore considers that the effects of the proposed development on marine archaeology carry neutral weight and do not weigh for or against making the Order.

5.2. SHIPPING AND NAVIGATION

INTRODUCTION

- 5.2.1. This section looks at the effects of the proposed development on shipping and navigation. In its consideration of the effects on shipping and navigation, the Examining Authority (ExA) has had regard to:

- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1), in particular section 4
- the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.8
- international obligations relevant to marine navigation
- the relevant policies of the UK Marine Policy Statement (MPS), and the East and North East Inshore and Offshore Marine Plans
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

- 5.2.2. The applicants' assessment was first set out in ES Chapter 14 Shipping and Navigation [\[APP-121\]](#) and ES Chapter 14 Figures 14-1 to 14-10 [\[APP-122\]](#).

5.2.3. The applicants submitted updated versions of ES Chapter 14 [REP7-051], ES Chapter 14 Figures 14-1 to 14-7 [REP7-053] and other supporting documents during the examination. For the sake of brevity, only the final versions of these are listed here but previous iterations are set out in the Guide to the Application [REP9-002] and will be referred to in this section as appropriate.

5.2.4. The supporting documents and appendices were referenced in section 14.1 of ES Chapter 14, including:

- Appendix 14-1 Shipping and Navigation Consultation Responses [APP-123]
- Appendix 14-2 Navigational Risk Assessment (NRA) [REP7-054])

BASELINE

5.2.5. The applicants defined the study area in section 14.3 of ES Chapter 14 [REP7-051] on the basis of a 10 nautical miles (nm) buffer around the proposed development array areas and a 2nm buffer around the proposed offshore export cable corridor.

5.2.6. The applicants defined the baseline environment in section 14.5 of ES Chapter 14 [REP7-051]. Navigational features within the study area were identified in figure 14-2 [REP7-053] and included:

- Dogger Bank A Offshore Wind Farm (OWF), Dogger Bank B OWF and Sofia OWF which are approximately 4.1nm, 9.2nm and 18.6nm respectively from the proposed offshore development
- oil and gas infrastructure; Cavendish platform, Munro platform, Cygnus platforms, Trent platform, Boulton platform, Garrow platform
- a sub-sea pipeline connecting the Shearwater gas field and Bacton Gas Terminal
- three disused sub-sea pipelines
- sub-sea cables
- charted wrecks and obstructions
- military training areas

5.2.7. Vessel traffic movement surveys identified 10 main commercial routes within the proposed development study area, as identified in table 14-10 and figure 14-5 of ES Chapter 14 [REP7-051 and REP7-053]. All routes were reported to have one or less average daily vessel movements.

5.2.8. Historical maritime incidents between 2012 and 2021 were identified in figure 14-7 [REP7-053]. A total of 22 incidents were recorded in the study area.

ASSESSMENT OF THE CONSTRUCTION, OPERATION AND DECOMMISSIONING PHASES

5.2.9. For the purposes of the assessment, the applicants considered the worst-case maximum design parameters set out in table 14-1 [REP7-051] for the proposed Dogger Bank South (DBS) East and DBS West developments being constructed in isolation, sequentially or concurrently. Scenarios of 10% and 20% were considered in relation to potential growth in commercial, fishing and recreational vessel activity, as stated in section 14.5.4 of ES Chapter 14.

5.2.10. The applicants defined the construction and operational impacts assessed in section 14.6 of ES Chapter 14 [REP7-051] as follows:

- vessel displacement and increased vessel to vessel collision risk between third-party vessels

- increased vessel to vessel collision risk between a third-party vessel and a vessel associated with the proposed development
- creation of vessel to structure collision risk
- reduction of under-keel clearance due to cable protection
- anchor interaction with sub-sea cables
- reduction of emergency response capability (including search and rescue (SAR) access)

5.2.11. To inform the assessment of likely significant effects, the applicants considered the embedded mitigation measures in table 14-3 of ES Chapter 14 [\[REP7-051\]](#), which would be secured by conditions of the draft Deemed Marine Licences (DMLs) in schedules 10 to 14a in the draft Development Consent Order (dDCO) [\[REP9-003\]](#). This included mitigation and working practices for:

- aids to navigation management plan including marking and lighting
- application of safety zones including 500 metres (m) for construction and maintenance activities, and 50m for installed structures
- cable burial risk assessment
- charting of infrastructure
- compliance with Marine Guidance Note (MGN) 654 including search and rescue
- liaison with the fishing industry to support coexistence
- marine coordination for project vessels
- promulgation of information

5.2.12. Table 14-27 of ES Chapter 14 [\[REP7-051\]](#) summarised the significance of effects during all phases as broadly acceptable for the proposed development in isolation. The exceptions were vessel displacement and increased vessel to vessel collision risk between third-party vessels, which were assessed as tolerable with mitigation. The applicants reported in section 14.6.1 of ES Chapter 14 [\[REP7-051\]](#) that this was due to the deviation, ranging from 0.1 to 6.8nm, of 7 commercial shipping routes should the proposed DBS East and West projects both be constructed. The maximum percentage change in a route length was reported to be 1.1%. In addition, risk modelling identified the frequency of collision would increase by 45% but the applicants clarified that the likelihood of a collision remained low. No additional mitigation was proposed to reduce the significance of effect, and the applicants contended the residual risk to be as low as reasonably practicable (ALARP).

5.2.13. The cumulative effect assessment in section 14.8 of ES Chapter 14 [\[REP7-051\]](#) identified further deviations to commercial shipping routes due to the presence of other projects in the vicinity, and the potential for increased third-party vessel to vessel or project vessel collision risk. In addition, a reduction of emergency response capability was reported due to the cumulative presence of structures, increased vessel activity and personnel numbers. These impacts were assessed as tolerable with mitigation in section 14.8 of ES Chapter 14. No additional mitigation was proposed to reduce the significance of effect, and the applicants contended the residual risk to be ALARP. All other potential impacts were assessed to have no potential for cumulative effects in table 14-23 of ES Chapter 14.

5.2.14. The applicants identified the potential for transboundary effects relating to the displacement of commercial vessels in section 14.9 of ES Chapter 14 [\[REP7-051\]](#). The baseline environment information was reported to reflect international characterisation of commercial vessel movements, therefore the transboundary effects were integral to the assessment in ES Chapter 14. As such, the applicants concluded no likely significant transboundary effects.

ISSUES CONSIDERED DURING THE EXAMINATION

5.2.15. On 10 March 2025, a serious maritime incident occurred in the North Sea off the east coast of England. The applicants confirmed “the highly unusual incident involving an oil tanker and a cargo ship was not in the vicinity of the proposed Dogger Bank South offshore wind farms or any operational projects in the area” [REP3-001]. The ExA was not presented with evidence to suggest the incident affected the assessment of effects submitted in ES Chapter 14 [REP7-051] and as such, did not consider the matter further.

5.2.16. The main issues for shipping and navigation in the examination were:

- search and rescue capability
- electro-magnetic interference to navigational equipment
- vessel displacement assessment

SEARCH AND RESCUE CAPABILITY

5.2.17. The ExA explored how the effect on SAR operations had been quantified, including justification for the extremely unlikely frequency of occurrence stated in tables 14-21 and 14-27 [REP7-051] and whether SAR response times would be affected by the proposed development [PD-014].

5.2.18. The applicants explained the effect on SAR operations qualified in the NRA [APP-124] was in line with the requirements of the ‘Methodology for Assessing Marine Navigational Safety and Emergency Response Risks of OREIs’ (Annex 1 to MGN 654) [REP3-027]. They went on to note that the assessed extremely unlikely frequency reflected the low rate of historical incidents in the region and the relevant embedded mitigation measures, which included compliance with MGN 654, marine coordination for project vessels and project vessel compliance with international marine regulations. The applicants highlighted that compliance with MGN 654 would incorporate agreement of the final layouts in consultation with the Maritime and Coastguard Agency (MCA) and Trinity House to minimise the potential for an ineffective search. This would need approval by the Marine Management Organisation (MMO) as secured by condition 15 of schedules 10 and 11 of the dDCO [REP9-003].

5.2.19. The MCA explained there may on occasions be some undesirable impact on SAR response times, however having project vessels nearby would be beneficial in responding to incidents [REP3-044]. In addition, the applicants would need to agree the offshore array layout plan with the MCA during the post-consent stage which would help minimise any likely negative effects on SAR operations. Furthermore, a search and rescue checklist would be required during the post-consent stage to record discussions, requirements and recommendations as an embedded mitigation measure.

5.2.20. In response to the ExA questioning [PD-014], the applicants clarified that effects on search and rescue capability during isolation or concurrent construction scenarios of the proposed DBS East and DBS West offshore elements were assessed in the NRA as moderate and serious respectively [REP3-027, SN.1.12]. The applicants reasoned their assessment by explaining the likelihood of multiple incidents requiring an emergency response occurring simultaneously, and the frequency of incidents, would be greater during the concurrent construction scenario. As such a delay to an emergency response request could be exacerbated, introducing the potential for a higher level of consequence which the applicants deemed ‘serious’ under the Formal Safety Assessment methodology.

- 5.2.21. The MCA identified that mitigation measures such as radar, automatic identification system (AIS) receivers and in-field, Marine Band very high frequency (VHF) radio communications aerials may be required [\[RR-031\]](#). The ExA questioned if the provision of these mitigation measures was secured and whether the DMLs expressly authorised such development. The applicants clarified they would engage with the MCA and His Majesty's (HM) Coastguard post consent to determine the extent of what equipment would be required through the SAR checklist [\[REP5-036\]](#). The MCA agreed with this approach [\[REP5-051\]](#).

ExA's considerations

- 5.2.22. Based on the evidence available and representations made during the examination, the ExA considers the applicants' assessment of effects on SAR capability are appropriate. The ExA is reassured by the MCA's support of the proposed mitigation measures and the process for agreeing these post consent, in compliance with MGN 654, as secured in the relevant conditions of the DMLs in the final dDCO [\[REP9-003\]](#).
- 5.2.23. The ExA considers the definition of 'offshore accommodation platform' in the final dDCO and DMLs would allow for the installation of the communication mitigation measures referred to in paragraph 5.2.21 of this Recommendation.

ELECTRO-MAGNETIC INTERFERENCE TO NAVIGATIONAL EQUIPMENT

- 5.2.24. The MCA explained that high voltage direct current cables had the potential to impact vessel compasses due to the electro-magnetic field which could be generated [\[RR-031\]](#). The ExA questioned how the need for a pre- or post-construction compass deviation study would be identified and where this was secured in the draft DCO [\[PD-014\]](#). The MCA confirmed a pre-construction compass deviation study was needed and if that concluded a 3 degree deviation for 95% of the cable route and a 5 degree deviation for the remaining 5% could not be met, then the MCA would request an on-site compass deviation report to be provided to United Kingdom Hydrographic Office (UKHO). In turn the UKHO would update nautical charts as required [\[REP3-044\]](#).
- 5.2.25. In response, the applicants updated the Cable Statement [\[REP4-050\]](#) to include a commitment in section 1.4.8 for a pre-construction compass deviation study should one be needed. This need would be determined through discussion between the applicants and the MCA prior to construction, with evidence to be provided by the applicants on the predicted strengths of the magnetic fields of the export cables.

ExA's considerations

- 5.2.26. The ExA considers the commitment and clarity in the updated Cable Statement [\[REP4-050\]](#), in addition to the cable burial risk assessment and compliance with MGN 654, appropriately addresses the potential for electro-magnetic interference to navigational equipment.

VESSEL DISPLACEMENT ASSESSMENT

- 5.2.27. The ExA questioned whether the assessment of vessel displacement effects should include temporal duration, to reflect distance and the potential for slower vessel speeds whilst navigating a multiple obstacle environment [\[PD-014\]](#) and [EV8-008\]](#). The ExA questioned whether the proposed development and its likely displacement effects on shipping would comply with NPS EN-3.

- 5.2.28. The applicants contended that duration of transits was only an important factor where there was a regular timetabled service which relied on its ability to maintain said timetable [REP3-027, SN.1.6]. They went on to state that, “distance is the factor which impacts on fuel consumption and is therefore deemed the pertinent factor for operators in this area”.
- 5.2.29. During issue specific hearing (ISH) 3, the applicants reported the assessed 1% increase of route distance would approximately correlate to a 1% change in temporal duration [EV8-008]. Moreover, in the locality of the proposed development, vessels would be expected to continue steaming at a usual rate, and disproportionate change in the route duration was not anticipated. The applicants confirmed their opinion that the proposed development would not lead to appreciably longer transits for deviated shipping routes.
- 5.2.30. The applicants clarified in their written summary of oral submissions made at ISH3 [REP4-086] that shipping routes which would be displaced by the proposed development were not considered to be major commercial navigation routes as defined in paragraph 2.8.329 of NPS EN-3. In addition, the accepted change request 1 did not affect the conclusion of the likely significant effects on shipping routes as reflected in the final ES Chapter 14 [REP7-051].
- 5.2.31. In response to the ExA’s Rule 17 letter dated 15 April 2025 requesting comments on the potential effect on commercial vessels and temporal displacement, the UK Chamber of Shipping (UKCoS) confirmed it did not have significant concerns due to the relatively low level of shipping activity in the area [REP4-114].

ExA’s considerations

- 5.2.32. The ExA does not concur with the applicants that temporal duration is only an important factor for regular timetabled services. The ExA considers that changes to temporal durations could affect a commercial shipping operator’s ability to fulfil a service and the resources to do so effectively. Furthermore, the ExA is not persuaded the suggested simple correlation between route distance and temporal duration can be relied upon without evidence.
- 5.2.33. The ExA is conscious that few matters were raised by interested parties in relation to shipping and navigation generally and considers this is likely due to the relatively low level of shipping activity referred to by the UKCoS. As such, even if an assessment of effects on temporal duration had been undertaken, the ExA considers it would unlikely have concluded in a significant effect in this case. The ExA therefore considers that the applicants have submitted an appropriate assessment in support of the proposed development.

CONCLUSIONS

- 5.2.34. The ExA is satisfied with the assessment in ES Chapter 14 [REP7-051] and NRA [REP7-054], concluding that the residual effects of the proposed development both alone and cumulatively on these matters would range from broadly acceptable to tolerable with mitigation for all phases of the proposed development. The ExA accepts the applicants’ conclusion that this would not be significant in Environmental Impact Assessment (EIA) terms.
- 5.2.35. The ExA finds the relevant requirements and conditions as part of the DMLs in the final dDCO [REP9-003] would secure the proposed mitigation measures and commitments [REP7-051]. The ExA is satisfied that an acceptable level of navigational safety would be secured through the mitigation measures and

conditions specified in the DMLs at schedules 10 to 14a of the final dDCO. The ExA is satisfied mitigation measures would include site configuration, lighting and marking of projects as required in accordance with paragraph 2.8.259 of NPS EN-3.

- 5.2.36. The ExA notes the agreement on all matters set out in the statements of common ground with the MCA [REP8-020], Trinity House [REP8-027] and the UKCoS [REP8-028]. Moreover, the absence of objections from relevant statutory bodies or interested parties supports the adequacy of the assessment and secured mitigation.
- 5.2.37. The ExA finds there would be no interference with the use of recognised sea lanes essential to international navigation, therefore the provisions of paragraphs 2.8.326 to 2.8.327 of NPS EN-3 are not engaged.
- 5.2.38. The ExA is satisfied that the site selection has been made with a view to avoiding or minimising disruption or economic loss to the shipping and navigation industries and minimising the effects on recreational craft. Furthermore, the proposed development is not considered to affect a major commercial navigation or strategically important shipping route.
- 5.2.39. The ExA concludes that the proposed development, both alone and cumulatively, would be in accordance with NPS EN-1, NPS EN-3, MPS, the East and North East Inshore and Offshore Marine Plans, and relevant national and local policies and legislation concerning shipping and navigation matters. There are no additional significant or relevant considerations.
- 5.2.40. The ExA considers that, due to the presence of residual impacts, shipping and navigation matters weigh against the making of the Order. These impacts are however considered tolerable or broadly acceptable with mitigation, are not significant in EIA terms, and the proposed development remains compliant with relevant statutory and policy requirements in relation to shipping and navigation. The ExA therefore concludes effects on shipping and navigation carry a little negative weight against making the Order.

5.3. AVIATION AND RADAR

INTRODUCTION

- 5.3.1. This section considers the effects of the proposed development on aviation and radar including the United Kingdom (UK) Civil Aviation Authority (CAA), Ministry of Defence (MOD), regional airports, local aerodromes, National Air Traffic Services (NATS) and other UK aviation stakeholders.
- 5.3.2. In its consideration of the effects on aviation and radar, the Examining Authority (ExA) has had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1), as set out in section 5.5
 - the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.8
 - the relevant policies of the UK Marine Policy Statement (MPS) and East and North East Inshore and Offshore Marine Plans
 - the Local Impact Report (LIR)
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 5.3.3. The applicants' assessment of the effects on aviation and radar was first set out in Environmental Statement (ES) Chapter 15 [APP-125] and ES Chapter 15 Figures 15-1 to 15-3 [APP-126].
- 5.3.4. The applicants submitted updated versions of ES Chapter 15 [REP7-056] and other supporting documents during the examination. For the sake of brevity, only the final versions of these are listed here but previous iterations are set out in the Guide to the Application [REP9-002] and will be referred to in this Recommendation as appropriate.
- 5.3.5. Other relevant application documents include:
- Appendix 15-1 Aviation and Radar Consultation Responses [APP-127]
 - Appendix 15-2 Airspace Analysis and Radar Modelling [REP7-058]
 - Appendix 15-3 Helicopter Access Report [REP4-036]

BASELINE

- 5.3.6. The applicants defined the study area for the assessment of aviation and radar effects, in section 15.3 of ES Chapter 15 [REP7-056], using 60 nautical miles (nm) operational range of civil and military radar-equipped airfields and all radars with potential radar line of site (RLoS) of the proposed wind turbine generators [REP7-056]. The spatial extent of the study area was explained to include the proposed development area and the airspace between it and the UK mainland. This was described to extend from the MOD radar facility at Remote Radar Head (RRH) Brizlee Wood to the north of the proposed development, to the MOD radar facility at RRH Neatishead to the south and the NATS En Route (NERL) radar facility at Great Dun Fell to the west.
- 5.3.7. To inform the baseline environment, criteria for identifying potential receptors were defined in section 15.3.1 of ES Chapter 15 [REP7-056] including civil aerodromes, fixed-wing and helicopter operations, meteorological radar facilities, MOD interests, primary and secondary radar facilities, and search and rescue (SAR) operations. The applicants explained policy and guidance from Civil Aviation Publication (CAP) 764 was used to inform the criteria.
- 5.3.8. Sections 15.5.2 and 15.5.3 of ES Chapter 15 [REP7-056] described the baseline conditions for civil and military aviation respectively. For civil aviation this explained that the proposed development would be within the London Flight Information Region (FIR) for Air Traffic Control (ATC) and 30 kilometre (km) south of the Scottish FIR, both of which are regulated by the UK CAA. In addition, the North Sea Area V and Amsterdam FIR are identified 41km east and 134km south-east of the proposed array areas respectively. Both are regulated by the Netherlands Inspectie Leefomgeving en Transport. The applicants reported there were no radar equipped airports identified within 60nm of the proposed array areas and NERL facilities were unlikely to be affected.
- 5.3.9. In relation to military aviation, the proposed development was identified in figure 15-2 to be within the Southern Managed Danger Area [APP-126]. This was noted as one of four managed danger area complexes in UK airspace segregated for military training. Furthermore, Staxton danger area was identified 24km north-west of the proposed array areas in addition of 2 air-to-air refuelling areas. The applicants reported there were no radar-equipped military airfields identified within 60nm.

- 5.3.10. Section 15.5.4 of ES Chapter 15 [REP7-056] discussed helicopter main routing indicators (HMRI) and explained CAP 764 stated “that there should be no obstacles within 2nm (3.7km) either side of the route centreline”. The applicants reported one route (HMRI 8) from the coast, east of Humberside Airport, to the Munro offshore platform that passed within 1.5nm of the proposed Dogger Bank South (DBS) East array area. All other HMRIs were more than 2nm from the proposed array areas, as identified in figure 15-3 [APP-126].
- 5.3.11. Table 15-7 of ES Chapter 15 [REP7-056] identified 4 existing offshore helidecks within 9nm of the proposed development. The applicants explained in section 15.5.5 of ES Chapter 15 that obstacles within 9nm can potentially impact on the feasibility of helicopters to safely fly in low visibility or missed approach procedures at the associated helideck site. Furthermore, helicopter traffic zones are established around individual and groups of offshore platforms to notify of helicopters engaged in platform approaches, departures and inter-platform transits. The helicopter traffic zones airspace were described to extend vertically from sea level to 2,000ft above mean sea level (amsl) and laterally to 1.5nm from the offshore helidecks.
- 5.3.12. In relation to meteorological radar facilities, the applicants reported in section 15.5.7 of ES Chapter 15 [REP7-056] that the closest Met Office weather radars to the proposed development array areas were located at High Moresley in Tyne and Wear and Ingham in Lincolnshire. These were 181km to the west and 186km to the south-west of the proposed array areas respectively and reported unlikely to be affected.
- 5.3.13. Table 15-8 of ES Chapter 15 identified the receptors taken forward for assessment as:
- Staxton Wold Primary Surveillance Radar (PSR)
 - military low flying operations
 - helicopter traffic transiting to and from existing offshore oil and gas helidecks
 - helicopters utilising HMRI 8
 - other offshore fixed-wing and helicopter operations, including SAR
- ASSESSMENT OF EFFECTS FOR CONSTRUCTION, OPERATION AND DECOMMISSIONING**
- 5.3.14. For the purposes of the assessment, the applicants considered worst-case maximum design parameters for the proposed development being constructed in isolation, sequentially or concurrently, as described in table 15-1 of ES Chapter 15 [REP7-056].
- 5.3.15. The applicants defined the construction and operational impacts assessed in section 15.6 of the ES [REP7-056] as follows:
- impacts on Staxton Wold PSR due to high construction vessels and cranes, partially constructed structures and permanent wind turbine generators
 - creation of an aviation obstacle environment
 - increased air traffic in the area related to wind farm construction activities or operation phase support activities
- 5.3.16. To inform the assessment of likely effects, the applicants considered the embedded mitigation measures set out in table 15-3 of ES Chapter 15 [REP7-056], which also identified where the relevant commitments were secured. This included mitigation and working practices for:

- provision of information, notifications and charting relating to obstacles
- lighting and marking of obstacles
- marine coordination for project vessels through Emergency Response Cooperation Plans

- 5.3.17. During the construction and operation phases, ES Chapter 15 [APP-125] identified the installation of infrastructure above sea level would pose a physical obstruction to aircraft using the airspace in the vicinity of the proposed array areas. The applicants concluded the effect to be moderate adverse.
- 5.3.18. However, following further consultation with relevant platform operators and offshore helicopter operators during the examination, the applicants confirmed in the final ES Chapter 15 [REP7-056], the residual effect was not significant. The applicants therefore considered that additional mitigation plans were not required to safeguard offshore oil and gas helicopter operations in the vicinity of either proposed array areas.
- 5.3.19. Section 15.6.2.1 of ES Chapter 15 [REP7-056] identified that the proposed DBS West array would cause interference on Staxton Wold PSR and compromise the MOD's capability to undertake its air defence role during the operation phase. Specifically, the applicants' assessment explained that the proposed wind turbine generators (WTG) could return false readings on radar equipment once rotating.
- 5.3.20. The radar modelling presented in table 3 and figure 18 of ES Appendix 15-2 [REP7-059] identified proposed WTG tip heights affecting the Staxton Wold PSR relative to the proposed array areas (see Figure 29 below). Based on the worst-case maximum design parameters of a 379 metres (m) amsl blade tip height, 56% of the proposed DBS West array area would interfere with the Staxton Wold PSR. The applicants assessed the effect on the MOD's ability to provide security from airborne threats as major significant during operational phase [REP7-056].

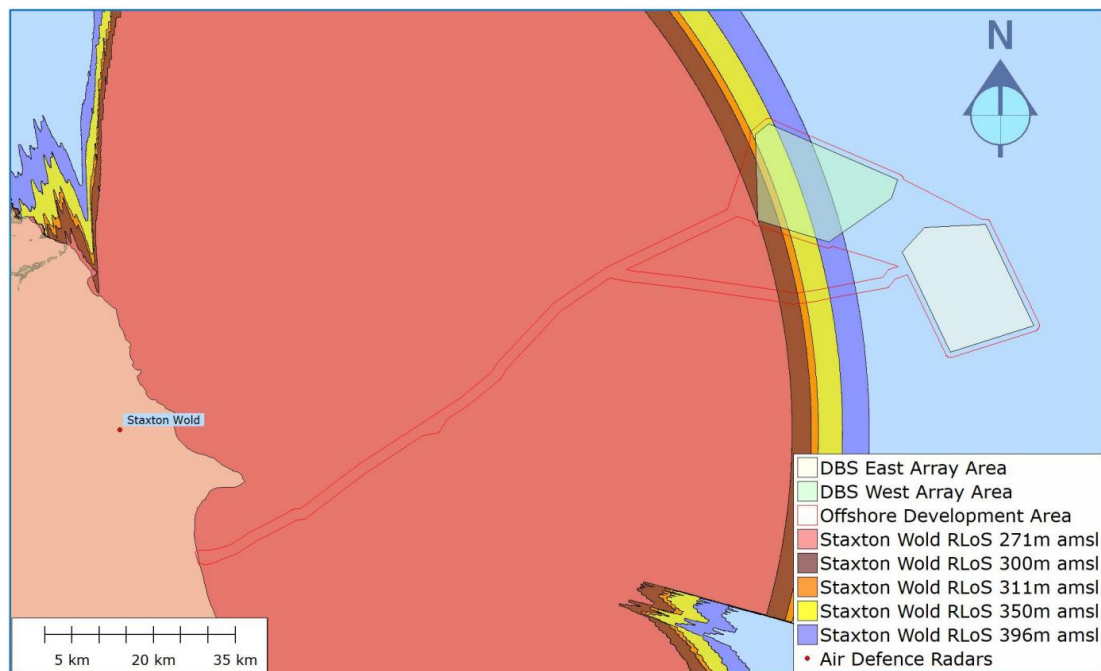


Figure 29: Staxton Wold RLoS coverages

Source: Appendix 15-2 - Airspace Analysis and Radar Modelling, figure 18 [REP7-059]

- 5.3.21. The applicants explained in section 15.6.2.1.5 of ES Chapter 15 [REP7-056] that the joint government and industry [Air Defence and Offshore Wind Strategy and Implementation Plan](#) set the direction for identifying, assessing and deploying solutions that would enable the co-existence of air defence and offshore wind operations. Moreover, this strategy and implementation plan aimed "...to have mitigation in place to support offshore wind developments by Q2 2025, and therefore it is expected that such mitigation will be available before the start of construction of either Project". With this additional mitigation, the applicants concluded the residual effect to be not significant.
- 5.3.22. The assessment of effects during the decommissioning phase in section 15.6.3 of ES Chapter 15 [REP7-056], assumed the proposed offshore infrastructure would be removed, gradually reducing the impacts on Staxton Wold PSR and the aviation obstacle environment. In addition, increased air traffic in relation to the decommissioning activities was noted for a maximum of 7 years should DBS East and West be decommissioned sequentially.
- 5.3.23. Table 15-14 of ES Chapter 15 [REP7-056] summarised the significance of effects for all assessed impacts on aviation and radar receptors. With the additional mitigation measures proposed, the applicants assessed all effects as "not significant" or "no change" for construction, operational and decommissioning phases of the proposed development.
- 5.3.24. The applicants concluded either no potential or not significant for cumulative effects or transboundary effects, compared to the impacts considered alone, for aviation and radar from the construction, operation and decommissioning of the proposed development. Interactions between phases or project lifetime interrelated effects were concluded to be no greater than individually assessed.

ISSUES CONSIDERED DURING THE EXAMINATION

- 5.3.25. The main issues for aviation and radar in the examination were:

- impact on Staxton Wold PSR
- helicopter and platform operators

IMPACT ON STAXTON WOLD PSR

- 5.3.26. The MOD [AS-002 and REP1-062] raised concern that the proposed DBS West array WTGs would have a detrimental effect on the operation of the air defence radar at Staxton Wold. The relevant representation (RR) [AS-002] explained the proposed development would reduce the Royal Air Forces' ability to detect and deter aircraft in UK airspace, thereby preventing it from effectively performing its primary function of air defence. The MOD explained it must object to the proposed development until a suitable mitigation scheme had been submitted, assessed and accepted.
- 5.3.27. During the examination [EV5-009, EV8-002, EV11-008, PD-022], the ExA asked for updates on the efforts between both parties to identify realistic and pragmatic solutions specific to the proposed development issues. This extended to whether design solutions to reduce the height and spatial extent of the proposed DBS West array WTGs could avoid adversely affecting the Staxton Wold PSR.
- 5.3.28. The applicants' response to action points 8 and 10 of issue specific hearing (ISH) 2 agenda item 3 [AS-155], explained that the 450m maximum blade tip height assessed in the Preliminary Environment Information Report (PEIR) had been

reduced and, in anticipation of objections from the MOD, a requirement was included in the draft Development Consent Order (dDCO) [AS-130] that required appropriate mitigation to be agreed prior to the operation of the proposed DBS West array WTGs. Furthermore, the applicants expected that this radar mitigation would be delivered through Programme NJORD, a joint government and industry strategic military radar mitigation programme.

- 5.3.29. In response to action point 8 of ISH2 agenda item 3 [AS-155], the applicants referenced new policy on funding of air defence radar mitigation within the Government's Clean Power 2030 Action Plan (December 2024). The action plan explained "The full costs of the long-term radar mitigation solutions identified by Programme NJORD will be funded via an alternative route, delivered by government, and the funding requirement is therefore removed from offshore wind developers". During ISH3 [EV8-002], the applicants explained that Programme NJORD may not have an enduring solution ready for the proposed development's operation phase and had sought advice from the MOD on interim mitigation solutions during a meeting on 6 March 2025.
- 5.3.30. Table 5-2 and section 5.6.2 of ES Chapter 5 [REP7-032] and the applicants' response to ExA question (reference ARMC.1.6) [REP3-027] identified the project design envelope related to WTGs for the proposed DBS West array area was between:
- 57 WTG with a maximum blade tip height of 376.8m amsl and a rotor diameter of 344m
 - 100 WTGs with a maximum blade tip height of 293m amsl and rotor diameter of 259m
- 5.3.31. During ISH3 [EV8-002] and ISH6 [EV11-008], the ExA asked the applicants to evidence how the proposed development had first sought to avoid impacts on the Staxton Wold PSR prior to relying on mitigation measures, in accordance with the Environmental Impact Assessment (EIA) hierarchy. The ExA referred the applicants to table 3 and figure 18 of ES Appendix 15-2 [APP-128] which identified potential turbine blade tip heights and array extents that would avoid impacts to Staxton Wold PSR. The ExA also noted the applicants' response to the ExA's second written questions (ExQ2) (reference ARMC.2.2 [PD-022]), which highlighted examples to illustrate a range of technological options currently available:
- A 22 megawatt (MW) WTG with a 310m rotor diameter and 34m lower blade tip clearance, equating to an approximate 350m amsl upper blade tip height.
 - A 21.5MW WTG with a 276m rotor diameter with a 34m lower blade tip clearance. (The ExA estimated a 316m amsl upper blade tip height by following the applicants' approach in the previous example.)
- 5.3.32. In response to the ExA's questioning, the applicants explained that the small and large wind turbines identified in the ES were only examples [EV11-008]. The applicants stated that they were included as a basis for the assessments and they represented scenarios that led to worst case impacts for various reasons. The applicant clarified that they did not represent real turbines.
- 5.3.33. The applicants contested the maximum design parameters followed the Rochdale envelope approach for assessing the effects of the proposed development and allowed for flexibility in the final design. Furthermore, they noted that the proposed maximum blade tip height and the array extent for DBS West had been reduced since the PEIR and again during the examination to 376m amsl. The applicants

explained adjusting the array area to avoid impacts on Staxton Wold would have resulted in impacts on other receptors [REP4-086].

- 5.3.34. The applicants' response to ExQ2 ARMC2.1 [REP5-036] conceded they did not know of commercial scale offshore wind farms that had been constructed to blade tip heights in the realm of 452m amsl which had been used in the PEIR.
- 5.3.35. During ISH6 [EV11-008], the applicants confirmed they were unable to present a developed or proven enduring solution for radar mitigation, nor an interim solution whilst Programme NJORD was being developed. Furthermore, the applicants contended it was the responsibility of the MOD to present a solution, not the applicants.
- 5.3.36. The ExA proposed to amend requirement 31 of the dDCO to secure identification of a mitigation solution prior to construction of the proposed DBS West array WTGs and prevent their operation until the solution was confirmed to be ready for active deployment [PD-028].
- 5.3.37. The applicants' closing statement [REP8-042] explained they had reached agreement on the wording of requirement 31 with the MOD and included this in the final revision of the dDCO [REP9-003]. Furthermore, the applicants' opinion was the proposed wording in the ExA's Schedule of Recommended Amendments to the Applicant's dDCO [PD-028] was not necessary. The applicants reasoned that whilst it would be unlikely, controlling the erection of WTGs could delay the operation of the proposed DBS West development [REP7-130]. Moreover, the applicants contended that some forms of mitigation could not be regarded as operational until the turbine blades were rotating, thus they may be unable to comply with such a requirement and questioned whether it would meet the legal test of enforceability.
- 5.3.38. The MOD's final position statement [REP8-047] explained it had no objection to the proposed development subject to the inclusion of its preferred wording, provided in appendix A of that statement, for requirement 31 of the dDCO. The MOD did not provide comment on the ExA's proposed amendments to requirement 31 [PD-028].

ExA's considerations

Demonstration of compliance with the EIA mitigation hierarchy

- 5.3.39. The ExA finds the proposed maximum blade tip height reduction during the examination provides some evidence for avoidance of adverse effects on military radar capability. The ExA however was not presented with substantive evidence during the examination to be persuaded that the original 452m amsl blade tip height, was a realistic maximum design parameter.
- 5.3.40. The ExA finds table 3 and figure 18 of ES appendix 15-2 [APP-128] demonstrate that options exist within the proposed DBS West development design parameters that could avoid or minimise adverse effects on military radar capabilities, but the applicants would not commit to these measures. Examples include but are not limited to:
- Limiting the maximum blade tip height to 300m amsl would avoid adverse effects to Staxton Wold PSR for 93.3% of the proposed DBS West array area.
 - Limiting the maximum blade tip height to 310m amsl would avoid adverse effects to Staxton Wold PSR for 87.7% of the proposed DBS West array area.

- 5.3.41. The ExA considers that a reduction in maximum blade tip height or refinement of the array extent for the proposed DBS West development within those parameters, whilst maintaining the 34m air gap between the lower blade tip and the mean sea level, would not result in impacts to other receptors greater than those assessed and concluded in the ES. The ExA therefore disagrees with the applicants' assertion to the contrary.
- 5.3.42. The ExA accepts the installed generation capacity would likely differ between options within the proposed DBS West project design parameters. The ExA however considers the range of installed generation capacities must be acceptable to the applicants if the project design envelope is to be considered realistic and relied on to inform the assessment of likely environmental effects. Furthermore, the WTG examples provided by the applicants, and described in paragraph 5.3.31 of this Recommendation, illustrate that installed energy generation capacities would not necessarily reduce with a more refined project design envelope. The ExA considers technological advancements may also become available within the proposed development timeframe which have more efficient energy generation capabilities.
- 5.3.43. The ExA is sympathetic to the applicants' need for flexibility in the project design and their aim to maximise the opportunity for energy generation, however the ExA considers these reasons do not justify greater environmental effects where alternative options with acceptable outcomes exist. Furthermore, when the ExA questioned whether limiting the scope of the project design envelope presented a viability issue for the proposed DBS West development, the applicants explained it was important for retaining commercial competitiveness [\[EV8-002\]](#) and [\[EV11-008\]](#).
- 5.3.44. The ExA is of the opinion that the applicants had considered the provision of Programme NJORD would, to some degree, negate the need for the proposed development to avoid and minimise adverse effects on military radar capabilities. The ExA finds the applicants have not sufficiently explored options to avoid and minimise adverse effects on Staxton Wold PSR. The ExA therefore concludes that the applicants have not demonstrated the EIA mitigation hierarchy has been followed in relation to the proposed DBS West development and is not in accordance with paragraphs 4.3.4 of NPS EN-1 and 2.1.4 of NPS EN-3.

Appropriateness of requirement 31

- 5.3.45. The purpose of requirement 31 in the dDCO [\[REP9-003\]](#) would be to prevent the operation of any proposed DBS West array WTG prior to a mitigation solution for the adverse radar effects being agreed and arrangements made to ensure it is implemented. Considering the MOD did not object to the proposed development, subject to prohibiting the operation of WTGs prior to a radar mitigation solution being agreed and implemented, the ExA is satisfied that including a Grampian requirement in accordance with section 5.5.58 of NPS EN-1 would be acceptable in principle.
- 5.3.46. The ExA is conscious that wording similar to that drafted in requirement 31 of the dDCO [\[REP9-003\]](#) has been included in other made DCOs. Moreover, the ExA notes that the draft wording was agreed between the applicants and the MOD. Nevertheless, the ExA considers there is an opportunity to strengthen the wording to remove any ambiguity as to whether a mitigation solution 'will be' or 'has been' implemented prior to operation of the proposed DBS West development. As such, the ExA recommends requirement 31 is amended with the changes to the

recommended draft DCO as detailed in section 9.6 of this Recommendation, should the Secretary of State (SoS) be minded to make the Order.

- 5.3.47. The ExA finds that the applicants have assumed the proposed DBS West development would benefit from an enduring mitigation solution being identified and delivered through Programme NJORD and have not presented an alternative or interim solution.
- 5.3.48. The MOD confirmed in its response to ExQ2 and rule 17 request [\[REP5-052\]](#) that the delivery schedules for Programme NJORD are unknown. The ExA therefore finds this mitigation cannot be relied on to be available for the operation phase of the proposed DBS West development. Furthermore, the MOD confirmed that interim mitigation solutions will be considered through bi-lateral agreements once the delivery schedules for Programme NJORD are known and on contract. Considering the delivery schedules for Programme NJORD are unknown, the ExA finds interim measures also cannot be relied on to be available for the operation phase.
- 5.3.49. As a consequence, and in the absence of an alternative solution being presented, the ExA finds that the deliverability and programme for an enduring or interim mitigation is unknown based on the information submitted into the examination. The ExA considers this is an important matter in the context of paragraph 5.5.57 of NPS EN-1, which directs the SoS to consider the likelihood of a solution becoming available within the time limit for implementation of a DCO where suitable technological solutions have not yet been developed or proven.
- 5.3.50. Given this lack of certainty, the ExA considers there is a possibility of adverse environmental effects on other offshore receptors being realised without the guarantee of the stated energy generation benefits. The ExA therefore considers that the construction of the proposed DBS West array WTGs should be prohibited until the SoS is satisfied an enduring or interim mitigation solution has been identified, and arrangements made for its implementation agreed with the MOD.
- 5.3.51. The ExA has not been presented with evidence to dispute the applicants' view that the prohibition is unlikely to cause construction delays. Furthermore, the 'Air Defence and Offshore Wind Strategy and Implementation Plan' targets the implementation of mitigation measures by Q2 2025. The ExA also notes that the option to construct the proposed DBS East and West developments sequentially provides a potential two-year buffer. Taking these factors into account, the ExA finds that prohibiting construction of the proposed DBS West array WTGs until a mitigation solution is identified, is unlikely to pose a significant risk to the overall viability of the proposed development.
- 5.3.52. The ExA therefore recommends that requirement 31 of the recommended draft DCO is further amended with the proposed changes as detailed in section 9.6 of this Recommendation, should the SoS be minded to make the Order.

HELICOPTER AND PLATFORM OPERATORS

- 5.3.53. The ExA sought clarity on when the consultation to agree mitigation measures with offshore platform and helicopter operators would be undertaken and the details submitted [\[REP7-056\]](#), Table 15-14]. The applicants' response [\[REP3-027\]](#), ARMC 1.4] explained that the impact would be understood only in the context of final design information and this would not be available within the timeframe of the examination. Furthermore, the applicants explained the Cavendish platform had

been decommissioned, therefore no impacts related to the proposed development were now envisaged for this specific infrastructure asset.

- 5.3.54. During ISH3, the ExA questioned how the proposed mitigation for helicopter and platform operators could be relied on given the lack of detail and commitment to what this would entail [EV8-002]. The applicants explained that discussions with the operators of the Cyngus platforms had concluded that no further mitigation measures were required.
- 5.3.55. In response to the ExA [REP3-044], the Maritime and Coastguard Agency (MCA) explained that a reduction in helicopter access under commercial air transport regulations would impose a safety issue in addition to the logistic restriction reported [APP-129] in situations such as adverse weather and power failures. The MCA explained that in these emergency situations, SAR helicopters would likely be engaged and should icing conditions coincide, then the effectiveness of a response may be impacted. The MCA confirmed that it did not expect this would result in an overreliance on HM Coastguard SAR helicopters.
- 5.3.56. The applicants subsequently submitted an updated Helicopter Access Report [REP4-036] and reflected the findings in the final ES Chapter 15 [REP7-056]. No concerns related to these updated documents were submitted into the examination by interested parties.

ExA's considerations

- 5.3.57. The ExA finds that the applicants have addressed the issues raised through the updated documentation and the assessment is appropriate. Moreover, the ExA notes that the final Statement of Common Ground (SoCG) with the MCA stated that all matters were agreed.

CONCLUSIONS

- 5.3.58. The ExA is satisfied that the applicants have undertaken an assessment [REP7-056] of civil and military aviation and other defence assets as required by NPS EN-1 section 5.5. Furthermore, the ExA is satisfied that the relevant parties have worked together to resolve conflicts identified during the examination.
- 5.3.59. With the necessary mitigation secured in the dDCO [REP9-003], the ExA considers that the proposed DBS East development, alone and cumulatively, would not present a risk to national security or physical safety, and is in accordance with relevant policies of NPS EN-1, NPS EN-3, the MPS and the East and North East Inshore and Offshore Marine Plans.
- 5.3.60. The ExA finds the proposed DBS East development is compliant with relevant policies and statutory requirements. Based on the residual effects in ES Chapter 15 [REP7-056], the ExA concludes aviation and radar matters for the proposed DBS East development carry a little negative weight against making the Order.
- 5.3.61. The ExA finds the proposed DBS West development would be reliant on a technological solution which has not yet been developed or proven to mitigate major adverse effects on military radar capabilities. The ExA agrees with the applicants that Programme NJORD is likely to identify and deliver an enduring solution, however evidence of its delivery within the time limits for implementation of the proposed DBS West development has not been identified. For these reasons, in consideration of the matter, the ExA has attributed limited weight to Programme NJORD.

- 5.3.62. The ExA however considers the SoS could have greater knowledge of the progress of Programme NJORD than that afforded to the ExA during the examination. Furthermore, the removal of the MOD's objection and the government's commitment to supporting the coexistence of military defence assets and renewable energy infrastructure stated in the Clean Power 2030 Action Plan, persuades the ExA that there is the potential for an enduring or interim mitigation solution to be identified and delivered within the time limits for implementation.
- 5.3.63. In accordance with paragraph 5.5.58 of NPS EN-1, the ExA considers the use of a requirement in the dDCO to prohibit the operation of the proposed DBS West array WTGs until mitigation is agreed and implemented to be appropriate. However, due to the lack of evidence submitted of when an enduring or interim solution could be available, the ExA proposes alternative wording to requirement 31 in appendix F of this Recommendation, should the SoS be minded to make the Order. This would control the construction of the proposed DBS West array WTGs prior to a radar mitigation solution being identified and agreed with the MOD. This would avoid adverse environmental effects on other offshore receptors being realised without the guarantee of the stated energy generation benefits. The ExA concludes this passes the 6 tests of paragraph 55 of the National Planning Policy Framework.
- 5.3.64. The ExA considers design options within the maximum parameters assessed in ES Chapter 15 [\[REP7-056\]](#) could avoid and minimise the major adverse effects of the proposed DBS West development on military radar capabilities. The ExA is not persuaded that the applicants demonstrated they gave any serious consideration to project level mitigation. If adopted, these mitigation measures would likely negate the need for a government funded strategic mitigation solution, as would be secured by requirement 31 of the recommended draft DCO.
- 5.3.65. The ExA is not persuaded an approach to avoid effects on the Staxton Wold PSR would lead to environmental effects greater than those assessed in the ES, nor that the applicants' commercial competitiveness is a sufficient reason to justify a departure from the mitigation hierarchy in this instance. The ExA concludes that the proposed DBS West development has not sufficiently followed the mitigation hierarchy and is therefore not in accordance with paragraphs 4.3.4 of NPS EN-1 and 2.1.4 of NPS EN-3.
- 5.3.66. The ExA agrees with the applicants' conclusions on all other civil and military aviation, communications, and weather warnings and forecasting radar effects of the proposed development alone and cumulatively.
- 5.3.67. The ExA finds the proposed DBS West development is generally compliant with relevant policies of NPS EN-1, NPS EN-3, the MPS and East and North East Inshore and Offshore Marine Plans, and statutory requirements. However, the proposed DBS West development has not sufficiently followed the mitigation hierarchy to avoid or minimise the adverse effects to Staxton Wold PSR, which the ExA finds weighs greatly against the proposed development.
- 5.3.68. The ExA recommends requirement 31 is amended with the changes to the rDCO detailed in appendix F of this Recommendation, should the SoS be minded to make the Order. Without the amendments to requirement 31, the ExA consider the potential for adverse environmental effects to other offshore receptors being realised without the guarantee of the stated energy generation benefits to carry greater weight.

- 5.3.69. If the ExA's proposed changes to requirement 31 were not included in the recommended draft DCO, the ExA would conclude aviation and radar matters carry great negative weight against making the Order for the proposed DBS West development. With the necessary mitigation secured in the rDCO, the ExA considers that the proposed DBS West development, alone and cumulatively, would not present a risk to national security or physical safety. Based on the residual effects in the ES and the compliance with relevant policies, the ExA concludes that overall aviation and radar matters carry moderate weight against making the Order for the proposed development.

5.4. INFRASTRUCTURE AND OTHER ACTIVITIES

INTRODUCTION

- 5.4.1. This section considers the effects of the proposed development on other offshore infrastructure and activities.
- 5.4.2. In its consideration of effects on other offshore infrastructure and activities, the Examining Authority (ExA) had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1), as set out in section 4
 - the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.8
 - the 2025 draft updates to the energy NPSs, namely NPS EN-3 section 2.8
 - relevant policies of the East Inshore and East Offshore Marine Plan and the North East Inshore and North East Offshore Marine Plan and the UK Marine Policy Statement
 - the Local Impact Report (LIR), to the extent that it is relevant to this topic
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 5.4.3. The applicants' assessment of the effects of the proposed development on other offshore infrastructure and activities was primarily set out in Environmental Statement (ES) Chapter 16 [\[APP-130\]](#). The supporting figures and information were in ES Chapter 16 Figures 16-1 to 16-6 [\[APP-130\]](#), Appendix 16-1 [\[APP-132\]](#) and ES Chapter 16 Figure 16-2 [\[AS-010\]](#).
- 5.4.4. Initially, ES Chapter 16 [\[APP-130\]](#) considered the effects from wake loss generated by the proposed array areas on the annual energy production (AEP) of other existing offshore wind farms (OWF). However, at deadline (DL) 1, the applicants removed all references to wake loss from ES Chapter 16 [\[REP1-011\]](#).
- 5.4.5. ES Chapter 16 was updated a further time at DL7 [\[REP7-060\]](#) and figures 16-1 to 16-6 were also updated at DL3 [\[REP3-014\]](#). The Guide to the Application [\[REP9-002\]](#) set out the versions and dates of submission for these documents.
- 5.4.6. ES Chapter 16:
- Presented the existing baseline environment and described assumptions and limitations encountered in compiling the baseline information.
 - Assessed the potential effects of the proposed development on other sea users during the construction, operation and decommissioning phases, along with potential cumulative and transboundary effects.

- Identified measures adopted to avoid, reduce, or mitigate the potential effects of the proposed development on other sea users.

BASELINE

- 5.4.7. The study area covered offshore activities within 50 kilometres (km) of the offshore development area that would have the potential to overlap, be influenced by, or influence the proposed development. The applicants' assessment [REP7-060] noted the following other offshore infrastructure and activities, which were located in the 50km study area:
- OWFs
 - oil and gas infrastructure
 - subsea cables
 - pipelines
 - carbon capture and storage
 - aggregate extraction
 - disposal sites
 - Ministry of Defence (MOD) activities
- 5.4.8. Table 16-9 set out the distances which other OWFs would be located from the proposed development. Dogger Bank A (DBA) OWF would be the closest to the proposed array areas, at 8km away at the closest point, and the export cables of DBA, Dogger Bank B (DBB) and Hornsea Project Four OWFs would all overlap with the route of the offshore export cable for the proposed development (see figure 16-2 [REP3-014]).
- 5.4.9. Regarding oil and gas infrastructure, there would be no surface infrastructure in the proposed array areas. The nearest platform (Cavendish) ceased production in 2018 and was approved for decommissioning in 2020. The nearest active gas field outside the proposed array areas, located approximately 11km from the east array area, was the Cygnus field. There were no active wells within or adjacent to the array areas (see figure 16-3 [REP3-014]).
- 5.4.10. Within the offshore development area, there would be 3 active pipelines carrying natural gas. Pipelines that would run through the array areas and the offshore export cable corridor were listed in table 16-10. The active Langede gas pipeline (United Kingdom (UK) to Norway) crossed the offshore export corridor approximately 47km from the coastline.
- 5.4.11. Table 16-11 set out the licensed gas and oil blocks for exploration and production which the proposed development would overlap.
- 5.4.12. There would also be several existing and proposed subsea electricity cables which the proposed development would overlap, or be located nearby (see figure 16-4):
- UK-Germany 6: disused, located 1km from the array areas
 - Eastern Green Link 2: proposed cable, located 2km north of the offshore export cable corridor
 - Eastern Green Link 3: proposed cable, would cross the path of the offshore export cable corridor
 - Eastern Green Link 4: proposed cable, would cross the path of the offshore export cable corridor
 - Viking Link: commissioned, located 29km south of the array areas
 - Continental Link Multi-Purpose Interconnector: in planning, likely to be in the vicinity of the proposed development

- the National Grid Holistic Network Design bootstrap cables could potentially route through, or connect to, the offshore development area

- 5.4.13. The Northern Endurance Carbon Capture and Storage (CCS) project would overlap the export cable corridor route. CCS licensing which concluded in 2023, awarded 21 licences across the North Sea, including some areas which would overlap the array areas and the export cable corridor.
- 5.4.14. There would be no licensed aggregate production areas or active subsurface mining sites within the offshore development area, and the closest would be located approximately 48km south-east of the export cable corridor. Therefore, impacts on these areas were scoped out of the assessment (see figure 16-5).
- 5.4.15. There would be no existing dumping or disposal sites located in the offshore development area. The closest open disposal site was Bridlington A, located approximately 7km north of the export cable corridor. The closest closed disposal site was Bridlington Bay B, located approximately 5km north-west of the export cable corridor.
- 5.4.16. There were 4 MOD practice and exercise areas located in the study area (see figure 16-6). These were designated as RAF Danger Areas for Air Combat Training and High Energy Manoeuvres between 5,000 and 66,000 feet. Admiralty charts indicated the presence of a submarine exercise area in the vicinity of the export cable corridor route, however no reference to the extent, purpose or status of the exercise area was available in the public domain.
- 5.4.17. As a result of both World War 1 and World War 2 there was also the potential for unexploded ordnance (UXO) in the study area and in the wider southern North Sea region. The predicted number of UXO which could be located in the offshore development area was set out in table 16-12.

MITIGATION

- 5.4.18. ES Chapter 16 [\[REP7-060\]](#) identified several measures to mitigate the potential impacts of the proposed development on other offshore infrastructure and activities. These measures were defined as primary (included as part of the project design) and are summarised below:
- Provision of safety zones up to 500 metres (m) around ongoing activities during construction, major maintenance, and decommissioning and up to 50m for installed structures pre-commissioning.
 - Final Cable Burial Risk Assessments and Cable Protection Plans would be produced in line with the details provided in the Cable Statement [\[REP6-043\]](#).
 - Appropriate marking of all offshore infrastructure associated with the proposed development on UK Hydrographic Office admiralty charts.
 - Compliance with Marine Guidance Note 654.
 - Guard vessels would be used where appropriate to ensure navigational safety to mitigate impacts which pose a risk to surface navigation during construction and maintenance as set out in the Outline Fisheries Liaison and Co-existence Plan [\[REP4-056\]](#).
 - The layout plans for the offshore development areas would be agreed with the Marine Management Organisation.
 - Lighting and marking of obstacles would be in accordance with the latest relevant industry guidance, as required by Trinity House, the Maritime and Coastguard Agency and the Civil Aviation Authority.

- Project vessels would ensure compliance with Flag State regulations including the Convention on the International Regulations for Preventing Collisions at Sea (International Maritime Organization, 1972/77) and the International Convention for the Safety of Life at Sea (International Maritime Organization, 1974), as detailed in the Outline Project Environmental Management Plan [REP2-041].
- Notifications to mariners would be updated and reissued at weekly intervals during construction and at least 5 days before any planned operation and maintenance works.
- Monitoring of vessel traffic would be undertaken for the duration of the construction phase and during the first 3 years of the operation and maintenance phase, in accordance with the Outline Marine Traffic Monitoring Plan [REP5-029].

5.4.19. These measures would be secured through the deemed marine licences in the draft Development Consent Order (dDCO) [REP9-003]. A safety zone application would be made to the Secretary of State (SoS) if the order was made, in accordance with section 95 of the Energy Act 2004 and the applicants' general approach was outlined in the Safety Zone Statement [REP2-037].

5.4.20. As there would be a secured commitment to implementing the above measures, the applicants considered the measures inherently part of the design of the proposed development and they were therefore considered in the assessment of effects.

ASSESSMENT OF EFFECTS

5.4.21. ES Chapter 16 [REP7-060] identified a number of potential effects during construction, operation and decommissioning of the proposed development on other offshore infrastructure and activities:

- interference with other OWFs, oil, gas and CCS operations including navigational safety issues, aviation safety issues, and overlap of infrastructure and interactions during construction
- physical impacts on electrical infrastructure
- impacts on disposal sites, including sediment dispersal and interference with vessel traffic routes
- disruption of MOD activities

5.4.22. In all instances, following mitigation, which included agreement of crossing and proximity agreements that would be secured outside the DCO process with the relevant parties, the applicants' assessment concluded that the effects would be minor adverse or negligible, and not significant. A summary of the potential impacts and residual effects in respect of other offshore users was presented in table 16-16 [REP7-060].

5.4.23. Subject to mitigation, such as the proposed embedded mitigation measures or crossing and proximity agreements, the applicants' assessment concluded that cumulative effects with other development would be minor adverse at worst, and not significant for all stages of the proposed development. ES Chapter 16 also concluded that transboundary effects would likely be minor adverse following mitigation, which would be the agreement of crossing agreements, for the disused UK-Germany 6 subsea cable that would route through the proposed west array area and the active Langeled gas pipeline that would route through the offshore export cable corridor.

ISSUES CONSIDERED DURING THE EXAMINATION

5.4.24. The principal issues which arose during examination were:

- mitigation of effects on other offshore infrastructure and activities
- potential wake effects on other OWFs

MITIGATION OF EFFECTS ON OTHER OFFSHORE INFRASTRUCTURE AND ACTIVITIES

Gas pipelines

5.4.25. Kellas North Sea 2 Limited [RR-027] and BHP Group (UK) Limited and BHP Billiton Petroleum Great Britain Limited ('BHP') [RR-004] submitted representations expressing concern regarding the potential effects on existing unused gas pipelines which would be crossed by the proposed development. The interested parties (IP) identified that there was a lack of information on construction methods and how interfaces with the existing infrastructure would be managed. BHP stated [REP1-070] that there had been a lack of engagement from the applicants, despite requests. BHP asked how the dDCO would secure protection for its infrastructure in the proposed array areas.

5.4.26. In response, the applicants stated [REP2-057] that they did not usually enter into discussions regarding crossing and proximity agreements until the post-consent phases of the proposed development, when more detailed design information would be available and therefore agreements could be properly concluded. The applicants stated that they had attempted to contact BHP several times from June 2023 onwards to discuss the potential need for crossing and proximity agreements and that BHP were included in the statutory consultation for the proposed development.

5.4.27. Despite further questions from the ExA on this matter [PD-014, PD-027], no additional responses were received from BHP during examination.

5.4.28. Kellas North Sea 2 Limited stated [REP6-083] at DL6 that it remained concerned about potential disturbance to its pipeline from cable laying and expected protective provisions (PP) to be applied to the dDCO [REP9-003], to require industry standard agreements to be put in place as a condition of proximate or crossing works.

5.4.29. The applicants responded [REP7-131], stating that they looked forward to progressing crossing and proximity agreements as required when sufficient information was available, prior to commencement of construction. The applicants confirmed that they did not intend to include PPs for any offshore assets in the dDCO.

Gas blocks

5.4.30. INEOS UK SNS Limited on behalf of ONE-Dyas UK Limited [RR-026] and INEOS UK SNS Limited [RR-025] identified gas blocks and associated pipelines which they licensed which would be in proximity of the proposed development. The IPs urged the applicants to engage with them on appropriate co-location agreements.

5.4.31. In response [PDA-010], the applicants acknowledged these comments and stated that they welcomed further discussion on these matters. No further representations were received from INEOS UK SNS Limited on behalf of ONE-Dyas UK Limited or INEOS UK SNS Limited.

- 5.4.32. An update at DL3 stated [REP3-027] that the applicants were engaging with INEOS UK SNS Limited on any agreements which may be required and would continue to do so.
- 5.4.33. The ExA asked [PD-022] if further information could be provided to give reassurances to all IPs which had raised queries of this nature. The applicants stated [REP5-036] that construction methodologies would depend on the assets which the proposed development would cross and would depend on burial depth of the asset, which would inform the external protection required for the live asset, and the minimum exclusion zone required by the asset's owner.
- 5.4.34. The applicants gave the example of the Sofia OWF, where they have crossed several live assets and crossing methodologies incorporated various designs, using concrete mattresses, rock placement or a combination of both, as per the agreement with the asset owner. The applicants envisaged that similar crossing methodologies would be employed for the proposed development, with this mixture being common industry practice.

Other OWFs

- 5.4.35. There were a number of existing and proposed OWFs which were at various stages of planning which commented on the application, and are shown in the extract below. Everything, other than wake loss matters are dealt with here.

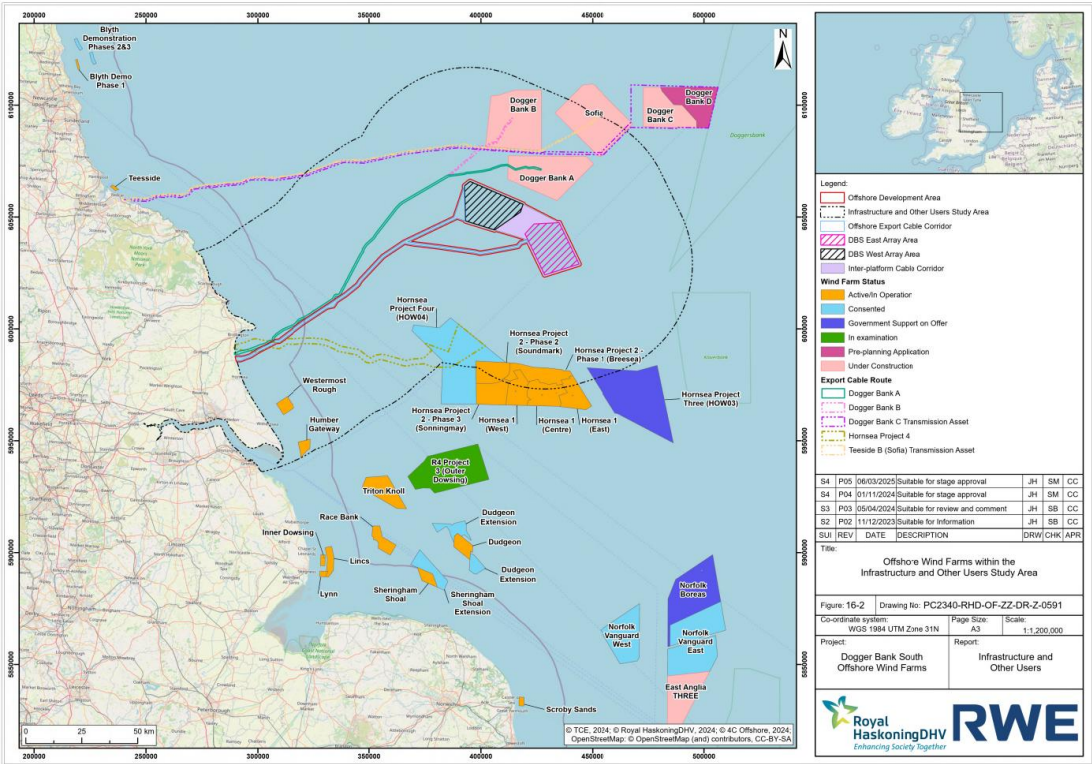


Figure 30: Other OWFs in and near to ES Chapter 16 study area

Source: ES Chapter 16 Figure 16-1 to Figure 16-6, figure 16-2 [REP3-014]

- 5.4.36. DBA Projco, DBB Projco and DBC Projco ('the Projco IPs') stated [RR-007] that the applicants had not entered into agreements referred to in the ES to mitigate potential impacts on its assets. Dogger Bank Offshore Wind Farm Project 4 Projco Limited [RR-011] ('Dogger Bank D OWF') stated that owing to the potential overlap of construction periods, the cumulative effects should be considered during

examination. Dogger Bank D (DBD) OWF welcomed opportunities to discuss co-ordination with the applicants, specifically in relation to export cable corridor refinement in the spatially constrained inshore and nearshore areas.

- 5.4.37. Ørsted Hornsea Project Four Limited ('Hornsea Project 4') [RR-044] and Ørsted Hornsea Project Three (UK) Limited ('Hornsea Project 3') [RR-045] stated that due to the potential for overlapping construction and operational activities, co-operation and co-ordination would be required.
- 5.4.38. Hornsea Project 4 requested [REP1-086] the inclusion of PPs and a commercial agreement to protect the interests of its asset, given the direct overlap between the projects and potential for simultaneous construction activity. The Projco IPs [REP1-071] also stated that if proximity agreements were not in place at the close of examination, a requirement would be needed to secure them. DBA Projco and DBB Projco stated that individual proximity agreements needed to be put in place between the applicants and the relevant Projco to regulate the interaction between the proposed development and their projects in respect of the order limits interaction in the nearshore environment.
- 5.4.39. Westernmost Rough Limited [RR-056], Lincs Wind Farm Limited [RR-029], Race Bank Wind Farm Limited [RR-046], Breesea Limited, Soundmark Wind Limited, Sonningmay Wind Limited, Optimus Wind Limited [RR-005], Hornsea 1 Limited [RR-023] and DBD OWF [RR-011] all noted their proximity to the proposed development and stated that there was potential for cumulative effects.
- 5.4.40. In their responses to relevant representations [PDA-010], the applicants stated that the conclusions reached in ES Chapter 16 were based on crossing agreements being reached with other developers' infrastructure which the proposed development may interact with. The applicants stated that these crossing agreements were standard across the renewables industry and that it could be reasonably assumed that such agreements would be made prior to the construction of the proposed development.
- 5.4.41. The applicants considered [REP2-058] that a crossing agreement with DBA Projco and DBB Projco was largely agreed apart from 2 minor points. However, contrary to this, at DL6 the applicants stated [REP6-057] that they were preparing a draft crossing and proximity agreement and would issue it to the Projco IPs in the near future.
- 5.4.42. By the close of examination, the applicants [REP5-037] and Hornsea Project 4 [REP4-121] advised that heads of terms had been drawn up for a co-operation agreement which was progressing.
- 5.4.43. The ExA requested [PD-014] that a table was provided which could be updated during examination, setting out the progress with IPs on the proposed co-location, crossing and proximity agreements. The ExA also asked how such agreements could be secured through the dDCO. Although some information was provided on the status of negotiations [REP3-027], this was not updated during examination and the applicants did not explain how any co-location, crossing or proximity agreements could be secured through the dDCO.
- 5.4.44. No further responses were received in relation to crossing and proximity agreements, or co-location agreements.

5.4.45. Regarding cumulative effects, the ExA asked [EV5-003] the applicants to provide further information on how the conclusions on cumulative effects had been derived in ES Chapter 16. The applicants stated [AS-155] that the potential cumulative effects on infrastructure and other users would be sufficiently mitigated such that there was no potential for cumulative significant effects. The applicants stated that crossing and proximity agreements would deal with interactions between assets and works which interface offshore.

5.4.46. The applicants referred [AS-155] to this approach being taken for the consented Sheringham and Dudgeon Extension Projects OWF and Hornsea Project 4 OWF. The applicants stated that they had no reason to believe that agreements would not be reached where they would be required.

ExA's considerations

5.4.47. At the close of examination, there were outstanding concerns regarding how interactions between existing offshore infrastructure and the proposed development would be managed, which were not addressed in full by the applicants in relation to the following assets:

- Kellas North Sea 2 Limited [RR-027]: unused Esmond to Trent Wye Manifold gas pipeline
- BHP [RR-004]: decommissioned gas pipeline
- The Projco IPs [RR-007]: DBA and DBB OWFs
- Hornsea Project 3 OWF [RR-045]

5.4.48. The ExA also notes that there would be interactions between the proposed development and other existing OWFs and offshore infrastructure, which would also rely on crossing and proximity agreements, or co-location agreements to mitigate any potential impacts.

5.4.49. Regarding instances where IPs referred to the need for PPs, the ExA was not provided with any draft wording to consider, nor did the IPs set out in any detail why PPs were reasonable or necessary, with specific reference to their assets. Therefore, the ExA considers that there is no basis on which it could recommend the inclusion of PPs in the recommended draft DCO.

5.4.50. With regards to the proposed commercial agreements to mitigate effects on other offshore infrastructure, the ExA notes the applicants' position that any crossing and proximity agreements or co-location agreements would be agreed outside the DCO process. The ExA recognises that the applicants considered their approach to be standard practice across the renewables industry, and it could be reasonably assumed that agreements would be made prior to the construction of the proposed development. Whilst the ExA accepts that this may be the case, there still needs to be a reasonable degree of certainty that agreement between the relevant parties would be likely. The lack of meaningful progress by the close of examination with the majority of the IPs who raised concerns regarding interactions with their assets casts doubt that agreements could be achieved.

5.4.51. The ExA notes that the applicants referred to the Sheringham and Dudgeon Extension Projects OWF and Hornsea Project 4 OWF, which they stated adopted similar approaches on this matter. However, in the Hornsea Project 4 OWF DCO, PPs were included for various offshore infrastructure assets and the ExA, in that instance, had confidence that crossing and proximity agreements had been, or would be entered into closer to the time of construction, based on evidence that had been presented. Regarding the Sheringham Shoal and Dudgeon Extension Projects

OWF, whilst crossing and proximity agreements and co-operation and liaison agreements were in part proposed to mitigate effects on other offshore infrastructure and activities, there appeared to be no concerns raised regarding the use of such agreements to mitigate impacts and the ExA also notes the use of PPs in the DCO for some offshore assets. The ExA finds that the circumstances of both examples differ with those of this application. The ExA is therefore not confident that crossing and proximity agreements, or co-location agreements would be able to be agreed if the DCO was granted.

- 5.4.52. On this basis, the ExA concludes that ES Chapter 16 [\[REP7-060\]](#) could underestimate the residual significance of effects where crossing and proximity agreements, or co-location agreements were relied on for mitigation. ES Chapter 16 identified minor adverse or negligible adverse effects, including cumulative effects and transboundary effects. Without crossing and proximity agreements, co-location agreements or any certainty that they will be entered into, the ExA concludes that significant adverse effects from interactions with other offshore infrastructure and activities therefore cannot be excluded.

POTENTIAL WAKE EFFECTS ON OTHER OWFS

- 5.4.53. The effects from wake loss caused by the proposed development on the AEP of other existing OWFs occupied a large part of examination, with a substantial amount of information submitted regarding this matter from the applicants and IPs. Wake effects occur when wind turbines disrupt airflow to other turbines and reduce the energy production of those projects.
- 5.4.54. The Projco IPs (DBA, DBB and DBC OWFs) submitted representations [\[RR-007, REP1-071, REP2-071, REP3-063, REP4-117, REP5-070, REP5-071, REP6-081, REP7-139, REP7-140, REP8-060, REP9-033\]](#) throughout examination, stating that the proposed development would result in wake loss and adverse effects on their assets, including effects on their future viability.
- 5.4.55. Following on from the relevant representations, the 'Ørsted IPs' (Hornsea 1 Limited, the collective of Breesea Limited, Soundmark Wind Limited, Sonningmay Limited and Optimus Wind Limited (together, the 'Hornsea Companies'), Ørsted Hornsea Project Three (UK) Limited, Ørsted Hornsea Project Four Limited, Lincs Wind Farm Limited, Westernmost Rough Limited and Race Bank Wind Farm Limited) submitted joint representations, expressing concern that the proposed development would result in wake loss and adverse effects on their assets, including effects on their future viability [\[REP1-086, REP3-064, REP4-121\]](#).
- 5.4.56. At DL5, the Ørsted IPs withdrew their objection and comments regarding Hornsea Project 4 as the development was being discontinued [\[REP5-074\]](#). Following submission of information from the applicants on potential wake effects on other OWFs, at DL7 the Ørsted IPs also withdrew their objection and comments regarding Lincs Wind Farm Limited, Westernmost Rough Limited and Race Bank Wind Farm Limited [\[REP7-157\]](#).
- 5.4.57. At the close of examination, there remained a position of fundamental disagreement between the applicants and the Projco IPs in respect of DBA, DBB, DBC OWFs and the Ørsted IPs in respect of Hornsea 1 Limited, the Hornsea Project 2 Companies and Hornsea Project 3 OWFs regarding wake loss effects. The relationships between the proposed development and other OWFs are shown in Figure 31, with the projects maintaining unresolved objections at the close of examination outlined in red, apart from Hornsea Project 4 who withdrew its objection during examination.

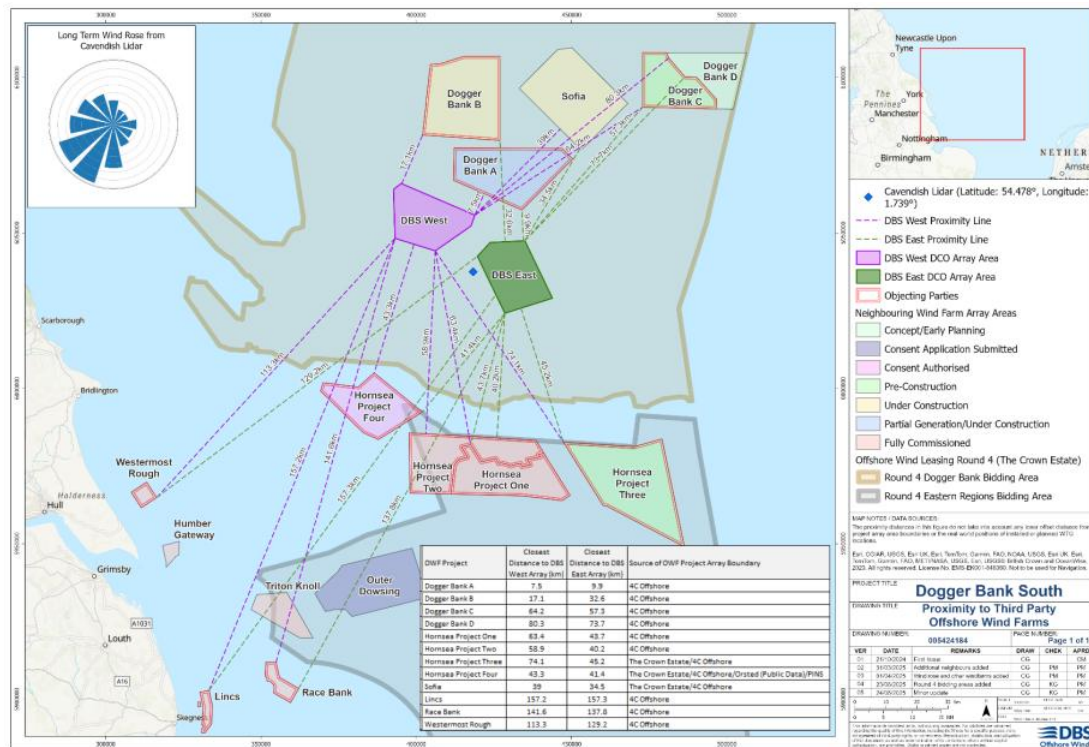


Figure 31: Proximity of the proposed array areas to other offshore wind farms

Source: The Applicants' Deadline 7 Wake Loss Submission, Appendix D [REP7-136]

5.4.58. This section covers the following matters:

- relevant background information
- whether other OWFs fall in the definition of “other offshore infrastructure and activities” in NPS EN-3 section 2.8 and whether wake effects should be assessed
- to what extent the applicants engaged with IPs during the pre-application stage to resolve as many issues as possible
- findings and reliability of the wake loss assessments
- scale of effects from wake loss and potential impacts on the future viability of other OWFs
- adequacy of mitigation and compensation
- overall net effects of wake loss on greenhouse gas (GHG) emissions
- any other important and relevant considerations

Relevant background information

5.4.59. The Crown Estate’s (TCE) Offshore Wind Leasing Round 4 (‘Round 4’) sought to unlock at least 7GW of new seabed rights in the North Sea and was concluded in January 2023. An updated buffer of 7.5km between existing and proposed OWFs was set by TCE, in comparison to the previous buffer of 5km [REP3-038]. The proposed development was offered a seabed lease under this round of leasing.

5.4.60. In September 2023, the SoS for Energy Security and Net Zero granted [The Awel y Môr Offshore Wind Farm Order 2023](#) (‘the AYM DCO’). This DCO application considered wake effects in detail. The AYM DCO [SoS’s Decision Letter](#) concluded in accordance with the ExA for the AYM DCO application, that other OWFs fell under “other offshore infrastructure and activities” in section 2.8 of NPS EN-3 and that wake effects should be assessed, minimised and mitigated. Requirement 25 was added to the DCO which stated that no construction could commence on any

wind turbine generator until an assessment of any wake effects and subsequent design provisions to mitigate identified wake effects as far as possible had been approved by the SoS.

- 5.4.61. In January 2024, the energy NPSs were updated, although the wording regarding “other offshore infrastructure and activities” in NPS EN-3 section 2.8 remained largely the same as the previous version.
- 5.4.62. In December 2024, the Department for Energy Security and Net Zero (DESNZ) published the [Clean Power 2030 Action Plan](#), which aimed to achieve clean electricity generation by 2030, increase energy security, and reduce GHG emissions. In this document, the DESNZ refers to the AYM DCO and to new projects with larger or increased numbers of turbines having an even greater potential to cause wake effects on existing downstream operational projects. The document stated that, historically, wake loss had been dealt with outside the planning system, but that a precedent had been set with the inclusion of a requirement in the AYM DCO. The Clean Power 2030 Action Plan recognised the uncertainty that the emerging issue of wake loss had introduced and that the Clean Power 2030 Unit would gather data and build an evidence base, in search of mitigation in collaboration with stakeholders, international partners and other industries.
- 5.4.63. In April 2025, the DESNZ published a [consultation](#) on changes to the NPSs for energy infrastructure. The draft NPSs took account of the Clean Power 2030 Action Plan and stated that wake loss should be considered in the assessment of effects on other offshore windfarms, amending parts of section 2.8 to refer specifically to ‘wake effects’.
- 5.4.64. In July 2025, the SoS for Energy Security and Net Zero granted [The Mona Offshore Wind Farm Order 2025](#) (‘the Mona DCO’). This was the first Round 4 project to be determined, and it considered wake effects in detail. The [SoS’s Decision Letter](#) concluded that wake effects were relevant to NPS EN-3 section 2.8 considerations and that a wake loss assessment should have been carried out by the applicants. The SoS considered whether it had been demonstrated that wake effects would likely affect the future viability or safety of other OWFs and whether mitigation had been suitably considered by the applicants. Requirement 29 was added to the DCO (and the deemed marine licence was also amended), which required that a wake effects plan must be approved by the SoS, mitigation for wake effects must be considered in consultation with the affected OWF and the applicants must demonstrate that reasonable steps have been taken to minimise wake effects.

Whether other OWFs fall in the definition of “other offshore infrastructure and activities” in NPS EN-3 section 2.8 and whether wake effects should be assessed

- 5.4.65. The applicants maintained their position regarding wake loss and its applicability to the considerations of section 2.8 of NPS EN-3 throughout examination [[AS-155](#), [REP1-049](#), [REP2-058](#), [REP3-027](#), [REP3-028](#), [REP5-036](#), [REP8-046](#)]. In summary the applicants’ position on this was as follows:
- The entire OWF industry accepted “other offshore infrastructure and activities” did not include OWFs, noting that ‘other’ is in a section dealing with offshore wind and the various examples of ‘infrastructure’ and ‘activities’ listed in paragraph 2.8.44 do not refer to offshore wind farms.

- It was not reasonable for a widely accepted interpretation of a long-standing policy to be radically re-interpreted by the previous SoS, as it was in the AYM DCO decision, going against the industry accepted way of dealing with wake effects.
- The AYM DCO decision was unprecedented, and the applicants ‘hoped’ that the SoS would revert to the way this matter had been dealt with prior to the decision, so that wake effects would be considered outside the planning system.
- When read collectively, relevant paragraphs (such as 2.8.203) did not make sense if “other uses of the sea” included other OWFs.
- Paragraph 2.8.25 encouraged developers to maximise their capacity, which was normal practice amongst OWF developments, which did not take account wake effects on other projects.
- The requirement for a wake loss assessment went beyond the ambit of the EIA process and was not a supported position in the NPS.
- There was no industry standard wake loss model, and no appropriate policy or guidance in the NPS, or elsewhere, to inform a wake loss assessment.
- The SoS would not have proposed changes to NPS EN-3 if the current wording was clear that the effects from wake loss should be considered in section 2.8 and if the AYM DCO decision had settled the position.

5.4.66. In summary, the Ørsted IPs [[REP3-064](#), [REP4-121](#), [REP5-074](#), [REP6-085](#), [REP7-157](#), [REP8-062](#)] and Projco IPs [[REP3-063](#), [REP5-071](#), [REP6-081](#), [REP7-139](#), [REP8-059](#)] considered throughout examination that NPS EN-3 did apply to other OWFs and that wake effects should be considered in the ES, in accordance with the relevant policies.

5.4.67. There was much debate during examination on the interpretation of ‘close’ with reference to the wording of paragraph 2.8.197. The applicants stated [[REP8-046](#)] that the normal meaning of the word ‘close’ had to be the starting point for consideration of its meaning and that could not include something which would be 8km away, and therefore NPS EN-3 paragraph 2.8.197 would not be engaged. The applicants considered that anything further away than the 7.5km buffer adopted by TCE should not be considered as close [[REP1-049](#), [REP2-058](#), [REP8-046](#)]. The applicants considered [[REP2-058](#)] that the increased buffer distance of 7.5km was intended to de-risk projects by providing additional mitigation and assurance through limiting proximity, and made it clear that TCE had had regard to existing OWFs when setting the buffer. As the closest OWF to the proposed array areas, DBA OWF would be located 8km away at its closest point, and therefore, the applicants concluded that no OWFs could be considered as close to the proposed development.

5.4.68. The Projco IPs [[REP1-071](#), [REP2-071](#), [REP6-081](#), [REP8-059](#), [REP9-033](#)] disagreed with this position, suggesting that their assets should be considered as being ‘close’ to the proposed development. The Projco IPs suggested [[REP5-071](#)] that if TCE buffer was meant to be the determining factor in deciding whether a proposed OWF was close to another, then this would have been directly stated in the revised NPSs. The Projco IPs made the comparison to carrying out an EIA, where it would not be uncommon to identify a study area that is relevant for a receptor and pathway to effect, which would extend significant distances, and that wake loss should follow a similar approach, rather than having an arbitrary distance beyond which wake effects were not considered [[REP5-071](#)].

5.4.69. The Ørsted IPs concluded that Hornsea Project 1, Hornsea Project 2 and Hornsea Project 3 would be located in close proximity to the proposed array areas [[REP3-034](#), [REP8-062](#), [REP9-034](#)] given the potential financial impacts from loss of AEP

due to wake effects, also noting that distance alone should not be the only factor when determining the potential effects on other OWFs. The Orsted IPs stated [REP5-074] that wind direction, scale of the proposed development, temporal overlap between the projects' operational lifetimes and turbine technology all influenced the effects of wake loss, not just the distance from the proposed development.

- 5.4.70. The ExA requested [PD-006, EV5-005] that the wake loss assessment which had been referenced in the original version of ES Chapter 16 [APP-130] was submitted, and this was eventually provided [REP4-099]. This only modelled the effects on DBA OWF as the closest wind farm, but an updated version was provided [AS-179], which considered the effects of wake loss on the Projco and Ørsted IPs OWFs which had outstanding objections at the close of examination, along with DBD, Outer Dowsing and Hornsea Project 4 OWFs.
- 5.4.71. The Mona DCO decision was issued on 4 July 2025, prior to the close of examination of this application on 11 July 2025. The ExA recognises that this did not allow much time for IPs to comment on the decision and its implications, however, submissions on the decision were received at DL9.
- 5.4.72. The applicants disagreed [REP9-024] with the SoS's conclusion in the Mona DCO Decision Letter, which stated that "in the context of a policy in relation to impacts on other infrastructure, a project is unarguably "close" enough to be relevant if it is accepted that there is a direct physical impact on that project." However, the applicants did not provide any justification for their stance, other than stating that they disagreed with the SoS's interpretation.
- 5.4.73. The Projco [REP9-033] and Orsted [REP9-034] IPs stated that the Mona DCO Decision Letter supported their positions on the matter and highlighted that the SoS did not refer to the 7.5km buffer distance in determining the meaning of "close".

ExA's considerations

- 5.4.74. NPS EN-3 paragraph 2.8.197 states that "Where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities."
- 5.4.75. Of relevance to this matter, the draft changes to NPS EN-3 included paragraph 2.8.176, which is specifically in relation to the assessment of wake effects on other OWFs. This paragraph states that applicants would need to consider the impacts of the proposed development on nearby wind generating stations which are planned, consented or operational. Given the status of these documents, they would not supersede considerations in the NPS, but nevertheless, the ExA considers that this clearly identifies the direction of travel of emerging policy.
- 5.4.76. The Mona DCO Decision Letter stated that NPS EN-3 did capture other OWFs under effects on "other offshore infrastructure and activities" and that effects from wake loss on other OWFs should be considered by applicants. The SoS expressly stated that the draft changes to NPS EN-3 provided clarity to existing policy, rather than introducing new or alternative policy with regards to the consideration of wake loss, stating that "The Secretary of State has recently consulted on amendments to NPS EN-3 to remove this supposed doubt and make clear that a wake assessment and early engagement with affected parties are always required, as well as to

provide further clarity on what is expected from applicants. The Secretary of State has done this because such doubts were being expressed, not because he considers the existing policy allows Applicant's to ignore wake effects." The SoS also clarified that OWFs were an activity which the government issues a licence for, which clarified the wording of NPS EN-3 paragraph 2.8.197.

- 5.4.77. Given the explicit conclusions drawn in the Mona DCO Decision Letter, and also building on the precedent set in the AYM DCO decision and when considering the clarifications made in the draft changes to NPS EN-3, the ExA considers that it is very clear that NPS EN-3 section 2.8 includes the consideration of wake loss effects on other OWFs. Regarding the definition of 'close' referred to in paragraph 2.8.197 of NPS EN-3, in the Mona DCO Decision Letter, the SoS set out clearly how this should be interpreted. Whilst the applicants contested this, they provided no meaningful justification as to why the SoS's interpretation was not reasonable or fair. The ExA has no reason to go against the finding of the SoS in this regard.
- 5.4.78. Given that the applicants did eventually provide an assessment [REP7-136] on the potential effects from wake loss on the closest OWFs which raised concerns (the Ørsted and Projco IPs), the ExA considers that the applicants have met the requirements of paragraph 2.8.197.
- 5.4.79. The ExA considers that other OWFs which were not considered in the applicants' wake loss assessment would not be defined as 'close' to the proposed development, given the lack of evidence to suggest that there would be effects on these OWFs.

To what extent the applicants engaged with IPs during the pre-application stage to resolve as many issues as possible

- 5.4.80. Whether or not the applicants had carried out sufficient consultation and meaningful engagement with other OWF operators with regards to wake loss was discussed throughout the examination, including at ISH6 [EV11-004]. This remained a point of disagreement between the applicants and the Ørsted [REP8-062] and Projco [REP8-031] IPs at the close of examination.
- 5.4.81. The applicants' final position [REP8-046] on this matter was that they had engaged with the Projco and Ørsted IPs in the 'normal way', in that for projects outside the buffer of 7.5km set by TCE, engagement was usually 'minimal' or 'entirely absent'. The applicants stated that the 7.5km buffer dealt with the issue of wake loss and that there was no track record of wake assessments being carried out between competitors through the planning system and no guidance regarding how to conduct such assessments in a planning context. The applicants suggested that there had been an attempt to impose a retrospective standard on them with regards to wake effects, which was inappropriate.
- 5.4.82. The applicants concluded [REP8-046] that whilst their final position on wake loss could have been derived more quickly, it was extremely unlikely that a substantively different position would have been reached if it had given earlier consideration to wake effects.
- 5.4.83. In the subsequent submission at DL9 [REP9-024] following the publication of the Mona DCO, the applicants stated that they had not ignored the issue of wake loss. The applicants explained that this matter had been addressed by their engagement with TCE in the design of the Round 4 leasing process, by respecting TCE's buffer distance, by conducting substantial and ongoing research into available wake

mitigation options and giving specific consideration to the assessment of wake effects and potential mitigation for DBA OWF as the closest affected wind farm.

- 5.4.84. The Projco IPs' final position [\[REP8-059\]](#) was that they had consistently attempted to engage with the applicants regarding wake loss effects on the AEP of their OWF assets. The Projco IPs stated that the applicants did not meaningfully engage with them during the pre-examination stages and only engaged on technical matters late on in the examination process. The Projco IPs raised wake loss as a concern at statutory consultation during the pre-application stage and the Statement of Common Ground [\[REP8-031\]](#) with the Projco IPs stated that despite numerous attempts to engage with the applicants, including requests for information, the applicants were not forthcoming with this.
- 5.4.85. The Projco IPs also stated [\[REP7-139\]](#) that the applicants did not act collaboratively in producing the wake loss assessment, only engaging with the Projco IPs after the production and submission of that assessment. The Projco IPs considered that any engagement from the applicants was far too late in the process. The Projco IPs noted that early engagement during the site selection process may have allowed for larger buffers in the emerging design of the proposed development. The Projco IPs also highlighted that the applicants had refused to engage with them regarding proposed PPs during examination.
- 5.4.86. The Ørsted IPs stated [\[REP4-121, REP8-062\]](#) that the applicants had not worked with them to minimise negative effects on their assets to as low as reasonably practicable. The Ørsted IPs also stated [\[REP7-157\]](#) that the applicants' stance that there had been no custom and practice of substantive engagement on wake loss at the pre-application stage for new OWF projects was incorrect, as there had been engagement, but which was not always public-facing.
- 5.4.87. The applicants highlighted [\[REP7-131\]](#) that despite statutory consultation with the Ørsted IPs in 2023 and consultation on draft ES Chapter 16, no feedback was received on wake loss. The applicants therefore considered that they should not be criticised for their pre-application engagement with the Ørsted IPs under these circumstances.

ExA's considerations

- 5.4.88. NPS EN-3 paragraph 2.8.200 states that applicants should engage with IPs in the potentially affected offshore sectors early in the pre-application phase of the proposed OWF, with the aim to resolve as many issues as possible prior to the submission of an application.
- 5.4.89. Paragraph 2.8.261 states that detailed discussions between the applicant for the proposed OWF and the relevant consultees should have progressed as far as reasonably possible prior to the submission of an application. Appropriate mitigation should be included in any application and ideally agreed between relevant parties.
- 5.4.90. The draft changes to NPS EN-3 state that at the design stage there are clear merits for applicants to assess inter-array wake effects between the proposed developments, and nearby offshore wind generating stations that are planned, consented or operational (paragraph 2.8.176). Applicants would need to demonstrate that they had taken all reasonable steps to minimise as far as possible the impact of wake effects on other offshore industries, including explaining how the configuration of a proposed offshore wind project had evolved during the design process to reduce the impact, or how an applicant had managed the planned layout

of an offshore wind turbine array to select layouts with reduced long-distance wake impact on other offshore industries or generating stations (2.8.232).

- 5.4.91. The applicants stated that they had taken a 'business as usual approach', which the ExA considers was that they engaged with TCE process, rather than engaging with potentially affected IPs. This is not what NPS EN-3 requires, which is engagement and collaboration with those offshore industries which could be affected by the proposed development.
- 5.4.92. Notwithstanding the applicants' criticism of the Ørsted IPs for not responding to consultations prior to submission of the application, the ExA considers that the applicants did not fully engage with potentially affected OWFs in the spirit of paragraph 2.8.200, which seeks to resolve as many issues as possible prior to the submission of the application. The ExA therefore concludes that the applicants have not complied with NPS EN-3 paragraph 2.8.200.
- 5.4.93. The evidence in the examination suggests to the ExA that the lack of any detailed discussions with IPs regarding wake loss prior to submission of the application and the stance adopted by the applicants meant that there was no meaningful opportunity to progress the matter or for any necessary mitigation to be agreed by the parties. The ExA therefore concludes that the applicants have not complied with NPS EN-3 paragraph 2.8.261.

Findings and reliability of the wake loss assessments

- 5.4.94. The applicants' wake loss assessments [[AS-179](#), [REP8-038](#)] considered the effects from wake loss on OWFs in a 100km range of the proposed array areas. The Projco IPs also provided a wake loss assessment which considered the wake loss effects from the proposed development on DBA, DBB and DBC OWFs [[REP7-140](#)]. The relevant results from both assessments are presented in Table 1 below:

Table 1: Summary of effects from the proposed development on AEP of OWFs

Source: Addendum to Wake Effects - Response to ISH3 Action Points, table 2 (the applicants) [[AS-179](#)] and Assessment of potential Dogger Bank South wake impacts revision 2, table 2 (the Projco IPs) [[REP7-140](#)]

OWF	Distance from DBS (at closest point)	Applicants' reduction in AEP	Projco IPs' reduction in AEP
DBA	8km	1.9 – 2.1%	3.3 to 3.5%
DBB	17.1km	0.4 – 0.7%	1.2 to 1.4%
DBC	57.3km	0.0 – 0.1%	0.4 to 0.5%
Hornsea Project 1	43.7km	0.3 – 0.6%	Not assessed
Hornsea Project 2	40.2km	0.0 – 0.8%	Not assessed
Hornsea Project 3	45.2km	0.0 – 0.4%	Not assessed

- 5.4.95. The applicants presented [AS-179] the average effect on AEP to be 2% across the assessed OWFs. The Projco IPs stated [REP7-140] that the average effect on AEP across their assets on a worst-case scenario was a 1.8% loss.
- 5.4.96. The Ørsted IPs confirmed [REP6-085] that whilst they would have preferred to review independent third-party modelling of each OWF, the figures provided by the applicants regarding the likely wake effects on their assets were accepted.
- 5.4.97. Regarding the methodology used by the applicants for their wake loss assessment [AS-179], the Projco IPs raised concerns [REP5-071] relating to the data used to draw the conclusions, which they stated resulted in an under-representation of the likely effects on the Projco IPs' assets. The applicants suggested [REP7-136] that there were issues with parts of the methodology of the Projco IPs' wake loss assessment. However, the same overarching model was used for both assessments.
- 5.4.98. These matters were discussed at ISH6 [EV11-004] and the assessments were updated to address the identified concerns in part. The Projco IPs' closing statement [REP8-059] confirmed that their updated wake loss assessment [REP7-140] had addressed 2 out of 3 issues which the applicants had identified, but that the matter regarding the blockage model which was used for the modelling remained outstanding between the parties. The Projco IPs stated that they had utilised an industry-wide blockage model, in comparison to the applicants who had used an in-house proprietary model which had not been subject to review and had not been agreed as an appropriate methodological input. The Projco IPs therefore concluded that their assessment should be preferred.
- 5.4.99. The applicants advised [REP7-136] that blockage is the deceleration of wind speed approaching (in front of) a wind farm, and acceleration in flow around the sides and behind the flow. The concept of blockage at a wind farm would be comparable to the flow of a river diverting around and over a rock on the riverbed.
- 5.4.100. The Projco IPs also stated [REP8-059] that they had identified a concern in respect of the long term mean wind speed (LTMWS) used by the applicants in their wake loss assessment which had not been addressed. The Projco IPs noted that their assessment of LTMWS had been undertaken by SSE (an experienced OWF developer) and this had been reviewed by Equinor (another experienced OWF developer and shareholder in the Projcos). Based on this review, the Projco IPs stated that Equinor shared the concerns regarding the applicants' approach to LTMWS. In the Projco IPs' closing statement [REP8-059], they stated that this was not addressed by the applicants and that their wake loss assessment should be favoured because they were the affected party and had detailed knowledge of the site conditions.
- 5.4.101. The applicants stated [REP7-136] that the Projco IPs' assessment used a blockage model that did not capture the impact of the atmospheric boundary layer on blockage, significantly inflating the wake loss at the Projcos IPs' OWFs, and also suggested that there were 2 software bugs in the Projco IPs' model, which inflated the AEP losses. The applicants stated that even accounting for these matters, they had not been able to reproduce the same findings as those which the Projco IPs presented, indicating the presence of further errors or incorrect assumptions. The applicants stated that the overall blockage effect from the proposed development on DBA OWF should be positive, therefore not including a blockage model in the Projco IPs' assessment artificially increased the overall turbine interaction effect felt by DBA OWF. The applicants considered that this was likely to over-estimate the

total interaction effect of the proposed development on DBA OWF by approximately 1.4%.

- 5.4.102. The applicants stated [REP7-136] that they ran 6 different wake loss models and when assessing the results it was clear 3 were found to produce improbable results, so were dropped from the cohort used in the final report. The remaining 3 were published to add veracity to the conclusions by showing agreement between different models. The applicants considered their assessments to be more reliable than the Projco IPs' assessment, which ran 1 model.

ExA's considerations

- 5.4.103. The ExA notes that there remained disagreement at the end of examination between the applicants and Projco IPs regarding the appropriateness and reliability of each party's wake loss assessment methodology and findings. Given the highly technical nature of these assessments, lack of an industry standard, or guidance on how to carry out such assessments, it is only possible for the ExA to conclude on a range of potential wake effects for each OWF. The applicants and Projco IPs are well-established professional OWF developers who would have much experience of carrying out these assessments. The ExA was not compelled by either party's case to suggest that the other party's assessment and its results were unreliable and considers that the difference in results is most likely explained by the lack of agreement across the OWF sector on the most appropriate approach to the methodology for wake assessments.
- 5.4.104. Therefore, the ExA considers that the effects on AEP for DBA OWF would be between 2.1 and 3.5% reduction, for DBB OWF would be between 0.7 and 1.4% and for DBC OWF would be between 0.1 and 0.5%. However, these figures can only be treated as indicative and are taken on a worst-case scenario basis from both parties.
- 5.4.105. For the Ørsted IPs assets, the ExA has no evidence to suggest that the figures presented by the applicants regarding the reduction in AEP are unreliable and notes that the Ørsted IPs agreed that these were acceptable. The reduction in AEP for the Ørsted IPs assets would range from 0.0 % to 0.8%.

Scale of effects from wake loss and potential impacts on the future viability of other OWFs

- 5.4.106. The scale of effects from wake loss and potential impacts on the future viability of other OWFs was extensively discussed throughout the examination and featured heavily in ExQs, ISHs and in rule 17 letters. Below is a summary of the various positions advanced by the parties during the examination.

Projco IPs' position

- 5.4.107. The Projco IPs considered [REP4-117] that the effects from wake loss on their assets would have a low magnitude of impact at the very least but was more likely to be of medium magnitude given the scale of change and because there would be loss of resource that resulted in long term reduced functionality. The Projco IPs considered [REP8-059] therefore that given the receptors were of high sensitivity, this resulted in a moderate or major adverse effect on their assets, which would be significant and required mitigation or compensation.
- 5.4.108. The Projco IPs drew comparisons to the reported effects from wake loss on Rhyl Flats OWF, which was affected by the AYM OWF [REP3-063]. The Projco IPs noted

that the scale of Rhyl Flats OWF was much smaller than that of each of the DBA, DBB or DBC OWFs and that the Rhyl Flats OWF had a much shorter operational lifetime that would be affected. The Projco IPs also identified other variances such as differences in financial considerations and greater wind speeds in the Dogger Bank area, leading to greater generating capacities. The Projco IPs noted that for the AYM DCO application, there would be a loss of up to 26 gigawatt hours (GWh) as a result of the AYM OWF (approximately 2% wake loss) for the remaining lifetime of Rhyl Flats. This led the SoS to offer moderate weight against the grant of development consent as a result of wake loss effects. The Projco IPs suggested [REP8-059] that the proposed development would impact DBA, DBB and DBC 353 times greater than the impacts identified in the AYM DCO decision over the lifetimes of the projects and that even based on the applicants' assessment, the impact on DBA, DBB and DBC would be 160.5 times greater.

- 5.4.109. The Projco IPs also stated [REP9-033] that in the Mona DCO decision, the loss of AEP was calculated as 833 GWh on a lifetime basis for the impacted projects. For the Dogger Bank South proposals, the Projco IPs stated that based on their assessment, the impact of the proposed development was 11 times greater on the Projco IPs, and that based on the applicants' wake loss assessment, the impact of the proposed development on the Projco IPs was 5 times greater. The Projco IPs stated that it would therefore be irrational for the SoS to offer less weight to the impacts on the Projco IPs assets than the SoS offered the impacts to Rhyl Flats in the AYM DCO Decision and the Ørsted IPs in the Mona DCO Decision.
- 5.4.110. The Projco IPs' final position [REP8-059] was that the proposed development could lead to a reduction in AEP from wake loss effects from the proposed development across DBA, DBB and DBC OFWs of 312 GWh annually and 9,170 GWh on a lifetime basis. The Projco IPs calculated that on a conservative basis this could result in financial losses of £17 million annually and £499 million across the lifetimes of the OFWs, which demonstrated a significant adverse effect. The Projco IPs stated that these were indicative figures, which considered undiscounted Contract for Difference (CfD) power prices.
- 5.4.111. The Projco IP's highlighted [REP8-059] that their assets were awarded CfDs during the most competitive auction round, when strike prices were the cheapest for offshore wind and that the CfD contract covers a 15-year period, so after this time, the financial position would become less certain. On this basis, the Projco IPs stated that taking account of the CfD period and calculating the financial impact thereafter on wholesale prices forecasted by the DESNZ (based on 2025 prices), they estimated the average financial loss of £23 million annually and £669 million across the lifetimes of their OWFs from effects from wake loss.
- 5.4.112. The Projco IPs also presented [REP6-081] the potential financial losses based on the applicants' wake loss assessments, which on a conservative basis using the CfD price for the full lifetime of DBA, DBB and DBC OWFs they considered would be £8 million on an annual basis and £233 million on a lifetime basis. Based on the strike prices during the CfD period and thereafter on wholesale prices as forecast by the DESNZ, the Projco IPs predicted losses of an average of £11 million on an annual basis and £314 million on a lifetime basis.
- 5.4.113. The Projco IPs stated [REP6-081] that there were various ways in which these financial losses could result in a material risk to the future viability of their assets, including:

- risks of defaulting on loans due to the reduction in cashflow, which could cast doubt on the future operation of the projects
- impacts on shareholder confidence with potential withdrawal of shareholders
- risks to future investment in any lifetime extension
- risks to operational costs, including from the structure of contracts
- DBA, DBB and DBC OWFs were being delivered and operated as one OWF, so terminating one early would have material, adverse commercial effects on the other phases

- 5.4.114. The Projco IPs explained that their approach identified a realistic worst case in terms of financial impacts (reflecting the impacts on AEP and quantifying those to identify a realistic loss of revenue), based on a realistic worst-case set of parameters for the design of the proposed development to allow for a reasoned conclusion on significance. The Projco IPs stated that these calculated losses represented a material risk to the future viability of DBA, DBB and DBC OWFs.
- 5.4.115. The Projco IPs considered [\[REP8-059\]](#) that paragraph 2.8.347 of NPS EN-3 did not require them to demonstrate that DBA, DBB or DBC would be unviable as a consequence of wake effects on AEP and did not require that a full viability assessment was submitted to the examination. The Projco IPs stated that it required a conclusion that the proposed development was likely to affect future viability. The Projco IPs considered that they had demonstrated through the level of impact that there was likely to be a meaningful threat to viability in the future.
- 5.4.116. The Projco IPs considered [\[REP8-059\]](#) that the applicants had made several speculative comments and assumptions regarding the financial impact of the proposed development on their assets in respect of matters on which they had no detailed or specific knowledge, such as the terms of loans and shareholder investment. The Projco IPs suggested that no weight should be afforded to the applicants' analysis as they had not engaged with the Projco IPs to understand the financial impacts on DBA, DBB or DBC OWFs.
- 5.4.117. The Projco IPs stated [\[REP9-033\]](#) that on the basis of all other factors being equal as things stood at the close of examination, the predicted loss of revenue as a consequence of the wake losses caused by the proposed development, would likely be the determining factor on the future viability of their assets and would be more likely than not lead to issues such as the earlier decommissioning of DBA, DBB and DBC OWFs than would have otherwise been the case.
- 5.4.118. The Projco IPs considered [\[REP9-033\]](#) that the applicants had not demonstrated that it was unlikely that there would be an effect on future viability of their assets and that when applying the same approach as to environmental effects, a precautionary principle must be applied. The Projco IPs considered that given the recognition of the importance of economics to an OWF as identified in the NPSs and the importance of DBA, DBB and DBC OWFs in achieving one of the UK Government's primary objectives of Clean Power 2030, this principle should be applied in finding that there was a likely effect on the future viability of DBA, DBB and DBC OWFs. The Projco IPs stated that the balance sat in favour of protecting DBA, DBB and DBC as consented and operational OWFs which were certain to deliver clean energy benefits given that they were being built and would be operational pre-2030.
- 5.4.119. The Projco IPs stated [\[REP8-059\]](#) that even if the SoS were to conclude that there would be no likely effect on future viability, the SoS would need to give substantial weight to the adverse effects given the scale of impact.

Ørsted IPs' position

- 5.4.120. The Ørsted IPs stated [\[REP6-085\]](#) that they did not consider that TCE intended that the 7.5km buffer it set would absolve developers of all wake effects extending beyond 7.5km and that TCE set this buffer as a distance within which active consent would be required.
- 5.4.121. The Ørsted IPs highlighted [\[REP6-085\]](#) that the originally submitted version of ES Chapter 16 [\[APP-130\]](#) identified that “the sensitivity of offshore wind farms to interference is high”. The Ørsted IPs concluded [\[REP7-157\]](#) that the likely effects on their assets would be major adverse and significant, owing to the level of financial impact this was likely to have on their assets. The Ørsted IPs stated [\[REP9-034\]](#) that adverse effects on the Ørsted IPs’ assets that continue to hold objections in relation to wake loss should be afforded substantial weight in the planning balance.
- 5.4.122. The Ørsted IPs also disputed [\[REP7-157\]](#) the applicants’ comparison of the effects from wake loss to background levels of wind variation, meaning that the effects would not be significant. The Ørsted IPs rejected this interpretation of significance in an EIA context, comparing this to a fisher’s catch, which could fluctuate significantly from day to day, but that this evidence would not be used to argue that an average 4% loss of that fisher’s revenue, for the rest of their operational lifetime, is not significant.
- 5.4.123. The Ørsted IPs submitted a financial impact assessment at DL7 [appendix 1, [REP7-157](#)], which set out that there would be financial losses of between £70 million and £190 million during the lifetimes of the Ørsted IPs’ assets, and between an additional £15 million and £104 million when considering the impact on a 10-year lifetime extension, from wake loss effects. The Ørsted IPs stated that this would rise to between £106 million to £319 million, in relation to Hornsea Project 1 and Hornsea Project 2 only, when the cumulative impact of the Outer Dowsing Offshore Wind (Generating Station) project was factored in.
- 5.4.124. The financial impact assessment stated that the cumulative effects from wake loss was likely to have an impact on the economic viability of Hornsea Project 1 and Hornsea Project 2 OWFs, from the point at which market support for these assets would fall away and the assets’ revenue streams become fully merchant, and would influence lifetime extension decisions, leading to a likely outcome of the earlier-than-otherwise decommissioning of these 2 assets.
- 5.4.125. The Ørsted IPs stated [\[REP8-062\]](#) that the potential financial losses represented a material risk to the future viability of the projects. The Ørsted IPs considered that NPS EN-3 paragraph 2.8.347 did not require demonstration that the Ørsted IPs’ assets were unviable, nor did it require that a full viability assessment was submitted to examination, it required a conclusion that the proposed development was likely to affect the future viability of these assets.
- 5.4.126. The Ørsted IPs considered [\[REP9-034\]](#) that the impact on the Ørsted IPs’ assets was demonstrably significant and notwithstanding that other factors would affect the future viability of the Ørsted IPs’ assets, if the scale of the loss of revenue as a consequence of wake effects meant that there was an effect on future viability, that still meant that the policy was engaged. The Ørsted IPs stated that this was consistent with the approach to assessment of environmental issues and the application of principles such as cumulative effects

The applicants' position

- 5.4.127. The applicants' position [[REP9-024](#)] following the publication of the [Mona DCO decision](#), was that they did not consider that greater weight should be offered to effects from wake loss against the proposed development in comparison to the AYM DCO decision as suggested by the Projco IPs. The applicants stated that there would be a loss of up to 119.2GWh per year across all the affected OWFs as a result of the Mona OWF. The applicants stated that when considering the proposed development and the Mona OWF proportionately (Mona being 1,500 megawatts (MW), and the proposed development being 3,000MW), the applicants' analysis indicated the proposed development would only have a marginally greater effect than the Mona OFW, with a total 267GWh loss.
- 5.4.128. The applicants stated [[REP4-099](#)] that if the overall effects from wake loss resulted in a loss of 2% of AEP to other OWFs, it was implausible that this could be considered equivalent to a physical damage risk, such as a failed telecommunication cable. The applicants highlighted the difficulty of applying the impacts from wake effects to EIA assessment considerations. The applicants suggested that comparing the effects on the OWFs' capacity to handle variation, such as annual weather variations, climate change, or other wind farm wakes, in the available wind resource was more appropriate. The applicants stated that it was necessary that all OWFs be able to continue successful operation under the naturally uncertain fluctuations, and thus the 'pathway to impact' should be considered as the implication to this capability.
- 5.4.129. The applicants maintained [[REP4-099](#)] that the most appropriate categorisation of the sensitivity of OWFs to wake effects was low, which took account of the context of TCE buffer, which considered wake effects as a factor when the distance was set. The applicants considered that there would be a negligible magnitude of effect on the receptor, and therefore the overall significance of effect would be negligible for all OWFs affected by wake loss as a result of the proposed development. The applicants added that even if the magnitude were regarded as low or the sensitivity was regarded as medium, the conclusion would be minor adverse, which would not be significant, and as such mitigation was not required.
- 5.4.130. The applicants emphasised [[REP8-046](#)] that there were no models validated for results at the distances involved for the Ørsted IPs' assets. The applicants stated that the conclusions of the different models varied significantly and therefore it would not be reasonable (in the absence of validated models) to expect agreement on a single percentage conclusion for each of these projects. The applicants also stated that it would be inappropriate to use the applicants' assessment as the basis for a financial compensation claim, which the Ørsted IPs were doing.
- 5.4.131. The applicants concluded [[REP8-046](#)] that the financial impact assessments provided by the Projco and Ørsted IPs did not meaningfully address the question of viability and only analysed potential ranges of reduction in revenue from a known risk, as if any impact on revenue must necessarily affect viability. The applicants stated that a viability assessment capable of engaging NPS EN-3 paragraph 2.8.347 required a much more sophisticated approach, including consideration of costs, total revenue, tax and other commercial risks. The applicants suggested that a financial viability assessment, which accorded with the principles set out in viability assessments in a housing context would need to be provided to demonstrate effects on future viability of their assets.

- 5.4.132. The applicants stated [REP8-046] that the Projco and Ørsted IPs made a range of speculative assertions about future adverse scenarios, which could not be regarded as evidence of a likely meaningful threat to viability. The applicants suggested that inferences drawn from financial decisions taken by the Projco IPs and from their failure to raise wake effects with the applicants for 2.5 years after TCE's announcement of the proposed development, despite engagement on other topics, meant that there was no credible evidence that the viability of DBA, DBB or DBC OWFs was likely to be affected.
- 5.4.133. The applicants also stated [REP7-136] that regarding the Projco IPs presented figures, when accounting for the UK's corporate tax rate of 25%, the net financial impact of the reported £582 million lifetime revenue loss due to wake effects would be approximately £436.5 million, reflecting the tax shield effect, since lower revenues reduce taxable profits, the actual economic loss was mitigated by the corresponding reduction in tax liability, which was not accounted for by the Projco IPs. The applicants also considered that the financial analysis lacked robustness due to the absence of sensitivity testing, and that key variables such as discount rates, power price trajectories, turbine availability, and operational overlap duration were treated deterministically.
- 5.4.134. The applicants suggested that the Projco IPs' [REP6-052] assessment on the future viability of their assets did not allow for future discounting revenues. The applicants presented a variety of options of discount figures and the potential effects these would have on financial losses on DBA, DBB and DBC OWFs (tables 3-4 and 3-5, [REP7-136]), ranging from £92 million to £130 million based on the Projco IPs' wake loss assessment over the lifetime of the projects, and between £50 million and £36 million based on the applicants' wake loss assessment over the lifetime of the projects.
- 5.4.135. The applicants also stated [REP8-046] that regarding the Ørsted IPs, their failure to raise any concern over wake effects from the announcement of the proposed development by TCE in February 2021 through to submission of the application, undermined their claim that the viability of Hornsea Projects 1, 2 or 3 was likely to be affected. The applicants stated that it was reasonable to assume that the Ørsted IPs would have raised the issue at, or before statutory consultation and pressed it firmly with them, which they did not.
- 5.4.136. The applicants also explained [REP8-043] that the Ørsted IPs' financial viability assessment lacked empirical validation of long-range wake effects, the discount rates applied were too low, there was ambiguity in CfD energy price assumptions, it omitted the CfD top-up losses during negative pricing hours and there was a lack of consideration of tax implications.

ExA's considerations

- 5.4.137. NPS EN-3 paragraph 2.8.347 states that where a proposed development is likely to affect the future viability or safety of an existing or approved or licensed offshore infrastructure or activity, the SoS should give these adverse effects substantial weight in its decision-making.
- 5.4.138. The ExA notes the substantial difference between the conclusions drawn by the applicants and the IPs regarding the overall significance of effects on other OWFs from wake effects.

- 5.4.139. Regarding the financial viability assessment provided by the Ørsted IPs, this suggests that revenue impacts of this level are material and would threaten the financial viability of the assets, leading to a likelihood that Hornsea Project 1 and Hornsea Project 2 could be decommissioned earlier than would otherwise have been the case. However, the ExA notes that this conclusion relates to the cumulative effect of the proposed development and Outer Dowsing OWF on the Hornsea OWFs. There is no conclusion regarding the impact of just the proposed development on the viability of the Ørsted assets. The ExA notes that the wording on the proposed development in isolation is that it 'may' have an impact on the viability of the Ørsted IPs' assets.
- 5.4.140. The ExA considers that there is substantial uncertainty regarding whether the Ørsted IPs would seek an extension beyond the current operational period. Therefore, evidence regarding impact on the future viability of the Ørsted IPs' assets and potential lifetime extensions is offered very limited weight owing to these uncertainties. The ExA draws the same conclusions regarding extensions to the lifetime of the Projco IPs' assets.
- 5.4.141. The ExA considers that the financial viability assessment provided by the Ørsted IPs and the information provided by the Projco IPs on the likely financial impacts on their assets sets out high level figures which are somewhat arbitrary without the context of how much revenue the existing OWFs earn at present or are projected to earn. The ExA agrees with the applicants that effectively this presents a range of potential reductions in revenue from a single known risk. It does not necessarily follow that viability would be affected and to demonstrate this, the ExA considers that much more contextual information such as the IPs' total revenue, tax and other commercial details would be required. Without this, the ExA is unable to determine with any likelihood whether there would be an effect on the future viability of these businesses.
- 5.4.142. The ExA also notes the difference of opinion between the applicants and IPs, and the indicative nature of the wake loss effects, which all the financial impact assessments are based on. Although each of the parties has critiqued each other's assessments on the potential financial losses from wake loss, given the high-level nature of all the information involved, there simply is not enough information presented on the financial context of each business for the ExA to draw any meaningful conclusion on what the likely effects on viability would be.
- 5.4.143. Therefore, the ExA accepts that there would be financial impacts on the Ørsted and Projco IPs, which may be relevant to future decisions relating to their assets, but based on the information available to it at the end of examination, the ExA cannot conclude that it is likely that the proposed development would affect the future viability of an existing, approved or licensed offshore infrastructure or activity.
- 5.4.144. The ExA therefore concludes that NPS EN-3 paragraph 2.8.347 is not engaged. However, the adverse effects from wake loss and the resulting financial implications must be afforded the relevant weight and are considered in the overall conclusion below.

Adequacy of mitigation and compensation

Mitigation identified prior to submission of the application

- 5.4.145. The applicants stated [[REP8-046](#)] that mitigation should consider the context of the advice in NPS EN-3 to maximise generation to meet government targets and that wake effects were an inevitable product of all OWFs. The applicants stated that a

balance should be struck between the interests of existing and new projects in the context of the established need for substantial new renewable energy generation in NPS EN-3 and wider government energy policy. The applicants' position regarding the extent to which they could demonstrate that they had considered and applied mitigation to minimise the effects from wake loss on other OWFs was that they had fully discharged this requirement through adherence to TCE's 7.5km buffer zone [\[REP8-046\]](#).

5.4.146. The Projco IPs fundamentally disagreed with the applicants' position regarding the TCE's buffer zone [\[REP6-081, REP8-059\]](#), stating that this was not a mitigation measure. The Ørsted IPs also disagreed [\[REP8-062\]](#) with the applicants' position, stating that TCE set the Round 4 buffer zone prior to the evolution of the OWF industry's understanding of far-reaching wake effects, with most of the research on this matter being provided by Ørsted during the last 6 years, after the Round 4 lease arrangements were determined.

5.4.147. The Ørsted IPs also drew attention [\[REP1-086, REP8-062\]](#) to a submission by TCE to the Outer Dowsing Offshore Wind (Generating Station) Project DCO examination which stated that the buffer zone enabled developers to develop, operate and maintain wind farms by allowing for a range of factors, including wake loss. The submission from TCE also stated that inter-farm wake effects could extend beyond these buffer zones, and that spatial and temporal variability of wind speed meant that it was complex to accurately predict the wake impact on nearby wind farms, which may depend on factors beyond distance.

5.4.148. In response to ExQ1 [\[PD-014\]](#), TCE confirmed [\[REP3-039\]](#) that whilst it made a characterisation analysis of each of the bidder areas for Round 4 to assist bidders, analysis and assessments would be required to determine the best location for the array areas.

Mitigation identified during examination

5.4.149. On a without prejudice basis to the applicants' position that they had adequately considered mitigation of wake effects, they presented [\[REP8-038\]](#) an assessment of various mitigation options to reduce the effects from wake loss on other OWFs. The applicants were of the opinion that any mitigation measures should be reasonable. The applicants had 3 tests for reasonableness:

- the mitigation must have a meaningful impact
- there must be a net positive effect in aggregate AEP terms (or at least be net neutral)
- the mitigation must be possible and available

5.4.150. The applicants presented the following mitigation measures which they considered, summarised as:

- buffer distances: increasing the space between 2 OWFs
- layout modification: amending the placement of the turbines in the array areas
- reduced capacity and size: construction of only part of the array areas
- wake control: measures such as wake steering and induction control
- wake re-energisation: turbine thrust is cycled to increase turbulence in wake
- wind farm curtailment: reducing the generation of the upstream wind farm, usually by modifying the turbines' blade pitch

5.4.151. Following consideration of the mitigation measures against their definitions of reasonableness, they concluded that none of them would be reasonable.

- 5.4.152. The applicants stated [\[REP4-086\]](#) that their conclusion on the lack of available mitigation was because measures to mitigate the effects on other OWFs would have a greater effect of reducing the AEP of the proposed development, thus having an overall negative net effect on the production of renewable energy.
- 5.4.153. For the buffer distances and wind farm curtailment mitigation measures, the conclusions were based on modelling undertaken for the AYM OWF. In other instances, site specific modelling was carried out to consider how mitigation would affect the proposed development on DBA OWF (layout modification, reduced size and capacity). In some instances, conclusions were drawn without any modelling (wake control, wake re-energisation) and based on findings from wider literature.
- 5.4.154. Regarding the reduced size and capacity mitigation measure, 2 options were considered (construction of the east array area, or the west array area), alongside the baseline of both array areas being constructed. The applicants concluded that the substantial net loss of AEP of the proposed development meant that it failed the test of reasonableness. Table 7 [\[REP8-038\]](#) set out a summary of the applicants' conclusions on the possible mitigation measures and where they failed the applicants' tests for reasonableness.
- 5.4.155. The ExA asked [\[PD-026\]](#) why the mitigation measures were not modelled for the scenario of the proposed development and the surrounding OWFs for all the mitigation measures considered. The applicants stated [\[REP6-057\]](#) that their findings were confirmed by the Fraser Nash study on wake loss effects [\[AS-014\]](#) and there was nothing to indicate that the conclusions would be different in the case in hand, given there were similar site circumstances.
- 5.4.156. The ExA also asked [\[PD-026\]](#) the applicants to consider how reducing parts of the proposed array areas, rather than either all the east or all the west array areas would affect wake loss effects on other OWFs. The applicants did not provide the information which the ExA requested, stating [\[REP6-057\]](#) that limiting the array areas was not aligned with the critical national priority of generating more offshore wind. Instead, the applicants referred to the conclusions of the Fraser Nash study, which indicated that there would only be benefit to DBA OWF, but would result in a net overall loss of renewable energy production, so would not be reasonable.
- 5.4.157. The ExA asked [\[PD-026\]](#) the applicants if a combination of mitigation measures had been considered. The applicants responded [\[REP6-057\]](#) that there were no potential combinations presently available or likely to be available within the timescales for planned project delivery which would result in effective wake mitigation.
- 5.4.158. The Ørsted IPs raised [\[REP6-085\]](#) issues regarding the applicants' considered mitigation measures, stating that the applicants' criteria for reasonableness was partly ambiguous, leaving them open to interpretation, and that the applicants used extreme examples of what would be unreasonable, but failed to provide any examples of what would be reasonable. The Ørsted IPs also raised concern that the applicants required mitigation had to be proven as possible, which remained at the discretion of the applicants, who had a clear incentive to avoid mitigation and maximise AEP.
- 5.4.159. The Ørsted IPs suggested [\[REP6-085\]](#) that another form of mitigation which could be considered was delaying the construction of the proposed development to reduce the temporal overlap between the OWFs. The Ørsted IPs stated that regarding the mitigation measures considered, no site-specific studies had been

performed, only very unrealistic and extreme scenarios had been assessed on one other wind farm. The Ørsted IPs raised concern with the applicants' conclusion that some technologies were too immature before the science had reached this conclusion and did not agree with the applicants that no mitigation for wake effects existed which was reasonable.

- 5.4.160. The Projco IPs identified [\[REP6-081\]](#) various concerns regarding the mitigation measures considered by the applicants. They stated that only one related to a project specific assessment and that the evidence for certain conclusions against the applicants' criteria for reasonableness had not been properly explained, nor were the parameters of the assessment of the mitigation identified in full. The Projco IPs considered that amendments to the turbine heights had not been explored, nor had a combination of mitigation measures, such as a combination of an increased buffer zone, with wake steering.
- 5.4.161. The Projco IPs stated [\[REP6-081\]](#) that for several examples, mitigation was discounted by the applicants on the basis that there would not be a net positive effect on AEP. The Projco IPs stated that this approach did not consider the general mitigation hierarchy, or the policy position to mitigate impacts generally, and that there was no basis in law for mitigation to be neutral to the project causing the harm for it to be accepted. The Projco IPs stated [\[REP7-140\]](#) that wake control measures had been discounted too prematurely.
- 5.4.162. The applicants responded [\[REP7-136\]](#) to the Projco IPs' point on the definition of reasonableness, stating that bearing in mind the government's commitment to renewable energy targets, it would be a reasonable and logical conclusion that the SoS would not require mitigation that would have a significant detrimental impact on both UK renewable generation, and the cost of that generation to the UK consumer. Thus, the applicants considered that it was reasonable to consider that a mitigation option should be 'net positive' or at least 'net neutral'.
- 5.4.163. The Projco IPs stated [\[REP7-140\]](#) that a site project specific assessment which considered the effects on DBA, DBB and DBC OWFs was necessary to provide a more informed assessment of the mitigation options. This was necessary because the specific conditions of the site (including wind speed, wind direction, turbine technology and other physical parameters) formed important elements of the understanding of the mitigation. Similarly, the Projco IPs stated that the Fraser Nash report could only be considered as a generic study, which could not support several of the project specific conclusions which the applicants derived.
- 5.4.164. The Projco IPs also explained [\[REP6-081\]](#) that NPS EN-3 requirement to maximise the capacity of offshore wind farms is not absolute, and the wording of paragraph 2.8.2 demonstrated the need to maximise capacity is subject to, and did not override, the constraints of the proposed development. The Projco IPs stated that NPS EN-3 did not support the applicants' position that there must be a net positive or a neutral impact on generating capacity for mitigation to be deemed as reasonable.
- 5.4.165. The applicants provided responses [\[REP7-136\]](#) to the Projco and Ørsted IPs' concerns on the mitigation measures considered, but at the close of examination, the Projco and Ørsted IPs maintained that insufficient site-specific mitigation had been considered by the applicants [\[REP9-033, REP9-034\]](#). The applicants suggested [\[REP7-136\]](#) that the Projco and Ørsted IPs had not engaged constructively regarding potential mitigation options, by overlooking clear evidence

and rejecting their conclusions without providing constructive or substantiated reasons.

- 5.4.166. The applicants concluded [\[REP8-046\]](#) that there was not a reasonable basis for requiring further assessment of wake effects from the proposed development, and that there would need to be a purpose to any further detailed consideration of wake effects.

Compensation

- 5.4.167. The Projco and Ørsted IPs considered that owing to the significant adverse effects on their OWFs which had not been mitigated, compensation was required [\[REP8-059, REP8-062\]](#). The Projco and Ørsted IPs provided proposed wording for PPs at DL5 [appendix 1 [REP5-074, REP5-071](#)]. The wording allowed for a private agreement to be arranged between the parties to resolve wake loss matters, or for a third party to carry out a wake loss assessment which would consider mitigation measures for wake effects, quantification of the potential wake loss effects on AEP, provision of a wake loss mitigation scheme to quantify the financial losses and a payment mechanism to mitigate the losses.
- 5.4.168. The applicants maintained throughout examination that PPs to secure consideration of further mitigation measures and financial compensation for wake loss effects on other OWFs were not justified or appropriate [\[REP8-046, REP9-033\]](#). Despite a request from the ExA [\[PD-022\]](#) to engage with the relevant parties on a without prejudice basis on the PPs proposed by the Ørsted and Projco IPs, the applicants declined to do so, stating that they considered that it would not be appropriate given the fundamental difference of opinion between the parties on this matter [\[REP5-036\]](#).
- 5.4.169. The applicants stated [\[REP6-052\]](#) that the SoS set a strong in principle stance against imposing financial compensation for wake loss effects under the AYM DCO decision and that it was not for the planning system to deal with matters regarding financial compensation. The applicants considered that the wording of the draft changes to NPS EN-3 also highlighted this point, along with the Mona DCO Decision, which did not require any financial compensation for wake effects [\[REP9-024\]](#). The applicants stated [\[REP7-131\]](#) that the proposed PPs were unsupported by policy, unreasonable and unworkable, and that including them in the dDCO would be unlawful on Wednesbury grounds.
- 5.4.170. The Projco IPs stated [\[REP6-081\]](#) that regarding the AYM DCO Decision, the affected party sought indemnification and the reason that the indemnity provisions were not included in the DCO was because of imprecise drafting by the party seeking the indemnity. The Projco IPs stated that the ExA in that case considered that the proposed requirement was vague and so would have failed to meet the tests of enforceability and precision, but the ExA did not conclude that it would not meet the tests of necessity and reasonableness. The SoS did not offer a view on whether the PPs were reasonable and adopted the drafting proposed by the ExA. The Ørsted IPs also presented a similar argument to the Projco IPs on this matter [\[REP7-157\]](#).
- 5.4.171. The applicants expressed concern at ISH6 [\[EV11-006\]](#) that the proposed PPs sought compensation for the entirety of the effects from wake loss on the AEP of other OWFs, which was unreasonable and not justified. The Projco IPs stated [\[REP6-081\]](#) that the proposed PPs would not secure compensation for 100% of the effects from wake loss on other OWFs and that they would allow for a third-party

expert to make an assessment and apply a mechanism to quantify AEP loss, the financial loss caused and the payment mechanism and timescales for mitigating such financial loss.

- 5.4.172. The Ørsted IPs explained [\[REP6-085\]](#) that whilst compensation was not mentioned in NPS EN-3, its expectation was that applicants for new development would implement best efforts to engage with existing sea users on adverse effects and identify solutions. The Ørsted IPs compared this to how fisheries co-existence had typically been managed, stating that fisheries liaison and co-existence plans usually provided for compensation payments for commercial losses, which were secured through the deemed marine licence of a DCO.
- 5.4.173. The applicants stated [\[REP7-131\]](#) that the comparison the Ørsted IPs made to fisheries related to impacts during the construction phase only and involved the complete cessation of the relevant fishery activity, so was not a relevant comparison.
- 5.4.174. The Projco and Ørsted IPs stated [\[REP6-081\]](#), [\[REP9-034\]](#) that PPs were the preferred mechanism to capture compensation, rather than a requirement. The Projco IPs stated that the wording in the PPs would allow the applicants to consider its approach to mitigation and compensation, and balance potential design mitigation measures against financial compensation. The Projco IPs stated that measures such as wake control may develop in the interim period.

Implications from the Mona DCO Decision

- 5.4.175. Following the publication of the Mona DCO Decision, the ExA asked [\[PD-030\]](#) for views from the applicants and IPs on the implications for examination. The applicants stated [\[REP9-024\]](#) that the SoS's decision for the Mona DCO did not have implications for the proposed development for the following reasons:
- Reasonable steps had been taken to mitigate wake effects (adherence to TCE's 7.5km buffer) and reasonable design mitigations for wake effects had been considered, both generically and specifically for DBA OWF as the closest project.
 - The design of DBA and DBB OWFs were consistent with this evaluation of the availability of reasonable design mitigation because there was an absence of layout modifications to reduce wake effects between these 2 projects.
 - There would be no or insufficient purpose in requiring further submissions or consideration of the detail of the wake assessments.
 - The mitigation hierarchy had been satisfied through the applicants' approach to mitigation and there was no justification for compensation to satisfy the hierarchy where mitigation had been applied.
 - There would be no or insufficient purpose in requiring further consideration of design mitigation in the light of the steps already taken or considered.
 - There was no justification for financial compensation by way of PPs or otherwise.
 - Imposing financial compensation for wake effects would be an extraordinary step given the various injustices and inconsistencies it would immediately give rise to and could only be introduced after full industry consultation and fair transitional provisions.
- 5.4.176. The applicants explained [\[REP9-024\]](#) that a requirement akin to requirement 29 from the Mona DCO Decision was not justified. Notwithstanding this, the applicants provided wording for a potential requirement to mitigate the effects from wake loss on a without prejudice basis [\[REP9-024\]](#).

- 5.4.177. The applicants explained [\[REP9-024\]](#) that they proposed changes to requirement 29 from the Mona OWF DCO for the following reasons:
- the wake effects plan should only relate to steps which alter the physical wake effects
 - the wake effects plan should record the reasonable steps already taken, but also relate to any proposed steps in the future (which should not go over past project decisions)
 - the test regarding capacity needs to relate to energy output as well, which is at the heart of the reasonableness test, noting that capacity appeared to be used as shorthand for output in the Mona DCO Decision letter and so this was a point of clarification
 - the plan must be implemented as approved
 - the plan needs to allow for the proposed 2 projects to come forward on a different timeline
- 5.4.178. The applicants also recognised that whilst they had concerns regarding the reasonableness and precision of such a requirement, there had been conflicting submissions regarding the availability, effectiveness and reasonableness of design and operational mitigation steps, which could result in the SoS wanting additional comfort of more detailed information provided through the process of considering and approving the wake effects plan, before any development was to proceed.
- 5.4.179. As this wording from the applicants was submitted at the final DL, neither the Ørsted nor the Projco IPs had an opportunity to comment on it.
- 5.4.180. The Ørsted IPs stated [\[REP9-034\]](#) that the lack of reference in the Mona DCO Decision to the TCE buffer which the applicants sought to rely on was telling and endorsed the Ørsted IPs' position regarding the adequacy of the applicants' consideration of mitigation. The Ørsted and Projco IPs [\[REP9-034, REP9-033\]](#) identified differences between the Mona DCO circumstances and the proposed development, such as the lack of presentation of any PPs to examination and lack of wake loss assessment provided by the applicants. The Ørsted and Projco IPs stated that their proposed PPs allowed for control of the procedure by which wake loss effects would be dealt with by the applicants and the affected IPs and contained the possibility of arbitration if needed, providing advantages over a requirement similar to that used in the Mona DCO.
- 5.4.181. The Projco IPs considered [\[REP9-033\]](#) that the wording of the proposed PPs was more precise than the wording of requirement 29 of the Mona DCO, as it set out the need for a wake loss assessment and a wake loss mitigation scheme, which the Projco IPs considered were well-defined, unlike a wake effects plan, and that their wording provided a clear process for the applicants to follow. The Projco IPs also stated that the proposed PPs allowed for greater time prior to the installation of the wind turbine generators for the necessary steps to be taken, allowing for the discharge to be programmed suitably to avoid potential delays. The Ørsted and Projco IPs stated that PPs should still be preferred over a requirement.
- 5.4.182. The Ørsted and Projco IPs stated that [\[REP9-034, REP9-033\]](#) if the applicants provided draft PPs for consideration at DL9 of examination, a further DL should be added to the examination for a response to any such drafting. The Ørsted and Projco IPs considered that it would be procedurally unfair to proceed to the recommendation stage without such an opportunity being afforded to them. In their final version of the dDCO [\[REP9-003\]](#), the applicants did not include any draft PPs in relation to Ørsted and Projco IPs.

5.4.183. However, on a without prejudice basis, the Ørsted IPs identified [REP9-034] that 3 amendments would need to be made to the wording of requirement 29 of the Mona DCO if it were included in the final DCO for the proposed development.

5.4.184. As this information was submitted at the final DL, the applicants did not have an opportunity to comment on it.

ExA's considerations

5.4.185. NPS EN-3 paragraph 2.8.342 states that where a proposed OWF potentially affects other offshore infrastructure or activity, a pragmatic approach should be employed by the SoS.

5.4.186. Paragraph 2.8.344 states that the SoS should expect the applicant to work with the impacted sector to minimise negative impacts and reduce risks to as low as reasonably practicable. The SoS should be satisfied that the site selection and site design of a proposed OWF and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries (2.8.345).

5.4.187. Paragraph 2.8.348 states that providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the SoS to grant consent.

5.4.188. Paragraph 2.8.2 states that to meet its objectives, the government considers that all OWFs are likely to need to maximise their capacity within the technological, environmental, and other constraints of the development. However, the ExA considers that this does not mean that development should proceed on a 'no matter what cost' approach whilst maximising generating capacity. The surrounding OWFs are a wider site constraint, and the effects on them should be taken account of.

5.4.189. The ExA considers that simply conforming to TCE's minimum buffer does not constitute mitigation of wake effects in the spirit that NPS EN-3 requires, which is a collaborative approach with IPs to minimise negative impacts prior to the submission of the application. The applicants have sited the array areas at the minimum distance possible from the nearest OWF without needing direct consent from the DBA OWF owners, and without working with this party to ensure the wake effects could be minimised or reduced. The ExA therefore does not consider that the decisions taken by the applicants thus far regarding the site selection and site design have been made with a view to minimising disruption or economic loss and is contrary to paragraphs 2.8.344, 2.8.345 and 2.8.348 of NPS EN-3.

5.4.190. The ExA agrees with the Projco and Ørsted IPs' positions that there has been inadequate consideration of mitigation of wake effects. Modelling of wake effects is an emerging area and any results must be treated with some caution. Therefore, the ExA considers that it is necessary to model wake effects using the most accurate information possible, to obtain at least indicative results. As shown by the submissions to the examination, wake effects are influenced by many factors, including the proximity between OWFs, layout of array areas, turbine technology, wind speeds, temporal and spatial variability of wind, wind direction and undoubtedly other environmental and technical factors. The ExA therefore considers that wake effects must be considered on a case-by-case basis, and it would be too unreliable to apply the general findings from studies from other OWFs to a specific

case, because the circumstances and combination of factors at play are unlikely to be the same.

- 5.4.191. Moreover, the ExA notes that the applicants could have considered a combination of mitigation measures, which in isolation may not have provided reasonable mitigation, but cumulatively may have resulted in suitable mitigation. The ExA also considers that the applicants failed to fully consider the mitigation option of increased buffer zones. Modelling the effects on wake loss from the removal of the entirety of each array area, rather than for example smaller parts of one or both array areas, is extremely unlikely to be considered as a reasonable solution given the net effects on renewable energy production, casting doubt on the applicants' interpretation of 'reasonable'.
- 5.4.192. On this basis, the ExA concludes that the applicants have not demonstrated that they have minimised negative impacts to as low as reasonably practicable and therefore considers that additional assessment of wake effect mitigation measures is required. The ExA has considered the PPs provided by the Ørsted and Projco IPs. The ExA agrees with the applicants that these would not be an appropriate way to address this matter. The ExA has considered the approach of a requirement suggested by the applicants and finds this to be the most acceptable way to address this matter. The ExA notes that this was the approach adopted by the SoS in the decision on the Mona DCO application.
- 5.4.193. The ExA proposes that an additional requirement is added to the recommended draft DCO (requirement 37). See Table 5 of section 9 (Draft DCO and Related Matters) for the proposed wording.
- 5.4.194. The ExA's recommended wording is similar to that which was proposed by the applicants to allow them flexibility to construct the 2 proposed projects separately. The ExA also recognises the potential for the applicants and the IPs to privately agree mitigation and therefore the recommended wording allows for this. Providing the applicants the option to agree mitigation outside the DCO process accords with the approach taken in the Mona DCO.
- 5.4.195. The ExA has incorporated the Ørsted IPs' request for the SoS to consult with affected IPs on any wake effects plan submitted. Given the substantial disagreement between the Projco IPs and the applicants regarding the extent of the wake loss effects, along with the disagreements between the Ørsted and Projco IPs and the applicants regarding the mitigation measures, the ExA considers that it is necessary to ensure that the affected IPs are able to comment on the content of the details submitted pursuant to discharge of this requirement.
- 5.4.196. If the SoS felt that it needed to go further than this, it may wish to consider the incorporation of wording from the Projco and Ørsted IPs' PPs, for the appointment of a third-party expert by the applicants and the affected IPs to undertake and provide any wake effects plan. However, the ExA considers that, as written, the requirement would give sufficient opportunity for involvement of the affected IPs.
- 5.4.197. The ExA considers that given that the Projco IPs and the applicants have not been able to agree a position regarding the extent of the wake effects, further information should be submitted by the applicants to demonstrate their consideration of this matter, which would inform the extent of the mitigation measures required. The ExA also considers that the timescales for implementation, time limits for mitigation and any monitoring which may be required to demonstrate the efficacy of the mitigation measures should be set out in the wake effects plan.

- 5.4.198. The ExA highlights that neither the applicants nor the affected IPs have had the opportunity to comment on the ExA's recommended wording of requirement 37.
- 5.4.199. With the inclusion of the proposed requirement in the recommended DCO, the ExA considers that this would suitably mitigate the effects of wake loss on other OWFs affected by the proposed development. On this basis, the ExA finds that the proposed development accords with NPS EN-3 paragraph 2.8.348. The ExA concludes that it would be unreasonable to secure a mechanism for compensation for the parties affected by wake loss through the recommended DCO. As set out in draft NPS EN-3, the ExA notes that the applicants could opt to take this approach outside of the planning process.

Overall net effects from wake loss on GHG emissions

- 5.4.200. The applicants submitted a 'Greenhouse Gas Sensitivity Analysis of Wake Effects' [\[REP5-034\]](#) which assessed the overall net impact on GHG emissions from potential wake effects from the proposed development on neighbouring OWFs.
- 5.4.201. Three hypothetical wake effect scenarios of 0.5%, 1.0% and 2.0% across all affected OWFs were included in the GHG sensitivity analysis to provide a range of outcomes based on potential wake losses at neighbouring OWFs across a 100km study area. The applicants noted that the average of the wake loss figures across DBA, DBB and DBC OWFs presented by the Projco IPs was 2.1%, which was close to the 2.0% scenario considered in the GHG sensitivity analysis. The 15 MW turbine was considered the worst case, because experience showed that the same capacity installed with more small turbines produced worse wake effects than fewer large turbines.
- 5.4.202. The applicants' GHG sensitivity analysis presented the following findings:
- Annual energy loss from the assumed wake effects: between 424,018 megawatt hours (MWh) (0.5% wake loss scenario) and 1,696,074MWh (2.0% wake loss scenario).
 - Loss of avoided emissions from wake effects: between 4,898,996 tonnes carbon dioxide equivalent (CO₂e) (0.5% wake loss scenario) and 19,595,984 tonnes CO₂e (2.0% wake loss scenario).
 - Total avoided emissions from the proposed development: between 172,338,072 tonnes CO₂e (0.5% wake loss scenario) and 157,641,084 tonnes CO₂e (2.0% wake loss scenario).
 - GHG payback period (including loss of avoided emissions from neighbouring wind farms and lifetime emissions from proposed development): between 2 and 4.4 operational years.
- 5.4.203. The applicants concluded that wake effects would not have a material impact on the outcomes of the GHG assessment [\[REP6-036\]](#), which identified an overall beneficial effect on national GHG emissions. This was because the reduction in reported GHG savings (avoided emissions) from wake loss would be outweighed by the avoided emissions from the proposed development. These conclusions were incorporated into ES Chapter 30 (Climate Change) [\[REP6-036\]](#) and are considered in section 4.12 (Climate Change) of this Recommendation.
- 5.4.204. The applicants also modelled the GHG assessment using the wake loss figures provided by the Projco IPs. The results showed that there would not be a material impact on the outcome of the GHG assessment, and that there would still be an overall beneficial effect on national emissions [\[REP6-056\]](#).

- 5.4.205. The Ørsted IPs made some criticisms of the applicants' assessment, stating that it was generic and would benefit from direct modelling from wake impacts on neighbouring assets [REP5-074]. The Ørsted IPs also considered [REP-085] that the GHG assessment failed to consider a reasonable worst-case scenario whereby the stand-alone or cumulative wake loss caused by the proposed development, including in combination with the Outer Dowsing OWF, resulted in the early decommissioning of one or more existing neighbouring wind farm(s), and the entire production of that asset being lost for a potentially significant period of time.
- 5.4.206. The Projco IPs stated [REP5-071] that the methodology of the GHG sensitivity analysis was as they expected, but that their wake loss figures should have been used in the data supporting the assessment, and this was reiterated in the signed Statement of Common Ground [REP8-031] as an agreed matter.

ExA's considerations

- 5.4.207. The ExA notes the iterative nature of the presented wake effects and the caution which must be applied to considering these figures. However, the ExA considers that using the worst-case scenario of 2% wake effects across all the OWFs considered in the study, presents a conservative scenario on net GHG emissions which is unlikely to be exceeded. Given that clearly there would still be substantial carbon savings when the effects from wake loss are taken into account, even in an in-isolation scenario, the ExA concludes substantial benefits in relation to GHG savings would still remain, despite the effects from wake loss.
- 5.4.208. The ExA notes the concerns raised by the Ørsted IPs regarding the overall net carbon effects of the proposed development either in isolation, or in combination resulting in the early decommissioning of one or more other OWFs. However, as set out above, the ExA has not been presented with sufficient evidence to suggest that the proposed development would impact the future viability of other OWFs.

Other matters

- 5.4.209. Following the applicants' removal of all references to wake loss in ES Chapter 16 at DL1, the Projco IPs stated [REP1-071, REP2-071] that this resulted in concerns regarding legitimate expectation and procedural fairness. The Projco IPs stated that by removing wake effects from the ES, it then failed to comply with regulation 14(3)(a) and regulation 14(3)(b) of the EIA Regulations, which would give rise to a ground of legal challenge if not addressed.
- 5.4.210. Following the submission of the wake loss assessments by the applicants [REP4-099, AS-179, REP8-038] and a GHG sensitivity assessment of wake effects [REP4-095, REP5-034], at ISH6 the Projco IPs [EV11-006] stated that their concerns had been largely addressed, apart from the failure of the applicants during pre-application to engage with the Projco IPs on wake loss matters. The Projco IPs confirmed that regarding compliance with the EIA Regulations, the relevant requirements had been met.

ExA's considerations

- 5.4.211. At the close of examination, the ExA has no evidence to suggest that the EIA Regulations had not been met. The ExA considers that matters regarding procedural fairness were adequately dealt with during examination and sufficient time was available to fairly consider the wake loss assessments provided.

CONCLUSION

- 5.4.212. The ExA finds that the residual effects identified in ES Chapter 16 [REP7-060] could underestimate the significance of effects where crossing and proximity agreements, or co-location agreements were relied on for mitigation. These are used to mitigate the majority of effects, including cumulative and transboundary effects, leading the ExA to conclude that the residual effects could be significant. To the extent that these effects could be significant, the ExA considers that there is potential conflict with North East Inshore and North East Offshore Marine Plan policy NE-CO-1 which states that proposals that may have a significant impact on existing activities must demonstrate that they avoid, minimise and mitigate adverse impacts so that they are no longer significant. If it is not possible to mitigate significant adverse impacts, proposals must state the case for proceeding.
- 5.4.213. Moreover, there would be potential conflict with North East Inshore and North East Offshore Marine Plan policy NE-CAB-3 which states that where seeking to locate close to existing subsea cables, proposals should demonstrate compatibility with ongoing function, maintenance and decommissioning activities relating to the cable, which the ExA does not consider has been clearly demonstrated. The ExA considers that there could also be conflict with policy NE-CE-1 which states that proposals which may have adverse cumulative effects with other existing, authorised, or reasonably foreseeable proposals must demonstrate that they will, in order of preference avoid, minimise and mitigate adverse cumulative or in-combination effects so they are no longer significant. These are important and relevant considerations.
- 5.4.214. The ExA has concluded that the applicants have not complied with NPS EN-3 paragraph 2.8.200 as they did not engage with potentially affected OWFs to resolve as many issues as possible prior to the submission of the application. The ExA also considers that the applicants have not complied with NPS EN-3 paragraph 2.8.261 owing to their failure to facilitate any detailed discussions with IPs regarding wake effects prior to submission of the application.
- 5.4.215. There have been no concerns raised from IPs during examination regarding a lack of compliance with the East Inshore and East Offshore Marine Plans. However, the ExA considers that there would be a degree of conflict with policy WIND1 from the East Offshore Marine Plan which states that development which could affect sites held under a lease or an agreement for lease that has been granted by TCE for development of an OWF, should not be authorised unless they can clearly demonstrate that they will not compromise the construction, operation, maintenance, or decommissioning of the OWF. This is an important and relevant consideration.
- 5.4.216. The ExA considers that the proposed development would compromise the operation of DBA, DBB, DBC, Hornsea Project 1, Hornsea Project 2 and Hornsea Project 3 OWFs to varying degrees. However, with the inclusion of proposed requirement 37, the ExA considers that the effects would be suitably mitigated, albeit there would remain some residual wake effects, thus there would still be a degree of conflict with this policy. The ExA concludes that it has not been demonstrated that is likely that the proposed development would affect the future viability or safety of an existing, approved or licensed offshore infrastructure or activity and therefore accords with NPS EN-3 paragraph 2.8.347.
- 5.4.217. The ExA has concluded that the applicants did not work with the affected IPs to minimise negative impacts and the ExA does not consider that the site selection and

site design of the proposed OWF array areas thus far has been made with a view to avoiding or minimising disruption or economic loss to other OWFs. The ExA does not consider that the proposed development to date has been carefully designed regarding wake effects, nor that necessary consultation was undertaken at an early stage regarding wake effects. As a consequence, the ExA finds that the proposed development would therefore conflict with NPS EN-3 paragraphs 2.8.244, 2.8.345 and 2.8.348.

- 5.4.218. The ExA considers that the applicants have not taken reasonable steps to minimise the effects from wake loss, nor have they made reasonable efforts to work collaboratively with those impacted IPs. However, subject to the inclusion of requirement 37 in the recommended DCO, the ExA considers that suitable mitigation could be achieved, albeit this should have been carried out prior to the submission of the application.
- 5.4.219. Regarding overall net effects on GHG emissions, the ExA concludes that wake effects would not have a harmful effect on the overall benefits to climate change that the proposed development would deliver. This in itself does not weigh in favour of the proposed development, because these benefits are already attributed weight in the needs case.
- 5.4.220. The ExA is mindful that the draft changes to NPS EN-3 state that there is no expectation that wake effects can be wholly removed between developments, or that inter-project compensation arrangements are a necessary means to mitigate the impact of wake effects (paragraph 2.8.333). Where applicants have demonstrated that they have made an assessment of inter-array wake, taken all reasonable steps to minimise as far as possible the impact of wake effects and shown that they have made reasonable efforts to work collaboratively with those who may potentially be impacted, then the existence of a residual wake effect impact is unlikely to carry more than limited weight against a project in the planning process (paragraph 2.8.316).
- 5.4.221. Given the applicants' lack of compliance with the relevant paragraphs of the NPS, the ExA does not consider that limited weight can be offered to the residual effects from wake loss. Considering all the above matters, the ExA concludes that effects on other offshore infrastructure and activities carry moderate negative weight against making the Order. This takes account of the lack of compliance with relevant NPS EN-3 policies, any residual effects from wake loss on other OWFs, that there would still be an overall net positive effect on the reduction of GHG emissions from renewable energy generation despite wake effects and the approach which NPS EN-3 paragraph 2.8.342 advocates that where a proposed offshore wind farm potentially affects other offshore infrastructure or activities, a pragmatic approach should be employed by the SoS.

5.5. COMMERCIAL FISHERIES

INTRODUCTION

- 5.5.1. This section looks at the effects of the proposed development on commercial fisheries. In its consideration of the effect on commercial fisheries, the ExA has had regard to:
 - the Overarching National Policy Statement for Energy EN-1 (NPS EN-1), in particular section 4

- the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.6
- the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)
- the relevant policies of the UK Marine Policy Statement (MPS) and the East and North East Inshore and Offshore Marine Plans
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

- 5.5.2. The applicants' assessment was first set out in ES Chapter 13 Commercial Fisheries [\[APP-117\]](#) and ES Chapter 13 Figures 13-1 to 13-2 [\[APP-118\]](#).
- 5.5.3. The applicants submitted updated versions of ES Chapter 13 [\[REP7-048\]](#), ES Chapter 13 Figures 19-1 to 19-9 [\[REP7-050\]](#) and other supporting documents during the examination. For the sake of brevity, only the final versions of these are listed here but previous iterations are set out in the Guide to the Application [\[REP9-002\]](#) and will be referred to in this section as appropriate.
- 5.5.4. The supporting documents and appendices are referenced in section 13.1 of ES Chapter 13, including:
- Appendix 13-1 Commercial Fisheries Consultation Responses [\[APP-119\]](#)
 - Appendix 13-2 Commercial Fisheries Technical Report [\[APP-120\]](#)

BASELINE

- 5.5.5. The applicants defined the study area in figure 13-1 of ES Chapter 13 [\[REP7-050\]](#) based on International Council for the Exploration of the Sea (ICES) rectangles 36E9, 36F0, 37E9, 37F0, 37F1, 37F2, 38F0, 38F1 and 38F2.
- 5.5.6. The applicants summarised the baseline environment in section 13.5 of ES Chapter 13 [\[REP7-048\]](#), which is based on the Commercial Fisheries Technical Report [\[APP-120\]](#). A variety of fishing gear receptors were reported to operate in the study area including:
- demersal seines and trawls
 - dredge
 - intertidal netters
 - otter trawls
 - pelagic trawls
 - inshore and offshore static gear
- 5.5.7. It was reported in section 13.5 of ES Chapter 13 [\[REP7-048\]](#) that the top five species caught by UK vessels in the study area were crab, lobster, scallop, plaice and sandeel. The top five species caught by non-UK vessels were sandeel, herring, sprat, plaice and whiting.
- 5.5.8. Ports with fishing fleets at Bridlington, Grimsby, Hornsea, Scarborough and Whitby were identified in section 13.5.4 [\[REP7-048\]](#) to be within the study area. Based on data between 2012 and 2022, the total weight of landings was reported to range from a maximum of 37,000 tonnes in Grimsby, to a minimum of 1,400 tonnes in Hornsea.
- 5.5.9. Section 13.5 of ES Chapter 13 [\[REP7-048\]](#) identified the Dogger Bank Special Area of Conservation (SAC) to overlap with the whole proposed development array areas and 20km of the proposed offshore export cable corridor. In June 2022, the Dogger

Bank SAC Byelaw was introduced which prohibited bottom towed fishing gear including trawls, seines, dredges or similar gear.

- 5.5.10. From March 2024, the UK government prohibited the fishing of sandeel in ICES Area 4 (North Sea), which the proposed offshore development area is within. Section 13.5.6 of ES Chapter 13 [REP7-048] explained that the introduction of the Dogger Bank SAC Byelaw and prohibited sandeel fishing may have led or lead to a change in commercial fishing activity, such as the use of different fishing gear types. The applicants explained in paragraph 48 of ES Chapter 13 that any change to commercial fishing activity resulting from the byelaw or sandeel fishing prohibition is not represented in the baseline datasets.

CONSTRUCTION, OPERATION AND DECOMMISSIONING PHASES

- 5.5.11. For the purposes of the assessment, the applicants considered the worst-case design maximum parameters set out in table 13-1 [REP7-048] for the proposed DBS West and DBS East developments being constructed in isolation, sequentially or concurrently.
- 5.5.12. The Dogger Bank SAC byelaw is understood to be reviewed at least every five years, therefore the applicants assessed three scenarios:
- with the Dogger Bank SAC byelaw in place which prohibits bottom towed gear
 - without the Dogger Bank SAC byelaw in place and bottom towed fishing activity is permitted again
 - the effects from the construction and operation of the proposed offshore export cable corridor
- 5.5.13. The applicants defined the construction and operational impacts assessed in section 13.6 of ES Chapter 13 [REP7-048] as follows:
- loss or restricted access to fishing grounds
 - displacement leading to gear conflict and increased pressure on adjacent fishing grounds
 - temporary increased steaming times
 - loss or damage to fishing gear due to snagging
 - supply chain opportunities for local fishing vessels
 - potential impacts on commercially important fish and shellfish resources
 - navigational safety
- 5.5.14. To inform the assessment of likely effects, the applicants considered the embedded mitigation measures in table 13-3 of ES Chapter 13 [REP7-048], which would be secured by conditions of the draft DMLs in schedules 10 to 14a of the draft Development Consent Order (dDCO) [REP9-003]. They included mitigation and working practices for:
- application of safety zones including 500 metres (m) for construction and maintenance activities, and 50m for installed structures
 - cable burial risk assessment
 - cable protection in areas where the minimum target burial cannot be achieved
 - liaison with the fishing industry to support coexistence
- 5.5.15. Table 13-59 of ES Chapter 13 [REP7-048] summarised the significance of effects during all phases and scenarios as negligible or minor adverse for the proposed development alone. The exception was for dredge and inshore static gear receptors due to the loss or restricted access to fishing grounds. These were assessed as

moderate adverse during construction and decommissioning phases for activities in the offshore export cable corridor. Minor beneficial effects were reported for supply chain opportunities during all three phases.

- 5.5.16. To address the moderate adverse effect, the applicants proposed additional mitigation to encourage coexistence of the proposed development and commercial fishing through disruption payments and cooperation agreements in accordance with Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) guidance. The additional mitigation measures were detailed in paragraph 143 of ES Chapter 13 and the Outline Fisheries Liaison and Coexistence Plan [REP4-057]. The applicants concluded in paragraph 144 of ES Chapter 13 [REP7-048] that these measures would reduce the magnitude of impact from medium to low for inshore static gear and dredge vessels, resulting in a minor adverse residual effect which was deemed to be not significant in Environmental Impact Assessment (EIA) terms.
- 5.5.17. For cumulative effects, table 13-59 of ES Chapter 13 [REP7-048] summarised the significance of residual effects during all phases and scenarios as negligible or minor adverse. The exception was for dredge gear receptors during the construction and decommissioning phases for activities in the offshore export cable corridor, which were assessed as moderate adverse due to:
- the loss or restricted access to fishing grounds
 - displacement leading to gear conflict and increased pressure on adjacent fishing grounds
- 5.5.18. Paragraph 489 of ES Chapter 13 [REP7-048] explained the cumulative moderate adverse effect for UK dredgers was a result of the fisheries management measures within the Dogger Bank SAC, which unless revoked, would prohibit bottom contacting fishing.
- 5.5.19. Paragraph 490 of ES Chapter 13 [REP7-048] identified the cumulative effect of loss or restricted access to fishing grounds and displacement due to other offshore wind farms were also assessed to have a moderate adverse effect for inshore static gear and UK dredge gear receptors during the construction phase. This residual effect was reported as minor adverse when additional mitigations such as co-operation agreements and associated disruption payments were considered.
- 5.5.20. The applicants identified the potential for transboundary effects relating to the displacement of fishing vessels and assessed this to be not significant [REP7-048, section 13.9]. Interactions between phases or project lifetime interrelated effects were concluded to be no greater than individually assessed.

ISSUES CONSIDERED DURING THE EXAMINATION

- 5.5.21. The main issues in the examination were:
- the assessment methodology and data
 - access to alternative fishing grounds
 - coexistence and cooperation agreements
 - impact from strategic benthic compensation

THE ASSESSMENT METHODOLOGY AND DATA

- 5.5.22. The relevant representation (RR) made by the National Federation of Fishermen's Organisations (NFFO) [RR-034] raised several concerns related to the approach of assessing the potential effects from the proposed development on commercial

fishery receptors. These included the quality of survey data and the definitions of receptor sensitivity and magnitude of impact.

- 5.5.23. The NFFO raised concerns in its RR [RR-034] about the magnitude of impact definition in table 13-11 of ES Chapter 13 [APP-117]. This specifically related to a 5-20% economic loss to fishing business being defined as low magnitude and a 20-50% loss as medium magnitude. The NFFO explained that an economic loss of this magnitude would result in a fishery business failure. Further concerns were raised in relation to the durations of 7 and 30 years used in the assessment to define low and medium magnitudes of impact respectively, with the NFFO concluding it did not agree with this assessment [REP1-076].
- 5.5.24. During the examination, the ExA questioned the definitions of receptor sensitivity and magnitude of impact and requested evidence from the applicants that these definitions were appropriate and consistent with other OWF developments [EV5-002, EV5-003 and PD-014]. The ExA gave the example of Hornsea 4 during ISH2 which used less than 5 and 12 years to define low and medium magnitudes of impact.
- 5.5.25. In response, the applicants explained the definitions were consistent with a number of other OWF development assessments, such as Morgan, Morecambe and Hornsea 3 and 4 OWFs [REP1-050, reference ISH2.5.1]. Furthermore, the applicants contested the definitions were in accordance with key guidance documents set out in Table 6-1 of Chapter 6 EIA methodology.
- 5.5.26. The applicants explained the definitions were agreed when producing the Preliminary Environmental Information Report (PEIR) and in consultation with the commercial fisheries working group (CFWG) [AS-155, reference AP18]. The ExA noted during ISH3 [EV8-002] that there was limited representation of the CFWG at non-statutory consultation meetings and the NFFO had raised its concerns with the definitions during the PEIR consultation [APP-119]. The NFFO did not attend ISH3 to enable the ExA to explore this orally therefore the applicants resolved to progress matters within the Statement of Common Ground (SoCG).
- 5.5.27. In its response to ISH3 action point 4, the applicants clarified a CFWG meeting was held on the 27 November 2024 and the NFFO was in attendance, along with members of non-UK fishing organisations. Furthermore, the applicants explained that during this meeting refinements to the proposed development, overview and content of the Fisheries Liaison and Coexistence Plan (FLCP) and the EIA were discussed [REP4-096].
- 5.5.28. The SoCG with the NFFO [REP8-024] explained an agreement between parties had not been reached by the close of examination in relation to the assessment methodology and its conclusions. In detail, the NFFO's final position confirmed it considered the standard EIA Methodology used for offshore wind assessments is not appropriate in its opinion. Agreement had however been made to mark these as having no material impact on the assessment conclusion.
- 5.5.29. In relation to data, the NFFO raised concerns on the lack of contemporary and site-specific data presented in the fish and shellfish ecology assessments [RR-034] which, in its view, would undermine the assessment of effects of the proposed development on commercial fisheries. The ExA asked the MMO for its opinion on the survey data used to inform the assessment, to which its response [REP3-045, reference 4.2.1] explained that Cefas scientific advisers had not raised comments on the matter but would defer to Inshore Fisheries and Conservation Authorities and

NFFO for more detailed comments. At the close of examination, the matter remained unagreed between the applicants and the NFFO but marked in the SoCG to have no material impact on the assessment outcome. Further details on the assessment of fish and shellfish are discussed in section 5.7 of this recommendation.

ExA's considerations

- 5.5.30. The ExA notes the assessment methodology in ES Chapter 13 [REP7-048] has been formulated on a combination of guidance, precedent and professional opinion. The ExA acknowledges that effects spanning 7 and 30 years, whilst might be considered temporary, are of concern for the fishing industry particularly if combined with a potential 10% to 50% loss of annual value of landings. The ExA is sympathetic to the concerns raised by the NFFO in relation to the definition of magnitudes of impact and receptor sensitivities used in the applicants' assessment.
- 5.5.31. The ExA considers that approaches to addressing concerns with standard assessment methodologies is a matter for the wider industry and not a single application. The ExA finds that the applicants' assessment methodology is generally consistent with similar infrastructure developments and industry guidance.
- 5.5.32. That said, the applicants' selection of 7 and 30 years as the upper thresholds for low and medium magnitudes of impact differs from other nationally significant infrastructure projects which have sought to quantify a definition. The ExA discussed the example of [Hornsea 4](#) during ISH2 [EV5-007] which used less than 5 and 12 years to define low and medium magnitudes of impact. In contrast, the [Morgan](#) and [Mona](#) OWF developments as referred to by the applicants [REP1-050, reference ISH2.5.1], used less than 5 and 35 years to define low and medium magnitudes respectively.
- 5.5.33. The ExA finds that whilst the applicants' assessment data and methodology is generally acceptable, the likely adverse significance of effects may have been underestimated for the proposed development, as result of the magnitude of impact definition used. These effects are however considered likely to remain within the range of negligible and moderate adverse but with more receptor gear types assessed towards the latter.

ACCESS TO ALTERNATIVE FISHING GROUNDS

- 5.5.34. In its RR [RR-034], the NFFO raised concerns with the assumption used in ES Chapter 13 that mobile fishing gear vessels could move from the proposed offshore development area during construction, thereby reducing the level of impact on these receptors. Furthermore, the NFFO considered the assessment was oversimplified in and did not reflect the progressive spatial constraints to the fishing industry over numerous years.
- 5.5.35. In response, the applicants explained that data used to inform the assessment identified UK and EU mobile vessels using bottom trawls had an extensive operational range and it was assumed they would have a number of alternative fishing grounds [PDA-013]. The NFFO reiterated its concerns related to alternative fishing ground access and specific issues associated with the spatial constraints in the North Sea and increased steaming times were highlighted [AS-172 and REP1-077].
- 5.5.36. The ExA enquired how the alternative fishing grounds had been assessed in context of relative production quality and if displacement distance specific to fishing vessels

operating in the study area had been quantified [PD-014]. The applicants' response, [REP3-027, reference CF.1.3], explained that the alternative fishing grounds had not specifically been assessed, instead relative fishing activity in the study area had been reviewed.

- 5.5.37. In response to questions raised by the ExA during ISH3 [EV8-002], the applicants clarified that inshore static and intertidal netter receptors would have access to alternative fishing grounds within the study area. All other displaced receptor types would be reliant on unspecified alternative fishing grounds within the wider North Sea. The applicants therefore contended any adverse effects would be minimal due to the receptor type operational ranges and spatial tolerances. Furthermore, the applicants explained that assessing the additional steaming time for those receptor types displaced further afield was not possible due to data limitations.
- 5.5.38. The matter remained unresolved in the final SoCG [REP8-024] although both parties agreed it was not a material matter for the conclusion of the assessment.

ExA's considerations

- 5.5.39. The ExA agrees with the applicants that mobile fishing gear receptor types with sufficient operational range are likely to seek alternative fishing grounds in the wider North Sea should the proposed development proceed. The omission of identifying these alternative fishing grounds within the assessment means the quality and distance relative to those grounds affected by the proposed development cannot be ascertained, therefore the ExA is sympathetic to the NFFO's concerns that the assessment is oversimplified.
- 5.5.40. The ExA however, is not persuaded that the applicants' assessment and assumptions in relation to mobile fishing gear types accessing alternative fishing grounds are insufficiently justified. The ExA is therefore satisfied the applicants' assessment of effects on mobile fishing gear receptor is appropriate.

COEXISTENCE AND COOPERATION AGREEMENTS

- 5.5.41. The ExA questioned [PD-014] why paragraph 52 of the Outline Fisheries Liaison and Co-existence Plan (oFLCP) [AS-082] stated cooperation agreements may only be considered for static gear receptors. Furthermore, the ExA questioned whether this was consistent with the commitment to encourage coexistence through disruptions payments and cooperation agreements in accordance with FLOWW guidance implied for all relevant fishing gear receptor groups in table 13-59 of ES Chapter 13 [REP7-048]. The applicants clarified that because mobile gear vessels would not need to physically remove fishing gear from an area of ground, they would not lose fishing time whilst gear was removed and relocated [REP3-027, CF.1.9]. Nevertheless, the applicants agreed to include 'affected fishers' rather than static gear fishers only in the final oFLCP [REP4-056].
- 5.5.42. During ISH3 [EV8-002], the ExA sought to understand when cooperation agreements would be reached, given that they formed a key mitigation for the assessed moderate adverse effect to displaced fishing receptor groups. The applicants explained the cooperative agreements would be iterative through the lifetime of the proposed development and that an initial agreement should be reached prior to any disruption.
- 5.5.43. The ExA explored how the commitment to cooperation agreements was secured. The applicants' response to ExQ2 [REP5-036, reference CF.2.1], confirmed their position that cooperation agreements should not be secured through the consent

process citing unreasonable disclosure burden and commercial confidentiality. The applicants continued, that making a cooperation agreement available to affected commercial fishing receptors was effective mitigation regardless of whether it is ultimately signed.

- 5.5.44. The MMO explained it would not act as an arbitrator nor take part in disputes in relation to commercial fisheries [RR-030 and REP3-045]. Paragraph 54 of the final oFLCP [REP4-056] explained that where agreements between the undertaker and an affected commercial fisheries receptor cannot be reached, both parties should seek, and agree, to undertake alternative dispute resolution through mediation in line with FLOWW guidance.

ExA's considerations

- 5.5.45. The ExA is satisfied the oFLCP [REP4-056] would meet its intended objectives, is of sufficient quality and prepared in accordance with FLOWW guidance. The final FLCP would be secured through DML conditions in schedules 10 to 14a of the dDCO [REP9-003] and would include a commitment to consider cooperation agreements with affected commercial fishing receptors.
- 5.5.46. The ExA understands the applicants' concern that cooperation agreements could include commercially confidential information but is disappointed a solution which avoids disclosure was not put forward by the applicants. The ExA considers the applicants would have intentions to make cooperation agreements prior to any effects being realised, however finds that there is no guarantee agreements could be reached.
- 5.5.47. The ExA therefore finds cooperation agreements cannot be reasonably relied on and disagrees with the applicants that simply making a cooperation agreement available is effective mitigation. The ExA therefore concludes the residual significance of effect to displaced inshore static and dredge fishing receptors for the proposed development alone would not be minor adverse, instead remaining at moderate adverse during the construction and operation phases in the worst-case scenario. Because of this, and following the reasoning provided in paragraph 475 in ES Chapter 13 [REP7-048], the ExA finds there is a potential for transboundary effects due to displacement of non-UK fishing vessels.
- 5.5.48. As a consequence of the ExA's conclusion above, the assessment of cumulative effects on inshore static gear fishers during the construction and decommissioning phases may therefore be underestimated. Specifically, from the loss or restricted access to fishing grounds, and displacement leading to gear conflict and increased pressure on adjacent fishing grounds. The assessment of cumulative effects is however multifaceted, as described in section 13.8 of ES Chapter 13 [REP7-048], and the ExA considers the making of cooperation agreements is only one element of this. The ExA therefore concurs with the applicants' assessment of cumulative effects.

IMPACT FROM STRATEGIC BENTHIC COMPENSATION

- 5.5.49. The Marine Environment Written Ministerial Statement (WMS) was published on 29 January 2025, highlighting the government's priority of expanding offshore wind capacity while ensuring marine environmental protection through strategic delivery of compensation measures. The WMS recognised the increasing spatial tensions between marine industries, and the government committed to supporting the fishing industry to adapt and maintain its viability.

- 5.5.50. During ISH3 [\[EV8-002\]](#), the ExA questioned how any impacts on commercial fisheries would be assessed if strategic benthic compensation for the proposed development included the extension of an existing, or creation of a new, Marine Protected Area (MPA). The applicants explained at ISH3 that the compensation would be delivered through a strategic programme led by Defra and the environment impact assessment would be undertaken at that level. Furthermore, the applicants believed they would not have a meaningful role in the assessment but recognised the quantum of benthic compensation and associated impacts on commercial fisheries were unknown until the strategic compensation programme had been developed.
- 5.5.51. By the end of the examination, Natural England (NE) and the applicants had reached agreement that the quantum of compensation would be for the strategic compensation programme to finalise, as detailed in the NE Risk and Issues Log [\[REP9-031\]](#).
- 5.5.52. The NFFO remained concerned at the close of examination that benthic compensation will lead to further displacement of the fishing industry and agreement between the applicants and the NFFO was not reached in the SoCG [\[REP8-024\]](#).

ExA's considerations

- 5.5.53. Whilst the quantum of strategic benthic compensation would be finalised post-consent, the need for that compensation has been identified in relation to the proposed development, as discussed in appendix C of this Recommendation. The ExA considers the extension of an existing, or creation of a new, MPA has the potential for further effects on commercial fishery receptors, albeit indirect, which have not been quantified in the applicants' assessment.
- 5.5.54. The ExA however agrees with the applicants and NE that the assessment of effects from strategic benthic compensation could only be accurately undertaken once a programme for the compensation is developed. The ExA agrees that Defra, or another appropriate body, would undertake an assessment during the development of the compensation programme which would identify any potential effects on commercial fisheries. Furthermore, the ExA considers the government's commitment to supporting the fishing industry to adapt and maintain its viability is an important matter in relation to this issue.
- 5.5.55. The ExA considers that the assessment and mitigation of effects from strategic benthic compensation on commercial fisheries is outside of the scope of the proposed development's ES. The ExA is therefore satisfied that the absence of this assessment does not undermine the conclusions of the ES.
- 5.5.56. Nevertheless, the ExA finds there is a potential for harm to commercial fisheries from the strategic benthic compensation. The ExA conservatively considers this could be attributed in part to the proposed development. The ExA therefore concludes this weighs against the proposed development.

CONCLUSIONS

- 5.5.57. The ExA considers the applicants' assessment in ES Chapter 13 [\[REP7-048\]](#) includes adequate information to understand the potential effects of the proposed development alone or cumulatively, including transboundary, and generally accords with the relevant policies of NPS EN-1, NPS EN-3, NPS EN-5, and the MPS and the East and North East Inshore and Offshore Marine Plans.

- 5.5.58. The ExA is satisfied that the mitigation measures incorporated into the design of the proposed development would to some extent avoid, minimise and mitigate associated impacts on commercial fisheries. To further reduce residual effects the applicants have committed to mitigation measures within the oFLCP [\[REP4-056\]](#). The relevant requirements and conditions as part of the DMLs in the final dDCO [\[REP9-003\]](#) would secure the proposed mitigation measures and commitments [\[REP7-048\]](#).
- 5.5.59. The ExA generally agrees with the applicants' conclusion of the residual effects on commercial fisheries for the proposed development alone and cumulatively, however it finds that some may have been underestimated due to the assessment methodology. Furthermore, the ExA finds that cooperation agreements cannot reasonably be relied on to be made. The ExA is therefore not persuaded that the residual effects for displacement of inshore static and dredge fishing receptors for the proposed development alone would be minor adverse.
- 5.5.60. Reflecting on these two points, the ExA is of the view some of the effects on commercial fisheries are likely to be more adverse than reported in ES Chapter 13. Conservatively, the ExA concludes these effects could be moderate adverse during the construction and decommissioning phases of the proposed development in the worst-case scenario, which is considered to be significant in EIA terms.
- 5.5.61. Consequently, the ExA concludes that the proposed development would not be in overall accordance with Policy FISH1 of the East and North East Inshore and Offshore Marine Plans. Furthermore, the ExA concludes the displacement of inshore static and dredge fishing receptors for the proposed development alone has the potential for transboundary effects.
- 5.5.62. The ExA is otherwise satisfied that the proposed development is in accordance with NPS EN-1, NPS EN-3, NPS EN-5, the MPS and the East and North East Inshore and Offshore Marine Plans (2014), other national and local policies and strategies and all other relevant legislation and there are no other important or relevant considerations.
- 5.5.63. The ExA is satisfied that the applicants have carried out appropriate consultation with statutory advisors, representatives of the fishing industry and appropriate fisheries groups. The ExA notes the final SoCG with the MMO [\[REP9-013\]](#) included agreement on the oFLCP.
- 5.5.64. The ExA concludes that the proposed development would adversely affect commercial fisheries and attaches moderate weight against the making of the Order.

5.6. OFFSHORE ORNITHOLOGY

INTRODUCTION

- 5.6.1. This section considers the effects of the proposed development in relation to offshore ornithology. This section does not consider Habitats Regulations Assessment (HRA) matters which are dealt with at appendix C of this Recommendation.
- 5.6.2. Methodology and effects in relation to coastal and marine birds was listed in the Examining Authority's (ExA) Initial Assessment of Principal Issues (IAP) [\[PD-011\]](#) Annex C as part of the marine ecology principal issue.

5.6.3. In its consideration of offshore ornithology below, the ExA has had regard to:

- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) as set out in section 5.6
- the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.8
- the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)
- the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans and the UK Marine Policy Statement
- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

5.6.4. The applicants' assessment of offshore ornithology was first set out in the Environmental Statement (ES) Chapter 12 (Offshore Ornithology) [APP-103] and was first submitted by the applicants in June 2024. However, this was resubmitted by the applicants in November 2024 [AS-057] after the adjournment of the preliminary meeting (PM) to address various issues raised by interested parties (IP) regarding the approach to the Environmental Impact Assessment (EIA) adopted by the applicants from Natural England (NE) [RR-039, PDA-038], the Royal Society of the Protection of Birds (RSPB) [RR-049, PDA-041], the Marine Management Organisation (MMO) [RR-030], The Wildlife Trusts [RR-057] and the National Trust [RR-038]. These concerns, alongside concerns over the maturity of initial HRA compensation proposals, were significant considerations in the ExA's decision to adjourn the PM held on 22 October 2024 (see section 1.4 of this Recommendation for further explanation on the ExA's procedural decision in this regard). Amendments were made by the applicants to the offshore ornithology ES Chapter 12 and supporting documents, with the last version of ES Chapter 12 (revision 4) submitted at deadline (DL) 6 [REP6-015]. The applicants confirmed in section 12.15 that there were no changes to any of the conclusions from the original ES Chapter 12 submitted.

5.6.5. ES Chapter 12 [REP6-015] is to be read alongside the following supporting documents which can be found in the examination library:

- Appendix 12-1 (Offshore Ornithology Consultation Responses) [APP-104]
- Appendix 12-2 (Technical Appendix) [APP-105]
- Appendix 12-3a-c (Monthly Abundance) [AS-060]
- Appendix 12-4a-c (Monthly Densities) [AS-062]
- Appendix 12-5a-c (Seasonal Peak Abundance) [AS-064]
- Appendix 12-6a-c (Seasonal Peak Density) [AS-066]
- Appendix 12-7a-c (Survey Abundances) [AS-068]
- Appendix 12-8a-c (Survey Densities) [AS-070]
- Appendix 12-9 (Collision Risk Modelling Inputs and Outputs) [APP-112]
- Appendix 12-10 (Seabird Distribution Figures) [APP-113]
- Appendix 12-11 (Review of Turbines Lighting - Furness 2018) [APP-114]
- Appendix 12-12 (Seasonal Displacement Matrices Upper Lower C.I. Abundance) [APP-115]
- Appendix 12-13 (Population Viability Analyses) [REP4-034]

5.6.6. ES Chapter 12 [REP6-015] was split into the following broad sections:

- assessment methodology
- existing environment including baseline survey data

- assessment of significance
- potential effects during construction, operation and decommissioning
- cumulative effects assessment
- potential monitoring requirements
- transboundary effects and interrelationships

BASELINE

- 5.6.7. The offshore ornithological study area was defined on the basis of the potential connectivity between the proposed development and seabird populations during the breeding, migration and wintering periods. This encompassed seabird colonies from northern Scotland, including Shetland, to south-east England. The offshore ornithology survey area included the array areas of the proposed development with a 4 kilometre (km) buffer applied. Monthly aerial surveys across the survey area commenced in March 2021 and were completed in February 2023. The ES was based on all of the data collected during this 24-month period. The data collected during these surveys were used to identify the species present and their seasonal abundance.
- 5.6.8. The realistic worst-case design parameters for offshore ornithology were presented in table 12-2 [\[REP6-015\]](#) for each construction scenario; Dogger Bank South (DBS) East or DBS West in-isolation; DBS West and DBS East concurrently; and DBS West and DBS East sequentially. The detailed implications of these scenarios for worst-case construction and operation were presented in section 12.3 of ES Chapter 12 [\[REP6-015\]](#).
- 5.6.9. The baseline ornithological information was presented in section 12.5 along with future trends. Significance of effects were considered for the following ornithological receptors:
- fulmar
 - gannet
 - artic skua
 - great skua
 - puffin
 - razorbill
 - guillemot
 - arctic tern
 - common tern
 - sandwich tern
 - kittiwake
 - little gull
 - common gull
 - herring gull
 - lesser black-backed gull
 - great black-backed gull
 - red-throated diver
- 5.6.10. The offshore development area has the potential for connectivity with 93 offshore and designated sites within 700km of the proposed development, including Special Protection Areas (SPA) and Ramsar sites designated for bird interests. Of these, the HRA screening identified 10 sites which were the primary focus for further consideration in relation to potential effects. Although the HRA is separate from the EIA, the screening carried out was also considered to be appropriate in terms of identifying potential connectivity for the ornithological impact assessment. The

designated sites for birds with potential connectivity to the proposed development were listed in table 12-10 [REP6-015] and are listed below:

- Flamborough and Filey Coast (FFC)
- Greater Wash
- Northumbria Coast
- The Wash
- Northumberland Marine
- Coquet Island
- Farne Islands
- Outer Firth of Forth and St Andrews Bay Complex
- St Abbs Head to Fast Castle
- Forth Islands

MITIGATION AND MONITORING

5.6.11. Three proposed mitigation measures relevant to offshore ornithology were set out in table 12-4 in section 12.3.3 of ES Chapter 12 [REP6-015]. These were:

- The location of the proposed array areas would be located at least 100km from the nearest seabird breeding colony at the FFC SPA and as such connectivity to this site for most species would be relatively low. This was secured in Schedule 1 of the draft Development Consent Order (dDCO) [REP9-003].
- There would be a minimum blade clearance (air draft height) of at least 34m above mean sea level (MSL). This was secured in the draft Deemed Marine Licences (dDMLs) 1 and 2 in condition 2 [REP9-003].
- Potential impacts on red-throated diver in the Greater Wash SPA during construction, operation and maintenance works would be mitigated through measures relating to use of shipping lanes and vessel movements specified in the Project Environmental Management Plan (PEMP) [REP2-041] and was secured in dDML 1 and 2, conditions 15 and 21, dDML 3 and 4, conditions 13 and 19 and dDML 5 and 6, conditions 11 and 15 through:
 - The use of existing shipping lanes for any vessels crossing the Greater Wash SPA and up to 2km beyond the SPA boundary.
 - Permission for vessels to deviate from the existing shipping lanes to avoid disturbance of red-throated diver should they be located within the existing shipping lane and restricting vessel movements to existing navigation routes (where the densities of red-throated divers are typically relatively low).
 - Selecting routes that avoid known aggregations of birds.
 - Maintaining direct transit routes (to minimise transit distances through areas used by red-throated diver).
 - Considering the potential for crew transfer vessels to travel in convoy en-route to the wind farm sites and seeking to do so where it is considered practicable.
 - Avoidance of over-revving of engines (to minimise noise disturbance).
 - Briefing vessel crew on the purpose and implications of these vessel management practices (through, for example, use of tool-box talks).

5.6.12. Proposed monitoring for offshore ornithology was set out by the applicants in section 12.11, stating that offshore monitoring requirements were described in the In Principle Monitoring Plan (IPMP) [REP7-115]. The applicants stated that monitoring would be further developed and agreed with stakeholders prior to construction based on the IPMP and taking account of the final detailed design of the proposed development. ES Chapter 12 [REP6-015] stated that it was important that monitoring studies should be designed to address both site-specific concerns and

contribute to the wider understanding of offshore wind farm (OWF) effects on seabirds. Since the monitoring should build on existing and planned monitoring, the applicants contended it was too early to define what the focus should be, but it would likely reflect the impacts discussed in this assessment, namely displacement and collision risks.

- 5.6.13. Ornithological monitoring was secured in dDML 1 Schedule 10 and in dDML 2 Schedule 11, condition 29 [\[REP9-003\]](#), which included a statement that the licensed activities must not commence until an ornithological monitoring plan setting out the circumstances in which ornithological monitoring would be required and the monitoring to be carried out, had been submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body (SNCB).

ASSESSMENT OF EFFECTS

- 5.6.14. The potential impacts identified during the construction phase were:

- Impact 1: direct disturbance and displacement from increased vessel activity.
- Impact 2: indirect impacts through effects on habitats and prey species during construction.

- 5.6.15. The potential impacts identified during the operational phase were:

- Impact 3: disturbance and displacement from offshore infrastructure.
- Impact 4: indirect impacts through effects on habitats and prey species during operation.
- Impact 5: collision risk.
- Impact 6: combined operational collision risk and displacement.

- 5.6.16. The potential impacts identified during the decommissioning phase were:

- Impact 7: direct disturbance and displacement.
- Impact 8: indirect impacts through effects on habitats and prey species.

- 5.6.17. Cumulative effects identified were:

- Impact 9: cumulative assessment of construction effects on red-throated diver.
- Impact 10: cumulative assessment of operational displacement.
- Impact 11: cumulative assessment of operational collision risk.
- Impact 12: cumulative assessment of operational collision risk and displacement.

- 5.6.18. A summary of the applicants' predicted pre-mitigation and residual, post-mitigation, likely significant effects in respect of offshore ornithology was produced in table 12-118 of ES Chapter 12 [\[REP6-015\]](#).

- 5.6.19. Pre-mitigation effects for all impacts on all receptors were predicted by the applicants to be either negligible or negligible to minor adverse with the exception of impacts 10 and 11 relating to cumulative impacts. Impact 10 (cumulative assessment of operational displacement) was predicted to be negligible to moderate adverse for gannet, guillemot, razorbill and puffin. Impact 11 (cumulative assessment of operational collision risk) was predicted to be negligible to moderate adverse for gannet, kittiwake, lesser black-backed gull, herring gull and great black-backed gull.

- 5.6.20. The residual effect for all impacts post mitigation were either negligible, negligible to minor adverse or minor adverse, with again the exception of impacts 10 and 11

relating to cumulative impacts. Impact 10 (cumulative assessment of operational displacement) was predicted to be negligible to moderate adverse for gannet, guillemot, razorbill and puffin. Impact 11 (cumulative assessment of operational collision risk) was predicted to be negligible to moderate adverse for gannet, kittiwake, lesser black-backed gull, herring gull and great black-backed gull.

- 5.6.21. ES Chapter 12 [\[REP6-015\]](#) stated that collisions and displacement of offshore ornithological receptors would be predicted to occur at OWFs located outside UK territorial waters. The ES suggests transboundary effects were not included in the cumulative assessment. This meant that potential transboundary impacts would likely be greater than that quantitatively assessed in the cumulative environmental assessment (CEA) but that any potential transboundary effects were expected to be minimal and would not require any additional mitigation.
- 5.6.22. Table 12-113 and table 12-114 of ES Chapter 12 [\[REP6-015\]](#) stated that no significant inter-related effects of greater significance compared to the effects considered alone were identified on ornithological features during the construction, operation and maintenance or decommissioning phases.

ISSUES CONSIDERED DURING THE EXAMINATION

- 5.6.23. Issues regarding offshore ornithological EIA aspects were raised by NE in its RR [\[RR-039\]](#) and also in NE's first risk and issues log at DL1 [\[REP1-067\]](#), which listed 2 principal areas of disagreement in relation to offshore ornithological EIA, which were:
- NE stated it could not agree with the EIA conclusions presented as several aspects of the assessment had not been provided in line with its advice.
 - Concern regarding the mitigation of likely very high impacts on seabirds. NE stated that the baseline surveys indicated the potential for very high impacts on seabirds but that it was not clear how robustly ornithology impacts were factored in when designing the reductions of the array areas after publication of the Preliminary Environmental Information Report (PEIR) and queried whether further reduction could be undertaken to reduce impacts. NE advised that further consideration should urgently be given to potential avoidance and mitigation measures to reduce impacts on seabird features, such as array area reductions, changes to design and layout of arrays, or increasing the hub height of turbines. NE suggested that hotspot modelling of seabird densities and distributions in the study area may help to identify areas where impacts on seabird features were predicted to be particularly high to inform an improved mitigation approach.
- 5.6.24. More detailed issues regarding EIA aspects were raised in tab 'G' of NE's risk and issue log at DL1 [\[REP1-067\]](#), reflecting points raised in NE's RR [\[RR-039\]](#), presented in more detail below.
- 5.6.25. Issues regarding offshore ornithological EIA aspects were initially raised by the RSPB in its RR [\[RR-049\]](#) and again in its written representation (WR) [\[REP1-087\]](#) and WR summary [\[AS-157\]](#). Many of the issues focussed on aspects related to European sites and therefore HRA, which are reported on at appendix C of this Recommendation. Key concerns from the RSPB relating to the offshore ornithological EIA focussed on the overall scale of impacts and methodological concerns, similar to those from NE.
- 5.6.26. The MMO's RR [\[RR-030\]](#) raised comments regarding the inclusion of an ornithological monitoring condition in the Deemed Marine Licences (DML). In its response to the rule 9 and 17 letter issued on 22 October 2024 [\[PDB-009\]](#), the

MMO stated that it deferred to NE on ornithological matters and supported NE's comments in relation to the ornithological assessments.

- 5.6.27. RRs were received from the Lincolnshire Wildlife Trust [\[RR-028\]](#), the Yorkshire Wildlife Trust [\[RR-059\]](#) and The Wildlife Trusts [\[RR-057\]](#), who also submitted a WR [\[REP1-008\]](#). The Yorkshire Wildlife Trust stated in its RR [\[RR-059\]](#) that it may submit further comments, but no further submissions were received into the examination. The concerns from The Wildlife Trusts and the Lincolnshire Wildlife Trust regarding offshore ornithology were related to European sites and compensation and are therefore HRA related and reported on at appendix C of this Recommendation.
- 5.6.28. The Doggerland Foundation raised concerns regarding the indirect impacts on seabird populations from impacts to the Dogger Bank Marine Protected Area (MPA) [\[AS-004\]](#).
- 5.6.29. The National Trust's RR [\[RR-038\]](#) stated concern related to the FFC SPA and the Farne Islands SPA, deferring to the expertise of NE and the RSPB. It stated support for a precautionary approach to compensation. For kittiwake compensation, it stated support for offshore artificial nesting structures (ANS) in appropriate, effective locations. The National Trust recognised that the applicants' compensation proposals for guillemot and razorbill through predatory eradication were at an early point of development and needed further detailed feasibility work. It raised concern that surveys planned for winter 2024 to 2025 would provide limited opportunity to discuss and agree a deliverable scheme, stating that this should have been progressed by the applicants up front to provide more certainty at the outset of the examination process.
- 5.6.30. The National Trust also raised the need to consider whether the compensation measures associated with impacts on the FFC SPA should extend beyond the life of the project and decommissioning to ensure the impacted features of the SPA would have sufficient time to recover. The National Trust stated that the applicants' proposals were not yet developed enough for the Trust to be able to advise whether it would support the compensatory measures on its land on the 4 sites identified. These concerns were HRA related and are reported on at appendix C of this Recommendation.
- 5.6.31. Transboundary regulation 32 notification responses were received from Denmark [\[OD-010\]](#), Germany [\[OD-011\]](#) and the Netherlands [\[OD-012\]](#).
- 5.6.32. A representation was made by Ms Jeffrey at DL3 [\[REP3-070\]](#), raising ornithological concerns.
- 5.6.33. The key examination issues considered by the ExA in relation to offshore ornithology were related to:
- EIA assessment methodologies
 - possibilities for further feasible mitigation
 - ornithological EIA conclusions
 - ornithological monitoring

EIA ASSESSMENT METHODOLOGIES

- 5.6.34. At the start of the examination, many concerns were submitted in RRs and WRs by both NE ([\[RR-039\]](#), [\[REP1-067\]](#)) and the RSPB ([\[RR-049\]](#), [\[REP1-087\]](#)) regarding the applicants' EIA assessment methodologies. NE stated it could not agree with the

applicants' EIA conclusions presented as several aspects of the assessment had not been provided in line with their advice, including:

- baseline mortality rates and EIA reference populations
- guillemot seasonality
- gannet collision risk
- the approach taken to combining the impacts of the 2 arrays

5.6.35. NE advised that assessments in line with SNCB advice should be provided in full, alongside the applicants' preferred methodology, emphasising that this advice had been provided by NE during the evidence plan process. NE stated it would not be able to advise the examination further on the ornithology impacts of the proposals until this material was provided.

5.6.36. Key concerns from the RSPB relating to the offshore ornithological EIA focussed on the overall scale of impacts and methodological concerns, specifically concerning the applicants' consideration of:

- a macro avoidance correction to gannet collision risk modelling
- digital aerial survey approaches
- population viability analysis

5.6.37. Many of the EIA aspects were resolved during the course of the examination, and as such, these issues are not discussed further in this Recommendation. These include:

- EIA reference population
- baseline characterisation and mortality rates for gannet, kittiwake and razorbill
- razorbill abundance
- seasonal peak abundance for all relevant species
- guillemot seasonality
- gannet collision risk and avoidance rates
- high densities of auks between the arrays outside the 2km buffer possibly leading to auk vulnerability to cumulative displacement impacts from the arrays on either side
- construction displacement for all relevant species
- impacts of the 2 arrays combined
- cumulative assessments including great black-backed gull and lesser black-backed gull cumulative totals
- lack of cumulative population viability assessments (PVA) despite several showing increases in background mortality rates of over 1% for all relevant species
- presentation of PVA inputs and outputs and some PVA results being lower than NE expected for all relevant species
- approach to non-measurable 'de minimis' impacts for all relevant species
- displacement effects from decommissioning for all relevant species

5.6.38. The following issues related to the applicants' EIA assessment methodologies were not fully resolved by the close of the examination or required further explanation or justification:

- trends in seabird population baseline data relating to the FFC SPA flock, including impacts of highly pathogenic avian influenza (HPAI)
- displacement and mortality rates for auks
- consideration of a macro avoidance correction to gannet collision risk modelling
- approaches to digital aerial survey

- transboundary concerns

Trends in seabird population baseline data relating to the FFC SPA flock, including impacts of HPAI

- 5.6.39. NE stated that [RR-039] the applicants had not used the most recent seabird census or latest research on impacts of HPAI in their assessment. NE advised that the applicants should consider all relevant evidence on seabird population trends when assessing impacts and present an updated assessment that reflects this.
- 5.6.40. NE's closing position [REP9-031] confirmed this issue had been largely resolved through the additional evidence provided by the applicants. However, NE continued to disagree with the interpretation of the trends in the Report to Inform Appropriate Assessment (RIAA), but categorised that for this particular proposed development, it was unlikely to make a material difference to the outcome of the decision-making process.

ExA's considerations

- 5.6.41. As outstanding concerns in relation to this issue are HRA related and are presented at appendix C (HRA) of this Recommendation, the ExA considers the matter resolved from an EIA perspective.

Displacement and mortality rates for auks

- 5.6.42. NE noted [RR-039] that whilst the applicants had presented the results of the displacement assessment for auks using NE's advised ranges for displacement (30% to 70%) and mortality rates (1% to 10%), they had consistently stated that these advised rates were not appropriate or evidence-based and had advocated for the application of 50% displacement and 1% mortality [PDB-006]. NE advised the applicants had not considered impacts calculated using their advised rates in their ES conclusions.
- 5.6.43. In response to question OR.2.2 in the ExA's second written questions [PD-022], NE stated that it did not consider the applicants' preferred displacement and mortality rates (a single displacement rate of 50% and a single mortality rate of 1%) to be an appropriate basis on which to assess the impacts of the proposed development. Therefore, it could not agree with the applicants' assessment conclusions based on these rates, stating its own conclusions on effects would not be based on these. NE advised it would consider the range of figures presented, from 30% to 70% displacement and 1% to 10% mortality, with particular focus on the figures for 70% displacement and 2% mortality.

ExA's considerations

- 5.6.44. The ExA considers that as the applicants have provided displacement and mortality rates in accordance with NE's advice as well as their own, and that NE confirmed its conclusions on effect would not be based on the applicants' preferred rates but its own preferred rates, this issue can be considered to be resolved. The ExA's consideration of the implications of NE basing its conclusions on its advised rates of displacement and mortality is presented later in this section under the EIA conclusions subheading.

Consideration of a macro avoidance correction to gannet collision risk modelling

- 5.6.45. The RSPB's RR [RR-049] and WR [REP1-087], stated it did not agree with the use of a 70% reduction in baseline densities of gannet used in Collision Risk Modelling (CRM) as had been recommended by NE. The RSPB stated in paragraphs 4.18 to 4.24 of its WR [REP1-087] the use of a 70% macro-avoidance rate for gannet was not appropriate as:
- It did not take into account the likely seasonal variation in macro-avoidance.
 - By basing the 'within wind farm' avoidance rate on the 'all gull' rate, it assumed that gannets would have the same 'within wind farm' reactive flight response as gulls.
- 5.6.46. For these reasons the RSPB stated it did not agree with the use of this correction factor, a position in alignment with that of NatureScot and the Scottish Marine Directorate in the assessment of gannet collision mortality and considered this would have a material impact on resulting impact assessments.
- 5.6.47. The RSPB also stated that the use of this correction factor was not accepted by all the Statutory Nature Conservation Organisations, and referenced the Joint Nature Conservation Committee (JNCC) who stated, "however, while, Natural England support this approach, it is not accepted by all the Statutory Nature Conservation Organisations".
- 5.6.48. The final Statement of Common Ground (SoCG) with the RSPB [REP9-016] stated this issue was not agreed with the applicants at the close of the examination. It stated that the RSPB acknowledged that the applicants followed the approach to gannet collision risk advised by NE, but did not agree with the application of 70% macro-avoidance for gannet recommended by NE.
- 5.6.49. The ExA requested [PD-022, OR.2.32] the JNCC, NE and the RSPB to submit justification and evidence for their individual positions on the use of a macro-avoidance correction factor for gannet into the examination. The RSPB's response [REP5-065] cited the same reasons as above [REP1-087].
- 5.6.50. NE's response [REP5-062] stated there was no gannet specific avoidance rate and that there was clear evidence that gannets display macro-avoidance, stating it had commissioned an evidence report to inform this approach which supported the use of agreed macro-avoidance rates for gannet when undertaking CRM.
- 5.6.51. The JNCC [REP5-047], highlighted that the document being referred to by the RSPB was the JNCC (SNCB) Collision Risk Advice note, which was a joint piece of guidance, rather than solely JNCC advice. It states the "potential application of macro-avoidance rates to gannet may differ between countries and therefore should be discussed with the relevant SNCB".
- 5.6.52. The JNCC stated [REP5-047] it was content with the approach used to apply a 70% macro avoidance rate for gannet, and as responsibility to provide statutory nature conservation advice on offshore wind energy projects in offshore English waters was delegated to NE, it was content with this approach in other recent projects.

ExA's considerations

- 5.6.53. The ExA notes that the JNCC supports the advice of NE for a 70% macro avoidance rate for gannet which has been used by the applicants in the

assessment. The ExA has considered all the approaches put forward by the IPs. Notwithstanding RSPB's concerns, the ExA accepts the applicants' approach to apply a 70% macro avoidance rate for gannet.

Approaches to digital aerial survey

- 5.6.54. In its RR [\[RR-049\]](#) and WR [\[REP1-087\]](#), the RSPB raised a number of concerns about the lack of full methodological detail in relation to the digital aerial survey. The applicants responded to each of the points raised by the RSPB at DL3 [\[REP3-029\]](#).
- 5.6.55. RSPB responded to ExQ OR.1.51 [\[AS-173\]](#) stating the following remaining concerns:
- That the current statutory guidance in England did not yet reflect the findings of the NatureScot review published in January 2023. RSPB acknowledged the review was published after the majority of the applicants' digital aerial surveys had been completed (conducted between March 2021 and February 2023), however, the RSPB considered it was still relevant in interpretation and presentation of the data.
 - Insufficient consideration of potential biases in the survey and analysis methods. The RSPB acknowledged the applicants' quality assurance (QA) process went some way to addressing its concerns around analysis methods, it only accounted for potential biases or inconsistencies between those manually processing the images. As such, the RSPB contended that the applicants had not addressed potential biases in the survey methods themselves and considered this point outstanding.
 - Regarding spatial autocorrelation, the RSPB pointed out that the applicants referred to an analysis as identical to the Five Estuaries application. The RSPB contended that while this provided useful context, the level and nature of autocorrelation would be site and species specific so did not fully address this point.
 - The RSPB noted the applicants accepted that, while the data were internally quality assured by the survey provider, there was no detail of any independent external quality assurance, noting that NE guidance states "increasing clarity on the validation of data and results would increase overall confidence in the dataset and provide assurance in the interpretation, which could reduce the need for precaution during examination".
- 5.6.56. The RSPB considered that while that does not specifically suggest a need for external QA, it did raise the need for increased clarity on QA and data validation.
- 5.6.57. The RSPB raised concerns [\[AS-173\]](#) on whether any daily variation in bird activity was sufficiently captured in the survey data, as particularly the summer months data did not appear to have been collected in the hours around sunrise and sunset, which are periods when foraging activity is often at its highest for seabirds. The RSPB considered it would have been helpful for the applicants to set out its views of the implications of this on the data interpretation and what level of precaution should be applied.
- 5.6.58. A further detailed response was provided by the applicants at DL5 [\[REP5-038\]](#), to which the RSPB confirmed in its final SoCG [\[REP9-016\]](#) that some concerns remained. The RSPB's outstanding concern was in relation to potential biases, particularly with small or more cryptic species possibly remaining undetected, despite the applicants' use of higher resolution imagery. The RSPB stated that no details had been provided by the applicants of how this potential bias had been addressed in a statistically robust manner. Whether the applicants' choice of the

grid approach for autocorrelation was appropriate, was a remaining concern for the RSPB [REP9-016]. The RSPB maintained that details of the exact methods for the autocorrelation analysis used and the actual results should have been presented to ensure clarity around this point.

- 5.6.59. The ExA noted that the applicants' response to the ExA's second written question OR.2.3 [REP5-036] confirmed that external QA was not carried out as the applicants understood that these QA requirements were no longer considered necessary as the levels of error that were identified in previous projects where it had been applied were very low. The applicants confirmed that the underlying survey methodology was in accordance with NE's 'Phase I: Expectations for pre-application baseline data for designated nature conservation and landscape receptors to support offshore wind applications best practice' guidance note. In addition, the applicants stated that the aerial survey methodology was discussed and agreed with NE and the RSPB during the first of the expert topic group meetings [APP-043].
- 5.6.60. NE's response to ExQ2 OR.2.3 [REP5-062] confirmed it was content with the digital aerial surveys undertaken by the applicants for the marine ornithology assessment.

ExA's considerations

- 5.6.61. The ExA recognises that QA is an important aspect of data collection which underlies the ornithological assessments for both EIA and HRA. The ExA considers that concerns related to QA should be thoroughly examined such that confidence can be had by all parties in the data collected. The ExA acknowledges the concerns from the RSPB on this matter, noting that additional external QA could have increased confidence and avoided this becoming an issue throughout the examination.
- 5.6.62. The ExA acknowledges that the applicants confirmed [REP5-036] that the underlying survey methodology was in accordance with NE's 'Phase I: Expectations for pre-application baseline data for designated nature conservation and landscape receptors to support offshore wind applications best practice' guidance note and that NE confirmed it was content with the digital aerial surveys undertaken by the applicants for the marine ornithology assessment [REP5-062]. Notwithstanding RSPB's concerns, the ExA accepts the applicants' approach.

Transboundary assessment

- 5.6.63. A response to the Regulation 32 consultation was received from the Federal Maritime and Hydrographic Agency (Bundesamt für Seeschifffahrt und Hydrographie) on behalf of the Federal Republic of Germany [OD-011]. It raised concerns regarding potential cross-border impacts, in particular for kittiwake, northern gannet, common guillemot and razorbill. The German Federal Maritime and Hydrographic Agency stated that a quantitative assessment of cross-border impacts had not been possible due to a lack of population data, and methodological differences between countries should therefore be urgently pursued. It also recommended including terrestrial migratory birds in the proposed monitoring, to be able to better estimate the cross-border cumulative effects in the future.
- 5.6.64. The applicants responded [AS-117], agreeing that there was a need for alignment of seabird assessment methodologies between different countries in order for common features to be assessed across borders. However, the applicants contended this was not something that individual developers were able to instigate and required agreement between the relevant agencies in the countries in question. In the absence of such agreements, the applicants stated their approach taken for

consideration of transboundary effects was appropriate and in accordance with United Kingdom (UK) legislation.

- 5.6.65. The ExA asked the Federal Maritime and Hydrographic Agency [OR.1.57 [PD-014](#)] whether the applicants' response [[AS-117](#)] had adequately addressed its concerns, to which it responded at DL3 [[REP3-041](#)], to say it had no comments on the proposed development.
- 5.6.66. The Netherlands' Ministry of Infrastructure and Water Management made a representation [[OD-012](#)] in response to the transboundary regulation 32 notification stating that it expected considerable habitat loss for various bird species from the proposed development. It went on to say that bird species of special interest were razorbill, guillemot, great black-backed gull, northern gannet and kittiwake. The Netherlands Ministry of Infrastructure and Water Management thought it probable that the proposed development would have an external effect on bird species living in the 4 Dutch Natura 2000 areas Dogger Bank, Cleaver Bank, Frisian Front and Central Oyster Grounds, especially when considering international cumulative effects. It stated concern regarding collision risk and that mitigation measures should be considered. The Netherlands Ministry of Infrastructure and Water Management also mentioned that the migration route of razorbill and guillemot from the breeding grounds in the UK to the moult areas (Frisian Front) in the Netherlands were not included in the assessment.
- 5.6.67. The applicants responded [[AS-117](#)] saying that the maximum estimated area of habitat loss had been reduced considerably since the PEIR. In response to concerns regarding species at designated sites, the applicants stated that the Report to Inform Appropriate Assessment Habitats Regulations Assessment Part 4 of 4 [[REP4-016](#)] presented an assessment of the effects on areas protected for avian conservation reasons and that compensation for adverse effects on such sites had been proposed where relevant.
- 5.6.68. The ExA asked the Netherlands Ministry of Infrastructure and Water Management [OR.1.57 [PD-014](#)] whether the applicants' response [[AS-117](#)] had adequately addressed its concerns, to which there was no response.
- 5.6.69. The Ministry of Environment of Denmark made a representation [[OD-010](#)] in response to the transboundary regulation 32 notification, raising concerns regarding some migratory terrestrial bird species that are the basis for designation of Danish bird protection areas. It noted that these species migrate between Denmark and England over the part of the North Sea where the proposed development would be located, but had not be included in ES Chapter 12 [[REP6-015](#)].
- 5.6.70. The applicants' response [[AS-117](#)] stated that the UK's bespoke methods for estimating collision risk had been undertaken for previous OWFs. These demonstrated that the risks to terrestrial migrant populations from collisions cumulatively at wind farms in the North Sea were extremely small, with typically fewer than 0.01% of any species' population estimated to be at risk of collision per year. The applicants stated that for this reason, UK SNCBs no longer routinely request such assessments be conducted, since they were content that the impacts were so small as to be undetectable against background variations. The applicants confirmed no request for such an assessment was received from any UK SNCBs or European nature conservation bodies during the pre-submission phase.

- 5.6.71. The ExA asked the Ministry of Environment of Denmark in ExQ OR.1.57 [PD-014] whether the applicants' response [AS-117] had adequately addressed its concerns, to which there was no response.

ExA's considerations

- 5.6.72. On the basis of the transboundary responses received from Germany, the Netherlands and Denmark and that no request for further transboundary assessments were received from any UK SNCBs or European nature conservation bodies, the ExA considers the transboundary assessments undertaken by the applicants were adequate. Potential effects on designated European sites are considered at appendix C (HRA) of this Recommendation.

POSSIBILITIES FOR FURTHER FEASIBLE MITIGATION

- 5.6.73. NE raised in its RR [RR-039] and reasserted [AS-161 and AS-160], that further consideration should be given by the applicants to potential mitigation measures to reduce impacts on seabirds, given the proposed development would be the highest impacting project in English waters on the FFC SPA kittiwake to date. The following examples were given:

- Increasing the hub height of turbines to increase the air gap.
- Hotspot modelling of seabird densities and distributions in the study area to identify areas where impacts may be particularly high, which may inform array reductions and changes to the design and layout of arrays.

- 5.6.74. A third concern related to whether the applicants were correct to consider the location of the proposed development as embedded mitigation due to its connectivity with the FFC SPA as derived by certain foraging ranges. This issue is documented and concluded on at appendix C (HRA) of this Recommendation.

- 5.6.75. The applicants considered [REP3-027] that a robust assessment to mitigation had been provided. They contended they had demonstrated clear adherence to the mitigation hierarchy to avoid, reduce and mitigate the impacts to offshore ornithology as far as practicable through the refinement of the array areas pre-submission, the reduction in numbers of turbines to a maximum of 200 turbines from 300 turbines proposed earlier and the commitment to a minimum air gap of 34 metres (m).

Air gaps

- 5.6.76. The applicants considered [AS-048] that mitigation relating to air gaps had been applied in accordance with the Round 4 plan level HRA (The Crown Estate 2022) whereby, to reduce potential collisions with birds in flight, particularly kittiwakes, the clearance of the blades above the water was set at a minimum 34m above MSL.

- 5.6.77. The applicants submitted an Ornithological Mitigation Options Report [AS-118], in which they stated that they did not intend to enlarge the air gap further on the basis of financial and engineering constraints. This document was later updated at DL4 [REP4-081] to include additional considerations. This document provided information regarding engineering and cost modelling which had been undertaken by the applicants to assess feasibility of increasing the minimum air gap further. The applicants' conclusion of this work was that increasing the air gap beyond 34m was not feasible due to:

- increased MoD consenting risk and mitigation requirements
- increased scale of foundations that would be required

- the potential requirement to use a more costly foundation design concept
- limited availability of vessels to install the largest turbines and foundations
- increased project costs

- 5.6.78. The applicants concluded [\[REP4-081\]](#) that an increase in minimum air gap would reduce the likelihood of the proposed development being delivered, as it would increase costs to the extent that it would be potentially commercially unviable. The applicants contended that further increasing the minimum air gap would not meet policy in paragraph 4.3.27 of NPS EN-1.
- 5.6.79. The ExA asked the applicants in ExQ1 OR.1.44 [\[PD-016\]](#) whether the mitigation hierarchy had been fully adhered to, particularly in light of NE's statement [\[AS-160\]](#) that the proposed development would be the highest impacting project in English waters on the FFC SPA kittiwake to date. In response [\[REP3-027\]](#) the applicants reiterated some of the information they had already submitted on this issue, adding that any reductions or changes to the array design or layout must be considered against other environmental, technical, and engineering constraints, as well as benefits to offshore ornithology. The applicants stated the layout and site design must include requirements by the Maritime and Coastguard Agency and Trinity House for navigational safety, including the provision of search and rescue lanes. Furthermore, The Crown Estate lease requirement to meet a minimum specific power density would make further amendments to site design challenging at that stage. The applicants explained they must seek to achieve as close to the minimum power density of 5 megawatts per kilometre squared (MW/km²) as possible, in order to maintain competitiveness in the Contract for Difference (CfD) bidding process, without which the proposed development may be delayed or not be constructed.
- 5.6.80. The ExA pursued this further at Issue Specific Hearing (ISH) 5 [\[EV10-002\]](#), with reference to the larger air gap proposed for the Hornsea Four wind farm turbines. The applicants responded [\[REP4-096\]](#) with an update to their Ornithological Mitigation Options Report [\[REP4-081\]](#). This stated that in developing the design envelope, they had appropriately considered the air gap in relation to both mitigating impacts from bird collision risk and to ensure the technical and commercial viability of the proposed development. The applicants explained this reflected a good compromise between bird collision mitigation, additional steel costs and carbon footprint, radar mitigation, piling noise and other environmental effects balanced with deliverability in terms of vessels that could install turbines of the size and air gap proposed and cost in terms of financial viability for forthcoming CfD auctions.
- 5.6.81. The applicants stated they did not expect to mitigate collision risk, or any other risk, to zero effect and did not believe they were required to do so. The applicants stated [\[REP4-096\]](#) that they had applied a precautionary assessment in terms of collision risk and did not propose to increase the air gap any further. In recognition of the potential ornithological impacts, the applicants stated they had proposed a blade clearance significantly in excess of most consented and operational OWFs (typically 22m above lowest astronomical tide (LAT)) and had demonstrated why further increases would not be suitable and potentially risk the viability of the proposed development.
- 5.6.82. The ExA considered it necessary to ask further questions of both the applicants and NE regarding ornithological mitigation in ExQ2 OR.2.4 and OR.2.5 [\[PD-022\]](#). The applicants' provided detailed responses [\[REP5-036\]](#), which included analysis of air gaps of 37m above MSL and 40m above MSL for a 15MW wind turbine (236m rotor diameter) and a 21.5MW wind turbine (276m rotor diameter). The applicants stated the information came from reports by design consultants but that the reports

themselves were regarded commercially sensitive as the quantity of steel inherent in the design was a key part of the business case for the proposed developments which would inform the competitiveness in future CfD auctions, hence this information could not be provided for dissemination to the wider public and the applicants' competitors. However, the applicants stated the relevant outputs and interpretation were provided within the responses to ExQ2 OR2.4 [REP5-036].

- 5.6.83. Within this response, the applicants provided a graphic visualisation, which is reproduced in Figure 32, Figure 33 and Figure 34 below, to justify the choice for the 34m above MSL air gap. The applicants explained that while there would be a decrease in collisions as a result of an increased air gap, there would be proportionally smaller benefits derived from a higher blade tip clearance. For example, increasing the lower tip elevation from 22m to 34m MSL would result in a 68% decrease in predicted collisions, but the additional 6m increase in height (from 34m to 40m above MSL) would reduce this further by only 14%. Conversely, there would be a significant cost burden associated with increasing the air gap, with an increase of approximately €48 million and €181 million respectively when moving to a 37m and 40m above MSL air gap (236m rotor diameter) across DBS West and East. This increase would be even more pronounced when assessing costs associated with a larger rotor diameter (276m), which would result in an escalated spend of approximately €116 million and €282 million respectively for a 37m and 40m above MSL air gap. The applicants concluded that increasing the air gap beyond 34m above MSL would not be currently feasible due to the increased consenting, engineering, and financial risks to such an extent as to potentially make the proposed development commercially unviable.

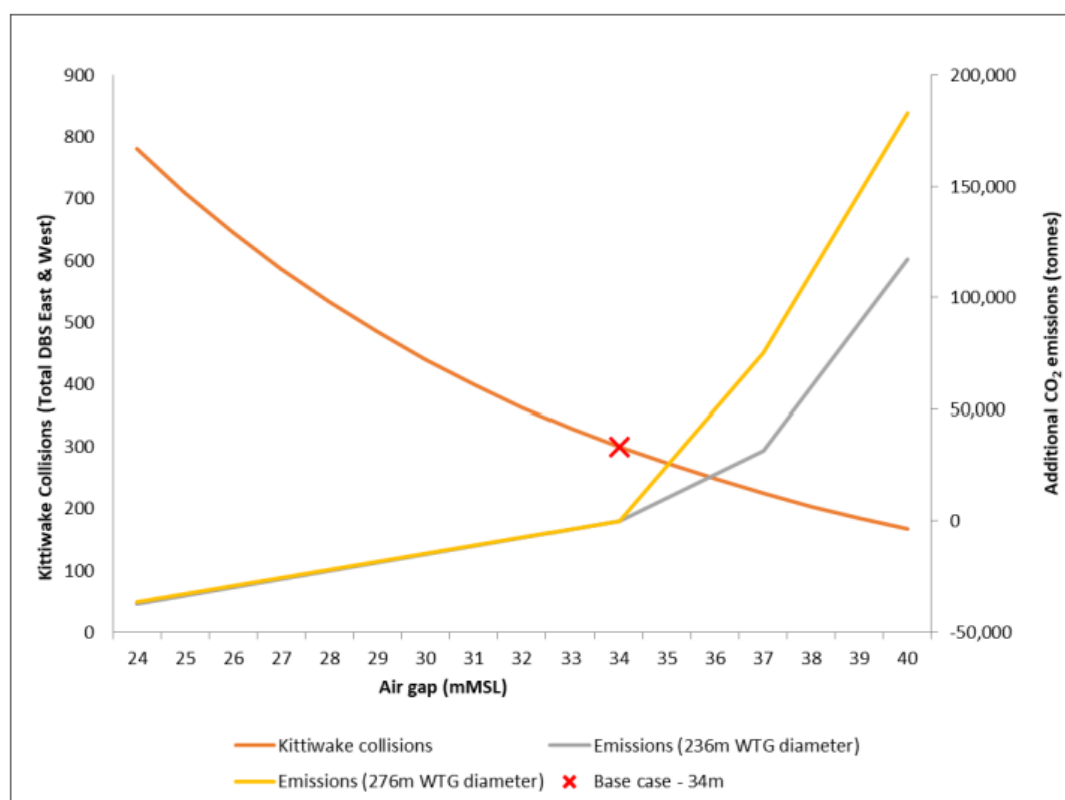


Figure 32: The difference in carbon dioxide (CO₂) emissions from the base case plotted against adjusted kittiwake collisions per metre increase or decrease in air gap

Source: The Applicants Responses to the Examining Authority's Second Written Questions [REP5-036]

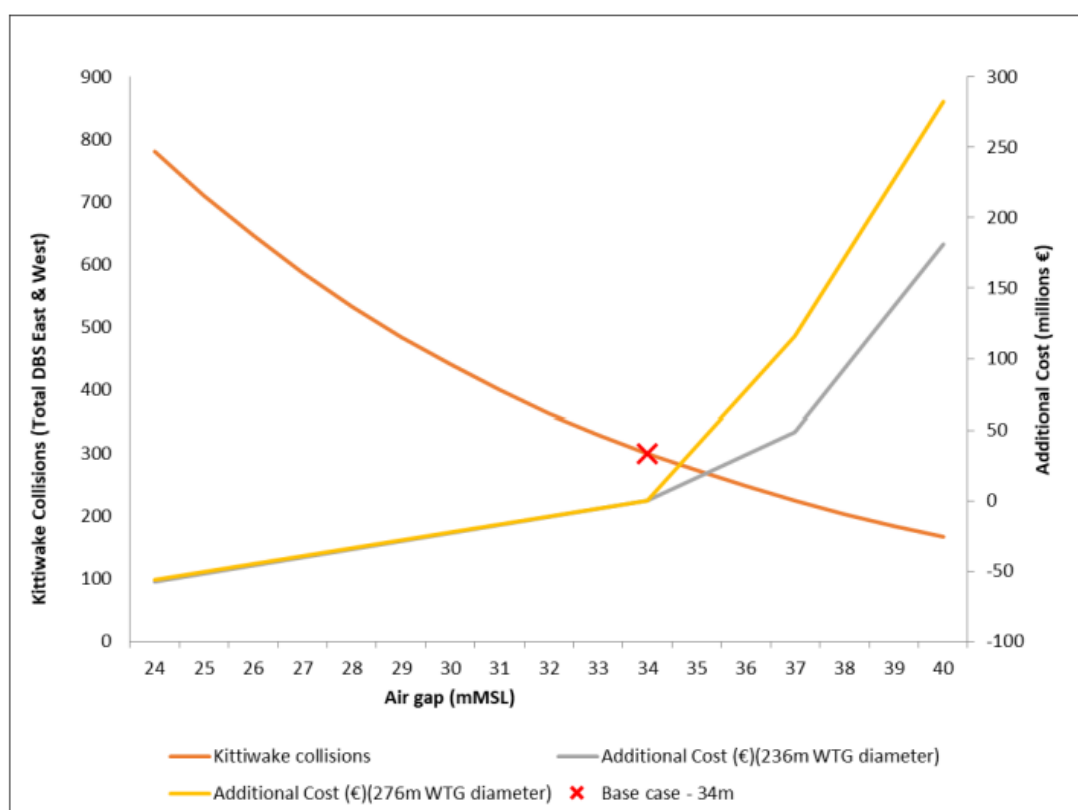


Figure 33: The difference in cost from the base case plotted against adjusted kittiwake collisions per metre increase or decrease in air gap

Source: The Applicants Responses to the Examining Authority's Second Written Questions [REP5-036]

WTG Rotor blade diameter (m)	Lower Tip Elevation (Air gap) [mMSL]	DBS West Only			DBS West and DBS East		
		Additional MP Mass (tonnes)	Additional Cost (EURO)	Additional CO ₂ emissions (tonnes)	Additional MP Mass (tonnes)	Additional Cost (EURO)	Additional CO ₂ emissions (tonnes)
236m	24 mMSL	-9,697	-28,722,781	-18,618	-19,394	-57,445,561	-37,237
	34 mMSL	Base case	Base case	Base case	Base case	Base case	Base case
	37 mMSL	8,388	24,421,690	15,830	16,490	48,843,380	31,661
	40 mMSL	30,584	90,589,808	58,721	61,168	181,179,616	117,443
276m	24 mMSL	-9,524	-28,211,036	-18,287	-19,049	-56,422,072	-36,573
	34 mMSL	Base case	Base case	Base case	Base case	Base case	Base case
	37 mMSL	19,576	57,984,112	37,586	39,152	115,968,224	75,172
	40 mMSL	47,667	141,189,654	91,521	95,334	282,379,308	183,041

Figure 34: Implications to mass, cost and CO₂ of an increase or decrease in air gap from base case (34mMSL)

Source: The Applicants Responses to the Examining Authority's Second Written Questions, table C-1 [REP5-036]

- 5.6.84. NE's response to OR.2.5 [REP5-062] acknowledged the applicants' comments but explained that as they were not ecological arguments, they were not within NE's field of expertise to comment on.

- 5.6.85. The ExA did not pursue this matter further in the examination, as it considered it had received sufficient information upon which to make a recommendation.

ExA's considerations

- 5.6.86. The ExA recognises that the applicants explained that the proposed air gap was in accordance with the Round 4 plan level HRA (The Crown Estate 2022) which was set at a minimum 34m above MSL.
- 5.6.87. The ExA notes that the applicants did not expect to mitigate collision risk or any other risk to zero effect and did not believe they were required to do so [REP5-036]. The ExA was satisfied with the adequacy of responses by the applicants [REP5-036] to ExQ2 OR.2.4 [PD-022] to clarify some remaining aspects of confusion regarding the feasibility of altering the upper tip height and air gap.
- 5.6.88. The ExA recognises the applicants concluded [REP4-081 and REP5-036] an increase in minimum air gap would reduce the likelihood of the proposed development being delivered as the costs would be increased to such an extent as to make it potentially commercially unviable.
- 5.6.89. Notwithstanding NE's position on the possibility for further ornithological mitigation, considering the evidence the applicants have provided, the ExA is satisfied that a sufficiently robust explanation for a minimum air gap of 34m above MSL has been provided and considers that adherence to the mitigation hierarchy has been demonstrated in relation to the minimum air gap. This would be secured in Schedule 2, Part 1, requirement 2(d) and Schedule 10 Part 2, condition (1)(d) of dDML1 and Schedule 11 Part 2, condition (1)(d) of dDML2 of the recommended draft DCO.

Density hotspot modelling and mapping

- 5.6.90. As stated above, NE raised in its RR [RR-039] that further consideration should be given by the applicants to potential mitigation measures to reduce impacts on seabirds, including hotspot modelling of seabird densities and distributions in the study area to identify areas where impacts may be particularly high, which may inform array reductions and changes to the design and layout of arrays.
- 5.6.91. The applicants stated [AS-048] that reduction and refinements to the array area boundaries were undertaken to help reduce impacts on important bird populations as part of the progression of project design from the PEIR to the application stage. The applicants added that a number of factors, including bird distribution data, were considered as part of the boundary refinement exercise. Density mapping data based on the site-specific aerial survey data were collated and examined to indicate areas within The Crown Estate lease options that showed higher and lower densities of birds, and this was used alongside other environmental and technical information to inform the boundary change. An outline of the factors considered in the boundary refinement exercise was presented as part of the minutes from the ornithology expert topic group meeting on 6 February 2024 [APP-043].
- 5.6.92. The applicants explained [REP3-027] they considered hotspot modelling to be an unreliable basis on which to conduct any boundary changes since seabird distributions are notoriously variable through time, and the snapshots collected for the impact assessment, whilst considered to be a reliable guide in terms of population estimates, are not considered to represent static and consistent locations. The applicants contended it would therefore not be appropriate to use these to further modify the site boundaries. The applicants concluded that they did not consider any additional mitigation was required.

- 5.6.93. This issue continued throughout the examination. NE noted [\[REP5-060\]](#) that while seabirds are mobile animals, their distributions during the breeding season are constrained as central-place foragers to areas within foraging range, and their distribution is strongly affected by the availability of prey, being known to aggregate in areas where prey availability is high. NE explained the proposed development would be located in an area that is important for sandeel and therefore likely to attract seabirds. NE added that sandeel is a relatively sedentary species that shows limited mobility and is strongly associated with discrete areas of particular sediment types, citing references that showed during their daily movements, sandeel in the Dogger Bank remained within a few kilometres of the substrate in which they burrow overnight. Areas within the Dogger Bank with high abundance of sandeels are therefore likely to represent a consistent source of food for foraging seabirds.
- 5.6.94. In addition, tracking data from kittiwakes breeding at the FFC SPA showed that the 50% core utilisation distribution overlapped with the proposed development areas [\[REP3-057\]](#). NE explained this demonstrated repeated use of the same area by kittiwakes breeding at FFC SPA, as the 50% core utilisation distribution represented an area where, at any given time, it is expected to find 50% of a given population. NE noted that studies have also shown consistent spatial use of areas of high prey availability by razorbill and guillemot and also found that guillemots preferentially used 'high energy gain' areas that were associated with sandeel fisheries.
- 5.6.95. NE further noted [\[REP5-060\]](#), that if there were no areas of consistent high usage by seabirds within the proposed development areas, then the density hotspot modelling NE requested would indicate this. If, however, it was to demonstrate consistent areas of high usage, then the potential for array reductions to mitigate the impact of the proposed development should be investigated, as was the case with other OWFs with substantial predicted impacts on the FFC SPA species, specifically Hornsea Project Four OWF and Outer Dowsing OWF. NE therefore continued to advise, that density hotspot modelling should be provided and considered that the applicants' refusal to do so contradicted their statement that they had done everything feasible to mitigate impacts on offshore ornithology. NE advised this should be considered the priority action for the applicants as regards offshore ornithology given the stage of the examination.
- 5.6.96. In response to NE's points regarding density hotspot modelling, the applicants explained [\[REP6-052\]](#) that they agreed hotspot modelling as proposed by NE had a role to play in the strategic assessments used to identify suitable sites for wind farm development. However, within the constraints of the proposed development, the lease boundaries of which are fixed, and the data collection up to 4km from these boundaries, there would be very limited scope for hotspot modelling beyond that which the applicants had already summarised [\[APP-043\]](#). They contended that any further reductions in the developable area within the lease boundaries would risk making the proposed development economically unviable.
- 5.6.97. At DL7, NE noted [\[REP9-031\]](#) the applicants' argument regarding economic viability but that this was not within its field of expertise to comment on. NE maintained its advice on the use of hotspot modelling and highlighted its usage by other OWF projects such as the Outer Dowsing OWF proposal.
- 5.6.98. At DL7, the applicants provided some additional spatial mapping at Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots [\[REP7-137\]](#) for gannet, kittiwake, razorbill, guillemot and puffin. In conclusion, the applicants stated that this report supported the analysis the applicants provided at the pre-application stage, where they reviewed the abundance estimates for the key species of concern to

determine if the array areas could be refined to avoid any potential hotspots where the presence of ornithological species was potentially elevated. The applicants contended that when considered annually, the abundance of most species was reasonably evenly distributed across each array area. The applicants highlighted that there were instances where higher densities were noted at the previous boundary between the leasing areas, for example with gannet and kittiwake in the non-breeding season, plate 1-3 and plate 1-7. These data were then used to support the refinement of the array areas that took place following the submission of the PEIR and prior to the submission of the ES [\[REP7-030\]](#). The applicants stated that following this refinement, the array areas no longer overlapped with the areas of higher abundance estimates [\[REP7-137\]](#).

5.6.99. The applicants considered that the detail presented sufficiently demonstrated that all reasonable steps had been taken to avoid potential areas of high abundance for ornithological receptors, and that additional survey work would not provide any material evidence for which to inform any further refinement of the array areas.

5.6.100. At DL8, NE stated [\[REP8-051\]](#) this was not sufficient to address its concerns for the following reasons:

- Plate 1-4 showed raw observations of gannet, however, the equivalent raw data had not been presented for kittiwake, guillemot, razorbill and puffin. NE advised this be presented for all species.
- The survey years had been combined for all data presentation. In addition, NE advised the results and the raw data be presented for each year separately.
- Generic 'breeding' and 'non-breeding' seasons had been used in the mapping instead of species-specific seasons, which would be more useful to identify any correlations between species usage in the area presented. NE considered these should be provided for the survey years separately and combined.
- If the modelling method allowed, NE would have also welcomed monthly provision of the data and mapping. NE highlighted that the aim of this analysis was not just to see whether there was high usage, but to see whether there were consistent areas of high usage. It was therefore useful to see the results divided by year, season and month.
- There was no information regarding the model used to present these outputs and the evidence to support them.

5.6.101. At DL8, the applicants updated the information at Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots [\[REP8-041\]](#) based on NE's advice, but stated there was insufficient time available to undertake the additional modelling NE had requested using the species-specific seasons. In addition, the applicants highlighted that, given the variability of seabird distributions through time, these monthly snapshots are not considered to represent static and consistent locations. Therefore, they considered that the additional seasonal modelling would not be worthwhile, stating the raw data of monthly locations offered very similar information should it be required. NE confirmed [\[REP8-051\]](#) that without addressing all of the above concerns, this issue was unlikely to be resolved.

5.6.102. The applicants provided [\[REP8-040\]](#) information on the spatial models used for this analysis stating the spatial models were fitted to the survey data using the Marine Renewables Strategic environmental assessment (MRSea) package. The applicants explained this analysis package was developed by statistical modellers at the University of St Andrews under contract to the Scottish Government and provided a recognised spatial modelling tool for use with digital aerial survey data

collected at OWF sites and was the standard method used in the UK for this purpose.

- 5.6.103. NE's final risk and issue log at DL9 [REP9-031] maintained this issue as unresolved at the close of the examination. NE stated at Appendix G9 [REP9-029] that it welcomed the applicants' provision of updated spatial mapping in [REP8-041], however, it maintained the advice provided at DL8, that it was not sufficient to address its concerns.
- 5.6.104. At Appendix G9 [REP9-029], NE stated that whilst the breakdown by survey year provided some additional insight, it maintained advice at DL8 [REP8-051], that modelling of species-specific breeding seasons and by month was required to show area usage.
- 5.6.105. NE welcomed [REP9-029] the provision of the raw data for kittiwake, guillemot and razorbill, however, the small size of the maps prevented critical analysis. NE highlighted that a benefit of hotspot modelling was that it addressed the issue of overlapping data points in raw data which cannot be separated. NE also considered the colour scale presented in the spatial mapping could potentially result in misleading conclusions and created a barrier to effectively comparing the data. As the y-axis values (number/ density of birds) had not been standardised across maps within or between species, the same colour could represent 2 or 200 birds depending on the map.
- 5.6.106. From the data that had been presented, apparent areas of consistent or regular high densities, particularly for kittiwake and guillemot, were shown both between the arrays and within the array areas in the areas closest to the gap between the arrays in the south-east corner of the DBS West array. NE suggested that, as these areas appeared to be consistently used at higher densities by all species (even those with lower numbers such as puffin and gannet), these areas were of elevated importance and indicated significant scope for exploring options to further reduce ornithology impacts.
- 5.6.107. NE advised [REP9-029] that should future iterations be provided, maps should be produced showing the refined array boundaries with buffer zones to look specifically at distributions within those areas. NE also considered that there would be merit in investigating how depth and sandeel habitat correspond to the high-density areas, to determine whether there could be any drivers of the large abundance of birds in particular areas at particular times of year.
- 5.6.108. Whilst NE welcomed the applicants' explanation of the modelling used in the further information provided, it did not consider it sufficient. NE advised that should further work be conducted it would be appropriate for full details of the modelling methodology and diagnostics to be provided in an appendix.
- 5.6.109. NE highlighted that it first requested the provision of this information when the revised array areas were first presented post-PEIR, and again in its RR [RR-039], stating there had therefore been ample time for the applicants to address this either before or within the examination timeframe, and expressed disappointment that they had chosen not to do so.
- 5.6.110. To summarise, NE maintained that in its current form, the applicants' analysis of hotspot modelling [REP9-029] remained insufficient to address its concerns, indicating that there would be merit in further exploration of the potential to reduce

the high predicted impacts of the development, albeit this would now fall outside the formal examination period.

ExA's considerations

- 5.6.111. The ExA notes that NE continued to advise at the close of the examination that further density hotspot modelling analysis should be provided, and that NE considered that the applicants' refusal to do so contradicted their statement that they have done everything feasible to mitigate impacts on offshore ornithology. The ExA acknowledges that the applicants stated [\[REP6-052\]](#) any further reductions in the developable area within the lease boundaries would risk making the proposed development economically unviable.
- 5.6.112. It is the ExA's understanding that the spatial mapping at Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots for gannet, kittiwake, razorbill, guillemot and puffin, (provided by the applicants at DL7 and updated at DL8 [\[REP8-041\]](#), based on feedback from NE), was to substantiate the position the applicants already held. The applicants believed they had reduced the array areas as much as feasibly possible, and any further reductions would make the proposed development economically unviable [\[REP7-137\]](#).
- 5.6.113. The ExA is aware that this issue remained outstanding from NE at DL9 [\[REP9-029\]](#), as despite updates, and that the applicants had not revised the spatial plots in line with all NE's advice within the examination timeframe.
- 5.6.114. Considering array reductions, the applicants had stated multiple times during the examination that further reduction in the array areas beyond what had already been proposed would risk making the proposed development economically unviable to which NE responded [\[REP9-031\]](#) that this was not within its field of expertise to comment on.
- 5.6.115. The ExA is satisfied that the applicants have adhered to the mitigation hierarchy to reduce the array areas as far as possibly whilst maintaining economic viability.
- 5.6.116. The ExA considers that the density hotspot modelling undertaken by the applicants and the consideration of the results in determining the location of the array areas is sufficient. The ExA considers that further analysis of hotspot modelling would have negligible returns given the limited area in which to further refine the layout. The ExA concludes that the mitigation proposed through the design of the array areas is sufficient to adhere to the mitigation hierarchy and the assessment as presented takes into account the worst-case array layout.

ORNITHOLOGICAL EIA CONCLUSIONS

- 5.6.117. The applicants confirmed their predicted pre-mitigation and residual post-mitigation, likely significant effects in respect to offshore ornithology in table 12-118 of ES Chapter 12 [\[REP6-015\]](#).
- 5.6.118. The residual effect for all impacts post-mitigation were either negligible, negligible to minor adverse or minor adverse with the exception of impacts 10 and 11 relating to cumulative impacts which were:
- Impact 10 (cumulative assessment of operational displacement) was predicted to be negligible to moderate adverse for gannet, guillemot, razorbill and puffin.

- Impact 11 (cumulative assessment of operational collision risk) was predicted to be negligible to moderate adverse for gannet, kittiwake, lesser black-backed gull, herring gull and great black-backed gull.

5.6.119. NE clarified in its DL8 cover letter [\[REP8-051\]](#) and Annex 2 of Appendix G8 [\[REP8-053\]](#), that:

- it was able to rule out significant adverse cumulative EIA impacts at the North Sea scale for:
 - red-throated diver
 - puffin
 - herring gull
 - lesser black-backed gull
- it was unable to rule out significant adverse cumulative EIA impacts at the North Sea scale for the following species:
 - guillemot (displacement)
 - razorbill (displacement)
 - gannet (displacement and collision)
 - kittiwake (collision)
 - great black-backed gull (collision)

5.6.120. Issues raised regarding the applicants' EIA conclusions by the RSPB, especially regarding the applicants' consideration of the influence HPAI on the baseline characterisation, were not agreed between the 2 parties at the close of the examination [\[REP9-016\]](#). The RSPB was unable to rule out significant adverse cumulative effects for gannet, razorbill, guillemot, kittiwake and great black-backed gull.

5.6.121. A summary of the positions held for each bird species where a disagreement remained regarding the residual significance of effects at the close of the examination is given below.

Guillemot (displacement)

5.6.122. The applicants' position on cumulative guillemot displacement effects at the North Sea scale at the close of the examination was stated in paragraph 783 of ES Chapter 12 [\[REP6-015\]](#) as minor to moderate adverse based on the use of the applicants' displacement and mortality rates. NE stated [\[REP8-053\]](#) that, based on its recommended displacement and mortality rates, its close of examination position was that it was unable to rule out a significant adverse impact on guillemot due to cumulative impacts.

5.6.123. NE stated [\[REP8-053\]](#) it came to this position as the predicted annual impact of the projects alone would be between 181 and 4231 birds (30% x 1% to 70% x 10% displacement and mortality). At NE's reference rates of 70% displacement and 2% mortality, the predicted annual impact would be 846 birds, which would increase the baseline mortality against the biologically defined minimum population scale (BDMPS) by 0.294%, table 9 [\[REP8-053\]](#) (and table 12-49 [\[REP6-015\]](#)). For the cumulative assessment, the applicants estimated the total number of birds at risk and applied displacement and mortality rates to them [\[REP6-015\]](#), table 12-93]. At NE's reference rates of 70% displacement and 2% mortality, the annual cumulative total for all projects including the proposed development as estimated by the applicants, was 8862 birds, which increased the baseline mortality against the BDMPS by 3.08%. As this was above 1%, further investigation of population-level

impacts via PVA was required. The PVAs run by the applicants showed that, for this level of impact, after 30 years, the population growth rate would be reduced by 0.17% per annum (counterfactual of growth rate (CGR) 0.9983) and the population size would reduce by 5.26% (counterfactual of population size (CPS) 0.9474).

- 5.6.124. NE stated [REP8-053] that guillemot was listed ‘amber’ under UK BOCC (Birds of Conservation Concern) and classed as ‘vulnerable’ under the Great Britain International Union for Conservation of Nature (GB IUCN) assessment. NE added that UK guillemot populations had declined in recent years and were predicted to decline further under climate change. NE contended [REP8-053] that recent HPAI outbreaks had also affected the species, citing estimates that the English guillemot population had declined by 20% between the last census and 2023. NE stated that there was considerable uncertainty with regards to the long-term population-level impacts of HPAI on guillemots in the UK.

Razorbill (displacement)

- 5.6.125. The applicants’ position on cumulative razorbill displacement effects at the North Sea scale at the close of the examination was stated in paragraph 799 of ES Chapter 12 [REP6-015] as minor adverse based on their displacement and mortality rates. NE stated [REP8-053] that based on its recommended displacement and mortality rates, it was unable to rule out a significant adverse impact on razorbill due to cumulative impacts.
- 5.6.126. NE stated [REP8-053] it came to this position as the predicted annual impact of the projects alone would be between 87 and 2022 birds (30% x 1% to 70% x 10% displacement and mortality), table 12-65 [REP6-015]. At NE’s reference rates of 70% displacement and 2% mortality, the predicted annual impact would be 404 birds, which would increase the baseline mortality against the BDMPS by 0.525%. For the cumulative assessment, the applicants estimated the total number of birds at risk and applied displacement and mortality rates to them [REP6-015, table 12-97]. At NE’s reference rates of 70% displacement and 2% mortality, the cumulative annual total for all projects including the DBS Projects, as estimated by the applicant, would be 3012 birds, which would increase the baseline mortality against the BDMPS by 3.908%. As this was above 1%, further investigation of population-level impacts via PVA was required. The PVAs run by the applicants showed that, for this level of impact, after 30 years, the population growth rate would be reduced by 0.58% per annum (CGR 0.9942) and the population size would reduce by 16.55% (CPS 0.8345).
- 5.6.127. NE stated [REP8-053] that razorbill was listed ‘amber’ under UK BOCC and classed as ‘vulnerable’ under the GB IUCN assessment (Stanbury et al. 2024). NE contended [REP8-053] that while the UK population had increased recently it is predicted to decrease under climate change. NE stated that the species may also have been affected by recent HPAI outbreaks.

Gannet (displacement and collision)

- 5.6.128. The applicants’ position on cumulative gannet displacement and collision effects at the North Sea scale at the close of the examination was stated in paragraph 768 of ES Chapter 12 [REP6-015] as negligible to minor adverse based on their displacement and mortality rates.
- 5.6.129. NE stated [REP8-053] that the predicted annual impact of the projects alone, for displacement and collision impacts combined would be 41 birds (80% displacement, 1% mortality), which would increase the baseline mortality against the BDMPS by

0.048%. For the cumulative assessment, the applicants estimated the total number of collisions according to the most recent CRM guidance, using an updated avoidance rate of 99.2% and a 70% macro-avoidance rate (SNCB 2024) and presented the results in table 12-102 of the ES [REP6-015]. The total annual cumulative impact for collision and displacement impacts, as estimated by the applicants, was between 1091 and 1215 birds. This would increase the baseline mortality against the BDMPS by 1.28-1.42%. As this was above 1%, further investigation of population level impacts via PVA was required. The PVAs run by the applicants showed that, after 30 years, the population growth rate would be reduced by up to 0.28% per annum (CGR 0.9972) and the population size would reduce by up to 8.5% (CPS 0.9153).

5.6.130. NE stated [REP8-053] that gannet is listed 'amber' under UK BOCC and classed as 'least concern' under the GB IUCN assessment. NE contended that while the UK gannet population had been increasing in recent decades (growth rates of 2 to 3% per annum), it cited references that the recent HPAI outbreaks had had significant impacts, with some estimates indicating that the UK gannet population declined by 25% between the last census and 2023. NE recognised there was considerable uncertainty as regards the long-term population-level impacts of HPAI on gannets in the UK. NE advised that this was particularly relevant at an EIA scale, as the population includes numerous Scottish colonies that have been very severely impacted by HPAI.

5.6.131. NE advised [REP8-053] that, given uncertainty around the true level of cumulative impact and the future population trends for gannet, it remained unable to rule out a significant adverse impact, stating this was in line with previous advice to other North Sea OWF examinations.

Kittiwake (collision)

5.6.132. The applicants' position on cumulative kittiwake collision effects at the North Sea scale at the close of the examination was stated in paragraph 826 ES Chapter 12 [REP6-015] as minor to moderate adverse.

5.6.133. NE advised [REP8-053] that the predicted annual impact of the projects alone would be 300 birds, which would increase the baseline mortality against the BDMPS by 0.2%. For the cumulative assessment, the applicants estimated the total number of collisions according to the most recent CRM guidance, using an updated avoidance rate of 99.23% (SNCBs 2024) and presented the results in table 12-103 of the ES [REP6-015].

5.6.134. The annual cumulative total collisions for all projects including the DBS Projects, as estimated by the applicants, would be 3981 birds, table 12-103 [REP6-015]. This would increase the baseline mortality against the BDMPS by 3%. As this was above 1%, further investigation of population-level impacts via PVA was required. The PVAs run by the applicants showed that, after 30 years, the population growth rate would reduce by 5.3% per annum (CGR 0.9471) and the population size would reduce by 81% (CPS 0.1853).

5.6.135. NE stated [REP8-053] that kittiwake was listed 'red' under UK BOCC and classed as 'endangered' under the GB IUCN assessment. NE cited references that stated UK kittiwake populations have undergone long-term declines and are predicted to decline further under climate change. NE contended that populations have also been affected by the recent HPAI outbreaks, with some estimates suggesting that the English kittiwake population declined by 18% between the last census and

2023. There remains considerable uncertainty as regards the long-term population-level impacts of HPAI on kittiwakes in the UK.

- 5.6.136. NE stated that it was unable to rule out a significant adverse impact on kittiwake due to cumulative impacts.

Great black-backed gull (collision)

- 5.6.137. The applicants' position on cumulative great black-backed gull collision effects at the North Sea scale at the close of the examination was stated in paragraph 859 ES Chapter 12 [\[REP6-015\]](#) as moderate adverse.
- 5.6.138. NE stated [\[REP8-053\]](#), the predicted annual impact of the projects alone would be 4.9 birds, which would increase the baseline mortality against the BDMPS by 0.055%. For the cumulative assessment, the applicants had estimated the total number of collisions according to the most recent CRM guidance, using an updated avoidance rate of 99.4% (SNCBs 2024) and presented the results in table 12-109 of the ES [\[REP6-015\]](#).
- 5.6.139. The annual cumulative total collisions for all projects including the DBS Projects, as estimated by the applicants, would be 1227, table 12-109 [\[REP6-015\]](#). This would increase the baseline mortality against the BDMPS by 13.8%. As this was above 1%, further investigation of population-level impacts via PVA was required. The PVAs run by the applicants used a cumulative total of 1222 and showed that, after 30 years, the population growth rate would reduce by 1.44% per annum (CGR 0.9856) and the population size would reduce by 36.2% (CPS 0.6383).
- 5.6.140. NE stated [\[REP8-053\]](#), the great black-backed gull is listed 'red' under UK BOCC and classed as 'critically endangered' under the GB IUCN assessment. NE cited references that contended that the UK population has declined significantly in recent years and is predicted to decline further due to climate change. NE stated [\[REP8-053\]](#), the species also appears to have been affected by recent HPAI outbreaks, with research estimating that the English great black-backed gull population declined by 27% between the last census and 2023. NE stated [\[REP8-053\]](#), there remains considerable uncertainty as regards the long-term population-level impacts of HPAI on great black-backed gull in the UK.
- 5.6.141. NE's position [\[REP8-053\]](#) at the close of the examination, was that it was unable to rule out a significant adverse impact on great black-backed gull due to cumulative impacts.

ExA's considerations

- 5.6.142. The ExA is aware that from the point at which RRs were made, before the start of the examination, NE advised the applicants to use its recommended mortality and displacement rates to assess impacts. The ExA accepts that the applicants did present an assessment using the SNCBs advised rates alongside their own but used their own rates as a basis for their conclusions to ES Chapter 12 [\[REP6-015\]](#). The use of the SNCB's recommended rates of mortality and displacement results in greater effects for some bird species than the applicants predicted in the ES, resulting in a disagreement over the final ES conclusions for some species.
- 5.6.143. The ExA notes the RSPB's concerns [\[RR-049\]](#) in relation to EIA conclusions, specifically relating to the applicants' consideration of HPAI in the assessment, including the CEAs, remained outstanding at the close of the examination, as indicated in the SoCG with the RSPB [\[REP9-016\]](#).

- 5.6.144. The ExA considers that there are several paragraphs within NPS EN-3 that are particularly relevant to this issue concerning seeking and having regard to advice from the relevant statutory advisor. These are NPS EN-3 paragraphs 2.8.144, 2.8.315 and 2.8.316.
- 5.6.145. The ExA considers that NE's advice regarding the appropriate rates of displacement and mortality should be used for the analysis and to draw conclusions in the ES, rather than the applicants' own rates. Consequently, the ExA disagrees with some of the applicants' conclusions in the ES and agrees with the SNCB (NE) that there could likely be significant adverse cumulative EIA impacts at the North Sea scale from OWF cumulative effects for:

- guillemot and razorbill (displacement)
- kittiwake and the great black-backed gull (collision)

- 5.6.146. The ExA notes the uncertainty surrounding the impacts for gannet (displacement and collision).

ORNITHOLOGICAL MONITORING

- 5.6.147. Outstanding issues related to monitoring in respect to the effectiveness of compensation are presented at appendix C (HRA) of this Recommendation. This includes the outstanding disagreements in the final SoCG with the RSPB [\[REP9-016\]](#) related to the monitoring of ornithological compensation measures and outstanding monitoring in NE's Appendix J9 [\[REP9-030\]](#).
- 5.6.148. NE advised [\[REP3-056\]](#) that it considered the scope of the IPMP [\[REP7-115\]](#), including hypotheses to be tested by monitoring, should be agreed as part of the consenting phase. It advised the IPMP should consider what the residual concerns and evidence gaps of the EIA are, rather than relying solely on the outcomes of the EIA when determining the need for monitoring.
- 5.6.149. NE welcomed [\[REP9-030\]](#) the inclusion of displacement effects in the applicants' proposed ornithological monitoring [\[REP7-115\]](#). NE advised that the applicants also include testing for habituation to displacement effects in the IPMP, given that the extent to which habituation may or may not occur with displacement effects was a key source of uncertainty.
- 5.6.150. NE noted [\[REP9-030\]](#) the applicants had not proposed monitoring to validate predicted impacts on linked receptor groups such as predator species as a result of impacts on benthic habitats and localised prey populations from loss of spawning habitat, which may have implications over a wider area beyond where predators were directly excluded. NE stated its advice remained that monitoring should be undertaken to fill evidence gaps with respect to this pathway. NE directed the applicants to outputs produced by JNCC (Report 767, 20241) and the PrePARED project which provided recommendations for future work targeting birds in relation to prey availability.

ExA's considerations

- 5.6.151. The ExA considers that the applicants' ornithological monitoring plans are sufficiently outlined in both the IPMP [\[REP7-115\]](#) and appropriately secured in condition 29 of Schedules 10 and 11 of the recommended draft DCO (appendix F of this Recommendation).

- 5.6.152. The ExA therefore is satisfied that the MMO and the SNCB have sufficient control over the content of the final IPMP to ensure NE's advice regarding testing for habituation to displacement effects and to fill evidence gaps with respect to indirect effects are included.
- 5.6.153. The ExA is satisfied that the applicants had provided adequate responses to all other raised matters.

CONCLUSIONS

- 5.6.154. The ExA examined all assessments submitted by the applicants and considered all the issues raised by IPs during the examination related to offshore ornithology.
- 5.6.155. The ExA is satisfied the applicants' assessment considers all relevant potential environmental impacts in respect to offshore ornithology during the construction, operation and decommissioning phases of the proposed development alone and cumulatively with other plans and projects.
- 5.6.156. The ExA considers that the applicants' ornithological monitoring plans are sufficiently outlined in both the IPMP [REP7-115] and appropriately secured in condition 29 of Schedules 10 and 11 of the recommended draft DCO (appendix F of this Recommendation).
- 5.6.157. To avoid duplication, the ExA reports on offshore ornithology qualifying features in the HRA section (section 6 and appendix C) of this Recommendation. However, any impacts on those bird species as receptors in their own right, have been considered here alongside those set out above when considering the planning balance.
- 5.6.158. The ExA is satisfied that the proposed development is in accordance with NPS EN-1, NPS EN-3 and where relevant NPS EN-5, the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans, the UK Marine Policy Statement, with other national and local policies and strategies and all other relevant legislation and there are no other important or relevant considerations.
- 5.6.159. The ExA finds the proposed development's potential impacts on offshore ornithological receptors would be mitigated as far as possible and managed through measures and commitments in ES Chapter 12 [REP6-015], and the IPMP [REP7-115] secured by relevant requirements of the recommended draft DCO (appendix F of this Recommendation). However, as concluded in the sections above, the ExA agrees with the SNCB's advice that their calculations predict there would be significant adverse cumulative EIA impacts at the North Sea scale on bird species, particularly the great black-backed gull, kittiwake, guillemot and razorbill and notes the uncertainty surrounding impacts for gannet.
- 5.6.160. Given the conclusions above, the ExA considers that the identified adverse effects on offshore ornithology carry great negative weight against making the Order.

5.7. FISH AND SHELLFISH ECOLOGY

INTRODUCTION

- 5.7.1. This section considers the effects of the proposed development in relation to fish and shellfish ecology. This section does not consider Habitats Regulations Assessment (HRA) matters which are dealt with at appendix C of this

Recommendation. The topic of commercial fisheries is reported on in section 5.5 of this Recommendation.

- 5.7.2. Methodology and effects in relation to fish and shellfish ecology was listed in the Examining Authority's (ExA) Initial Assessment of Principal Issues (IAP) [\[PD-011\]](#) Annex C as part of the marine ecology principal issue.
- 5.7.3. In its consideration of fish and shellfish ecology below, the ExA has had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) as set out in section 5.6
 - the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.8
 - the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)
 - the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans and the UK Marine Policy Statement
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 5.7.4. The applicants' assessment of fish and shellfish ecology was first set out in Chapter 10 (Fish and Shellfish Ecology) of the Environmental Statement (ES) [\[APP-091\]](#). This chapter was updated and resubmitted into the examination at deadline (DL) 7 [\[REP7-042\]](#). This should be read along with the following supporting documents, which can be found in the examination library:
- ES Chapter 10 Figure 10-1 to Figure 10-10 (Revision 2) [\[REP7-044\]](#)
 - Appendix 10-1 Fish and Shellfish Ecology Consultation Responses [\[APP-093\]](#)
 - Appendix 10-2 Fish and Shellfish Ecology Technical Appendix [\[APP-094\]](#)
 - Appendix 10-3 Back-calculation of the Peak Atlantic Herring Spawning Period [\[REP6-014\]](#)
 - Appendix 11-3 Underwater Noise Modelling Report (Revision 2) [\[AS-137\]](#)
- 5.7.5. ES Chapter 10 (Fish and Shellfish Ecology) [\[REP7-042\]](#) should be read in conjunction with:
- ES Chapter 8 (Marine Physical Environment) [\[REP7-035\]](#)
 - ES Chapter 9 (Benthic and Intertidal Ecology) [\[REP7-038\]](#)
 - ES Chapter 13 (Commercial Fisheries) [\[REP7-048\]](#)
 - Document 15.8 Modelling of underwater noise associated with alternative piling locations to inform potential impacts on Atlantic herring spawning grounds [\[REP5-042\]](#)
- 5.7.6. The applicants submitted updated versions of documents during the examination. For the sake of brevity, only the final versions of these are listed here but previous iterations are set out in the Guide to the Application [\[REP9-002\]](#) and will be referred to in this Recommendation as appropriate.
- 5.7.7. ES Chapter 10 [\[REP7-042\]](#) was split into the following broad sections:
- assessment methodology
 - existing environment
 - assessment of significance
 - potential effects during construction, operation and decommissioning

- potential monitoring requirements
- cumulative effects assessment
- transboundary effects and interrelationships

BASELINE

5.7.8. The fish and shellfish ecology study area was described in section 10.3.1 [REP7-042]. It was defined using the International Council for the Exploration of the Sea (ICES) rectangles within which the proposed development would be located. These are rectangles 37F1, 37F2, 38F1, 38F2, 36E9, 37E9, 37F0, 37F1, 38F0 and 38F1. ICES rectangle 36F0 was also included due to its proximity to the offshore export cable corridor. The study area covered a total of 26,858 kilometres squared (km²) covering fish and shellfish spawning and nursery grounds, feeding habitats and migratory pathways within the region. The study area is shown in Figure 35.

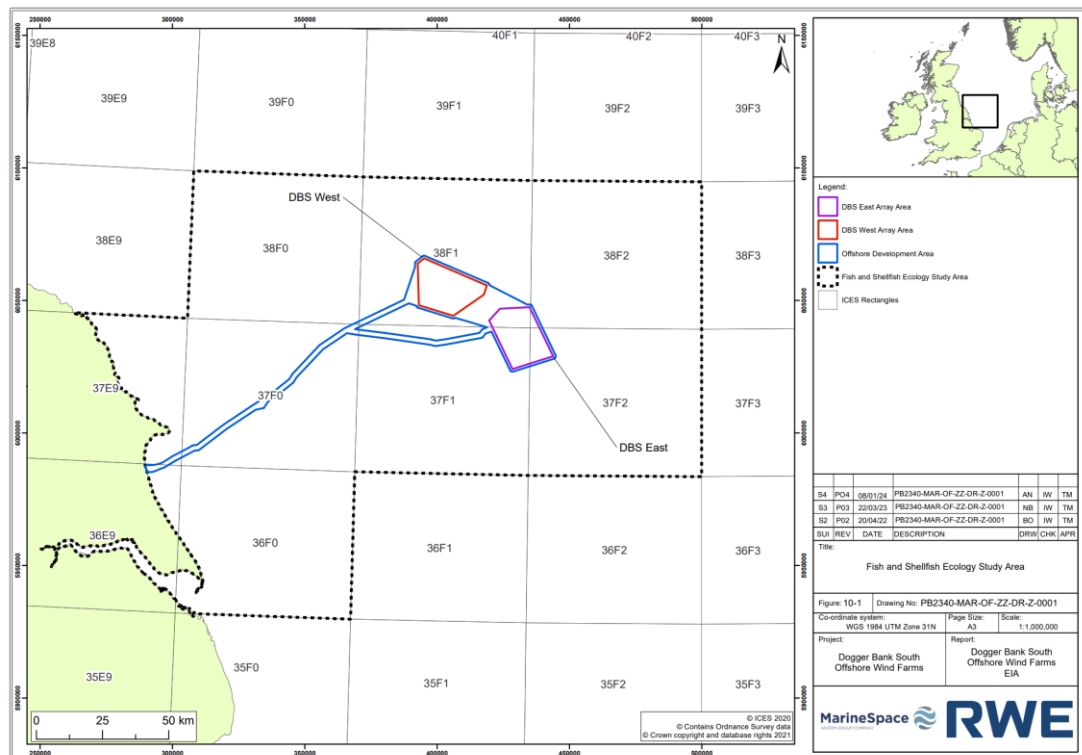


Figure 35: Fish and shellfish study area

Source: ES Chapter 10, figure 10-1 [REP7-044]

5.7.9. The realistic worst-case design parameters for fish and shellfish were documented in table 10-1 [REP7-042] for each scenario: Dogger Bank South (DBS) East or DBS West in-isolation, DBS West and DBS East concurrently; and DBS West and DBS East sequentially.

5.7.10. The baseline assessment for fish and shellfish ecology was presented in section 10.5 [REP7-042], with the data sources used to inform the assessment presented in table 10-5 and stated below:

- Landings data for species by value and landed weight available for the whole Fish and Shellfish Ecology Study Area: ICES Rectangles 36E9, 36F0, 37E9, 37F0, 37F1, 37F2, 38F0, 38F1 and 38F2 from 2018 to 2022 (source: Marine Management Organisation (MMO) 2023).

- North Sea International Bottom Trawl Survey. Data available for ICES Rectangles 36F0, 37E9, 37F0, 37F1, 38F0, and 38F1 from 2012 to 2022. (Source: ICES, 2023).
- Site specific benthic ecology survey utilising grab and drop-down video sampling for the array areas and offshore export cable routes from 2022 (source: Appendix 9-3 [APP-089] and Appendix 9-4 [APP-090]).
- ICES International Herring Larvae Survey (IHLS) data from 2007 to 2023. (Source: ICES 2023).
- North Sea Sandeel Survey (NSSS) from 2014 to 2024 (source: Database of Trawl Surveys (DATRAS)).
- Fish spawning and nursery grounds from 1998 (source: Coull et al. (1998)).
- Fish spawning and nursery grounds from 2012 (source: Ellis et al. (2012)).
- North Sea sediment data from 2018 (source: EMODNet 1:250k seabed sediments map).
- Sandeel and herring data in the North Sea from 2026 to 2020. (Source: Vessel Monitoring System (VMS) data for fishing vessels targeting sandeel and herring).
- Sandeel data from 1998 to present (source: OneBenthic sandeel presence data set).
- Scallop grounds within the offshore export cable corridor route and Dogger Bank Special Area of Conservation (SAC) (source: ES Chapter 13 [REP7-048]).

- 5.7.11. The applicants stated in ES Chapter 10 section 10.5, that the Dogger Bank supports a wide variety of fish and shellfish species, many of which have high commercial importance within the region and have supported significant fisheries for over 300 years. ES Chapter 10 states that the region between Flamborough Head and the Humber Estuary is identified as a hotspot for commercial fishing, with catch rates of demersal fish species higher than any other region along the east-coast of England.
- 5.7.12. A list of species with likely or known presence within the study area is presented in the Fish and Shellfish Ecology Technical Appendix 10-2 [APP-094].
- 5.7.13. The spawning periods for fish species with spawning nursery grounds near the study area were presented in table 10-10 in Chapter 10 [REP7-042]. Seabed sediments provide spawning grounds for fish species such as sandeel and Atlantic herring. For species including sandeel and herring, additional modelling was undertaken to further verify potential for habitat and spawning grounds.
- 5.7.14. ES Chapter 10 states that particular attention was given to the habitat of sandeel species in the assessment, as sandeel are sensitive to seabed disturbance and are of high conservation importance as prey species for protected bird species and marine mammals present within the region. Sandeel are demersal spawners and their eggs form batches which attach to the seabed. Sandeel larvae are planktonic for approximately 3 months, before settling down into the seabed. Sandeel display a high level of site fidelity and so importance was placed on maintaining suitable habitat, as sandeel spawn in and within the vicinity of the sediments which they inhabit.
- 5.7.15. ES Chapter 10 [REP7-042] Chapter 10 [REP7-042] notes that particular attention was also given to the Atlantic herring throughout the assessment due to its reliance on specific seabed substrates for spawning and nursery grounds, the vulnerability of developing eggs to seabed disturbance, and its importance as a prey species to marine mammals and seabirds from protected sites.

- 5.7.16. Potential habitat for sandeel and herring including spawning habitat are presented in figure 10-5 and figure 10-10a respectively of ES Chapter 10 Figures [\[REP7-044\]](#), with the methodology used described within Chapter 10 itself [\[REP7-042\]](#).
- 5.7.17. The fish and shellfish species identified as having a likely presence in the study area were classified within 1 of 5 receptor groups, determined based on the similar biological and behavioural traits of the comprising species, resulting in similar or identical sensitivities to impacts identified within the assessment:
- elasmobranchs, inclusive of all shark and ray species, including both demersal and pelagic species
 - demersal fish
 - pelagic fish
 - migratory fish
 - shellfish
- 5.7.18. Due to the specificity of species and impacts associated with underwater noise (UWN), this impact was assessed using the following alternative receptor groups listed in order of decreasing sensitivity to UWN:
- fish with a swim bladder used in hearing (herring falls into this receptor group)
 - fish with a swim bladder not used in hearing
 - fish without a swim bladder (sandeel falls into this receptor group)
 - fish eggs and larvae
- 5.7.19. A total of 6 species identified within the study area were considered to be of conservation importance. These species included:
- allis shad
 - twaite shad
 - Atlantic salmon
 - European eel
 - river lamprey
 - sea lamprey
- 5.7.20. Sea lamprey and river lamprey were listed as a designated feature of the Humber Estuary SAC.

MITIGATION AND MONITORING

- 5.7.21. Embedded mitigation measures relevant to fish and shellfish ecology were set out in table 10-3 in section 10.3.3 of Chapter 10 [\[REP7-042\]](#) which included:
- The location of the offshore export cable corridor route, secured in schedule 1 of the draft Development Consent Order (dDCO) [\[REP9-003\]](#).
 - Minimal use of scour and cable protection following industry best-practice, secured in the Scour Protection Plan [\[REP6-045\]](#), the Cable Statement [\[REP6-043\]](#), draft Deemed Marine Licences (dDMLs) 1 and 2 condition 15, dDMLs 3 and 4, condition 13 and dDMLs 5 and 6 condition 11 [\[REP9-003\]](#).
 - No installation works associated with the offshore cable would be permitted on the seabed between kilometre point (KP) 20 and KP40 of the offshore export cable corridor during the restricted period defined in the Back Calculation Technical Report to be submitted post-consent.
 - Burying offshore export cables to 0.5m to 1.5m depending on cable location, where practicable, subject to a cable burial risk assessment to mitigate for electro-magnetic fields (EMF). This is secured in the Cable Statement [\[REP6-](#)

[043](#)], condition 15, Schedules 10 and 11 (dDMLs 1 and 2) and condition 13 Schedules 12 and 13 (dDMLs 3 and 4) and condition 11 Schedule 14 and 14A (dDMLs 5 and 6) [\[REP9-003\]](#).

- Offshore export cables from DBS East and DBS West would be bundled in individual trenches comprising 1 trench per project. This is secured in the Cable Statement [\[REP6-043\]](#), condition 15, Schedules 10 and 11 (dDMLs 1 and 2) and condition 13, Schedules 12 and 13 (dDMLs 3 and 4) and condition 11, Schedule 14 and 14A (dDMLs 5 and 6) [\[REP9-003\]](#).
- Pollution prevention measures to comply with the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78 and the production of one or more Project Environmental Management Plans (PEMP). This is secured in the outline PEMP [\[REP2-041\]](#), dDMLs 1 and 2 condition 15, dDMLs 3 and 4 condition 13 and dDMLs 5 and 6 condition 11 [\[REP9-003\]](#).
- Applications for safety zones would be made to the Department of Energy Security and Net Zero (DESNZ) for safety zones post consent including up to 500m around ongoing activities during construction, major maintenance, and decommissioning and up to 50m for installed structures pre commissioning. The applications would be made in compliance with MGN654. This is secured in Safety Zone Statement [\[REP2-038\]](#), dDMLs 1 and 2, condition 18, dDMLs 3 and 4, condition 16 and dDMLs 5 and 6, condition 12 [\[REP9-003\]](#).

ASSESSMENT OF EFFECTS

5.7.22. The potential impacts identified during the construction phase were:

- Impact 1: temporary disturbance of the habitats of fish and shellfish species and their spawning and nursery grounds.
- Impact 2: increase in local suspended sediment concentrations and sediment settlement.
- Impact 3: release of sequestered contaminants following sediment disturbance.
- Impact 4: impacts on fish and shellfish species as a result of UWN and vibration.
- Impact 5: effect on fish stocks of reduced fishing pressure within the array areas and increased fishing pressure outside the array areas.

5.7.23. The potential impacts identified from maintenance activities during the operational phase were:

- Impact 1: temporary disturbance of the habitats of fish and shellfish species and their spawning and nursery grounds.
- Impact 2: increase in local suspended sediment concentrations and sediment settlement.
- Impact 3: release of sequestered contaminants following sediment disturbance.
- Impact 4: impacts on fish and shellfish species as a result of UWN and vibration.
- Impact 5: effect on fish stocks of reduced fishing pressure within the array areas and increased fishing pressure outside the array areas.
- Impact 6: permanent loss of habitat and change in habitat type as a result of changes in substrate composition.
- Impact 7: EMF effects arising from cables

5.7.24. During the decommissioning phase, the ES states there would be potential for wind turbine foundation and cable removal activities to cause effects that would be comparable to those identified for the construction phase and the operational phase, specifically:

- Impact 1: temporary disturbance of the habitats of fish and shellfish species and their spawning and nursery grounds.

- Impact 2: Increase in local suspended sediment concentrations and sediment settlement.
- Impact 3: release of sequestered contaminants following sediment disturbance.
- Impact 4: impacts on fish and shellfish species as a result of noise and vibration.

- 5.7.25. As fleeing behaviour is not a certain response in fish species, UWN impacts on fish were assessed with fish considered as stationary receptors.
- 5.7.26. A summary of the predicted pre-mitigation and residual (post-mitigation) likely significant effects in respect of fish and shellfish ecology was presented in table 10-34 of ES Chapter 10 [\[REP7-042\]](#).
- 5.7.27. Pre-mitigation effects for all impacts on all receptors were predicted by the applicants to be either negligible or minor adverse for all stages of the project. The residual effect for all impacts post-mitigation for all stages were also predicted by the applicants to be either negligible or minor adverse and therefore no additional mitigation measures were proposed.
- 5.7.28. The ES chapter concluded that there would be no significant residual effects from the proposed development for fish and shellfish following the successful implementation of the mitigation measures and that there would be no significant cumulative, inter-related or transboundary effects.

ISSUES CONSIDERED DURING THE EXAMINATION

- 5.7.29. The Lincolnshire Wildlife Trust raised concerns regarding potential impacts on sandeels which are prey species for birds and the applicants' approach to sensitivity of sandeel habitat disturbance in its relevant representation (RR) [\[RR-028\]](#). This concern was also expressed in The Wildlife Trusts RR [\[RR-057\]](#). The Lincolnshire Wildlife Trust [\[RR-028\]](#) disagreed with scoping out of direct damage and impacts on fish and shellfish, the limited consideration of potential cumulative impacts and the exclusion of appropriate consideration for disturbance from other noise sources and noise during operational and maintenance phase.
- 5.7.30. The National Federation of Fishermen's Organisations raised concerns in its RR [\[RR-034\]](#) regarding potential impacts on commercial fishing. It had specific concerns related to the data and methodology used within the ES assessments on fish and shellfish ecology and a lack of information presented for shellfish species. The topic of commercial fisheries is considered in section 5.5 of this Recommendation.
- 5.7.31. The Doggerland Foundation raised concerns in its representation [\[AS-004\]](#) over effects in general on a large number of fish species across the Dogger Bank area.
- 5.7.32. The MMO raised concerns in its RR [\[RR-030\]](#) regarding the adequacy and completeness of ES Chapter 10, given the scale and nature of the proposed development. The MMO also raised concerns regarding the potential effects from UWN on fish species and disturbance of the seabed causing increases in suspended sediment concentrations specifically in the vicinity of herring and sandeel spawning habitat. The MMO commented that proposed mitigation and monitoring was inadequate in relation to fish and shellfish and disagreed with a number of the applicants' conclusions in the ES.
- 5.7.33. A response to the Regulation 32 consultation was received from The Netherlands' Ministry of Infrastructure and Water Management [\[OD-012\]](#). Referring to the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) list of threatened and declining species and habitats, this noted that there

may be temporary and permanent loss of spawning and nursery grounds of several vulnerable and endangered species, including shark species. The Netherlands' Ministry of Infrastructure and Water Management stated it would appreciate additional mitigation and compensation plans for these species, as the loss of spawning and nursery grounds for vulnerable species seemed more substantial than the minor adverse effects that were described.

5.7.34. Environmental Impact Assessment (EIA) issues related to fish and shellfish ecology were raised by Natural England (NE) [[RR-039](#) and [REP1-067](#)].

5.7.35. The following EIA issues were resolved by the close of the examination:

- Clarity regarding concurrent monopile and pin piling across the array areas and in the offshore export cable corridor. This was raised by the NE in its RR [[RR-039](#)] and resolved due to the removal of the need for piling in the offshore export cable corridor in change request 1.
- Use of sandeel abundance data such as the North Sea sandeel dredge survey to support the assessment [[RR-039](#)]. NE [[REP9-031](#)] and the MMO [[REP5-049](#)] agreed that the presentation of this data at a late stage in the application process would not significantly change the outcomes of the assessment.
- Scale of worst-case area of impact on benthic community spawning areas as a result of changes to physical and biological process following the placement of structures and cable protection on the seabed including the benthic 'ecological halo effect'. NE confirmed this issue was satisfactorily resolved [[REP9-031](#)].
- Piling soft start and ramp-up approaches inappropriately applied to impacts on fish. NE confirmed this issue was resolved through the applicants' amendment to the updated ES Chapter 10 submitted at DL7 [[REP9-031](#)].
- Lack of assessment of habitat loss for sandeel and herring from unexploded ordnance (UXO) clearance. NE raised this concern in its RR [[RR-039](#)]. At the close of the examination NE confirmed this issue was satisfactorily resolved [[REP9-031](#)]. However, NE did advise at DL8 [[REP8-055](#)], that whilst the applicants had provided a nominal assessment of habitat loss for herring and sandeel in relation to UXO clearance in the updated Report to Inform Appropriate Assessment (RIAA) [[REP7-017](#)], NE maintained its previous advice that the implications of this on Impacts 1 and 6 should be included in the ES Chapter. Due to this not being undertaken during the examination process, NE advised that it should be included in the Marine Licence application for UXO clearance.
- Cumulative effects assessment for fish species.
- The need for a seasonal restriction on activities interacting with the seabed along the offshore export cable corridor. The MMO [[RR-030](#)], NE [[RR-039](#)] and the Lincolnshire Wildlife Trust [[RR-028](#)] were concerned about the proposed routing of the offshore export cable through areas of high and very high potential spawning habitat for herring due to seabed disturbance during construction and maintenance. The MMO's submissions [[REP2-061](#)] paragraph 2.2.12, [[REP6-069](#)] and [[REP8-048](#)] stated that whilst the applicants had provided additional ecological data, a temporal restriction on works which interact with the seabed along the offshore export cable corridor route (including seabed preparatory works, cable trenching) would be required during the Banks herring spawning season (1 August to 31 October inclusive) between KP20 to KP40 and that this restriction should apply to both construction and maintenance activities. The applicants' draft DCO at the close of the examination [[REP9-003](#)] included a seasonal export cable restriction in condition 28 of schedules 12 and 13 (dDMLs 3 and 4). The MMO's closing statement at DL8 [[REP8-048](#)] paragraph 4.2.1] stated that there was agreement in relation to a spatial restriction for cable

works (KP20 to KP40) and agreement on a refined seasonal restriction for cable works. NE's final position at Appendix E8 on fish and shellfish [AS-184] stated it welcomed the applicants' inclusion of the condition in the dDCO [REP9-003].

5.7.36. The following main EIA issues relevant to fish and shellfish ecological issues were not fully resolved by the close of the examination or required further action or explanation:

- The appropriate noise threshold to use in the assessment of UWN impacts on herring.
- The need for a seasonal piling restriction in the array areas to mitigate potential UWN effects on herring.
- Worst-case scenario for UWN modelling for Atlantic herring.
- The back-calculation method for the peak Atlantic herring spawning period used to inform the without prejudice seasonal piling restriction and seasonal export cable restriction.
- Potential effects on fish and shellfish from cable protection.
- Potential impacts from localised heating and EMF.
- Post-construction monitoring.

5.7.37. The ExA noted several references from both NE [REP9-030] and the applicants [REP9-031] referencing a DL9 submission that they understood would be made by the MMO. No submission was received from the MMO itself at DL9. The only submission related to the MMO at DL9 was the Statement of Common Ground (SoCG) (revision 4) between the MMO and the applicants [REP9-013], which was submitted by the applicants. The final document submitted into the examination by the MMO itself was its closing statement and comments on submissions made at DL7 and response to the ExA's second written questions [REP8-048].

THE APPROPRIATE NOISE THRESHOLD TO USE IN THE ASSESSMENT OF UWN IMPACTS ON HERRING

5.7.38. The applicants advocated the use of the 186 decibel (dB) sound exposure level single strike (SELss) as an appropriate behavioural threshold for the assessment of potential impacts on Atlantic herring [REP3-027]. NE [REP5-060] and the MMO [REP5-049] advocated the use of the 135dB SELss behavioural threshold.

5.7.39. The applicants strongly opposed the use of the 135dB SELss noise threshold as an appropriate behavioural threshold, as this was based on studies in a quiet loch and not applicable to a busier sea area such as the North Sea. The applicants contended that the authors of the scientific publications on which the 135dB threshold was based, explicitly stated that the data should not be used to define sound exposure criteria.

5.7.40. The use of 135dB as an appropriate behavioural threshold was questioned by the ExA during issue specific hearing (ISH) 5 [EV10-005]. The applicants continued to advocate the use of the 186dB as an appropriate behavioural threshold, stating it was for the MMO and NE to justify their position as to why they were advocating the use of a study for the purpose of setting a behavioural threshold that the authors of the paper themselves had stated it should not be used for. Differences between the parties remained despite discussions at ISH5.

5.7.41. The MMO's representation [REP5-049] stated the 135dB SELss threshold represented a precautionary but appropriate threshold for the purpose of modelling behavioural responses in herring at their spawning grounds and that a threshold of 135dB was recommended by the Centre for Environment, Fisheries and

Aquaculture Science (Cefas) fisheries advisors, as a conservative indicator of the risk of a behavioural response, especially for clupeid fishes such as herring. It went on to explain the scientific research on which that position was based.

- 5.7.42. NE advised [\[REP5-056\]](#), that a 135dB SELss behaviour threshold should be used when assessing impacts of UWN adding that it considered additional mitigation options were still available to the applicants to reduce their UWN impacts in the form of a commitment to the use of secondary noise reduction methods.
- 5.7.43. There was no substantive movement from the parties on their positions in relation to the use of the 135dB SELss as an appropriate behavioural threshold for the assessment of potential impacts on Atlantic herring throughout the examination.

ExA's considerations

- 5.7.44. The ExA notes that both the MMO [\[REP5-049\]](#) and NE [\[REP5-056\]](#) were very clear that the 135dB threshold was appropriate as they considered it to be based on the best available scientific data on a precautionary basis. The applicants advocated the use of the 186dB threshold for the reasons presented in the paragraphs above and maintained use of this as the threshold from pile driving in table 10-13 of ES Chapter 10 [\[REP7-042\]](#).
- 5.7.45. The ExA appreciates the level of uncertainty in determining an appropriate behavioural threshold for herring and the different conditions under which the scientific data were obtained. However, based on the evidence available at the close of the examination, the ExA cannot, with any degree of certainty, accept the disturbance noise threshold for herring as being the 186dB proposed by the applicants. Furthermore, the ExA is not persuaded that the use of the 186dB threshold would be sufficiently precautionary. The ExA agrees with the MMO and NE as the Statutory Nature Conservation Body (SNCB), that a precautionary approach should be taken in situations of uncertainty. This conclusion has implications for the matters that follow.

THE NEED FOR A SEASONAL PILING RESTRICTION IN THE ARRAY AREAS TO MITIGATE POTENTIAL UWN EFFECTS ON HERRING

- 5.7.46. In its RR [\[RR-030\]](#), the MMO stated that, given the potential for UWN from piling in the array areas at a level which could cause behavioural effects in herring to coincide with the herring spawning grounds, the applicants' current proposals would not provide adequate protection for adult spawning herring, especially given the importance of the Flamborough Head spawning ground and the ongoing decline in the spawning population of North Sea herring. The MMO added that because noise abatement system (NAS) technologies had not been committed to and secured, a temporal restriction on all piling and UXO clearance activities during the herring spawning season would be required (1 August to 31 October inclusive) [\[RR-030\]](#) paragraph 5.5.30.
- 5.7.47. The MMO noted that the UXO clearance activities would be applied for under a separate marine licence and therefore further discussions regarding timing restrictions for UXO clearance activity would be undertaken during this consent process.
- 5.7.48. The applicants submitted figure 2-1 and figure 2-2 as part of their Heat Mapping Report: Atlantic Herring and Sandeel [\[AS-105\]](#) to illustrate the overlap of the UWN thresholds with potential spawning habitat for Atlantic herring, shown in Figure 36 and Figure 37.

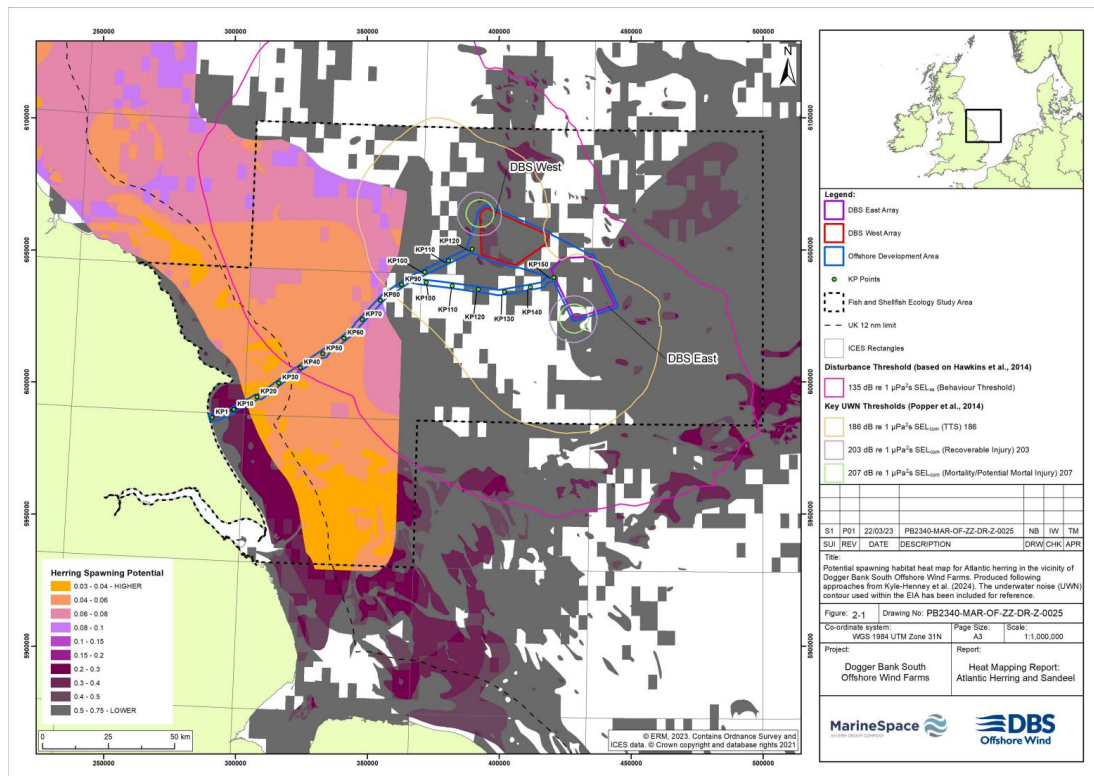


Figure 36: Atlantic herring and sandeel spawning potential

Source: Heat Mapping Report: Atlantic Herring and Sandeel, figure 2-1 [AS-105]

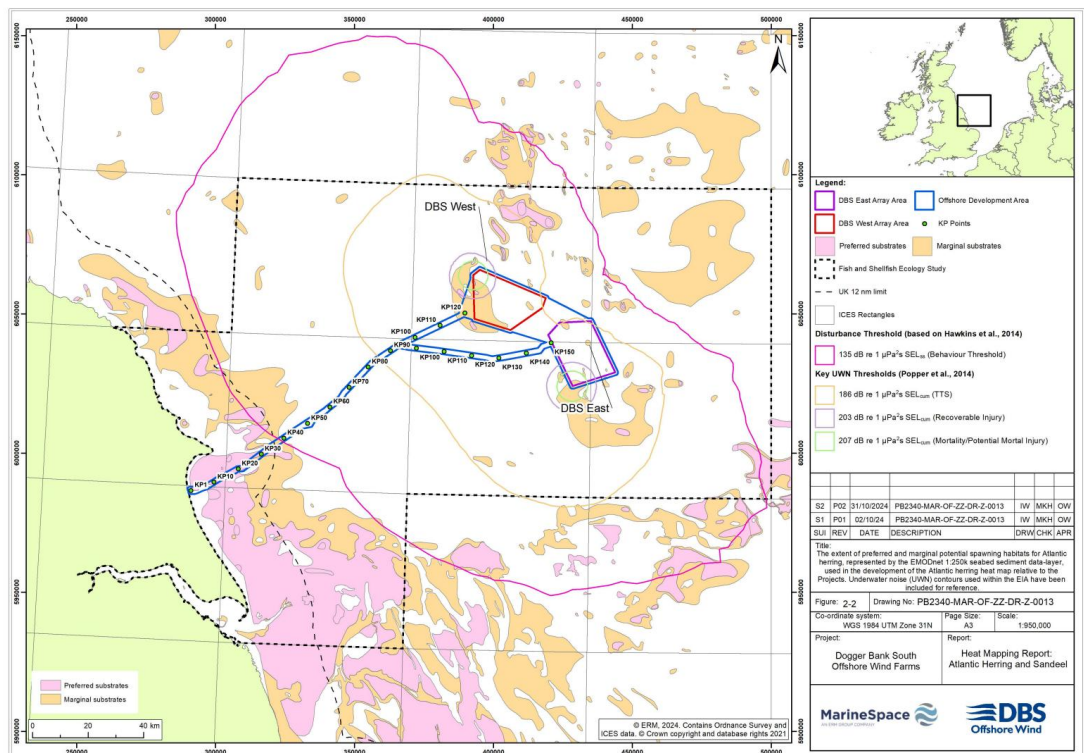


Figure 37: The extent of preferred and marginal potential spawning habitats for Atlantic herring

Source: Heat Mapping Report: Atlantic Herring and Sandeel, figure 2-2 [AS-105]

- 5.7.49. The applicants' conclusions [AS-105] stated there was no potential herring spawning habitat within or immediately surrounding the array areas.
- 5.7.50. The MMO provided comment on the applicants' Heat Mapping Report: Atlantic Herring and Sandeel revision 1 [AS-105], in its DL2 submission [REP2-061], advising that whilst it was helpful to see the individual layers mapped separately as this allowed the source data underpinning the final heat maps to be checked, it appeared that only a single year (2020) of VMS data had been used. The MMO stated that although the layer appeared to cover a large spatial area, one year of data only provided a snapshot of fishing activity. The MMO advised that in order for the VMS layer to provide the most expansive representation of fishing activity possible, a minimum of 10 years of data should be presented in respect of the 'heat' maps for both herring and sandeel.
- 5.7.51. Other detailed comments and advice were provided by the MMO with regards to areas of high spawning potential and the range of behavioural effects concerning the 135dB SELss threshold in herring [REP2-061]. In particular, the MMO identified disturbance of adult herring engaged in spawning caused by UWN from piling and UXO clearance activities as one of the main impact pathways from the proposed development which were of concern to the spawning herring population. The MMO advised again [REP2-061] that a temporal restriction on all piling and UXO clearance activities during the Banks herring spawning season from 1 August to 31 October inclusive, would be necessary, unless adequate NAS was committed to by the applicants.
- 5.7.52. In response to the applicants' assertion in its response [REP3-028], that the overlapping potential spawning habitat was not highly productive, the MMO reiterated its previous advice [REP4-115], section 1.7, that the presentation of this figure should be amended so that the data could be more clearly interpreted. The MMO stated the main issue was that the applicants had aggregated 15 years of IHLS data into a single plot which did not fully represent the spatial and temporal fluctuations in herring spawning intensity across the spawning ground over the time period. The MMO added that it was possible for areas of herring spawning grounds where spawning activity was previously low to be recolonised, so it was important to see these data presented as a separate map for each individual year of IHLS data. At DL4, the applicants provided the requested abundance figures per year [REP4-098], including the additional categories to further define abundances greater than 600 larvae per metres squared (m²) as had been requested.
- 5.7.53. In response to the ExA's second written questions FSE.2.4 [PD-022] the applicants stated [REP5-036] that the distribution of potential spawning habitat indicated in figure 2-1 of the Heat Mapping Report: Atlantic Herring and Sandeel [AS-105] was over representative of potential spawning habitat. In the applicants' response to action point 16 [EV10-002] from ISH5 [REP4-096] they suggested that figure 2-2 [AS-105] which presented extents of preferred and marginal potential spawning habitats should be used in preference to figure 2-1 [AS-105].
- 5.7.54. The MMO responded [REP5-049] that the UWN contour for behavioural effects in herring as a result of piling noise in the array areas continued to show significant overlap with the Banks herring spawning ground, and the MMO therefore considered this a significant pathway for impact.
- 5.7.55. The applicants were questioned further regarding commitments to NAS for fish and shellfish receptors in FSE.2.8 [PD-022], to which they responded [REP5-036] that a best endeavours approach was included with the procurement strategy for the

proposed development. Implementation of primary and secondary measures would be an optional element to allow them to be called upon should they be required based on the final design parameters. Where necessary, UWN modelling and assessments would be updated post-consent, to determine the mitigation required including NAS. The applicants confirmed that this work would be undertaken to inform the final Marine Mammal Mitigation Protocol (MMMP) for marine mammals and that it would also be relevant to impacts on fish and shellfish.

5.7.56. At DL5, NE advised [\[REP5-053\]](#) the applicants to commit to reducing UWN by 10dB via primary or secondary mitigation, with the exact methods to be deployed determined post-consent. The applicants responded [\[REP6-052\]](#) with amendments to the wording of condition 15(1)(g) in schedules 10 and 11 and condition 13(1)(g) in schedules 12 and 13 but did not commit to reducing UWN by 10dB via primary or secondary mitigation.

5.7.57. The ExA included proposed wording for a condition in its suggested changes to the dDCO [\[PD-028\]](#) which included a commitment to NAS that would deliver a 10dB reduction in UWN. The applicants responded [\[REP7-130\]](#) to this suggestion with amendments to the working of condition 15(1)(g) in schedules 10 and 11 and condition 13(1)(g) in schedules 12 and 13 which the applicants stated was agreed with NE by email on 20 June 2025 and the MMO by email on 24 June 2025:

“(g) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol (in accordance with the outline marine mammal mitigation protocol), the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation bodies and which must include details of noise reduction methods through project design (primary measures) and/or, deployment of noise mitigation systems or noise abatement systems (secondary measures) that will be utilised to manage sounds from those piling activities and such protocol must include full details and justification for the mitigation chosen or excluded for deployment”.

5.7.58. At the same deadline, DL7, the MMO stated [\[REP7-148\]](#) that:

“If the applicants make a clear and definite commitment to implement mitigation measures which achieve a minimum 10dB noise reduction, then there is potential (based on the modelling shown in figure 2.3 which illustrates a 10dB noise reduction) that a temporal restriction on piling activities may not be required. However, until such a commitment is made, the MMO must maintain that it is necessary that a temporal restriction on all piling and UXO clearance activities during the Banks herring spawning season (1 August to 31 October inclusive) must be on the face of the DML”.

5.7.59. The applicants held discussions with the MMO and Cefas on 15 May 2025 [\[REP5-036\]](#) to determine the further information that could be provided to support the removal of any seasonal restrictions, including consideration of the results of impact range reductions set out in the Illustrative Underwater Noise Reduction Technical Note [\[REP4-094\]](#), superseded by revision 4 at DL8 [\[REP8-037\]](#).

5.7.60. The MMO advised it would consider the matter further and provide more information on the proposed seasonal restrictions with regards to piling in the array areas after internal discussions. The applicants confirmed further discussions were due to be held in early June 2025.

- 5.7.61. The applicants contended that a seasonal piling restriction could cause a delivery delay of up to 12 months and would result in significant cost implications for the delivery of the proposed development [[REP5-036](#) and [REP8-042](#)]. They stated:
- Spring to early autumn was the preferred time for piling.
 - If a restriction was enforced, piling would be paused in July and recommenced in November, or the start of the foundation campaign would be brought forward to the start of November, to have a viable chance of completing before August. Alternatively piling would be extended over 3 years.
 - There might be an extension of the period over which impacts would be devolved on fish, marine mammals and other receptors.
 - There might be potential supply chain issues should construction vessels be required on other projects.
- 5.7.62. According to the applicants [[REP5-036](#) and [REP8-042](#)], the requested seasonal restriction would create a very significant project risk, with significantly increased foundation installation costs, the result of which could undermine the competitiveness and, ultimately, the viability of the proposed development.
- 5.7.63. Whilst the applicants disputed that a temporal restriction on piling within the array areas was required to mitigate effects, they acknowledged the positions of the MMO and NE. The applicants responded to the suggestion from the ExA at DL7 [[REP7-130](#)] for a spawning herring piling restriction plan upon which a final spawning herring piling restriction plan should be based [[PD-028](#)], stating they did not consider there to be sufficient evidence for such a restriction but they were engaging with NE and the MMO in relation to this matter on a without prejudice basis on wording for the draft DCO (revision 10) [[REP7-011](#)].
- 5.7.64. The applicants added a without prejudice seasonal piling restriction (condition 30 of dDMLs 1 and 2 and condition 27 of dDMLs 3 and 4) into the draft DCO (revision 10) at DL7 [[REP7-011](#)], with the wording remaining unchanged within the final draft DCO at DL9 [[REP9-003](#)].
- 5.7.65. The applicants explained in the Explanatory Memorandum [[REP7-013](#)], that the seasonal piling restriction in condition 30 of dDMLs 1 and 2, and condition 27 of dDMLs 3 and 4 required that no piling activity could commence during the herring spawning season (defined as 1 August to 31 October inclusive, or such other period as agreed in writing with the MMO), until a herring spawning piling restriction plan has been submitted to and approved by the MMO, in consultation with the relevant SNCB. Depending on the results of further modelling, this condition would also restrict piling activities within certain areas where that piling had been demonstrated to impact a certain herring spawning area, unless the MMO had given written approval for the piling to take place. The applicants stated that this condition was included in the dDMLs on a without prejudice basis and that should the Secretary of State (SoS) conclude that the condition was not required, then this condition and associated outline plan would be removed from the dDCO and the paragraph removed from the certified Explanatory Memorandum.

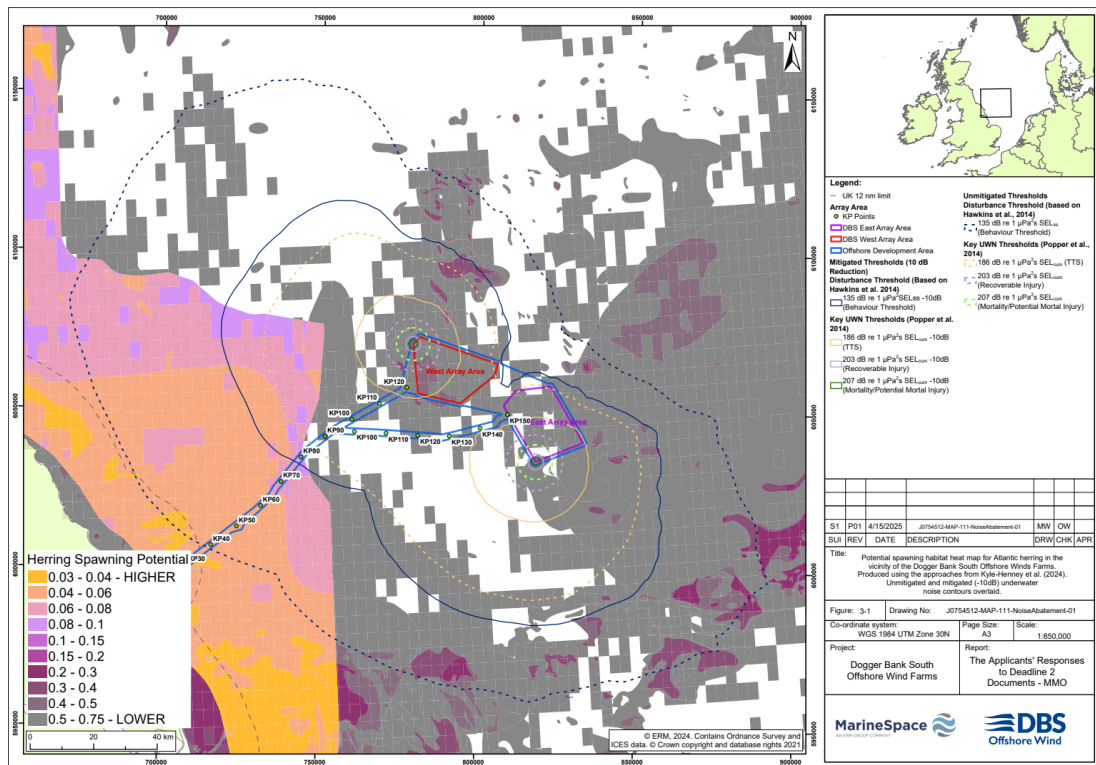


Figure 38: Extent of unmitigated and mitigated underwater noise contours overlaid on the potential spawning habitat heat map for Atlantic herring

Source: Illustrative Noise Reduction Technical Note (Revision 4), figure 3-1 [REP8-037]

- 5.7.66. The MMO's closing statement at DL8 in paragraph 4.2.1 [REP8-048], stated that the without prejudice conditions were largely agreed but that there was no agreement on the spatial requirement for UWN impacts from piling with remaining outstanding issues in relation to the Herring Spawning Plan revision 1 [REP7-135]. The MMO stated that should the SoS provide any changes to the seasonal piling restriction in condition 30 of DMLs 1 and 2 and condition 27 of DMLs 3 and 4, the MMO would like to review the final wording to understand how this would work in practice.
- 5.7.67. The applicants submitted revision 2 of the Herring Spawning Plan [REP9-020] at DL9. The MMO did not have an opportunity to comment on this.
- 5.7.68. NE's closing position at DL9 in its Risk and Issues Log [REP9-031] stated that the issue was satisfactorily resolved on the basis of the provisions for seasonal piling restrictions in the dDCO to mitigate impacts on herring. It noted the piling restriction condition had been provided by the applicants on a without prejudice basis and advised that it supported the MMO's position that this should be secured in the DCO. NE referred to Appendix E8 [AS-185] as its end of examination position on this matter which stated that NE welcomed the piling restriction condition included in the dDCO [REP9-003] and was supportive of the need for a restriction being determined post-consent, once there was a better understanding of the final design parameters and mitigation. NE advised that this should be secured in the DCO and that combined with the condition to secure additional primary or secondary mitigation for UWN impacts, NE considered that, were all of these conditions to be secured in the made Order, the predicted impacts on herring would be significantly reduced.
- 5.7.69. The SoCG between the applicants and the MMO submitted at DL9 [REP9-013], stated that the MMO maintained its position that seasonal piling restrictions were

necessary, stating that discussions would continue post-examination. The ExA notes that no submission was made into the examination by the MMO at DL9.

ExA's considerations

- 5.7.70. The ExA notes there was significant overlap between the areas of high herring spawning habitat potential illustrated on the heat map in Figure 38 and the 135dB threshold, even when a 10dB noise mitigation reduction was applied, as indicated in the Illustrative Noise Reduction Technical Note (revision 4) [REP8-037]. This supports the MMO and NE's advice at the close of the examination that a seasonal restriction would be required to mitigate impacts on the herring population from piling within the array areas.
- 5.7.71. Whilst the applicants added a commitment to using NAS in their final dDCO at DL9 [REP9-003], the applicants did not commit to a specific level of noise reduction. Therefore, there is no certainty the mitigated noise contours of a 10dB reduction on the heat map would represent a worst-case scenario. If not all potential effects on spawning herring were to be mitigated, there could be residual effects which could impact the herring population during construction. This could also extend to the decommissioning phase for which effects have been assumed by the applicants to be no greater than the construction phase.
- 5.7.72. The ExA acknowledges the applicants' position on possible impacts to the timing of the delivery programme and costs but concludes that these do not override the need to follow the mitigation hierarchy to reduce effects on spawning herring as much as reasonably possible.
- 5.7.73. The ExA recommends that the without prejudice seasonal restrictions on piling should be applied to the made Order. Therefore, condition 30 of dDMLs 1 and 2 (schedules 10 and 11) and condition 27 of dDMLs 3 and 4 (schedules 12 and 14) have been included in the ExA's recommended draft DCO at appendix F of this Recommendation.
- 5.7.74. The ExA would highlight to the SoS that the MMO and NE did not have an opportunity to comment on revision 2 of the applicants' Without Prejudice Herring Spawning Plan [REP9-020], so at the close of the examination it was not known if the applicants, NE or the MMO might propose any changes to these conditions.

WORST-CASE SCENARIO FOR UWN MODELLING FOR ATLANTIC HERRING

- 5.7.75. NE raised concerns regarding the locations chosen to represent the worst-case scenario for piling in the array areas in its RR [RR-039]. There were 2 areas of concern:
- Whether using the most south-westerly point of the west array area in the UWN modelling for Atlantic herring could result in a greater overlap with the high and very high herring spawning potential habitat.
 - Whether 2 monopiles installed simultaneously in the west array area would be the worst-case scenario for UWN and vibration impacts on sandeel.
- 5.7.76. The ExA requested remodelling to be undertaken by the applicants using the most south-westerly point of the west array area and compared to the initial scenario, in action point 24 [EV10-002] as a result of questioning during ISH5 [EV10-005].
- 5.7.77. The applicants explained [REP5-042] that the initial modelling of UWN was designed to maximise the spatial area over which impacts on fish and shellfish

would occur using piling locations with the greatest spatial separation. The applicants contended that:

“this updated UWN modelling does not represent a change in the worst-case scenario for UWN impacts on Fish and Shellfish Ecology; rather, it presents a maximum area over which certain noise thresholds relating to fish with a swim bladder used in hearing may be met, relative to areas with potential to host herring spawning activity”.

- 5.7.78. The applicants confirmed [\[REP5-042\]](#) that the updated UWN modelling using the alternative piling location resulted in the 135dB contour changing from an overlap of 14.38% of higher potential Atlantic herring spawning grounds, to an overlap of 30.41% of higher potential Atlantic herring spawning grounds within the fish and shellfish ecology study area. No change was demonstrated when considering the contours representing 186dB, 204dB and 207dB.
- 5.7.79. NE stated [\[REP6-074\]](#), that this updated modelling [\[REP5-042\]](#) demonstrated that should concurrent piling occur across the 2 arrays in the south-west corner of the west array and the south location of the east array area, the area of overlap between UWN impacts and high potential herring spawning habitat would be approximately double that when using the locations assessed in the original worst-case scenario increasing from 14.38% to 30.41%, using the 135dB contour. The impacts also encompassed a larger area of preferred substrates, both closer to the coastline and to the north of the arrays within the 135dB behaviour contour. With the 135dB contour moving 1km to 20km south, this would also bring it into closer proximity of the seabird colony at Flamborough and Filey Coast (FFC) Special Protection Area (SPA). NE advised that UWN models were provided for the worst-case scenario in each build out scenario [\[RR-039\]](#) and [\[REP6-074\]](#).
- 5.7.80. For the worst-case scenario for the arrays together, NE stated [\[REP6-074\]](#) that it disagreed with the applicants' view that this did not represent a change in the worst-case scenario. NE acknowledged that the worst-case scenario originally assessed was selected to maximise the spatial extent over which UWN could impact fish receptors as defined in Popper et al, (2014) but considered this report demonstrated a more appropriate worst-case scenario of the impacts of the arrays in combination on herring specifically.
- 5.7.81. The applicants noted [\[REP5-042\]](#) that:
- “it is reasonable to expect that these areas [spawning habitat] coincide with an increased population of adult Atlantic herring during the spawning period. It would be these increased populations of adult fish that would, therefore, be potentially susceptible to impacts from UWN”.
- 5.7.82. The applicants acknowledged [\[REP5-042\]](#) that modelling 2 monopile locations within a single array area would represent the realistic worst-case scenario for the in-isolation build out scenario (see Figure 39 below), however explained that one monopile had been modelled in each array as they considered it would be more precautionary by maximising the spatial extent of impacts [\[REP5-033\]](#). NE noted [\[REP6-074\]](#) that whilst this advice was originally provided in the context of sandeel, the applicants' inclusion of the previously modelled west array area (west) location alongside the west array area (south-west) location of the updated modelling [\[REP5-042\]](#) provided a visual representation of the worst-case scenario for the arrays in-isolation for herring.

- 5.7.83. NE confirmed [\[REP6-074\]](#) that the figures demonstrated that this updated modelling showed there would be a greater overlap of the 135dB contour with high-moderate suitability herring spawning habitat than the previous version of the worst-case scenario of one monopile in each array.

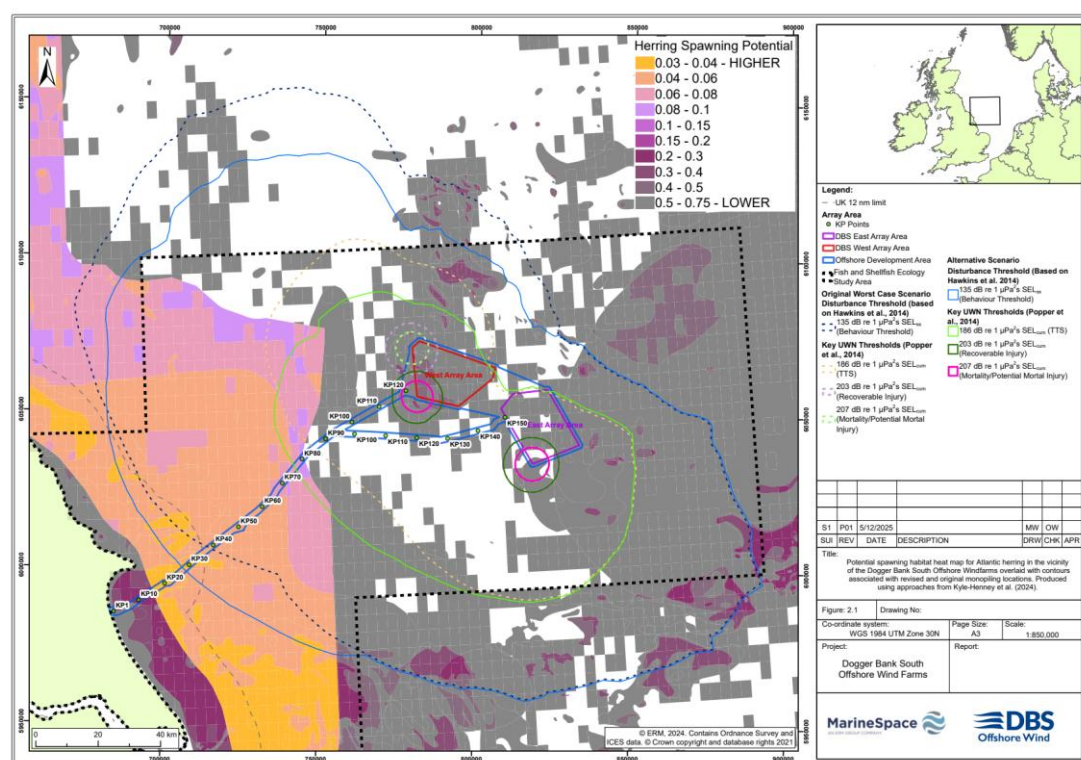


Figure 39: Extent of underwater noise contours associated with revised and original monopiling locations overlaid on the potential spawning habitat heat map for Atlantic herring

Source: Modelling of underwater noise associated with alternative piling locations to inform potential impacts on Atlantic herring spawning grounds, figure 2-1 [\[REP5-042\]](#)

- 5.7.84. In its DL7 submission [\[REP7-148\]](#) section 2.3, the MMO stated it had not raised any concerns specifically with the modelling locations used by the applicants relative to the herring spawning ground at Flamborough Head and considered that the worst-case piling locations with respect to impacts on herring, should be those closest to the herring spawning ground.
- 5.7.85. NE's position at the close of the examination [\[REP9-031\]](#), stated there had been no update to the worst-case scenario for the arrays in-isolation in the updated ES Chapter 10 [\[REP7-043\]](#) and maintained its advice that a worst-case scenario should be provided for each build out scenario. NE stated it welcomed the ongoing without prejudice discussions, advising that these UWN modelling scenarios should be considered in future modelling based on the final project design and suggested that the SoS may wish to consider the updated modelling provided by the applicants [\[REP5-042\]](#) and its advice at Appendix E6 [\[REP6-074\]](#) in its decision.

ExA's considerations

- 5.7.86. The ExA has considered the views of the applicants, NE and the MMO and is satisfied that, as a potential impact on herring spawning was a major issue in the examination, the additional modelling location could be considered as another worst-case scenario alongside the initially presented worst-case scenario. The ExA

does not consider there to be sufficient evidence that it should replace the original worst-case scenario location.

- 5.7.87. The ExA considers it reasonable that, as the situation being modelled is complex, it is likely a range of indices could be used to demonstrate a matrix of worst-case scenarios, reflective of the particular issue of concern. The particular issue of concern here is the degree of overlap of relevant noise threshold contours with potential herring spawning habitat. The ExA notes that the applicants, NE and the MMO agreed that the updated scenario indicated that there was a greater overlap of potential herring spawning habitat with the 135dB contour. However, there was already significant overlap with areas of high herring spawning habitat potential illustrated on the heat map with the 135dB threshold in the initial scenario.
- 5.7.88. The ExA concludes that the overlap of the 135dB contour with the high potential spawning areas of herring from either of these scenarios supports the MMO and NE's advice that a seasonal restriction would be required to mitigate impacts on the Banks herring population from piling within the array areas. Therefore, for this particular issue, the ExA considers the choice of location not to be a material consideration in the recommendation by the ExA for a seasonal piling restriction. The ExA notes the suggestion by NE that the SoS may wish to consider the updated UWN modelling provided by the applicants [\[REP5-042\]](#) and its advice at Appendix E6 [\[REP6-074\]](#), in its decision.

THE BACK-CALCULATION METHOD AND OUTCOME FOR THE PEAK ATLANTIC HERRING SPAWNING PERIOD USED TO INFORM THE SEASONAL PILING AND SEASONAL EXPORT CABLE RESTRICTIONS

- 5.7.89. Both the without prejudice seasonal piling restriction and the seasonal export cable restriction in the dDCO DMLs [\[REP9-003\]](#) defined the period of seasonal restrictions as "... 1 August to 31 October inclusive or such other period as agreed in writing with the MMO".
- 5.7.90. The examination of the back calculations for the 2 seasonal restrictions is presented separately.

The back-calculation for the seasonal piling restriction

- 5.7.91. The MMO stated in its DL8 submission [\[REP8-048\]](#) paragraph 4.7.2, that it recommended a restriction on piling activities during the herring spawning season to cover the whole of the herring spawning period, which is widely published as being 1 August to 31 October inclusive, to allow time for herring to migrate into and gather over the spawning ground, spawn and then disperse, accounting for herring which arrive and spawn both earlier and later than the 'peak' of spawning.
- 5.7.92. The MMO noted that that the back-calculations provided by the applicants at Appendix 10-3 (Back-calculation of the Peak Atlantic Herring Spawning Period) [\[REP6-014\]](#) related entirely to the data for the offshore export cable corridor and therefore would not be applicable to the temporal restriction on piling activities in the array areas. The MMO stated that the applicants had not provided a back-calculation for piling activities which would require consideration of data for a wider area of the herring spawning grounds, rather than the area only underlying the offshore export cable corridor.
- 5.7.93. The MMO stated [\[REP8-049\]](#) that it understood that the outstanding issues relating to UWN impacts on herring from piling activities within the array areas had been

paused, to be resolved in the post-consent period due to the lack of time remaining to fully resolve this in the examination.

- 5.7.94. The applicants provided a substantial response to the MMO's DL8 comments at DL9 [\[REP9-021\]](#).

The back-calculation method for the export cable restrictions

- 5.7.95. The MMO stated [\[REP8-048\]](#) that the MMO considers that the spatially-refined, temporal restriction on works which interact with the seabed along the offshore export cable corridor route, including seabed preparatory works, cable trenching, was agreed and was sufficient to ensure that areas of seabed with sufficient integrity and composition to support herring spawning were adequately protected during the herring spawning period.

ExA's considerations

- 5.7.96. The ExA notes that commitment C206 does not fully commit the applicants to consider the MMO's advice in its DL8 submission, only to update the back calculation using the most recent IHLS information. Much of the advice provided by the MMO at DL8 included recommendations on parameters that the applicants should use, such as near-bed water temperature, the number of days for the egg development period, yolk sac absorption periods and the number of days to use for the post work settlement period.
- 5.7.97. From the MMO's closing statement at DL8 [\[REP8-048\]](#), the ExA considers that the period of seasonal restrictions, from 1 August to 31 October inclusive, is a conservative estimate for the temporary restriction required and that any refinement is likely to shorten that time period. On that basis, given the status of the back calculations at the close of the examination, the ExA considers the seasonal restrictions of 1 August to 31 October inclusive within the recommended draft DCO to provide adequate mitigation. The ExA understands that discussion regarding the back-calculation method to refine the seasonal restrictions further may continue post-examination and further information may be submitted to the SoS for consideration, in which case the ExA would recommend that the wording of commitment 206 is updated in consultation with the MMO such that the MMO is satisfied with the back-calculation method used.

POTENTIAL EFFECTS ON FISH AND SHELLFISH FROM CABLE PROTECTION

- 5.7.98. NE raised a concern in its RR [\[RR-039\]](#) that further commitments to cable protection mitigation were required to reduce impacts on herring and sandeel spawning habitat. This concern was closely linked to similar issues raised regarding potential impacts of cable protection relating to physical processes and benthic ecology. NE stated that the applicants should explore options and make a commitment to either avoid placing cable protection within high and very high potential spawning habitat areas for herring and sandeel in the offshore export cable corridor and array areas, or to allow only a certain proportion of the full length in these areas. NE stated it should also be demonstrated through the cable burial risk assessment why the volumes applied for were needed and stated that cable protection estimates should be based on an assessment of likely burial success.
- 5.7.99. The applicants stated [\[REP5-036\]](#) in response to FSE2.11 in the ExA's second written questions that, due to the presence of higher potential sandeel habitat present across large areas of the offshore development area, a commitment to not install cable protection in these areas was not possible. Alternative routes for the

offshore export cable corridor were examined as part of the alternatives topic and is presented in section 3.2 of this Recommendation.

- 5.7.100. The MMO stated in its DL8 submission [REP8-048], that the key aspect of protecting herring spawning habitat was maintaining the quality, integrity and distribution of available spawning habitat. The MMO considered this to be something which should be managed above the individual project level, as it is not possible for individual project impact assessments to fully capture the extent of damage being done to the spawning ground across the multiple projects from the various industries being permitted to carry out activities within the spawning ground.
- 5.7.101. The examination of the length of cable protection required along the offshore export cable corridor is presented in section 5.9 (marine and coastal processes) of this Recommendation.
- 5.7.102. The remaining aspect of this issue relates to the indirect effects of seabed infrastructure being left in situ after decommissioning on fish and shellfish species. The applicants' response to NE's concern relating to this issue [AS-048] stated that the applicants had not yet developed designs of the extent of cable protection required, or its location. This issue was examined during ISH5 [EV10-005] agenda item 4 and through the ExA's second written question FSE2.11. The applicants' response [REP5-036] stated that as exact methods of decommissioning and extents of removal of infrastructure were yet to be confirmed, spawning habitat loss from the installation of seabed of foundation scour protection and cable protection had been considered permanent.
- 5.7.103. The MMO stated at DL8 [REP8-048] that issues posed by cable protection being left permanently in situ post-decommissioning was dependent upon the type of cable protection as the type of cable protection would affect the residual impacts. The applicants explained that in relation to herring and sandeel habitat, changes to sediment composition presented the greatest source of concern through the potential to cause increased deposition of silt or muddy sediments which could render areas of preferred or marginal habitat unusable. The MMO stated that this presented a risk that the quality, distribution and total extent of herring spawning habitat and sandeel habitat available could be permanently changed.
- 5.7.104. This issue remained outstanding at the close of the examination with the applicants referring to their closing position stated at Appendix B8 [REP8-052].

ExA's considerations

- 5.7.105. The ExA accepts the applicants' explanation that due to the presence of higher potential sandeel habitat present across large areas of the offshore development area, it was not possible to avoid these areas entirely. The length of cable protection required along the offshore export cable corridor has been assessed within section 5.9 (Marine and Coastal Processes) of this Recommendation. The ExA also accepts the applicants' response [REP5-036] that as exact methods of decommissioning and extents of removal of infrastructure were yet to be confirmed, spawning habitat loss from the installation of seabed of foundation scour protection and cable protection had been considered permanent. Therefore, the ExA considers that construction, maintenance and decommissioning effects of the installation of the offshore export cable corridor and cable protection on herring and sandeel have been assessed on a worst-case basis and the mitigation hierarchy has been followed to reduce the effects as much as possible.

POTENTIAL IMPACTS FROM LOCALISED HEATING AND ELECTRO-MAGNETIC FIELDS

Localised heating

- 5.7.106. NE raised in its RR [\[RR-039\]](#) that impacts from localised heating from the cables had been assessed in reference to water temperature increase, with no specific receptors identified as being impacted, concluding that further assessment was required for localised heating of sediment and possible impacts on high and very high potential sandeel and herring spawning habitat.
- 5.7.107. NE stated [\[REP5-056\]](#) that it considers EMF to be a separate impact pathway to that of heat impacts from cables, and therefore requested the applicants to provide evidence to support their statement that the impact area for heat impacts would be less than that for EMF, and that the dissipation radius of heat produced by cables would not interact with sediment areas used by sandeel for spawning or burrowing.
- 5.7.108. In response, the applicants cited research [\[REP6-052\]](#) suggesting that heat transfer from high voltage cables can occur to distances of 40 centimetres (cm) to 1 metre (m) depending on the sediment type, with sediment temperature increases of greater than 10 degrees centigrade possible. NE stated at DL8 at Appendix E8 [\[AS-148\]](#), that given sandeel are a burrowing species and the target cable burial depth for inter-array cables was 0.5m to 1.5m, it could not rule out overlap between cable heat transfer and habitat utilised by sandeel. NE highlighted that the inter-array cables would be high voltage alternating current, which is known to be less efficient and emit more heat. NE therefore maintained its previous advice at the close of the examination [\[AS-148\]](#), that monitoring to validate the thermal radius of heat transfer from inter-array cables buried in high potential sandeel habitat should be secured in the In Principle Monitoring Plan (IPMP) [\[REP7-115\]](#).
- 5.7.109. The MMO stated at DL8 [\[REP8-048\]](#), that significant gaps in understanding of the effects of EMF and sediment heating on both the egg and larval and adult life stages of herring and sandeel specifically was acknowledged but did not consider that herring or sandeel were notably receptive or sensitive to EMF emissions or sediment heating effects. The MMO stated it would not consider the presence of EMFs to be a significant cause of concern for herring and sandeel spawning areas.
- 5.7.110. The applicants responded [\[REP9-021\]](#) that an overlap between sediment experiencing temperature change, and sediment that sandeel may utilise as habitat was acknowledged, but that the total area of sediment likely to undergo heating effects when compared to the overall availability of sandeel habitat within the region, any potential habitat loss would be considered negligible.
- 5.7.111. The applicants' assumed a total of 373km for one array area alone, or 861km of cable for the array areas together and the total area of increased temperature of up to 1m either side of the cable. This resulted in a total area of 0.746km² per array area, or 1.722km² across both arrays which would comprise 0.006% of the fish and shellfish ecology study area, or 0.20% of the array areas. The applicants contended that due to both the small footprint of heating effects, and the substantial availability of equivalent and higher potential habitat for sandeel within the region, any effect was considered negligible and therefore not significant and, as a result, the monitoring of heat transfer from inter-array cables would be disproportionate and not necessary.

Electro-magnetic fields (EMF)

- 5.7.112. NE raised in its RR [RR-039] that potential effects from EMF had not been considered in the ES, advising that the impacts of EMF on sandeel and herring high potential spawning habitat should be assessed.
- 5.7.113. In its response to the ExA's second written question FSE2.12 [PD-022], which asked for NE's latest position on fish spawning areas from EMF effects and the localised heating of sediment within the array areas and along the offshore export cable corridor for both herring and sandeel, NE confirmed [REP5-056], that impacts from EMF were no longer a concern in regard to both herring and sandeel.
- 5.7.114. At the close of the examination, NE stated [REP9-031] it remained concerned about potential effects from EMF in the array areas, which included high and very high sandeel spawning habitat. NE highlighted the high site fidelity known for sandeel and recognised there was insufficient evidence to confirm no impact on sandeel. However, NE acknowledged that the lack of evidence base would prevent a more accurate assessment being undertaken. In addition, NE stated that further monitoring should be secured in the final IPMP with respect to indirect effects on sandeel.

ExA's considerations

- 5.7.115. The ExA considers that where there is a lack of scientific information and potential effects cannot be ruled out, the monitoring of effects is, in general, a proportionate response to improve scientific understanding. This would be supported by NPS EN-3 paragraph 2.9.296.
- 5.7.116. The ExA notes that NE's responses in relation to potential effects on sandeel appear to be inconsistent, confirming at DL5 it had no concerns for either the array areas or offshore export cable corridor for both herring and sandeel, but then stating at the close of the examination it remained concerned about potential effects from EMF in array areas which include high and very high sandeel spawning habitat.
- 5.7.117. However, in this particular circumstance, despite NE's request for monitoring, the MMO has specifically stated [REP8-048] that it does not consider that herring or sandeel are notably receptive or sensitive to EMF emissions or sediment heating effects. The MMO stated it would not consider the presence of EMFs to be a significant cause of concern for herring and sandeel spawning areas. NE also added [REP9-031] that there was insufficient evidence to make a judgment on sandeel and that the lack of evidence base prevented a more accurate assessment being undertaken.
- 5.7.118. In this particular circumstance, the ExA agrees with the MMO and considers that no specific monitoring of EMF or heating effects in the array areas would be required.

POST-CONSTRUCTION MONITORING

- 5.7.119. There were 2 further aspects to the post-construction monitoring for fish and shellfish. These were the monitoring of:
- sandeel abundance
 - indirect effects

Sandeel abundance

- 5.7.120. NE stated at the close of the examination [REP9-030] that the applicants had proposed pre-construction and post-construction habitat sampling to validate statements made regarding habitat suitability and recoverability for sandeel in an updated IPMP (revision 5) [REP7-115]. However, NE considered that further monitoring needed to be secured with respect to sandeel and indirect effects, stating that no reference had been made to monitoring changes to sandeel abundance or distribution resulting from the direct loss of spawning habitat due to infrastructure presence. NE acknowledged that it may not be possible to monitor abundance via traditional means within Dogger Bank SAC such as trawl surveys, but advised that the IPMP should retain scope for monitoring abundance and distribution as alternative methods may be available such as acoustic receivers.

Indirect effects

- 5.7.121. In its DL8 submission, the MMO stated [REP8-048] that it had not requested any mitigation measures pertaining to benthic halo effects on sandeel or herring but would expect the applicants to follow best-practice measures in minimising the footprint of the proposed infrastructure. NE stated at the close of the examination [REP9-030] that the applicants had not proposed monitoring to validate predicted impacts on linked receptor groups as a result of potential impacts on benthic habitats and localised prey populations from loss of spawning habitat, which may have implications over a wider area beyond where predators are directly excluded. NE acknowledged the applicants' response to DL7 documents [REP8-043], but its advice remained that monitoring should be undertaken to fill evidence gaps with respect to this pathway.

ExA's considerations

- 5.7.122. The ExA notes that the IPMP [REP7-115] states in table 1-4, that a construction programme and monitoring plan would be submitted at least 6 months prior to commencement of licensed activities and would include details of proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting. Detail of the pre-construction surveys and outline of all proposed pre-construction monitoring would be submitted to the MMO for written approval at least 6 months prior to the first survey. Detail of post-construction and operational monitoring would be submitted at least 6 months prior to commissioning. Surveys would be carried out post-construction, with provision of the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant SNCBs.
- 5.7.123. Delivery of pre-construction plans and documentation linked to the delivery of pre-construction, construction and post-construction monitoring, is secured via condition 15(1)b of DMLs 1 and 2 (Schedules 10 and 11) and 13(1)(b) of DMLs 3 and 4 (Schedules 12 and 13) and condition 11(1)(b) of DMLs 5 and 6.
- 5.7.124. The ExA considers that the delivery of pre-construction, construction and post-construction monitoring which accords with the IPMP is adequately secured in the recommended draft DCO, for approval in writing by the MMO in consultation with the relevant SNCB. The ExA considers that the DML wording in the recommended draft DCO provides adequate scope for NE to ensure the final IPMP includes the need to monitor the abundance and distribution of sandeel via appropriate alternative methods, monitor to validate the thermal radius of heat transfer from

inter-array cables buried in high potential sandeel habitat and to monitor to validate predicted impacts on linked receptor groups.

- 5.7.125. The ExA is satisfied that the applicants had provided adequate responses to all other raised matters.

CONCLUSIONS

- 5.7.126. The ExA examined all the assessments submitted by the applicants and considered all the issues raised during the examination related to fish and shellfish ecology.
- 5.7.127. The ExA is satisfied that the applicants' assessment considers all relevant potential environmental impacts in respect of fish and shellfish during the construction, operation and decommissioning phases of the proposed development alone and cumulatively with other plans and projects.
- 5.7.128. The ExA disagrees with the applicants' conclusions in ES Chapter 10 [\[REP7-042\]](#) that the effects on fish and shellfish without mitigation would be negligible to minor adverse from any phase of the development. However, with the following conditions included, the ExA concurs with ES Chapter 10 [\[REP7-042\]](#) that the significance of residual effect from the proposed development on fish and shellfish would be no greater than negligible to minor adverse from any phase of the development.
- 5.7.129. If the SoS is minded to grant the Order, the ExA recommends that the seasonal restriction on piling noise in condition 30 of DMLs 1 and 2 (schedules 10 and 11) and condition 27 of DMLs 3 and 4 (schedules 12 and 13), presented by the applicants on a without prejudice basis in dDCO [\[REP9-003\]](#) and maintained by the ExA in the recommended draft DCO, is included in the made Order.
- 5.7.130. The ExA is satisfied that the proposed development is in accordance with NPS EN-1, NPS EN-3 and, where relevant, NPS EN-5, the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans, the UK Marine Policy Statement, other national and local policies and strategies and all other relevant legislation, and there are no other important or relevant considerations.
- 5.7.131. The ExA is satisfied that the applicants have demonstrated that the impacts associated with the proposed development can be satisfactorily mitigated and managed through the commitments identified in the Commitment Register [\[REP9-009\]](#), which is secured by requirements and conditions in the recommended draft DCO and DMLs, along with the additional conditions specified above in the DMLs.
- 5.7.132. As the noise restriction on piling has been proposed by the applicants on a without prejudice basis, the ExA considers it important to stress that without this condition, it would consider the effects on fish and shellfish matters to be potentially significant.
- 5.7.133. Given the conclusions above, and the inclusion of the applicants' without prejudice seasonal piling restriction, the ExA considers that the identified adverse effects on fish and shellfish carry a little negative weight against making the Order.

5.8. MARINE MAMMALS

INTRODUCTION

- 5.8.1. This section considers the effects of the proposed development in relation to marine mammals. This section does not consider Habitats Regulations Assessment (HRA) matters which are dealt with at appendix C of this Recommendation.
- 5.8.2. Methodology and effects in relation to marine mammals was listed in the Examining Authority's (ExA) Initial Assessment of Principal Issues (IAP) [[PD-011](#)] Annex C as part of the marine ecology principal issue.
- 5.8.3. In its consideration of marine mammals below, the ExA has had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) as set out in section 5.6
 - the National Policy Statement for Renewable Energy (NPS EN-3), as set out in section 2.8
 - the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)
 - the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans and the UK Marine Policy Statement
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 5.8.4. The applicants' assessment of marine mammals was first set out in ES Chapter 11 marine mammals [[APP-095](#)]. This chapter was updated and resubmitted into the examination at deadline (DL) 7 [[REP7-045](#)]. It should be read along with the following supporting documents, which can be found in the examination library:
- ES Chapter 11 Figures [[REP7-047](#)]
 - Appendix 11-1 Marine Mammal Consultation Responses [[APP-097](#)]
 - Appendix 11-2 Marine Mammal Information Report [[APP-098](#)]
 - Appendix 11-3 - Underwater Noise Modelling Report [[AS-137](#)]
 - Appendix 11-4 - Interim Population Consequence of Disturbance Modelling (Revision 3) [[REP5-013](#)]
 - Appendix 11-5 - Cumulative Effects Assessment Screening [[APP-101](#)]
 - Appendix 11-6 Unexploded Ordnance Clearance Information and Assessment (Revision 3) [[REP3-012](#)]
- 5.8.5. ES Chapter 11 (Marine Mammals) [[REP7-045](#)] should be read in conjunction with:
- ES Chapter 8 (Marine Physical Environment) [[REP7-035](#)]
 - ES Chapter 9 (Benthic and Intertidal Ecology) [[REP7-038](#)]
 - ES Chapter 10 (Fish and Shellfish Ecology) [[REP7-042](#)]
 - ES Chapter 13 (Commercial Fisheries) [[REP7-048](#)]
 - ES Chapter 14 (Shipping and Navigation) [[REP7-051](#)]
- 5.8.6. ES Chapter 11 [[REP7-045](#)] was split into sections broadly in the following areas:
- assessment methodology
 - existing environment
 - assessment of significance
 - potential effects during construction, operation and decommissioning

- potential monitoring requirements
- cumulative effects assessment
- transboundary effects and interrelationships

BASELINE

5.8.7. The marine mammal study area was described in section 11.3.1 [REP7-045]. It was defined on the basis that marine mammals are highly mobile and transitory in nature and therefore warranted an area wider than the boundary of the proposed development itself. The study areas were defined based on current knowledge and understanding of the biology of each species and the relevant management units (MU), which were:

- harbour porpoise: North Sea (NS) MU
- bottlenose dolphin: Greater North Sea (GNS) MU and the Coastal East Scotland (CES) MU, which are only used to assess for coastal activities
- common dolphin: Celtic and Greater North Seas (CGNS) MU
- white-beaked dolphin: CGNS MU
- minke whale: CGNS MU
- grey seal: South-east England and North-east England Sea region
- harbour seal: SE England MU

5.8.8. The baseline for marine mammals was presented in section 11.5.

5.8.9. The array areas and part of the offshore export cable corridor are located within the Southern North Sea SAC, which is designated for the protection of harbour porpoise.

MITIGATION AND MONITORING

5.8.10. Proposed embedded mitigation measures relevant to marine mammals were set out in table 11-3 in section 11.3.3 of ES Chapter 11 [REP7-045]. These were:

- Soft-start and ramp-up secured in the Marine Mammal Mitigation Protocol (MMMP) [REP7-117] for piling, deemed marine licence (DML) 1 and 2 conditions 15 and 20 to 22, DMLs 3 and 4 conditions 13 and 18 to 20.
- Best practice to reduce vessel collision risk secured in the Pollution Environmental Management Plan (PEMP) [REP2-041], DMLs 1 and 2 condition 15, DMLs 3 and 4 condition 13 and DMLs 5 and 6 condition 11.
- Pollution prevention measures secured in the PEMP, the Marine Pollution Contingency Plan (MPCP), DML 1 and 2 condition 15, DML 3 and 4 condition 13 and DMLs 5 and 6 condition 11.

5.8.11. In addition to the mitigation measures outlined above, the applicants also committed to:

- The MMMP for piling activities secured in DML 1 and 2 conditions 15 and 20 to 22, DML 3 and 4 conditions 13 and 18 to 20.
- Southern North Sea Special Area of Conservation (SAC) Site Integrity Plan secured in DML 1 and 2 conditions 14 and 15, DML 3 and 4 conditions 16 and 17.

ASSESSMENT OF EFFECTS

5.8.12. The potential effects identified during the construction phase were:

- Impact 1a: permanent threshold shift (PTS) from underwater noise during piling from:

- A single strike at maximum hammer energy at a single location or at two locations concurrently.
- Sequential monopiles at a single location.
- Sequential jacket pin piles at a single location.
- Sequential monopiles (or jacket pin piles) at two locations concurrently.
- Impact 1b: temporary threshold shift (TTS) from underwater noise during piling from:
 - A single strike at maximum hammer energy at single location or at two locations concurrently.
 - Multiple sequential monopiles at a single location.
 - Multiple sequential jacket pin piles at a single location.
 - Multiple sequential monopiles at two locations concurrently.
 - Multiple sequential jacket pin piles at two locations concurrently.
- Impact 2: disturbance or behavioural effects from:
 - Underwater noise during piling at a single location or concurrently at two locations.
 - Reduction in foraging due to noise disturbance for a single piling event and two concurrent piling events.
 - Acoustic deterrent devices (ADD).
- Impact 3: TTS and disturbance from underwater noise during other construction activities:
 - 3a: TTS from underwater noise during other construction activities in isolation and together.
 - 3b: disturbance from underwater noise during other construction activities in isolation and together.
- Impact 4: TTS and disturbance from underwater noise due to the presence of vessels:
 - 4a: TTS from underwater noise and presence of vessels in array areas in isolation and together.
 - 4b: disturbance from underwater noise and presence of vessels in array areas in isolation and together.
 - 4c: disturbance from underwater noise and presence of vessels during transit.
- Impact 5: barrier effect as a result of underwater noise during construction in isolation and together.
- Impact 6: increased collision risk with vessels during construction at array areas in isolation.
- Impact 7: changes to prey resources.
- Impact 8: changes to water quality.
- Impact 9: disturbance of seals at haul-out sites from construction activities and from vessel activity areas at array areas in isolation and together.

5.8.13. The potential effects identified during the operational phase were:

- Impact 1: Impacts from underwater noise associated with operational wind turbines:
 - 1a: TTS due to operational wind turbines, from either a single wind turbine or all wind turbines at array areas in isolation and together.

- 1b: Disturbance due to operational wind turbines, from either a single wind turbine or all wind turbines at array areas in isolation and together.
- Impact 2: impacts from underwater noise associated with operation and maintenance activities:
 - 2a: TTS due to maintenance activities at array areas in isolation and together.
 - 2b: disturbance due to maintenance activities at array areas in isolation and together.
 - 2c: TTS from underwater noise associated with operation and maintenance activities.
- Impact 3: impacts from underwater noise due to the presence of vessels
 - 3a: TTS from underwater noise and presence of vessels at array areas in isolation.
 - 3b: disturbance from underwater noise and presence of vessels at array areas in isolation.
 - 3c: disturbance from underwater noise and presence of vessels during transit.
- Impact 4: barrier effects.
- Impact 5: increased collision risk with vessels.
- Impact 6: changes to prey resource.
- Impact 7: changes to water quality.
- Impact 8: disturbance of seals at haul-out sites.

5.8.14. Decommissioning effects identified were:

- Impact 1a: PTS from underwater noise.
- Impact 1b: TTS from underwater noise.
- Impact 2: disturbance from underwater noise.
- Impact 3: disturbance from underwater noise, presence and movements of vessels.
- Impact 4: barrier effect from underwater noise.
- Impact 5: increased collision risk with vessels.
- Impact 6: changes to prey resource.
- Impact 7: changes to water quality.
- Impact 8: disturbance of seals at haul-out sites.

5.8.15. Potential cumulative effects identified were:

- assessment of underwater noise from piling at other OWFs
- assessment of disturbance from other industries and activities
- cumulative barrier effects from disturbance of OWF
- increased collision risk with vessels
- disturbance to seal haul-outs
- changes to prey resources

5.8.16. The following marine mammal species were assessed for effects:

- harbour porpoise
- bottlenose dolphin
- common dolphin
- white-beaked dolphin
- minke whale
- grey seal

- harbour seal

- 5.8.17. The realistic worst case design parameters were documented in table 11-1 of Chapter 11 [\[REP7-045\]](#). Worst case effects were shown for each scenario: DBS East or DBS West in-isolation; DBS West and DBS East concurrently; and DBS West and DBS East sequentially, along with any change in effect of significance.
- 5.8.18. A summary of the predicted pre-mitigation and residual (post-mitigation) likely significant effects in respect of marine mammals was set out in table 11-145 of ES Chapter 11 [\[REP7-045\]](#).
- 5.8.19. Pre-mitigation effects were predicted by the applicants to be either negligible or minor adverse for all marine mammal species for all potential impacts with the exception of:
- Impact 1a: PTS from underwater noise from sequential monopiles and jacket pin piles at a single location for grey seal during construction, which was moderate adverse.
 - Impact 1a: PTS from underwater noise from sequential monopiles (or jacket pin piles) at both locations concurrently for harbour seal during construction, which was moderate adverse.
 - Impact 1a: PTS from underwater noise for harbour seal during decommissioning, which was moderate adverse.
 - Cumulative impact assessment of disturbance from other industries and activities for harbour seal, which was moderate adverse.
- 5.8.20. The residual effects for all impacts were predicted by the applicants to be either no impact or negligible to minor adverse and therefore not significant. Residual effects for decommissioning impacts would be determined prior to decommissioning.
- 5.8.21. The ES chapter concluded that there would be no significant residual effects from the proposed development for marine mammals following the successful implementation of the mitigation measures and that there would be no significant cumulative, inter-related or transboundary effects.

ISSUES CONSIDERED DURING THE EXAMINATION

- 5.8.22. The Lincolnshire Wildlife Trust raised concerns regarding marine mammals in its relevant representation (RR) [\[RR-028\]](#), particularly regarding potential development within the Dogger Bank Special Area of Conservation (SAC) concerning underwater noise and effects on prey species in relation to marine mammals.
- 5.8.23. The Marine Management Organisation (MMO) raised concerns in its RR [\[RR-030\]](#) regarding potential underwater noise effects on marine mammals from piling and from the clearance and detonation of unexploded ordnance (UXO) and the degree of commitment to mitigation measures for underwater noise. The MMO raised comments on conditions relating to underwater noise in the applicants' draft Development Consent Order (DCO) and DMLs.
- 5.8.24. Natural England (NE) raised significant concerns regarding potential effects on marine mammals in its RR [\[RR-039\]](#) related to issues such as underwater noise from piling within the offshore development area and the degree of commitment to mitigation measures for underwater noise.

- 5.8.25. The Doggerland Foundation included concerns regarding potential effects on marine mammals in its representation [AS-004]. Its representation mentioned many aspects of concern including cumulative assessments for activities in the North Sea.
- 5.8.26. Ørsted Hornsea Project Four Ltd and Ørsted Hornsea Project Three (UK) Ltd made representations [RR-044] and [RR-045] regarding coordination of construction activities, particularly with regard to marine mammals in the Southern North Sea SAC.
- 5.8.27. A response to the Regulation 32 consultation was received from the Federal Maritime and Hydrographic Agency (Bundesamt für Seeschifffahrt und Hydrographie) on behalf of the Federal Republic of Germany [OD-011] regarding marine mammals. The German Federal Maritime and Hydrographic Agency confirmed that due to the distance to the German exclusive economic zone of at least 40km, no underwater noise impact on marine mammals was expected.
- 5.8.28. A response to the Regulation 32 consultation was received from The Netherlands' Ministry of Infrastructure and Water Management [OD-012] stating that it was not aware that any underwater noise reduction mitigation information had been applied, but advised mitigation was likely to be required as major effects were predicted for the harbour porpoise, minke whale and the grey seal. The Netherlands' Ministry of Infrastructure and Water Management gave examples of how it sets underwater noise mitigation requirements for piling.
- 5.8.29. The Netherlands' Ministry of Infrastructure and Water Management also stated that international cumulative effects should be included, as transboundary effects on the Dutch marine mammal population and Dutch Natura 2000 areas were expected. In addition, it highlighted that migration routes of the grey seal between the United Kingdom and The Netherlands crossed the area of the proposed development and the highest densities of harbour porpoises in the southern part of the North Sea could be found in and close to the suggested proposed development site according to previous analysis. Lastly, the Netherlands' Ministry of Infrastructure and Water Management stated that there were known migration routes across the North Sea for bats.
- 5.8.30. Many EIA issues related to marine mammals raised in relevant representations were resolved by the close of the examination. These are set out in the following paragraphs.
- 5.8.31. NE [RR-039] and the MMO [RR-030] raised concerns with the applicants' commitment to noise abatement mitigation and the adequacy of the dDML wording in relation to securing underwater noise mitigation. In closing statements, both the MMO [REP8-048] and NE [REP9-031] confirmed agreement with the proposed condition wording in the dDMLs [REP9-003] for:
- Schedule 10 DML1 - Part 2, 15(1)(g)
 - Schedule 11 DML2 - Part 2, 15(1)(g)
 - Schedule 12 DML3 - Part 2, 13(1)(g)
 - Schedule 13 DML4 - Part 2, 13(1)(g)
- 5.8.32. NE confirmed [REP9-031] that its concern over reference to the maximum hammer energy and scheduling of UXO clearance with other projects in the dDCO was resolved at DL5 through updates to the outline Marine Mammal Mitigation Protocol (oMMMP) [REP7-117] to include low order methods as default for UXO removal, and to use noise abatement systems (NAS) where high order was unavoidable. NE

advised the applicants that the final MMMP must include confirmation of these values.

- 5.8.33. There was disagreement between NE and the applicants regarding the approach to the assessment of, and ES conclusions for, harbour porpoise and grey seals. NE confirmed at DL7 [\[REP9-031\]](#) that these issues were satisfactorily resolved through the NAS mitigation secured in the updated dDCO conditions [\[REP9-003\]](#) (see below for further information on this).
- 5.8.34. NE confirmed in its DL9 risk and issues log [\[REP9-031\]](#) that its concerns regarding potential effects of concurrent piling along the export cable corridor and array areas and simultaneous piling across the two array areas was resolved through removal of piling along the export cable corridor in change request 1 and changes to the DML condition wording with regards to simultaneous piling, which NE confirmed, captured the worst-case scenario (WCS).
- 5.8.35. The MMO queried the WCS used to inform the Underwater Noise Modelling Report (Appendix 11-3) [\[APP-099\]](#) and NE raised concerns over the WCS for the maximum number of piles to be installed concurrently in 24 hours across the two arrays. The applicants' Statement of Common Ground (SoCG) with the MMO [\[REP9-013\]](#) stated agreement at the close of the examination that the WCS presented in ES Chapter 11 [\[REP7-045\]](#) was appropriate.
- 5.8.36. There was disagreement between NE, the MMO and the applicants that the mitigated impacts of PTS from piling would be minor adverse or negligible for all marine mammals. NE [\[RR-039\]](#) and the MMO [\[RR-030\]](#) also stated that the oMMMP was inadequate to fully mitigate the predicted PTS impacts. NE confirmed in its DL9 risk and issues log [\[REP9-031\]](#) that the application of additional primary or secondary mitigation had been sufficiently secured in the dDCO [\[REP9-003\]](#) to support the assessment conclusions and that this issue was resolved through updates to ES Chapter 11 [\[REP7-046\]](#), the oMMMP [\[REP7-118\]](#) and the dDCO condition [\[REP9-003\]](#) to secure noise mitigation for piling. The applicants' SoCG with the MMO [\[REP9-013\]](#) also stated that the MMO was content with the updated wording in dDCO [\[REP9-003\]](#) and the information in the draft In Principle Site Integrity Plan (SIP) [\[REP7-119\]](#).
- 5.8.37. NE raised concerns regarding the mitigation of the full PTS range for harbour porpoise and minke whale [\[RR-039\]](#). NE advised [\[REP9-031\]](#) it was satisfied with the updated condition in the dDMLs [\[REP9-003\]](#) which sufficiently secured the application of primary or secondary mitigation. NE stated that whilst the applicants had not committed to a specific level of noise reduction, it was satisfied that the assessment provided in the Illustrative Noise Reduction Technical Note (Revision 2) [\[REP5-032\]](#) had demonstrated that mitigation could be applied to reduce the injury zone to a level that could be fully mitigated with the use of acoustic deterrent devices (ADDs) of less than 80 minutes, for all species. NE therefore considered this issue resolved, as stated in its DL9 risk and issues log [\[REP9-031\]](#).
- 5.8.38. NE confirmed its concerns regarding potential impacts on grey seals at the Donna Nook haul-out site from potential impacts of piling along the offshore export cable corridor [\[RR-039\]](#) had been resolved through removal of piling along the export cable corridor in change request 1, as per NE's DL9 risk and issues log [\[REP9-031\]](#).
- 5.8.39. A response to the Regulation 32 consultation was received from The Netherlands' Ministry of Infrastructure and Water Management [\[OD-012\]](#) stating concern over the lack of commitment to underwater noise reduction mitigation measures. The ExA

considers that the concerns from The Netherlands regarding underwater noise mitigation have been resolved through the applicants' commitments in the dDCO and dDMLs [REP9-003] which the ExA considers to be sufficient to secure adequate mitigation for underwater noise impacts on marine mammals.

- 5.8.40. The Netherlands' Ministry of Infrastructure and Water Management stated [OD-012] that international cumulative effects should be included, as the Dutch Doggersbank SAC and Klaverbank SAC had both been designated for the protection of harbour porpoises and grey seals, that migration routes of the grey seal between the United Kingdom and The Netherlands crossed the area of the proposed development and the highest densities of harbour porpoises in the southern part of the North Sea was around the suggested proposed development site, according to previous analyses. The ExA is satisfied that the applicants' CEA screening included potential impacts from projects in the wider North Sea [APP-101] and is also satisfied that the transboundary assessment undertaken in section 8.3.10 of the Report to Inform Appropriate Assessment Habitats Regulations Assessment Annex II Marine Mammals Part 3 of 4 [REP5-009] is adequate.
- 5.8.41. Concerns were raised by the MMO over the need to adhere to the Joint Nature Conservation Committee (JNCC) guidance that a pre-piling search and soft-start procedure should be repeated before piling recommences when the delay had been more than ten minutes [RR-030]. This was questioned by the ExA [PD-014, MM.1.8] to which the applicants responded [REP3-027] to say the MMO would be consulted on the protocols for breaks in piling post-consent in the final MMMP, with any updates to piling protocols and guidance being incorporated into the final MMMP where appropriate. The MMO's response to MM.1.8 [REP3-045] stated ongoing discussions were taking place with the applicants. Neither the MMO's closing statement [REP8-048] nor the applicants' SoCG with the MMO [REP9-014] contained any outstanding comments on the procedure after breaks in piling. The ExA is satisfied that the oMMMP [REP7-117] provided detailed procedures for breaks in piling of less than 10 minutes, between 10 minutes and two hours and more than two hours. The ExA is also content that commitment C007 in the Commitments Register [REP9-009] states that the MMO and the Statutory Nature Conservation Body (SNCB) must agree to the final MMMP which would include details of the embedded mitigation, for the soft-start and ramp-up, as well as details of the proposed mitigation zone and any additional mitigation measures required in order to minimise potential impacts of any physical injury or PTS. The ExA considers that the MMO and NE have the opportunity to further influence the procedures on breaks in piling at the post-consent stage within the finalisation of the MMMP post-consent. Given there were no outstanding comments on breaks in piling from either the MMO or NE at the close of the examination, the ExA considers this issue to be resolved.
- 5.8.42. Concerns were raised by NE [RR-039] that the predicted maximum injury zone for some UXO clearance events was larger than the area which many ADDs can effectively deter marine mammals. NE confirmed in its DL9 risk and issues log [REP9-031] that this issue was resolved through the applicants' updates to the oMMMP [REP7-117] to include low order methods as default for UXO removal, and to use NAS where high order was unavoidable.
- 5.8.43. NE [RR-039] considered that the monitoring area for marine mammals should be greater than the maximum predicted impact range for PTS and should be monitored effectively to ensure all marine mammals could be detected. NE confirmed in its DL9 risk and issues log [REP9-031] that this issue was resolved through the applicants' updated condition in the draft DMLs which sufficiently secured the

application of additional primary or secondary mitigation. In addition, NE explained it was satisfied that the assessment provided in the Illustrative Noise Reduction Technical Note (Revision 2) [REP5-032] demonstrated that mitigation could be applied to reduce the injury zone to a level that could be monitored.

- 5.8.44. NE confirmed [REP9-031] that its concern regarding monitoring the mitigation zone for a minimum of 30 minutes prior to the ADD activation had been addressed.
- 5.8.45. NE stated noise reducing technology should be used alongside the applicants' proposals for scheduling of UXO clearance with other projects in the draft In Principle Site Integrity Plan (SIP) [REP7-119]. NE confirmed in its DL9 risk and issues log [REP9-031] that this issue was resolved through updates to the oMMMP [REP7-117] to include low order methods as default for UXO removal, and to use NAS where high order was unavoidable.
- 5.8.46. The completed SoCG between the MMO and the applicants [REP9-013] confirmed all issues relating to marine mammals from the MMO were agreed and resolved. There were outstanding areas of disagreements between the MMO and the applicants regarding the content and wording of the DMLs.
- 5.8.47. The SoCG (Revision 3) between the Lincolnshire Wildlife Trust and the applicants [REP8-029] did not include any outstanding issues relating to marine mammals.
- 5.8.48. The SoCG (Revision 2) [REP9-018] between NE and the applicants at the close of the examination confirmed that all but two issues had been agreed or not agreed regarding marine mammals but which NE confirmed would have no material impact on its advice.
- 5.8.49. The following main EIA issues relevant to marine mammals were either not fully resolved by the close of the examination or warrant further explanation as to how they were resolved:
 - cumulative effects assessment for marine mammals
 - piling in poor visibility or hours of darkness
 - ES conclusions
 - marine mammal monitoring, specifically underwater operational noise, dolphin distributions and indirect effects
 - migratory bats

CUMULATIVE EFFECTS ASSESSMENT (CEA) FOR MARINE MAMMALS

- 5.8.50. NE raised in its RR [RR-039] and maintained throughout the examination [REP9-031], that PTS should be scoped into the CEA for marine mammals.
- 5.8.51. NE did not agree [RR-039] that the mitigation outlined in the oMMMP and ES was sufficient to minimise the risk of injury for all PTS impact ranges. Additionally, NE considered that although other projects would use mitigation measures to reduce the risk of injury for marine mammals, mitigation could not guarantee that no animals would be at risk of PTS and therefore, PTS should be screened into the CEA.
- 5.8.52. The applicants' response [AS-048] acknowledged that additional mitigation measures could be needed to fully mitigate the risk of PTS and that there would need to be effective and appropriate mitigation measures in place to ensure no auditory injury through PTS from the proposed development. The applicants stated other projects would also need effective mitigation measures in place to ensure

there would be no PTS. The applicants contended that with all projects using mitigation measures to eliminate PTS, there would be no potential cumulative effects of PTS. As a precautionary approach, the applicants stated that PTS numbers were included in the population modelling for the cumulative assessment, so while not looked at individually, the potential impact had been given consideration in the significance of effect at a cumulative level.

- 5.8.53. At DL7, the applicants updated ES Chapter 11 [REP7-046] to state that PTS had been included in the Interim Population Consequence of Disturbance (iPCoD) modelling but not assessed separately. NE responded at DL8 at Appendix P8 [REP8-055] that this was insufficient to resolve the issue as it meant the cumulative assessment had only taken account of the iPCoD modelling, not the other assessment methods used in ES Chapter 11 such as dose response curves, and that mitigation could not guarantee that no animal would be at risk of PTS. This position was repeated in the SoCG between the applicants and NE (revision 2) at the close of the examination [REP9-019].
- 5.8.54. At the close of the examination, the applicants' final position [REP9-021] remained that its assessment was sufficient in assessing cumulative PTS, adding that assessing PTS separately at this stage would be unrealistic as the ES for each proposed development would present the WCS, which may not be representative of final construction due to finalisation of design parameters and refinement of required mitigation post-consent. The applicants stated the iPCoD modelling incorporated the PTS value as well as the worst-case disturbance measures using effective deterrent ranges or dose response assessments.
- 5.8.55. The applicants reiterated [REP9-021] their position first stated [AS-048] that they were committed to using noise reduction methods through project design, primary measures and noise mitigation systems or noise abatement systems to reduce any risk of PTS following the latest noise policy (Defra 2025). The applicants concluded that the potential magnitude of cumulative impact for PTS to marine mammals as a result of cumulative underwater noise impacts, was considered to be negligible given the small PTS impact ranges, the distance to other offshore wind farms and activities and the mitigation that each project had committed to.

ExA's considerations

- 5.8.56. The ExA has considered all representations on this issue. As documented for earlier issues, the ExA is satisfied that the applicants drafted wording in the dDMLs [REP9-003] is sufficient to secure adequate mitigation for underwater noise impacts on marine mammals from the proposed development.
- 5.8.57. Notwithstanding NE's closing position, the ExA considers that the applicants' CEA for marine mammals to be sufficient.

PILING IN POOR VISIBILITY OR HOURS OF DARKNESS

- 5.8.58. NE raised in its RR [RR-039] that piling should not commence or recommence in poor visibility or hours of darkness where marine mammal observers (MMObs) cannot be used as effectively. NE stated that there are limitations to passive acoustic monitoring (PAM) so it should be used as well as, rather than instead of MMObs, to optimise the ability to detect marine mammals and provide the best mitigation. NE also provided further clarification of its concerns at DL2 and DL3 at Appendix F2 [REP2-067] and Appendix F3 [REP3-054], stating that it could only agree to piling during reduced visibility or darkness if the applicants could demonstrate that the PAM equipment would cover the whole mitigation zone

including beyond a distance of 300m. If this was not possible, NE advised the MMMP should be updated to include commencing or re-starting piling during times of good visibility only.

- 5.8.59. The applicants responded at DL4 [\[REP4-088\]](#) confirming that the PAM equipment would be appropriate to detect vocalising cetaceans in the monitoring area and that details would be confirmed post-consent and consulted on as part of the final MMMP. The applicants proposed that other options such as night vision binoculars, infrared cameras and any new emerging technologies would also be considered if required and that all approved mitigation measures and piling protocols would be agreed through consultation and presented in the final MMMP and all PAM operations would be in line with the JNCC guidance for the use of PAM.
- 5.8.60. The applicants provided further clarification at DL7 [\[REP7-131\]](#) that they were committed to ensuring the monitoring area would be fully mitigated by using PAM during hours of darkness and reduced visibility. The applicants confirmed they would consider PAM methods that would have a good signal to noise ratio with capabilities of detecting all vocalising marine mammals and provided examples.
- 5.8.61. NE's final position stated in the SoCG between the applicants and NE [\[REP9-018\]](#) and Appendix P8 [\[REP8-055\]](#) did not change. NE restated it acknowledged the commitment from the applicants in the oMMMP [\[REP7-118\]](#) to ensure the monitoring area would be fully mitigated with the use of PAM during hours of darkness or reduced visibility but maintained its advice, adding that the current Illustrative Noise Document [\[REP7-126\]](#) presented values that would suggest PAM is not currently sufficient, even when applying a 10db noise reduction through NAS. Without this evidence, NE could not ascertain if the proposed PAM equipment would be sufficient.
- 5.8.62. The applicants' final position [\[REP9-018\]](#) was that through the finalisation of the MMMP post-consent and the requirement in the draft DCO [\[REP9-003\]](#) to apply primary or secondary noise reduction measures, that the mitigation area would be reduced in the final design and the capability would be available to fully mitigate using PAM during hours of darkness or low visibility. The applicants responded to NE's position [\[REP9-021\]](#) stating that a description of the PAM equipment and method would be described in the final MMMP, following Joint Nature Conservation Committee (JNCC) guidance on PAM (JNCC, 2023). The applicants stated that they would commit to having PAM equipment that could detect all vocalising animals with the right hydrophone sensitivity to detect frequencies from 100Hz to 150kHz. The deployment would be planned to ensure the full monitoring area was monitored. The applicants added that PAM equipment was always evolving, with new technologies emerging, so the selection of PAM equipment and the method would be finalised post-consent with the latest information and any new emerging technologies for marine mammal monitoring would be considered.

ExA's considerations

- 5.8.63. The ExA notes the applicants' assurances that they would engage with the latest technologies but agrees with NE that the efficacy of any technology should be demonstrated before it can be relied upon. The ExA therefore concludes that no weight can be given to relying on as yet undeveloped technology, and there is no certainty technology of a satisfactory performance would be developed in time for use.

- 5.8.64. NE's closing advice [REP9-031] was that unless it can be demonstrated that the use of PAM equipment could mitigate the whole of the mitigation zone, then the final MMMP should be updated to include commencing or re-starting piling during times of good visibility only. Commitment C007 in the Commitments Register [REP9-009] states that the MMO is required to consult with NE regarding the acceptability of the final MMMP. Therefore, the ExA considers that the SNCB has adequate control of this aspect.

ES CONCLUSIONS

TTS from underwater noise during decommissioning

- 5.8.65. At the close of the examination at Appendix P8 [REP8-055], NE did not agree with the applicants' conclusion that the TTS pre-mitigation effects for grey seal would be minor to major adverse as there was no mitigation for decommissioning impact (Impact 1b) in table 11-145 in ES Chapter 11 [REP7-045] which would need to be mitigated as set out for construction TTS impacts.
- 5.8.66. The applicants responded [REP9-021] that the proposed mitigation was a MMMP, as required for decommissioning impact 1a. They stated this was to be determined prior to decommissioning, so any mitigation for impact 1a, would also mitigate any risk from impact 1b.

ExA's considerations

- 5.8.67. The ExA understands NE's position and recognises the confusion the ES invites. However, the ExA also agrees with the applicants in that the residual effects from Impact 1b: TTS from underwater noise would be determined prior to decommissioning, and the ES states predicted impacts from decommissioning would be no more than that of construction.
- 5.8.68. The ExA recognises that Requirement 7 in the dDCO states that offshore works must not be commenced until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2)(a) (requirement to prepare decommissioning programmes) of the 2004 Act has been submitted to the Secretary of State for approval. This commitment is also made in commitment C153 of the Commitments Register [REP9-009].
- 5.8.69. Therefore, despite table 11-145 in ES Chapter 11 stating there is no proposed mitigation for Impact 1b, the ExA considers the dDCO secures sufficient controls for adequate mitigation during decommissioning.

Single piling at the proposed east and west array areas

- 5.8.70. NE stated [REP9-031] continued disagreement with the applicants regarding the conclusions for the number of harbour porpoise potentially disturbed during single piling at the east and west array areas of the proposed development individually and for both projects together. NE stated the number of harbour porpoise potentially disturbed should be high, and considered this should result in a major adverse impact score. At DL7 [REP7-153] NE maintained its advice that the number of harbour porpoise and grey seal potentially disturbed during single piling at the east and west array areas of the proposed development and both projects together resulted in a major adverse impact score. This refers to Impact 1a (all scenarios) and Impact 1b as per table 11-142 [APP-095] (which was resubmitted by the applicants at DL7 as table 11-145 [REP7-045]).

- 5.8.71. The applicants' response [REP8-043] confirmed the applicants' conclusion of a major adverse significance effect for harbour porpoise and moderate adverse for grey seal prior to mitigation and that their residual predicted effect was minor adverse.

ExA's considerations

- 5.8.72. The ExA considers that due to NE's acceptance and agreement with the dDCO wording for NAS, that NE agrees with the applicants' assessment that the residual effect, post-mitigation, to harbour porpoise for Impacts 1a, and 1b would be minor adverse, as stated by the applicants in table 11-145 [REP7-045].

MARINE MAMMAL MONITORING

- 5.8.73. At DL9 [REP9-030], NE stated that no monitoring had been proposed in the IPMP [REP7-115] for marine mammals beyond that required to ensure the construction mitigation included in the MMMP was correctly implemented or for areas of the assessment where assumptions have been made. NE suggested monitoring could contribute to filling evidence gaps or validating the impacts of the proposed development.

Monitoring of underwater noise (operation)

- 5.8.74. NE highlighted that the Underwater Noise Modelling Report [AS-138], acknowledged turbine sizes used to inform operational noise modelling were considerably smaller (0.2-6.15 MW) than those proposed (15-26.5 MW), and that no empirical data was available for turbines of this size. NE therefore considered there to be a significant gap in knowledge of the operational underwater noise levels of wind turbine generators of this size and advised that monitoring of noise levels should be secured to validate the predictions regarding operational impacts and inform future assessments across the OWF industry. NE noted consideration of this had been included in the MMO's DCO and DML condition recommendations.

Dolphin distributions

- 5.8.75. NE stated at DL9 [REP9-030], that the applicants' characterisation of bottlenose dolphin baseline distribution relied on the assumption that their distribution along the northeast English coast was the same as in Scotland. NE considered this was a significant assumption as it directly affected the prediction of the number of animals potentially affected. NE recommended [REP9-030] the applicants should undertake post-consent monitoring to provide evidence to support the use of this assumption in OWF impact assessments

Indirect effects

- 5.8.76. NE explained [REP9-030] that the applicants had not proposed any monitoring of impacts on linked receptor groups due to impacts on prey species. NE advised that the scope of monitoring should be expanded to investigate and validate these impacts further, particularly with the significance of the arrays being located in both Dogger Bank SAC and the Southern North Sea SAC. NE suggested monitoring was undertaken to investigate foraging activity within the array areas, through the deployment of hydrophones or F-Pods.

ExA's considerations

- 5.8.77. The ExA notes that conditions in the DMLs [REP9-003] state the undertaker must submit pre-construction, construction and post-construction monitoring plans in

accordance with the IPMP [REP7-115], for written approval by the MMO in consultation with the relevant SNCB. The ExA considers that this would enable NE and the MMO to have sufficient oversight over the monitoring that would be undertaken.

- 5.8.78. NE indicated there were outstanding concerns at the close of the examination which had been discussed with the MMO but the detail of those discussions and suggestions for amendments were not submitted into the examination at DL9. Therefore, the ExA would highlight to the SoS that NE, the MMO and the applicants may have further proposed changes to the IPMP [REP7-115] in relation to monitoring for marine mammals.

MIGRATORY BATS

- 5.8.79. The Netherlands Ministry of Infrastructure and Water Management stated that there were known migration routes cross the North Sea for bats in their Regulation 32 submission [OD-12].
- 5.8.80. The applicants responded [AS-117] to say that the bat species Nathusius' pipistrelle, was known to undertake long-distance migrations throughout Europe, including sea crossings. The applicants stated that evidence indicated that the migratory corridors of the species were closely associated with coastlines and changed depending on environmental conditions. Broad migratory flyways were known to run from Russia to Spain, following the northern coastline of mainland Europe. Narrower migratory flyways were known to branch off the coastal broad flyway into Germany, Switzerland and Czechia. Data on the migratory routes, patterns and behaviour of Nathusius' pipistrelles across the North Sea to and from the UK was minimal, with no known number for migrating individuals.
- 5.8.81. The ExA posed a question to The Netherlands Ministry of Infrastructure and Water Management at ExQ1 MM.1.11 [PD-022] asking if the applicants' response adequately addressed their concerns in relation to marine mammals and asking if they were able to provide any information on the potential effects to migratory bats across the North Sea. No response was received from the Netherlands to ExQ1 MM.1.11.

ExA's considerations

- 5.8.82. Given the lack of information on potential effects to migratory bats across the North Sea, the ExA is content with the applicants' response.
- 5.8.83. The ExA was satisfied that the applicants had provided adequate responses to all other raised matters.

CONCLUSIONS

- 5.8.84. The ExA examined all the assessments submitted by the applicants and considered all the issues raised during the examination relating to marine mammals.
- 5.8.85. The ExA is satisfied the applicants' assessment considers all relevant potential environmental impacts in respect of marine mammals during the construction, operation and decommissioning phases of the proposed development alone and cumulatively with other plans and projects.
- 5.8.86. The ExA is satisfied that the applicants have followed the mitigation hierarchy and have proposed sufficient mitigation. The ExA is also content with the applicants'

commitment to noise abatement mitigation and the adequacy of the dDML wording in relation to securing underwater noise mitigation in schedules 10 and 11, part 2, condition 15(1)(g), schedules 12 and 13, part 2, condition 13(1)(g). However, the ExA notes that despite the application of all the proposed mitigation measures, there could still be a residual chance of marine mammals being injured, and that this possibility of harm cannot be ruled out entirely.

- 5.8.87. To avoid duplication, the ExA reports on marine mammal qualifying features in the HRA section (section 6 and appendix C) of this recommendation. However, any impacts on those marine mammals as receptors in their own right have been considered here alongside those set out above when considering the planning balance.
- 5.8.88. The ExA is satisfied that the proposed development is in accordance with NPS EN-1, NPS EN-3 and where relevant NPS EN-5, the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans, the UK Marine Policy Statement, with other national and local policies and strategies and all other relevant legislation and there are no other important or relevant considerations.
- 5.8.89. The ExA is satisfied that the applicants have demonstrated that the impacts associated with the proposed development would be satisfactorily mitigated and managed through the commitments identified in the Commitments Register [\[REP9-009\]](#), ES Chapter 11 [\[REP7-045\]](#) and the IPMP [\[REP7-115\]](#), which are secured by the relevant requirements and conditions in the recommended draft DCO (appendix F).
- 5.8.90. Given the conclusions above, the ExA considers that the identified adverse effects on marine mammals carry a little negative weight against making the Order

5.9. MARINE AND COASTAL PROCESSES

INTRODUCTION

- 5.9.1. This section considers the effects of the proposed development on marine and coastal processes.
- 5.9.2. Of relevance to this section are the Habitats Regulations Assessment (HRA) which is provided at appendix C and the assessment of the impacts on Marine Conservation Zones (MCZ) which is discussed at appendix D of this Recommendation. In addition, matters regarding Benthic and Intertidal Ecology are considered in section 5.10 of this Recommendation.
- 5.9.3. In its consideration, the Examining Authority (ExA) has had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) (section 5.6)
 - the National Policy Statement for Renewable Energy EN-3 (NPS EN-3) (section 2.8)
 - the National Policy Statement for Electricity Networks Infrastructure EN5 (NPS EN-5) (sections 2.13, 2.14 and 2.15)
 - the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans and the United Kingdom (UK) Marine Policy Statement (MPS)
 - the Local Impact Report (LIR)

- any matters prescribed in relation to the development
- any other important and relevant matters

THE APPLICATION

5.9.4. The applicants' assessment of marine and coastal processes was in Environmental Statement (ES) Chapter 8 (Marine Physical Environment) (application version: [\[APP-080\]](#), final version: [\[REP7-035\]](#)). The chapter:

- presented the existing environmental baseline and identified any assumptions and limitations encountered in compiling the environmental baseline information
- presented the potential environmental effects of the proposed development on marine and coastal processes during the construction, operation and decommissioning phases, and considered cumulative effects
- highlighted any necessary monitoring and mitigation measures which could avoid, reduce, or mitigate the possible environmental effects of the proposed development on marine and coastal processes

5.9.5. The assessment drew upon information in:

- Appendix 8-2 Met Mast Survey Analysis [\[APP-083\]](#)
- Appendix 8-3 Marine Physical Processes Modelling Technical Report (application version: [\[APP-084\]](#), final version: [\[REP2-017\]](#))

5.9.6. Other relevant application documents included:

- Disposal Site Characterisation Report (application version: [\[APP-242\]](#), final version: [\[REP7-113\]](#))
- Cable Statement (application version: [\[APP-244\]](#), final version: [\[REP6-043\]](#))
- In Principle Monitoring Plan (IPMP) (application version: [\[APP-247\]](#), final version: [\[REP7-116\]](#))
- Outline Offshore Operations and Maintenance Plan (oOOMP) (application version: [\[APP-248\]](#), final version: [\[REP2-045\]](#))
- Outline Scour Protection Plan (oSPP) (application version: [\[APP-251\]](#), final version: [\[REP6-045\]](#))
- Stage 1 MCZ Assessment (application version: [\[APP-240\]](#), final version: [\[REP7-111\]](#))

5.9.7. Additional documents submitted during the examination and of relevance to the assessment included:

- Review of evidence on recovery of sandbank habitat following habitat damage [\[REP3-021\]](#)
- Coastal Erosion Rate Technical Note [\[REP3-023\]](#)
- Benthic Ecology Technical Note [\[REP3-025\]](#)
- Bed Mobility and Thermal Environment [\[REP3-032\]](#)
- Review of Flamborough Front [\[REP4-092\]](#)
- Assessment of Coastal Processes at the Dogger Bank South Landfall [\[REP5-040\]](#)

BASELINE

5.9.8. ES Chapter 8 [\[REP7-035\]](#) was supported by a Marine Physical Processes Modelling Technical Report [\[REP2-017\]](#) which provided information on the methodology and results of the wave, hydrodynamic and sediment dispersion modelling works for the proposed development. Relevant marine processes encompass:

- suspension and transport of sediment
- water quality
- seabed morphology
- bedload sediment transport
- tidal and wave regimes
- water circulation

5.9.9. The study area was defined in section 8.3.1 of ES Chapter 8 [\[REP7-035\]](#) and was based on the offshore order limits including the immediate vicinity (near-field) as well as wider areas of seabed and coastline (far-field) that may be affected indirectly by the proposed development. The zone of potential influence was defined on the basis of different effects and locations as detailed in table 8-1 of ES Chapter 8 [\[REP7-035\]](#).

5.9.10. The applicants' assessment described the characterisation of the existing environment based on existing and site-specific survey data, including the provision of marine geophysical surveys, a seabed grab sampling survey, geotechnical borehole surveys, and metocean data from wave buoys. The surveys indicated that the seabed in the Dogger Bank South (DBS) East array area was predominantly sand with minor components of gravels and fines. In the DBS West array area, a mix of sand dominated sediment was evident in the eastern and northern part, and sandy gravel was evident in the south-west corner. Seabed sediment in the offshore export cable corridor was predominantly identified as sand with minor components of fines, with evidence of morphological features including megaripples and sand waves.

5.9.11. Relevant receptors were identified in table 8-26 of ES Chapter 8 [\[REP7-035\]](#) and comprised designated and non-designated sites. These included the geological features of the Holderness Inshore MCZ and Holderness Offshore MCZ, Smithic Bank, the Holderness Cliffs, the Flamborough Front, the Humber Estuary, Dogger Bank, and inshore and offshore marine waters.

MITIGATION AND MONITORING

5.9.12. The applicants proposed several measures to reduce the impact of the proposed development on marine and coastal processes. These measures were defined as embedded mitigation measures, considered an inherent part of the design of the proposed development and detailed in table 8-3 of ES Chapter 8 [\[REP7-035\]](#). The measures were either secured by way of requirements (R) in schedule 2 or in the Deemed Marine Licences (DML) of the draft Development Consent Order (dDCO) [\[REP9-003\]](#). These included:

- The use of scour protection around foundations.
- The use of pile driving for piled foundation types in preference to drilling.
- A commitment to burial of offshore export cables to 0.5-1.5 metres (m) where practicable.
- Route selection and micro-siting of the offshore export cables.
- Installation of offshore export cables at the landfall using a trenchless technique, with the landfall exit pits located at least 350m below mean low water springs (MLWS).
- No anchoring or use of jack-up vessels in the construction buffer zone which would overlap with the Holderness Inshore MCZ or Smithic Bank sandbank without prior agreement from the Marine Management Organisation (MMO) in consultation with Natural England (NE).

- The production of a project environmental management plan to provide information on procedures and measures to minimise risk, and effects in the event of an accidental spill.
- Burying of cables, without use of cable protection, in the intertidal zone at landfall and 350m seaward of MLWS. Between 350m seaward of MLWS and the 10m depth contour, cable protection would be limited to a maximum of 10%.
- Cable bundling in individual trenches comprising one trench per project of the offshore export cables from DBS East and DBS West.
- In case of a need for sand wave levelling, the provision of a plan with details relating to sand wave levelling, deposition and sandbank recovery as part of the final Cable Statement. Cable installation would be undertaken as soon as reasonably practicable after sand wave levelling.
- Dredging to be minimised as much as possible and disposal of dredged material on like sediments for all areas within the order limits.
- In case of a need to cross sand waves, a commitment to cross, where conditions allow, at an angle as close to 90 degrees as possible.
- Characterisation of seabed geomorphology as part of proposed pre-construction surveys and monitoring of geomorphological change and seabed recovery post-construction.
- Consideration of risks due to use of plastic materials as part of the final Scour Protection Plan.

5.9.13. Proposed monitoring was set out in table 1-2 of the IPMP [REP7-115] and comprised pre- and post-construction monitoring to identify any potential effects in terms of changes in seabed level and the sediment transport regime. This included monitoring of sand waves and sandbanks to assess recovery rates and re-exposure of buried cables, and monitoring of scour protection measures and secondary scour to identify the extent, volume and integrity of any scour protection used. In addition, monitoring was proposed for the Flamborough Front to identify potential changes to water circulation due to the introduction of infrastructure. Pre-construction monitoring would include the establishment of the duration and frequency of the Flamborough Front in the array area. This would inform any post-construction monitoring to determine the scale of near- and far-field wake related effects from foundations.

ASSESSMENT OF EFFECTS

Construction phase

5.9.14. The applicants' assessment [REP7-035] identified that construction activities would comprise seabed preparation and cable and foundation installation, including protection and scour placement and associated works. This could result in potential impacts on the identified receptors due to:

- changes in suspended sediment concentration (SSC) and transport due to seabed preparation for foundation installation, drill arisings from foundations and cable installation (array, inter platform and export cable corridor)
- deterioration in water quality associated with release of any sediment bound contamination
- changes in seabed level due to seabed preparation for foundation installation, drill arisings from foundations and cable installation (array, inter platform and export cable corridor)
- changes to bedload sediment transport due to cable installation activities at landfall
- indentations on the seabed from installation vessels

5.9.15. Unexploded ordnance (UXO) clearance is considered in ES Chapter 9 (Benthic and Intertidal Ecology) [REP7-039]).

5.9.16. Of the effects assessed for the construction period, all were either considered to be negligible or minor adverse. The assessment concluded therefore, there would be no significant adverse effects from the proposed development on the receptors identified for the marine physical environment during the construction period and no additional mitigation was proposed.

Operational phase

5.9.17. ES Chapter 8 [REP7-035] identified activities that might cause effects during the operational phase including the removal, repair or reburial of cables and indentations on the seabed from maintenance works, as well as ongoing effects from the placement of cable and scour protection and presence of the infrastructure. This could potentially result in:

- changes to the tidal and wave regime due to the presence of infrastructure (wind turbines and offshore platforms)
- changes to the Flamborough Front due to the presence of infrastructure (wind turbines and offshore platforms)
- changes to bedload sediment transport and seabed morphology due to the presence of infrastructure (wind turbines and offshore platforms) and presence of cable protection measures
- requirement for cable repairs and reburial
- deterioration in water quality associated with release of any sediment bound contamination due to cable repairs and reburial
- loss of seabed area due to the footprint of foundations
- indentations on the seabed due to maintenance and repair vessels

5.9.18. The assessment of operational effects concluded that all would be either negligible or minor adverse. Consequently, none of the impacts were assessed as to be significant in the context of the Environmental Impact Assessment (EIA) and no additional mitigation was proposed.

Decommissioning

5.9.19. The applicants' assessment [REP7-035] anticipated that all structures above the seabed would be completely removed and that some or all of the export cables would be removed. The assessment predicted the decommissioning phase to be the reverse of construction, and that the magnitude of effects would be comparable to or less than that identified for the construction period.

5.9.20. The detailed methodology and activities for offshore decommissioning would be determined at a later stage, and one or more offshore decommissioning programme(s) would be submitted prior to commencement of the offshore works. R7 of the dDCO [REP9-003] would secure the provision of these details.

ISSUES CONSIDERED DURING THE EXAMINATION

5.9.21. The main matters considered during examination related to the:

- assessment methodology including the scope of receptors in the ES and the sensitivity assessment of Dogger Bank and Smithic Bank
- sediment disposal, sand wave levelling and mitigation
- drill arisings

- proposed dredge volume in the offshore export cable corridor
- impacts from trenchless landfall works
- cable and scour protection requirements
- impacts on the Flamborough Front
- cumulative effects
- other matters

ASSESSMENT METHODOLOGY

Scope of receptors in the ES

- 5.9.22. NE's relevant representation (RR) [[RR-039](#)] noted disagreement with the applicants' list of marine physical environment receptors and expressed concerns that, whilst Dogger Bank had been included as a receptor in the assessment, Dogger Bank Special Area of Conservation (SAC) had not. NE argued that the qualifying feature of Dogger Bank SAC was Annex I sandbank which could be directly and indirectly affected by project-related changes to its physical structure, topography, and sediment composition and distribution. In response, the applicants [[AS-048](#)] explained that, regarding the marine physical environment, principal receptors were chosen based on coastal or marine features with an inherent geological or geomorphological value or function which may be affected by the proposed development. As a result, potential effects on the Dogger Bank SAC were assessed in the Report to Inform the Appropriate Assessment (RIAA) HRA (Part 2 of 4) [[REP7-016](#)] and the morphological component of the Dogger Bank SAC, as assessed for marine physical processes, would therefore be Dogger Bank. NE maintained its disagreement in its deadline (DL) 2, 3, 4 and 5 [[REP2-069](#), [REP3-060](#), [REP4-129](#), [REP5-061](#)] responses.
- 5.9.23. The applicants further highlighted [[REP3-028](#), [REP5-037](#)] that the Dogger Bank SAC was previously included as a receptor in the Preliminary Environmental Information Report (PEIR). However, the applicants stated that discussions with NE at the benthic ecology and physical processes expert topic group meeting held on 29 January 2024 concluded a separate assessment for consideration of effects on the Dogger Bank SAC was appropriate, and that the SAC designation did not contain any geological features. However, whilst NE continued to maintain its objection at DL6, DL7 and DL8 [[REP6-077](#), [REP7-154](#), [REP8-056](#)], it did not provide a response to the applicants' statement that this had been discussed and agreed previously.
- 5.9.24. The final signed Statement of Common Ground (SoCG) between the applicants and NE [[REP9-018](#)] confirmed that no agreement had been reached on this matter at the end of the examination, but it was agreed in the SoCG that the matter would have no material impact on the determination of the application.

ExA's considerations

- 5.9.25. The ExA agrees with the applicants' explanation that the designation of Dogger Bank as a SAC relates to its qualifying features as Annex I sandbank habitat and the ExA is satisfied that potential effects have been assessed in the RIAA [[REP7-016](#)]. The relevant assessment of the Dogger Bank SAC designation is considered in the HRA (appendix C of this Recommendation) and impacts regarding ecological features of the Dogger Bank in section 5.10(Benthic and Intertidal Ecology) of this Recommendation.
- 5.9.26. Therefore, the ExA concludes that the Dogger Bank SAC should not be included as a receptor in the consideration of marine and coastal processes. The ExA is of the

view that the inclusion of Dogger Bank as a receptor has appropriately considered the relevant impacts that could occur during construction and operation of the proposed development on marine and coastal processes.

Sensitivity assessment of Dogger Bank and Smithic Bank

- 5.9.27. NE expressed concerns [RR-039] that the value of Dogger Bank and Smithic Bank had been assessed as low, which had not acknowledged the national and international importance and wider-scale ecological importance of the Dogger Bank, or the relevance of Smithic Bank as a shelter to the northern part of the Holderness Coast including Bridlington, as an important fish nursery and feeding ground. NE also highlighted [RR-039] Smithic Bank's importance regarding longshore sediment supply towards Spurn Point, the designated geological feature of the Holderness Inshore MCZ. NE's view was that both receptors should therefore be assigned a high value. In their responses [AS-048, REP3-028], the applicants acknowledged the local and regional importance of the receptors and re-assigned the value for Dogger Bank and Smithic Bank to medium. They disagreed that a high value would be appropriate, noting that the features were not formally designated for geological or geomorphological matters.
- 5.9.28. NE disagreed [REP2-069, REP3-060], and the matter of value was explored further at issue specific hearing (ISH) 5 [EV10-006] and summarised in the applicants' Written Summaries of Oral Submissions [REP4-086]. The applicants reiterated that the designation of Dogger Bank was in relation to sandbank habitats and that it was designated under the Habitats Regulations for its ecological, and not geological, purpose. In terms of its morphology, the applicants considered this to be a complex set of glacial landforms covered with a veneer of sand and as a result, it should not be assigned a high value and was not assessed as such.
- 5.9.29. At ISH5 [EV10-005], the ExA sought to understand potential implications if the assessment of sensitivity in the ES was updated to assign high value to Dogger Bank or Smithic Bank. The applicants explained [EV10-005, REP4-086] that sensitivity was not solely based on value but would also need to consider the tolerance of the features to the impact and their recoverability. The applicants considered Dogger Bank to be highly tolerant to the placement of localised cable protection and if removed, would recover immediately. Therefore, because of the high recoverability and high tolerance, a change in value would not necessarily change the sensitivity, as a balance of all 3 would be considered in the judgement.
- 5.9.30. However, NE maintained its objection at DL5 [REP5-061] and in response, the applicants updated ES Chapter 8 at DL7 [REP7-035] and assigned a high value to Dogger Bank. The applicants explained that Dogger Bank as a geomorphological feature was not designated but considered to be of national and international importance for influencing oceanographic conditions in the southern North Sea. However, the applicants noted that, as the assessed impact would not influence the broad-scale morphology of Dogger Bank which in turn would influence oceanographic conditions, its value was not considered in the definition of sensitivity, and the resulting sensitivity of the receptor was defined as negligible.
- 5.9.31. NE [REP8-055, REP9-018, REP9-031] welcomed the amended high value for Dogger Bank but did not agree with the applicants' method of sensitivity assessment in that the value had not been considered in the definition and on that basis, did not agree that impacts would be negligible. NE advised that a requirement for an updated pre-construction modelling report of the final built out design should be submitted. However, the applicants argued at DL9 [REP9-021] that

hydrodynamic modelling would be used to determine the magnitude of impact based on a realistic worst-case scenario, and updated modelling would not lead to a change in the definition of sensitivity. At the end of examination, in the SoCG between the applicants and NE [\[REP9-018\]](#), the applicants maintained the view that the value of Annex I habitats would be considered as part of the HRA process and boundaries of designated sites were not relevant for the EIA process. In the applicants' view, if receptors were to be afforded higher sensitivity in the EIA based on value and not ecological sensitivity, this would stray into the HRA.

- 5.9.32. Regarding Smithic Bank, the applicants [\[REP6-052\]](#) queried NE's advice that the Bank was a feature of conservation importance. The applicants stated that, as Smithic Bank was not designated, it would not be clear what features of the sandbank were considered to have conservation importance and how they would relate to marine physical processes. Based on the definitions for value provided in ES Chapter 8 [\[REP7-035\]](#), the applicants re-considered the value of Smithic Bank, re-assigned it a low value and explained at DL6 [\[REP6-052\]](#) that it was not designated, but of local importance for marine geology, oceanography and physical processes. The value as a fish nursery and feeding grounds was considered in relevant ES Chapter 10 (Fish and Shellfish Ecology) [\[REP7-042\]](#). The applicants argued that for Smithic Bank to be assigned medium value it would need to be of regional importance. NE maintained its disagreement [\[REP8-055\]](#), arguing that Smithic Bank should be given a high value and, as a minimum, NE considered that this could be addressed by including similar requirements placed on the Hornsea Project Four offshore wind farm (OWF) Order, which included pre-construction updates of modelling of the final built out design and inclusion of monitoring.
- 5.9.33. At DL9, the applicants [\[REP9-021\]](#) maintained their position that they had already modelled the worst-case scenario, and any further modelling would undermine the Rochdale envelope. In addition, the applicants noted that they committed to undertaking pre-and post-construction monitoring as part of the IPMP [\[REP7-115\]](#), which included reference to Smithic Bank and a commitment to monitor changes in sediment transport around any cable protection measures in water depths of less than 10m should any cable protection be deployed.
- 5.9.34. At the close of examination, the issue remained unresolved as highlighted in the SoCG between the applicants and NE [\[REP9-018\]](#).

ExA's considerations

- 5.9.35. The ExA agrees with the applicants and NE that the value of Dogger Bank as part of the sensitivity assessment should be classified as high as the evidence suggests that the receptor is of national and international importance in line with the applicants' assessment methodology.
- 5.9.36. The ExA notes disagreement between the applicants and NE on the method of the sensitivity assessment of Dogger Bank. It is disputed whether value would need to be considered in the definition of sensitivity and consequently, whether the sensitivity of Dogger Bank has been appropriately assessed as negligible.
- 5.9.37. The ExA disagrees with the applicants and does not consider that value should be excluded from the assessment of sensitivity. The ExA considers the applicants' conclusion, that value would not need to be included in the definition of sensitivity as the impact would not influence the broad-scale morphology of Dogger Bank, which in turn influences oceanographic conditions, is not appropriately evidenced. The ExA considers that by agreeing that the value for Dogger Bank is high regarding

marine physical processes would indicate some relevance that would need to be taken into account when assessing overall sensitivity levels. Whilst the ExA acknowledges that any reference to the SAC designation or ecological features is assessed and considered in the relevant (other) sections of this Recommendation, the influence of oceanographic conditions would suggest that value is also relevant to the assessment of marine and physical processes. Therefore, this should be given some weight in the assessment of overall sensitivity.

- 5.9.38. The ExA notes that the applicants have not given consideration as to how the significance of effects assessment would have changed if the value of Dogger Bank had been included. However, the ExA is mindful that if a change to the value of Dogger Bank had increased the overall level of sensitivity for the identified impacts from negligible to low, or low to medium, these would have remained as not significant in EIA terms for all but one impact (loss of seabed area due to the footprint of foundations during the operational phase).
- 5.9.39. Therefore, the ExA considers that on a worst-case scenario basis, the sensitivity for the loss of seabed area due to the footprint of foundations could change from negligible to low, with an identified high magnitude of impact for the near-field area. This would result in a moderate adverse pre-mitigation significance of effect. However, no additional mitigation has been considered by the applicants, and the effects on that basis would remain significant adverse.
- 5.9.40. Regarding Smithic Bank, the ExA notes that it is not protected by designation, however, evidence provided by NE would suggest that the feature might have some regional importance by providing shelter to the northern part of the Holderness Coast and by affecting the longshore sediment transport towards Spurn Point. Whilst the ExA acknowledges the reference to its importance as a fish nursery and feeding grounds, no compelling evidence was presented to demonstrate its importance beyond this. The ExA notes that the cable corridor and landfall are located south of Smithic Bank and longshore sediment transport direction along the coast is north to south with no clear impact pathway identified between the proposed development and Smithic Bank. In line with the applicants' assessment methodology, the ExA considers the receptor to be of local to regional importance for marine geology, oceanography or physical processes and therefore, should be given medium value.
- 5.9.41. The ExA concludes that the value of Smithic Bank was underestimated by the applicants, which resulted in the overall sensitivity assessment of Smithic Bank being identified as negligible rather than low rating. However, a change from negligible to low would not have altered the assessment of the potential effects identified in the ES and these would have remained not significant in EIA terms. In addition, the ExA considers the proposed monitoring as detailed in the IPMP [\[REP7-115\]](#) to be proportionate

SEDIMENT DISPOSAL, SAND WAVE LEVELLING AND MITIGATION

- 5.9.42. While general matters around sediment disposal sites were agreed with the MMO by the end of the examination, some disagreement remained about detail.
- 5.9.43. NE noted [\[RR-039\]](#) that construction activities, including cable installation and foundation preparation, could impact sand waves and similar bedforms. Therefore, NE advised that all efforts should be made to avoid areas of sand waves or minimise the need for sand wave levelling and pre-sweeping by micro-routing. This included the suggestion to dispose of sediment in Marine Protection Areas (MPA) in

areas of similar sediment type as close to and updrift of the original sand wave and that it would be deposited using a fall pipe.

5.9.44. The MMO [\[RR-030\]](#) raised similar concerns about the disposal of sediment and also requested that dredged material should be disposed of on similar sediment types. In addition, NE highlighted [\[RR-039\]](#) that the proposed mitigation would be insufficient and suggested a range of additional measures, including:

- the requirement for all dredged sediment within the Dogger Bank SAC to be deposited through use of a fall pipe and adjacent and upstream of the dredge location
- the use of a fall pipe along the offshore export cable corridor where there would be a risk of increases in SSC impacting designated site features
- deposition from sand waves to avoid areas of priority habitats under Natural Environment and Rural Communities Act 2006 (NERC Act 2006) by the inclusion of a 50m buffer zone

Like on like sediment disposal

5.9.45. The applicants [\[AS-048\]](#) originally contested the request for similar sediment disposal, arguing that the variety of sediment types present in the Dogger Bank area would make it difficult and onerous to comply with the request. The applicants considered their commitment, that any sediment removed from within the Dogger Bank SAC boundary during construction activities would be disposed of in the SAC boundary, to be sufficient. The matter was discussed at ISH2 [\[EV5-007\]](#), but no further commitment was made by the applicants. NE continued to advise at DL2 [\[REP2-065\]](#) that dredged material should be placed at a location that enabled it to remain within the sediment system and continued to advise monitoring. Whilst the applicants highlighted [\[REP3-028\]](#) that no likely significant effects had been identified, and there was no need for mitigation, they agreed to commit to the disposal of sediment on like sediment at DL3. The updated Cable Statement [\[REP6-043\]](#) included a commitment to this. In response to the ExA's second written questions (ExQ2) [\[REP5-036\]](#), the applicants agreed that the commitment would not just cover the array areas, but also the offshore export cable corridor and a commitment (C192 - Dredging) was added to the updated Commitments Register [\[REP9-009\]](#) in this regard.

Deposition of sediment updrift

5.9.46. A commitment to depositing sediment updrift of areas of dredging activity was not accepted by the applicants [\[REP5-036\]](#), [\[REP6-052\]](#), [\[REP7-154\]](#) as it was argued that it would potentially incur avoidable environmental impacts due to a potential time lag between dredging and disposal. Dredged sediment would likely move into the previously dredged area through natural processes, and this could require further dredging. NE argued at DL6 [\[REP6-072\]](#) that this had not been raised by any other projects as a concern and considered that the applicants should apply best endeavours to ensure the preparatory and installation works would align.

Use of fall pipe or down pipe

5.9.47. The applicants highlighted [\[AS-155\]](#) that the preferred method of dredging would be to carry out seabed preparation using a trailing suction hopper dredger (TSHD) with the use of a bottom deposition, which would allow the sediment to be released from the underside of the vessel, to discharge sediments in the consented disposal grounds. The applicants claimed at DL3 [\[REP3-028\]](#) and in response to questions at ISH5 [\[REP4-086\]](#) that they were not aware of a TSHD that possessed a fall pipe or

down pipe that would meet the proposed development's requirements and therefore, did not consider this to be a suitable option. NE disagreed with the applicants and noted in their DL4 response [\[REP4-126\]](#) and in response to ExQ2 [\[REP5-062\]](#) that Five Estuaries and Outer Dowsing OWFs had committed to using a down pipe or discharge pipe and that, if this was not available for the proposed development, alternative appropriate solutions should be investigated. The applicants continued to disagree with NE at DL5 and DL7 [\[REP5-036\]](#), [\[REP7-131\]](#), expressing their understanding that no such commitment was made by Outer Dowsing OWF. They reiterated previous concerns that the recommended system was not available to their engineering team and that they would not be able to commit to delivering mitigation that was not believed to be technically feasible, creating a risk to the proposed development. NE considered [\[REP5-062\]](#) that whilst the details of the commitment could be agreed post-consent, an understanding of the principle should be secured during examination. At the end of examination, the applicants and NE continued to disagree on this matter.

50m buffer around NERC Act 2006 sites

- 5.9.48. The applicants confirmed in response to questions from the ExA at ISH2 [\[REP1-050\]](#) that post-consent surveys would re-confirm the presence or absence of any important habitats for micro-siting purposes and as part of the condition for additional surveys, a 50m standoff around identified UK Biodiversity Action Plan habitats would be applied and agreed with stakeholders. This is further considered in section 5.10 (Benthic and Intertidal Ecology) of this Recommendation and was resolved through C091 of the Commitments Register [\[REP9-009\]](#).

NE's additional mitigation advice

- 5.9.49. At DL5, NE stated [\[REP5-054\]](#) that it was satisfied with the assessment for sand wave clearance in the offshore export cable corridor in relation to SSC. However, this was on the basis that stronger commitments regarding mitigation would be made during examination. Whilst NE welcomed the commitment to disposing sediment on like sediment, it continued to advise that deposition of dredged sediment should be adjacent to and slightly updrift, and that a down pipe or fall pipe should be used for targeted disposition. NE also advised of additional mitigation measures to reduce the potential environmental impacts. These included:

- seeking to avoid areas of sand waves and minimising the need for sand wave levelling by micro-routing of cables
- crossing of sand waves at a high crossing angle to minimise dredge volumes
- cable installation as soon as possible after levelling activity
- provision of an outline sand wave levelling, deposition and recovery plan, either standalone or as part of the Cable Statement
- seeking to avoid dredging at depth where surface sediment changes
- commitment to pre- and post-construction monitoring to assess geomorphological recovery after cable installation

- 5.9.50. The applicants confirmed [\[REP6-062\]](#) that the additional suggested mitigation to avoid areas of sand waves and minimise the need for sand wave levelling was already included in the Commitments Register [\[REP9-009\]](#) (C089 - route selection and micro-siting). In addition, the applicants confirmed that the Cable Statement [\[REP6-043\]](#) had been updated to include statements that where sand waves would need to be crossed, this would be done at an angle as close to 90 degrees as possible. In addition, the applicants confirmed that cable installation would occur as soon as reasonably practicable after levelling and that a plan for sand wave levelling would be provided as an appendix to the final Cable Statement(s), if required.

- 5.9.51. Regarding the proposed dredging depth, the applicants explained [REP6-052] that this would be based on the need to achieve sufficient protection for the burial of cables into the underlying seabed. The required target levels would be demonstrated through the final Cable Burial Risk Assessments (CBRA). The applicants considered that there could be a need for greater use of cable protection if target burial depth was not achieved. The applicants were of the view that NE would prefer dredging at sufficient depth instead of using additional cable protection. Therefore, this suggested mitigation measure was not applied by the applicants and was not queried further by NE in subsequent submissions.
- 5.9.52. The applicants noted [REP6-052] that proposed pre- and post-construction monitoring had already been committed to in the IPMP [REP7-115] and would be appropriate at this stage, allowing NE the opportunity for further input post-consent. At DL9 [REP9-031] NE welcomed commitments C192 (Dredging) and C196 (Seabed geomorphology) as part of the updated Commitments Register [REP9-009] and considered these sufficient to address previous concerns.
- 5.9.53. At the end of examination, the applicants considered [REP9-018] that all reasonable mitigation and monitoring proposals had been committed to regarding potential sand wave levelling. However, NE disagreed [REP9-018] and maintained its advice regarding the use of a fall pipe or down pipe and disposition of sediment updrift of sand waves.

Impacts on the Holderness Offshore MCZ

- 5.9.54. NE also noted [REP8-051] outstanding concerns regarding features of the Holderness Offshore MCZ. Whilst NE was satisfied with the predictions in the applicants' assessment that sediment deposition from trenching and levelling for the offshore export cable corridor would be localised and the seabed recoverable, this would be dependent on the appropriate mitigation being secured, including the commitment to using a fall pipe for deposition and depositing of sediment updrift of dredging locations. The ExA's findings and conclusions regarding MCZs are presented at appendix D of this Recommendation.

ExA's considerations

- 5.9.55. The ExA notes the applicants' approach towards sand wave levelling and the outstanding disagreement between the applicants and NE on whether the mitigation measures should include the use of a fall pipe or down pipe and the deposition of dredged materials updrift of sand waves.
- 5.9.56. The ExA heard little compelling evidence to support the applicants' conclusion that there would be a potential time lag between dredging and disposal, and that this time lag could result in avoidable environmental impacts. As such, the ExA disagrees with the applicants' as to their explanation why sediment could not be deposited updrift.
- 5.9.57. Regarding the proposed use of a TSHD with a down pipe or fall pipe for sand wave levelling, the ExA notes the applicants' continued explanation during examination as to the non-availability of the equipment for the proposed development. The ExA agrees that it would not be of benefit to commit to delivering mitigation that is not feasible. Whilst the ExA notes that a commitment appears to have been made by Outer Dowsing OWF, the ExA has not received further evidence from any interested parties (IP) or the applicants during examination of its appropriateness or feasibility. The ExA sought to elicit further understanding of the availability of the equipment from NE during examination, however, no further details were received.

- 5.9.58. The ExA accepts the applicants' conclusion that no likely significant effects have been identified during the construction phase, including for cable installation and foundation preparation. On that basis, the ExA is content that, whilst the evidence for not proposing to dispose of sediment updrift was incomplete and not fully justified, no additional mitigation would need to be provided. In addition, the ExA is mindful that the applicants have sought to accommodate most of the other mitigation measures suggested by NE.
- 5.9.59. The ExA therefore considers that the proposed mitigation measures and monitoring proposals for sand wave levelling, as detailed by the applicants, and secured in the DMLs including through the Cable Statement [REP6-043], the Commitments Register [REP9-009] and the IPMP [REP7-115] are reasonable and sufficient to ensure there would be no unacceptable impact from proposed sand wave levelling and dredging on marine physical processes.

DRILL ARISING

- 5.9.60. NE raised concerns [RR-039] regarding the placement of drill arisings adjacent to proposed turbines and considered [REP5-061] that they should be deposited on similar sediment in the footprint of any scour prevention. Concerns were also raised that arisings could move into surrounding Annex I sandbanks. This is considered at appendix C (HRA) of this Recommendation.
- 5.9.61. Whilst NE welcomed [REP9-030] the inclusion of monitoring for drill disposal mounds in the IPMP [REP7-115], it was concerned this would only apply where drill mounds would persist above 3m from the surrounding seabed. NE was of the view that it should include all disposal mounds, regardless of size. The applicants maintained the view throughout examination [REP3-028, REP4-088, REP5-037, REP6-052, REP7-131] that the drilling platform would sit on top of the monopile being installed and drill arisings would be discharged into the sea during the drilling process, remaining in close proximity to the drilling location whilst minimising interference with any pre-installed scour protection or planned cable corridors. The applicants confirmed there was no intention to move or interfere with the arisings once deposited.

ExA's considerations

- 5.9.62. The ExA notes that the assessment did not identify any significant effects regarding drill arisings from foundation installation. The ExA is also mindful that monitoring of drill mounds has been included in the IPMP [REP7-115]. However, the ExA notes that the final wording was not agreed between NE and the applicants on the detail of the monitoring provision. The ExA considers that the MMO and NE would have sufficient control over the content of the final IPMP, which would need to be discharged as part of the DMLs (schedule 10 and 11, part 2, condition 15; schedule 12 and 13, part 2, condition 13; schedule 14 and 14A, part 2, condition 11) in the recommended draft DCO (appendix F of this Recommendation). The ExA is therefore satisfied that drill arisings adjacent to turbines have been appropriately addressed in relation to marine physical processes.

PROPOSED DREDGE VOLUME IN THE OFFSHORE EXPORT CABLE CORRIDOR

- 5.9.63. NE at DL3 [REP3-051] asked for clarification regarding the estimated maximum dredge volumes for the offshore export cable corridor and a potential discrepancy between the figures in the Cable Statement and ES Chapter 8. The applicants confirmed [REP4-088] that the estimated maximum dredge volume was based on

indicative locations that may require dredging, however, they did not represent the final parameters for installation. On the worst-case basis, the assumption was made that dredging would occur across the entire length of the offshore export cable corridor. The figures would be refined as part of the final Cable Statement post-consent, once further information about the area became available and the detailed design progressed. The applicants also highlighted at DL6 [\[REP6-052\]](#) that the assessment in ES Chapter 8 [\[REP7-035\]](#) had already concluded that no significant effects would occur because of potential dredging activities for the proposed development. On that basis, there would be no material difference in the assessment conclusions should the figure stated in the Cable Statement [\[REP6-043\]](#) be used instead.

- 5.9.64. Whilst NE welcomed the reduction in dredge volumes due to proposed cable bundling [\[REP6-072\]](#), at the end of the examination NE maintained its objections [\[REP9-031\]](#) that the proposed dredge volumes provided in ES Chapter 5 [\[REP7-032\]](#) and ES Chapter 8 [\[REP7-035\]](#) did not match those in the Cable Statement and the worst-case scenario should be refined.

ExA's considerations

- 5.9.65. The ExA is satisfied with the applicants' assessment that the worst-case scenario regarding proposed dredge volumes has been assessed and suitably evidenced as part of the ES. The ExA notes that no significant effects have been identified and agrees with the applicants that any further refinement of the worst-case scenario, whilst desirable, would result in the same conclusions to the overall assessment.
- 5.9.66. Regarding NE's concerns over the potential discrepancy in figures, the ExA is satisfied with the applicants' explanation and, in any event, does not consider that the difference would have a material influence over the conclusion.

IMPACTS FROM TRENCHLESS LANDFALL WORKS

- 5.9.67. NE requested [\[RR-039\]](#) that all potential impacts on seabed and coastal morphology from the proposed trenchless landfall works during the lifetime of the proposed development should be considered and assessed. NE also requested clarification on what material would be used to backfill trenches if the excavated material was to be redistributed and advised that sediment should be stored in a manner that prevented it from being washed away.
- 5.9.68. The applicants responded [\[AS-048\]](#) that potential effects would only occur from jack-up vessels temporarily sitting on the seabed, however, the effects were assessed to be negligible and not significant. In addition, the applicants highlighted that change request 1 had removed the requirement for short trenchless cable installation at landfall. This resulted in the removal of all works from the intertidal area and therefore, would eliminate any further requirement for backfilling of intertidal trenches. NE welcomed [\[REP9-031\]](#) the updates to ES Chapter 8 [\[REP7-035\]](#) to include an assessment of the proposed landfall works and incorporation of change request 1.
- 5.9.69. The applicants confirmed [\[REP7-131\]](#) that the subtidal exit pits would not be located within 350m seaward of MLWS and this was included as a commitment in the Cable Statement [\[REP6-043\]](#). In addition, the applicants stated that the excavated material would be stored alongside the exit pits, and the material would be used for backfilling as far as possible, with the remaining backfill expected to be completed naturally. The applicants confirmed there was no intention to import materials to complete backfill, but should post-installation monitoring, secured as part of the

IPMP [REP7-115], confirm incomplete backfill, the appropriate methodology and materials would be discussed further with relevant stakeholders.

- 5.9.70. NE advised [REP8-056, REP9-031] that a separate marine licence would be required should the need for imported material arise, as use of imported material had not been assessed in the ES. NE stated that the scenario could be preventable using a barge to store excavated material to be used to backfill. The applicants [REP9-018] disagreed and considered sufficient information had been presented on this matter.

ExA's considerations

- 5.9.71. The ExA is satisfied that the proposed landfall works have been appropriately assessed.
- 5.9.72. Whilst the ExA accepts that the potential need to import materials has not been specifically detailed as part of the ES assessment, the ExA notes the applicants' confirmation that import of material to complete backfill was not intended, and the ExA agrees with the applicants that consideration would need to be given to incomplete backfill as part of the proposed monitoring, if required. In this regard, the ExA is mindful of the information provided as part of the IPMP [REP7-115]. This states that the applicants would provide a review of the monitoring results to determine whether these would show an impact within or above the worst-case scenario assessed in the ES. Where an impact would be greater than previously assessed, the monitoring report would include solutions or additional monitoring which would need to be submitted to the MMO and statutory nature conservation bodies (SNCB) for further discussions and their agreement.
- 5.9.73. The ExA is satisfied with the proposed storage of excavated material and concludes that the MMO and NE would have sufficient control over the content of the final IPMP, including agreement of alternative options of backfill, if required.

CABLE AND SCOUR PROTECTION REQUIREMENTS

- 5.9.74. Concerns were raised by NE during examination in relation to cable and scour protection measures, regarding the:
- rationale for proposed cable protection requirements
 - impacts on sediment transport processes
 - risks and implications of secondary scour
- 5.9.75. Matters in relation to cable protection replenishment are considered in section 5.10 (Benthic and Intertidal Ecology) and at appendix C (HRA) of this Recommendation.

Rationale for proposed cable protection requirements

- 5.9.76. NE advised [RR-039] that justification was required for the worst-case requirements for proposed cable protection within the entire offshore area, including the Dogger Bank SAC and outside designated sites along the offshore export cable corridor. The applicants proposed:
- a maximum of 10% cable protection in the Dogger Bank SAC
 - a maximum of 10% cable protection in the nearshore area between MLWS and the 10m depth contour
 - a maximum of 20% cable protection along the remaining offshore export cable corridor

- 5.9.77. Throughout examination, NE advised [RR-039, REP3-060, REP4-129] that further justification was needed for the volumes and extent of proposed cable protection in the Dogger Bank SAC. This remained unresolved at the close of the examination and is considered at appendix C (HRA) of this Recommendation. To avoid duplication, this section considers the requirement for cable protection along the offshore export cable corridor, whilst taking into account, as relevant, the conclusions reached in the HRA. The consideration of nearshore cable protection is discussed in the section 'Impact on sediment transport processes' below.
- 5.9.78. NE raised concerns [RR-039] regarding the rationale for the proposed worst-case scenario, as detailed in table 8-1 of [REP7-035] which assumed that 20% of the cables would require remedial protection along the offshore export cable corridor outside the array area, excluding the nearshore area. NE considered that no clear justification for the figures had been provided. NE highlighted [RR-039] its guidance that cable protection should be limited to a maximum of 10% outside designated sites and over the lifetime of the project.
- 5.9.79. The matter was discussed at ISH2 [EV5-007]. The applicants [REP1-049, AS-155] confirmed that the preferred method and aim was to bury cables and that every effort would be taken to maximise burial to reduce the use of costly, time-consuming remedial protection measures, but that some protection would be needed from physical damage and for environmental protection, longevity and due to ground conditions. The applicants confirmed that the final volumes and locations, which would be presented in the detailed Cable Statement and CBRA, would not exceed worst-case scenario values presented in the ES or dDCO [REP9-003].
- 5.9.80. The applicants added [REP3-028] that the worst-case scenario was informed by available geophysical and geotechnical information. Given their knowledge and experience of developing wind farms, the applicants contended that the worst-case scenario was reasonable and would align with the current design stage of the proposed development. The Cable Statement was updated at DL2 [REP2-039] to include a revised CBRA for the offshore export cable corridor. The applicants explained that the CBRA was preliminary and would likely require further multiple updates once the design of the proposed development was progressed, a contractor had been selected, and the burial methodology finalised. The applicants were clear [REP4-088] that the documents would not be completed or further updated during examination as the information and data were not yet available. Additional surveys were expected to be undertaken in summer 2025. The applicants indicated [REP5-037] that this was a common approach for OWF applications and highlighted [REP3-28, REP4-088] that the final Cable Statement would be submitted to the MMO for approval, and NE would have the opportunity to provide its comments as part the discharge of the relevant conditions on the DMLs.
- 5.9.81. At the end of examination, whilst acknowledging the updated Cable Statement [REP6-044], which had included a plan with indicative locations for remedial cable protection, NE noted [REP7-154, REP8-052] that the worst-case scenario for cable protection of 20% for the offshore export cable route had not been refined down based on the latest information. NE therefore maintained its advice that the rationale for the cable protection in the offshore export cable corridor should be provided. The applicants reiterated [REP9-018] that the final cable protection proposals would be presented in the final Cable Statement, submitted to discharge relevant conditions in the DMLs. The applicants explained that the figures had not been refined further to ensure the absolute worst-case scenario had been assessed in the ES. Whilst no further changes would be made during examination, discussions would continue post-examination.

ExA's considerations

- 5.9.82. The ExA notes NPS EN-1, paragraph 4.3.18 which states that, “the Secretary of State should consider the worst-case impacts in its consideration of the application and consent, providing some flexibility in the consent to account for uncertainties in specific project details”.
- 5.9.83. The ExA accepts the applicants' explanation as to how the worst-case scenario of 20% for remedial cable protection in the offshore export cable corridor (beyond the 10m depth contour) has been arrived at and reasoning as to why they did not provide additional information during examination to justify their position, acknowledging current uncertainties. The ExA also notes and understands the applicants' preference would be for effective burial over remedial cable protection.
- 5.9.84. The ExA is aware that the worst-case scenario would be further refined prior to commencement of construction following further survey works as part of the detailed Cable Statement which is secured through conditions in the DMLs as part of the recommended draft DCO (appendix F of this Recommendation). The MMO, in consultation with the Trinity House, the Maritime and Coastguard Agency (MCA), the relevant SNCB and the United Kingdom Hydrographic Office (UKHO) as appropriate, would be responsible for discharging the conditions.
- 5.9.85. On that basis, the ExA is satisfied that the worst-case scenario for remedial cable protection in the offshore export cable corridor has been appropriately assessed as part of the ES and justification for its acceptability has been provided, subject to further refinement downwards in discussions with the relevant consultees, including the MMO and NE.

Impact on sediment transport processes

- 5.9.86. NE raised concerns [\[RR-039\]](#) that the placement of cable protection, currently proposed as a maximum of 10% in the nearshore area between MLWS and the 10m depth contour could cause permanent disruption to nearshore and longshore sediment transport on the Holderness Coast, and impact features of the Holderness Inshore MCZ in addition to the Humber Estuary SAC and Smithic Bank. The consideration of impacts on the Humber Estuary SAC from nearshore cable protection can be found at appendix C (HRA) of this Recommendation and impacts on the Holderness Inshore MCZ are discussed at appendix D of this Recommendation.
- 5.9.87. In addition, the potential exchange of sediment between Smithic Bank and the Holderness Coast would be an important consideration in terms of nearshore and circulatory sediment transport processes due to the presence of nearby cable protection measures and cable crossings.
- 5.9.88. The following 2 sections consider the impacts from nearshore cable protection on longshore sediment processes and the impacts from cable protection and cable crossings on circulatory sediment transport processes with specific regard to Smithic Bank.

Impacts from nearshore cable protection on longshore sediment transport processes

- 5.9.89. NE requested [\[RR-039\]](#) a commitment to avoid placement of cable protection landward of the 10m depth contour, or that alternative methods of cable burial should be explored in line with the mitigation hierarchy to remove the need for a

proposed maximum of 10% cable protection between MLWS and the 10m depth contour.

- 5.9.90. The applicants confirmed that [\[AS-048\]](#), although no significant effects had been identified, they had committed to using cable protection with a maximum height of 0.5m above the seabed in water depths of less than 10m and this was secured through conditions in the relevant DMLs, namely that cable protection would not change the charted water depth by more than 5%, unless otherwise agreed with the MCA and Trinity House. Given this commitment, the maximum height of cable protection measures would be 0.5m at the 10m depth contour, with this maximum height reducing as the water depth decreases. In addition, the applicants confirmed [\[REP2-058, REP3-028\]](#) their commitment to cable bundling for the offshore export cable corridor had been included in the Cable Statement [\[REP6-043\]](#) and Commitments Register [\[REP9-009\]](#) to reduce the number of required trenches.
- 5.9.91. Whilst NE welcomed [\[REP2-064\]](#) the commitment to separate cable bundling, it questioned how it would be secured in the dDCO. NE also noted that updated cable protection estimates and assessments had not been provided and that the applicants had not demonstrated that a height of cable protection of 0.5m would not disrupt longshore sediment transport along the coastline south towards the Humber Estuary SAC and Spurn Point, the geological feature of the Holderness inshore MCZ.
- 5.9.92. In response to the ExA's questions at ISH2, the applicants noted [\[EV5-007\]](#) uncertainty regarding the ground conditions, with initial surveys identifying rock outcrop and formations in the area around landfall which would require the need to retain the ability for some protection inside the 10m depth contour. The applicants considered that, whilst the risk level was generally low, until further surveys were undertaken, there would be a need to maintain potential to include cable protection in the nearshore area.
- 5.9.93. At DL5, the applicants submitted an assessment of sediment transport modelling regarding nearshore cable protection [\[REP5-040\]](#), providing additional numerical modelling to support the applicants' initial conclusions regarding sediment transport and supply at the landfall during construction and operation. As part of the submission, the applicants modelled a worst-case scenario for nearshore cable protection, located in the shallowest water depth and comprising 2 hump-like structures, 50m apart, with a length of 140m, width of 15m and height of 0.5m. The applicants considered the modelling to be highly precautionary and very unlikely to be constructed as shown. The document concluded that the presence of cable protection measures in the nearshore could, based on a highly precautionary and deeply unlikely scenario, affect the longshore sediment transport budget, but that the effects would be extremely small, at less than 1% of the annual budget. The applicants considered that the assessment remained not significant, and no mitigation was proposed.
- 5.9.94. Whilst NE welcomed the assessment and accepted that the worst-case scenario had been assessed, it remained concerned [\[REP6-071, REP6-072\]](#) regarding potential impacts on the Humber Estuary SAC and Spurn Point further south along the Holderness coastline. NE stated that it was estimated that there would be accumulation of sediment on one side of the cable protection and further justification was needed to support the applicants' suggested one-month value and understand long-term changes to nearshore sediment transport processes. NE noted that if this would occur at each berm, disruption to sediment transport could be longer. NE also noted uncertainty regarding the extent of potential scour on the southern side of the

cable protection and the likely disruption to sediment processes extending along the adjacent coast. NE argued that there was limited information about the potential for the lowering of the seabed by up to 6m over the lifetime of the proposed development raising uncertainty regarding sediment transport and coastal processes. In addition, NE considered that the calculation of annual sediment transport budget, which the applicants had stated would be less than 1%, had not accounted for most of the sediment occurring at the bottom of the water column and could have greater significance. NE also considered that evidence for the worst-case scenario of cable protection in the nearshore was insufficient.

- 5.9.95. The applicants responded to NE's concerns [REP7-131] and considered that model outputs for estimating the time required to form a ramp would be reasonable and that the absolute worst-case scenario, whilst not realistic, at a change of less than 2% would be small in comparison to volume of sediment being transported along the coast from erosion. The applicants noted that monitoring of cable burial and protection would be undertaken, and additional information would be provided as part of the final CBRAs. The applicants confirmed that the modelling had accounted for sediment occurring at the bottom of the water column and that it had assumed 100% blockage with no bypass, with the absolute worst-case scenario of cable protection measures having the potential to interrupt around 1.75% of the annual sediment transport budget. The applicants also acknowledged that the worst-case scenario for changes to sediment transport budget at the landfall would be less than 1% but this would be less pronounced with distance from the cable protection measures.
- 5.9.96. The applicants also explained that they had undertaken additional numerical modelling, at a level beyond that which had ever been required for other schemes making landfall along the Holderness coast, to provide the evidence base to support the conclusions of the ES. The applicants stated that NE had not, at any point in this examination or before, provided evidence to support its own assumptions and requirements and therefore could not 'beyond scientific doubt' justify its advice. Therefore, the applicants stated they would agree to disagree with NE on this matter. At DL8, NE's position remained unchanged [REP8-056, REP8-052] and considered the applicants had not addressed its concerns.
- 5.9.97. The MMO [REP8-048] confirmed that it was content with the evidence and modelling presented in the assessment on sediment transport modelling regarding nearshore cable protection to address the physical process changes arising from emplacement of scour protection around the landfall exit pits in the nearshore. Whilst the MMO raised some further questions regarding the details of the proposed monitoring, to which the applicants' provided responses at DL9 [REP9-021], the final signed SoCG between the applicants and the MMO [REP9-013] did not raise any outstanding concerns regarding effects on coastal processes at the landfall and wider region from the proposed development, including sediment transport regimes.
- 5.9.98. During examination, the ExA [PD-028] proposed an amendment to conditions 15(1)(c)(i)(bb) of DMLs 1 and 2, 13(1)(c)(i)(bb) of DMLs 3 and 4, and 11(1)(c)(i)(bb), of DMLs 5 and 6, that if any cable protection that exceeds 5% of navigable depth is required, this should also be agreed with the MMO in consultation with the SNCB. NE welcomed this [REP9-031]. The MMO also welcomed the ExA's recommendation but suggested further amendments to include updated modelling, comparison and demonstration against the ES if cable protection of 5% would be exceeded in the 10m depth contour [REP7-148]. NE stated [REP7-151] that it was supportive of the MMO's proposed amendments. The applicants were, however, of the view that the ExA's (and the MMO's) recommended amendments to the dDCO

were unnecessary [REP7-130, REP8-043] and did not incorporate them into their final dDCO [REP9-003].

ExA's considerations

- 5.9.99. The ExA has considered the worst-case scenario of 10% for remedial cable protection in the nearshore area assessed in the ES, the report on the assessment on sediment transport modelling regarding nearshore cable protection [REP5-040] as well as responses provided by NE, the applicants and the MMO regarding potential impacts from nearshore cable protection on sediment transport processes along the Holderness coastline.
- 5.9.100. The ExA accepts the applicants' justification and assessment of the worst-case scenario for the nearshore area between MLWS and the 10m depth contour modelled as part of the ES. The ExA is mindful that ground conditions around the landfall area indicated some rock outcrops and shallow rock formations, which would justify the need for some cable protection in the area. The ExA also notes that the worst-case scenario would be further refined following additional surveys post-consent as part of the final Cable Statement, secured through conditions in the DMLs as part of the recommended draft DCO (appendix F of this Recommendation). The MMO, in consultation with the Trinity House, the MCA, the relevant SNCB and UKHO as appropriate, would be responsible for discharging the conditions.
- 5.9.101. Whilst NE has provided some explanation as to its views and ongoing concerns regarding sediment transport along the coastline, the ExA does not consider that substantive evidence to support its detailed concerns, or why NE would not accept the applicants' findings and conclusions, has been provided regarding EIA matters. As a result, the ExA finds the evidence and position presented by the applicants to be more persuasive in this instance.
- 5.9.102. However, the ExA considers that, in order to address the potential for environmental impacts from any area of cable protection unintentionally exceeding 5% of navigable depth, the suggested amendments to conditions 15(1)(c)(i)(bb) of DMLs 1 and 2, 13(1)(c)(i)(bb) of DMLs 3 and 4, and 11(1)(c)(i)(bb), of DMLs 5 and 6, by the MMO and NE would be more explicit and would assist in strengthening the wording further to address potential environmental effects, in comparison to the applicants' proposed wording. The recommended draft DCO (appendix F of this Recommendation) therefore includes the suggested changes.
- 5.9.103. Subject to the amendments to the conditions, the ExA is satisfied with the applicants' conclusions that there would be no significant adverse effects from the proposed nearshore cable protection on the Holderness coastline, and that no additional mitigation is required. However, the ExA notes that the applicants, in addition to the reduction of cable protection heights at a maximum of 0.5m within the 10m depth contour, have also proposed to reduce the impacts by seeking separate bundling of cables along the offshore export cable corridor, as explained in the Cable Statement and Commitments Register, secured through the DMLs in the recommended draft DCO (appendix F of this Recommendation). In addition, proposed post-construction monitoring as part of the IPMP [REP7-115] would require monitoring of nearshore cable protection along with any associated sediment accretion and scour.

- 5.9.104. Therefore, the ExA agrees with the applicants' conclusions that there would be no significant effects on the Holderness Coast from nearshore and longshore sediment transport.

Impacts from cable protection and cable crossings on circulatory sediment transport processes around Smithic Bank

- 5.9.105. NE stated [RR-039] that the potential exchange of sediment between Smithic Bank and the Holderness Coast would be an important consideration in terms of nearshore and circulatory sediment transport processes due to the presence of nearby cable protection measures and cable crossings. In addition, NE argued that the information provided regarding the location and significance of the proposed cable crossing with Hornsea Project Four OWF and nearshore cable protection measures relative to Smithic Bank was currently insufficient to support the impact assessment conclusions and advised this needed further consideration.
- 5.9.106. The applicants responded [AS-048] that the sediment transport processes controlling the development and evolution of Smithic Bank would be landscape-scale, both spatially and temporally. The applicants considered that bathymetry evidence would suggest that since 1979 there had been large-scale changes to the morphology of the bank over wide areas, including areas that would be occupied by the proposed offshore export cable corridor. These changes would constitute a significant movement of large volumes of sand, which would continue with or without the proposed development. Therefore, the applicants considered that the volume of sand transport that would be interrupted by any cable protection near Smithic Bank would be extremely small in comparison to the much larger volume being transported due to existing natural physical and sedimentary processes. On that basis, the applicants concluded that continued high-volume movement of sand within and around Smithic Bank would not be significantly affected by the relatively small volumes of sand that may be intercepted by the proposed cable protection.
- 5.9.107. The applicants also considered [AS-048] that there would be no potential for effect on bedload sediment transport at cable protection or at cable crossing points, as the locations of the crossings would be outside and seaward of the boundary of Smithic Bank on a coarse seabed in deeper water and not subject to processes driving the bank evolution. The nearest crossing would be with the Hornsea Project Four OWF cable corridor to the east of the bank. The positions of the cable crossings would be outside the sediment transport pathway controlling the form and function of Smithic Bank or any sediment exchange with the coast. NE [REP2-069] did not consider the information had changed its advice and required more detailed information.
- 5.9.108. At DL3 [REP3-028], the applicants maintained their previous position and added that the exact routing of the offshore export cable corridor of Hornsea Project Four OWF was not yet known and consequently, the crossing location of the proposed development with Hornsea Project Four OWF was also unknown. The applicants provided a plan at DL3 [REP3-028] showing the overlap between the cable corridor of the proposed development and Hornsea Project Four OWF in relation to Smithic Bank, and the Holderness Inshore and Holderness Offshore MCZs, highlighting the area where a potential crossing could occur, shown at Figure 40 below.

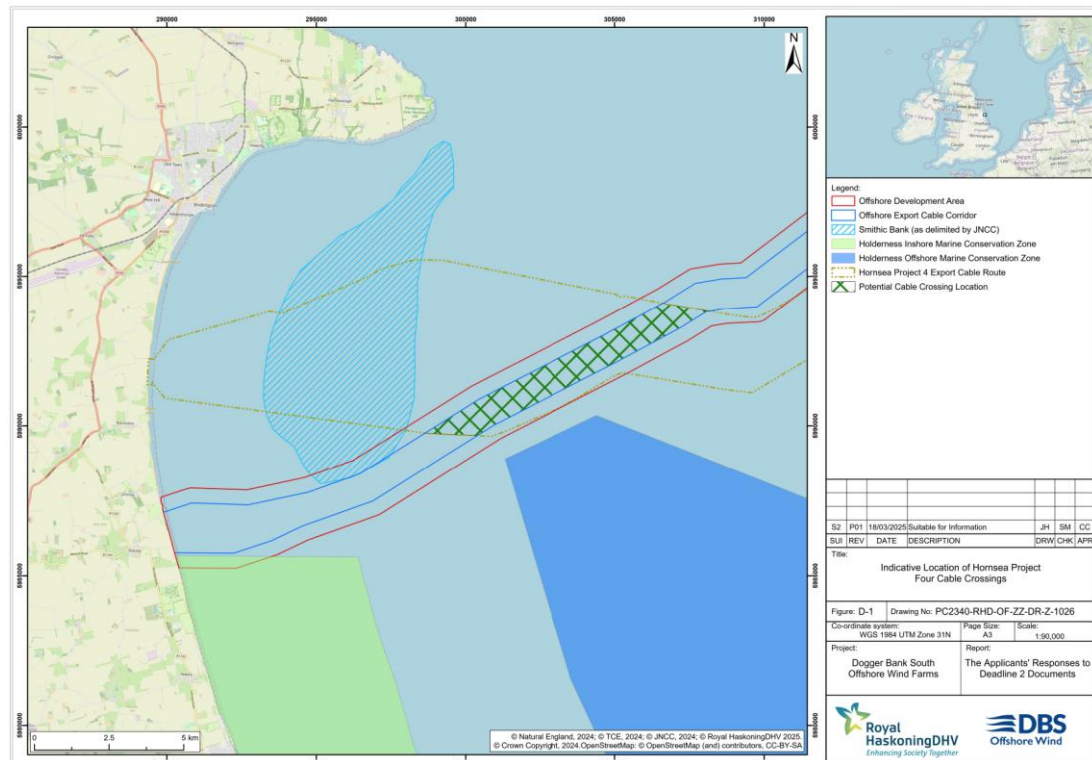


Figure 40: Indicative location of cable crossing between the proposed development and Hornsea Project Four OWF

Source: The Applicants' Response to Deadline 2 Documents [REP3-028]

- 5.9.109. NE welcomed [REP4-122, REP4-129] the indicative locations, but advised that the crossing should be located seaward of the 20m depth contour to the east of Smithic Bank, and as far from the Holderness Offshore MCZ as possible. This would be required to demonstrate that the location would avoid alterations to local wave and current regimes, sediment transport regimes and the morphology of Smithic Bank.
- 5.9.110. In response to ExQ2 [PD-022], the applicants [REP5-036] could not confirm where the crossing might be located and would only be able to micro-site the crossing location after Hornsea Project Four OWF had selected its cable route. The applicants highlighted that Hornsea Project Four OWF would be the primary driving factor behind the crossing location, acknowledging their expanded corridor from a standard 2km width up to a 9km wide swathe where it would meet the cable corridor of the proposed development. The applicants noted that Hornsea Project Four OWF would be free to select the optimum route within their consented corridor. The applicants contended that they would not be able to influence this and suggested that NE attempt to influence the final route selection of Hornsea Project Four OWF if possible. At its closest point, the applicants confirmed that the indicative crossing would be approximately 1.16km from the Holderness Offshore MCZ, and 0.64km from Smithic Bank.
- 5.9.111. The applicants [REP5-036] also confirmed that at the closest distance to shore, the crossing location would be 9.02km offshore from the landfall in water depths of 16m, located to the east of Smithic Bank. The applicants provided the Assessment of Coastal Processes at the Dogger Bank South Landfall at DL5 [REP5-040] which included sediment transport modelling and explained that the active zone of wave driven sediment transport would be limited to water depths of less than 6m and most longshore sediment transport would occur within 250m of the cliff line. The

proposed crossing location would be located outside the zone of wave driven sediment transport and tidal currents would be the predominant driver.

- 5.9.112. NE did not consider [\[REP6-072\]](#) that the response addressed its concerns, nor that it was sufficient to inform understanding of the potential impact of nearshore cable crossings and protection on Smithic Bank. NE acknowledged [\[REP7-154\]](#) the additional figure showing preliminary and indicative cable protection locations within the offshore export cable corridor submitted by the applicants as part of the updated Cable Statement [\[REP6-043\]](#). However, noting the proposed updates post-consent, the locations would not be representative of final proposals, and it would remain unclear where cable protection may be required in proximity to Smithic Bank. At the end of examination [\[REP8-052\]](#), NE maintained its objection in this regard.

ExA's considerations

- 5.9.113. Whilst noting the concerns raised by NE regarding the sensitivity assessment of Smithic Bank, the ExA accepts the applicants' conclusions that there would be no significant effects on Smithic Bank from changes to bedload sediment transport and seabed morphology due to the presence of cable protection measures, even if the sensitivity of Smithic Bank was amended from negligible to low.
- 5.9.114. The ExA accepts that the cable corridor and landfall is located south of Smithic Bank and longshore sediment transport direction along the coast is north to south with no clear impact pathway identified between the proposed development and Smithic Bank as detailed in the assessment of nearshore cable protection [\[REP5-040\]](#). The ExA is also mindful that the updated sediment transport pathways, provided as part of the report, were accepted by NE [\[REP6-072\]](#).
- 5.9.115. Regarding the proposed crossing location with Hornsea Project Four OWF, the ExA notes NE's request for a crossing to be located seaward of the 20m depth contour. However, the ExA has seen little evidence on what basis the figure was chosen. In line with the evidence provided by the applicants, the ExA accepts that the crossing would be located outside of the active zone of wave driven sediment transport and would be unlikely to impact on circulatory sediment transport processes around Smithic Bank.
- 5.9.116. In addition, the ExA notes that the cable corridor for Hornsea Project Four OWF at the crossing location is disproportionately wider than for DBS, and that the applicants would have no or limited control over the proposed micro-siting of the route for Hornsea Project Four OWF. Therefore, the ExA accepts that the detailed crossing location could not be agreed or further defined at this stage. The ExA agrees with the applicants that there is opportunity for NE to influence the detailed routing of the cables for Hornsea Project Four OWF as part of their micro-siting proposals.
- 5.9.117. On that basis, the ExA is satisfied that there would be no significant effects on circulatory sediment transport regimes around Smithic Bank from proposed nearby cable protection measures along the offshore export cable corridor or the cable crossing with Hornsea Project Four OWF.

Risks and implications of secondary scour

- 5.9.118. NE stated in its RR [\[RR-039\]](#) that the oSPP would need to better consider risks and implications of secondary scour occurring. Secondary scour is explained in the oSPP [\[REP6-045\]](#) as the scour around the perimeter of installed scour protection

which may be required around the base of foundations to provide protection from currents and wave action to ensure the structural integrity is not compromised.

- 5.9.119. The applicants confirmed [[AS-048](#), [REP3-028](#)] that secondary scour had been considered in the ES assessment and concluded that any secondary scour effects associated with scour protection would be confined to within a few metres of the direct footprint of that scour protection material. Post-construction surveys would be used to monitor scour protection measures and secondary scour. In addition, worst-case scenarios for levels of scour and cable protection had been assessed and would not be exceeded throughout the life of the proposed development. The applicants noted that this figure would give account to any secondary scour protection that might be required, and the proposed scour protection design would assist in minimising secondary scour. The applicants highlighted that the oSPP and the oOOMP would be finalised prior to construction and when detailed design information was available. These would be discharged by the MMO in line with the relevant conditions on the DMLs.
- 5.9.120. The applicants further stated [[REP5-036](#)] that any changes in SSC from secondary scour would be considerably smaller in magnitude when compared to changes in SSC due to seabed preparation for foundation installation which would cover the entire footprint of the scour protection. The applicants highlighted that modelling showed a negligible significance of effect and the same would apply for secondary scour. Notwithstanding the negligible effects, the applicants highlighted their commitment to monitoring of secondary scour and updated the IPMP [[REP7-115](#)] to include further detail to monitor the performance and integrity of scour protection and secondary scour.
- 5.9.121. The monitoring proposals for scour protection including secondary scour were discussed further between the applicants and NE during examination. At the end of examination, NE [[REP9-030](#), [REP9-031](#)] welcomed the applicants' inclusion in the IPMP [[REP7-115](#)] that where monitoring results showed that impacts were greater than predicted, an adaptive management approach would be taken, and proposals for solutions or additional monitoring would be submitted to the MMO and the relevant SNCB. However, NE advised that the potential for remedial action should be appropriately secured and noted that amendments to the monitoring conditions were recommended to address this. NE stated these would be submitted by the MMO at DL9, however, the ExA did not receive the additional response by the end of the examination.
- 5.9.122. NE also advised [[REP9-030](#)] that monitoring of scour in the IPMP was only included for wind turbines and offshore platforms but should also be extended to include cable protection (if required) on and adjacent to the Dogger Bank SAC, in the nearshore zone and in the near vicinity to Smithic Bank and Holderness Inshore MCZ. The applicants considered [[REP9-018](#)] that the updates provided to the IPMP throughout examination would offer sufficient clarity regarding potential scour monitoring for the matter to be closed.

ExA's considerations

- 5.9.123. The ExA is satisfied that monitoring of scour protection measures has appropriately included the monitoring of secondary scour and the ExA agrees that the potential for secondary scour would not significantly change the effects assessed as part of the ES. The ExA is content that the volume of proposed cable and scour protection within the offshore order limits is appropriately accounted for in the ES.

- 5.9.124. Whilst NE indicated there were outstanding concerns at the close of the examination regarding monitoring conditions, which had been discussed with the MMO, the detail of those discussions and suggestions for amendments were not received. The ExA is, however, satisfied that the additional information requested by NE can be discussed and agreed as part of the final IPMP.
- 5.9.125. The ExA also considers that the IPMP [REP7-116] has appropriately considered the requirement for adaptive management and remediation measures, if required. In this regard, the IPMP states that the applicants would provide a review of the monitoring results to determine whether these would show an impact within or above the worst-case scenario assessed in the ES. Where an impact would be greater than previously assessed, the monitoring report would include solutions or additional monitoring which would need to be submitted to the MMO and SNCB for further discussions. The ExA considers therefore that the MMO and NE would have sufficient control over the final wording of the IPMP which would need to be discharged as part of the DMLs, secured through the recommended draft DCO (appendix F of this Recommendation), should there be any outstanding concerns.
- 5.9.126. The ExA also notes that a detailed Scour Protection Plan would be provided as part of the Construction Method Statement, secured through conditions in the DMLs. The plan would need to provide, “details of scour protection and cable protection including details of the need, type, sources, quantity and installation methods for scour protection and cable protection, with details updated and resubmitted for approval if changes to it are proposed following cable laying operations”. In addition, conditions are included in the DMLs requiring the reporting of scour and cable protection following completion of construction and these must not exceed the worst-case scenario assessed in the ES. The conditions are not specific to wind turbines or offshore platforms and would also consider any potential scour and cable protection in the offshore export cable corridor including nearshore area, if required.
- 5.9.127. The ExA is therefore satisfied that scour protection, including secondary scour, subject to the proposed monitoring as detailed in the IPMP, has been appropriately considered and mitigated by the applicants.

IMPACTS ON THE FLAMBOROUGH FRONT

- 5.9.128. NE noted [RR-039] a potential impact of the proposed development on the Flamborough Front, which is a seasonal, tidal mixing front that forms at the boundary between the southern and northern North Sea. NE considered it was unable to agree with the conclusions reached in the ES of a negligible assessment of sensitivity and suggested that it should have a high rather than medium value due to its colocation with particularly high primary production and ecological importance. In addition, NE [RR-039] did not agree with the applicants’ assessment conclusion that the cumulative effects during the operational phase would be negligible. NE considered that Dogger Bank A OWF, Dogger Bank B OWF and the proposed development were in a region of the North Sea where there was potential for seasonal stratification to occur as the Flamborough Front develops and migrates.
- 5.9.129. NE highlighted that recent studies had shown that large OWF clusters could provoke large-scale hydrodynamic changes that impacted marine primary production and the wider marine ecosystem. Therefore, NE raised concerns [RR-039] that the proposed development, in particular foundations and piles, could cause turbulent current wakes, which could impact circulation, stratification, mixing and sediment resuspension in the water column. In turn, NE considered that

changes to the Flamborough Front could have far-reaching and long-term consequences, since the frontal system would give rise to nutrient-rich waters which create a biodiversity hotspot attracting seabirds and marine mammals to the area each year. NE considered there was insufficient evidence regarding the future location of the Flamborough Front relative to the DBS array areas over the lifetime of the proposed development and there was a lack of evidence regarding potential changes in turbulent mixing due to interactions of tidal flows with the infrastructure in the array area.

- 5.9.130. On that basis, NE advised [\[RR-039\]](#) that the applicants should seek to reduce the risks as much as possible through consideration of the placement of foundations and reducing the worst-case scenario for the structures in the array area. In addition, NE considered that monitoring of potential change in stratification and productivity from the proposed development would be needed to improve the evidence base and conclusions from the ES. As advised for Hornsea Project Four OWF, NE submitted that it would be important to establish a monitoring programme to record changes to stratification and primary productivity, for pre-construction, post-construction and the lifetime of the proposed development, including appropriate trigger points to allow for intervention or remediation.
- 5.9.131. The applicants explained [\[AS-048\]](#) that the cumulative significance of effects was assessed as negligible, as any effects caused by the proposed infrastructure would only interact with other OWFs at a regional scale and the significance for the proposed development alone was assessed as negligible, with no interaction at a local scale. Whilst the applicants initially disagreed [\[AS-048, REP3-027\]](#) with the suggested monitoring, at DL4, the applicants submitted a technical note regarding the Flamborough Front [\[REP4-092\]](#), which included updates to the significance of effects assessment and a commitment to undertaking monitoring of the Flamborough Front as part of the IPMP [\[REP7-115\]](#).
- 5.9.132. NE welcomed [\[REP5-062, REP5-054\]](#) the additional information and proposed monitoring plans. Whilst NE also acknowledged the updated impact assessment, it noted that the conclusion remained not significant for both the assessment of the Flamborough Front alone and cumulatively. NE considered that a more precautionary approach to the significance of effects assessment would be more appropriate given current evidence gaps, potential long-term and wide-scale nature of the impact, and the high ecological value of the Flamborough Front. NE also signposted the applicants to a newly available dataset which used the DBS area as a case study, which could increase understanding and inform baseline characterisation to update the impact assessment. Given the potential impacts, NE stated that thresholds for changes and mitigation measures should be considered in advance of construction, such as designing the array layout to minimise the risk posed by the proposed development alone and cumulatively on the stratified water column.
- 5.9.133. In terms of the proposed monitoring, NE suggested [\[REP5-054\]](#) that it should also include the post-consent period to provide longer timescales. NE agreed with the applicants that flexibility should be included in the monitoring plan, to take account of new techniques and technology as they become available. NE advised that monthly, seasonal, and annual changes should be monitored through one to 5 years post-construction, with a review period at 5 years.
- 5.9.134. The applicants confirmed at DL6 [\[REP6-051\]](#) that the new data referenced by NE would be considered during the pre-construction stage of the proposed monitoring as part of the IPMP [\[REP7-115\]](#) to establish the duration and frequency of

occurrence of the Flamborough Front within the array area and inform the design of post-construction monitoring. The applicants considered that whilst new data may reduce uncertainty regarding definition of scale and frequency, as these had already been assessed as medium to high, these would lead to no change or a potential reduction in the significance of effects. The applicants stated that the commitment to monitoring was on a precautionary basis and would be a form of mitigation against the impact.

- 5.9.135. The MMO confirmed at DL6 [REP6-069] that it agreed with the updated impact assessment detailed in the Technical Note [REP4-092]. The MMO also recommended, in line with the IPMP [REP7-115], that the proposed monitoring should be coordinated with other projects to ensure any cumulative impacts from the proposed development were included in the results. In addition, the MMO suggested that regarding the pre-construction monitoring, at least 5 different annual data sets should be considered to ensure sufficient data to determine location and duration and discussions on historical positions of the Front. The applicants confirmed [REP7-131] that the IPMP was updated with the MMO's request.
- 5.9.136. At the end of examination, NE [REP8-055, REP8-056, REP9-031] welcomed the applicants' confirmation that any new research or data that became available would be included to inform the pre-construction baseline in the IPMP [REP7-115]. However, NE maintained its previous concerns and disagreed with the applicants' conclusions that there would be no significant effects. As a minimum, NE advised that this could be addressed through adopting similar requirements placed on Hornsea Project Four OWF, including pre-construction update of modelling of the final built out design and inclusion of monitoring.
- 5.9.137. The applicants, in response [REP9-021], raised concerns that NE could potentially be over inflating the significance of effect without numerical or observational evidence to support its conclusions. The applicants stated that they had defined the evidence gaps and used these as the basis to design a monitoring approach that would provide the data to fill the evidence gaps and test the conclusions of the ES. The applicants also stated that the IPMP would follow the same principles defined in the Hornsea Project Four OWF monitoring plans and therefore, complied with the request by NE.

ExA's considerations

- 5.9.138. The ExA notes the updated significance of effects assessment for changes to water circulation at the Flamborough Front due to the presence of infrastructure following submission of additional evidence as part of the Flamborough Front Technical Note [REP4-092]. The ExA recognises that, whilst the sensitivity and magnitude of impact have been adjusted, the effects remained not significant, both alone and cumulatively with other OWFs.
- 5.9.139. Whilst NE remained concerned and considered a more precautionary approach would be appropriate, the ExA considers that the applicants have provided sufficient additional evidence, including a detailed review of published research to explain their updated conclusions. The ExA therefore accepts the updated significance of effects assessment and considers that any uncertainties remaining in the assessment, would be supported through the proposed monitoring, providing additional data to fill potential evidence gaps and review the conclusions from the ES.

- 5.9.140. Therefore, the ExA is satisfied with the proposed significance of effects assessment and pre- and post-construction monitoring of the Flamborough Front, as detailed in the IPMP [\[REP7-115\]](#) and secured through the DMLs in the recommended draft DCO (appendix F of this Recommendation).

CUMULATIVE EFFECTS

Potential for cumulative effects with nearby OWFs from changes to wave and tidal regimes

- 5.9.141. NE [\[RR-039\]](#) stated that changes to wave energy and tidal regimes from the presence of infrastructure could affect bedload sediment transport and seabed morphology on the Dogger Bank SAC. In addition, NE [\[REP3-058\]](#), [\[REP4-122\]](#), [\[REP5-062\]](#), [\[REP9-031\]](#) advised that further assessment was required to investigate wave shadow effects due to waves approaching from the south and south-west, cumulative effects with nearby OWFs and the predicted changes in tidal current speeds to increase understanding of the implications to seabed sediment composition, seabed level and morphology, and seabed habitats due to long-term changes in significant wave height and the wave base.
- 5.9.142. The assessment of changes to wave energy and tidal regimes and their potential effects on the Dogger Bank SAC is considered at appendix C (HRA) of this Recommendation.
- 5.9.143. The applicants acknowledged [\[REP4-088\]](#) a secondary wave component from the south and south-west and that their frequency when compared to those approaching from the north would be lower, but that significant wave height would be similar. The modelling showed that changes to the wave regime under the typical regime would be low, with maximum changes of less than 1% of the baseline occurring within 30km of the wind turbine structure. In a 1 in 1 year event, changes of less than 1% could occur within 56km of the turbines. The applicants noted that if similar distances were to be applied to waves approaching from south and south-west, there would be potential for cumulative effects. However, effects would remain low and at less than 1% of the baseline and would remain negligible. The applicants concluded that the predicted small changes to wave regime would not significantly alter the seabed morphology or sediment composition.
- 5.9.144. At DL6 [\[REP6-051\]](#), the applicants noted that the maximum zone of influence considered in the cumulative effects assessment would not be directional and was applied in all directions, including to the north-east where other Dogger Bank projects are located, and which would be affected by any wave shadow from southerly and south-westerly waves. The applicants therefore did not consider that modelling waves from the south and south-west would lead to a material change in the cumulative effects assessment.

ExA's considerations

- 5.9.145. The ExA notes the applicants' explanation regarding a secondary wave component from the south and south-west and accepts the conclusions that the effects would remain low and at less than 1% of the baseline. On that basis, the ExA agrees that predicted changes to the wave regime would be unlikely to significantly alter the seabed morphology or sediment composition.
- 5.9.146. The ExA also notes that the significance of effects for changes to tidal regimes and wave regimes due to the presence of infrastructure is assessed as negligible adverse and not significant as part of the ES, alone and cumulatively with other

OWFs. Therefore, the ExA considers that even if the effects would result in some additional limited effects, these would still not be considered significant in EIA terms.

- 5.9.147. The ExA is therefore satisfied that changes to the wave and tidal regime would not result in significant adverse effects alone or cumulatively on marine and coastal processes.

Potential for cumulative effects with Dogger Bank D (DBD) at landfall

- 5.9.148. NE noted [\[RR-039\]](#) the potential for cumulative effects at landfall between DBS and DBD and stated that there would likely be an overlap in construction between the 2 projects. However, only the overlap between turbine installation activities had been considered by the applicants. Therefore, NE advised that the impact assessment should be updated once the DBD PEIR consultation was published in early 2025.
- 5.9.149. The applicants agreed [\[AS-048\]](#) that construction at the landfall could have the potential for a temporal overlap with the construction of DBD. However, the applicants considered that it was highly unlikely that the landfall activities would occur at the same time. The applicants concluded that cumulative effects in relation to changes in SSC and transport due to landfall activities were not expected. At DL7, the applicants submitted their position on the DBD PEIR regarding in-combination assessment [\[REP7-133\]](#) and consideration of this is presented at appendix C (HRA) of this Recommendation.
- 5.9.150. In their final submission, the applicants [\[REP9-018\]](#) noted that the DBD PEIR was published on 10 June 2025, but that this did not provide sufficient time to incorporate any information from the DBD PEIR into the updated ES. The applicants also noted that the worst-case scenario for DBD could change in response to PEIR feedback. NE responded [\[REP9-031\]](#) that it was currently in the process of reviewing the DBD PEIR and could not provide further comments during examination. NE considered that when determining the DBS application, the Secretary of State (SoS) should consider DBD in its HRA.

ExA's considerations

- 5.9.151. The ExA considers that there are currently uncertainties regarding information about DBD, such as the proposed methodology, location of the landfall and timescales for submission of the application. Given the submission date of the PEIR for DBD, the ExA accepts that the cumulative effects assessment for the proposed development could not be updated during examination. Further detail on environmental information would be available once the application for DBD is submitted and an update to the SoS would then be necessary.

OTHER MATTERS

Wave modelling

- 5.9.152. NE raised concerns [\[RR-039\]](#) with the modelling that was undertaken to provide an evidence base for assessing the effects of infrastructure on the existing wave regime. The modelling was based on baseline wave conditions for 2 different wind farm layouts. NE did not consider that option 2, showing the absolute worst-case layout that could be achieved using minimum spacing between turbines, was realistic and would over-estimate the effects of the offshore platforms. NE suggested that option 1 presented a more realistic worst-case scenario and should therefore be used for the assessment.

- 5.9.153. Whilst ES Chapter 8 [REP7-035] and Appendix 8-3 Marine Physical Processes Modelling Report [REP2-017] were updated to take account of change request 1, which included the removal of gravity base foundations and the reduction of the number of offshore platforms, the applicants maintained their view [REP4-088] that the updated modelling did not change the result of the assessment, and the significance of effects would remain negligible. At the end of examination, NE maintained its original view [REP9-031]. The SoCG between the applicants and NE [REP9-018] showed the matter as not agreed, but that it would have no material impact on the determination of the application

ExA's considerations

- 5.9.154. The ExA is satisfied with the applicants' wave modelling, and that option 2, whilst unlikely to be constructed as shown, appropriately reflects the worst-case scenario, considering the minimum turbine spacing requirements.

Decommissioning

- 5.9.155. Remaining concerns raised by NE [REP9-031] regarding a lack of commitment to remove all on and above seabed infrastructure at the point of decommissioning related to the Dogger Bank SAC only and therefore this issue is reported on at appendix C (HRA) of this Recommendation.

CONCLUSIONS

- 5.9.156. The ExA has considered the impacts of the proposed development on matters regarding marine and coastal processes and all issues raised by IPs during the examination. The ExA is satisfied that the applicants' assessment includes appropriate information to understand potential effects and accords with section 5.6 of NPS EN-1, section 2.8 of NPS EN-3, as well as the relevant policies in the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans and MPS. In addition, it accords with other relevant national and local policies, strategies and legislation.
- 5.9.157. Concluding on the sensitivity assessment of Dogger Bank, the ExA considers that there is potential for significant effects during the operational phase from the loss of seabed due to the footprint of foundations, with no additional mitigation provided by the applicants. In addition, the ExA concludes that the value of Smithic Bank has been underestimated. However, any alteration to the sensitivity assessment would be unlikely to change the significance of effects for the receptor.
- 5.9.158. The ExA agrees with the other conclusions reached by the applicants in the assessment regarding marine and coastal processes. The ExA is satisfied that any identified effects would be satisfactorily mitigated, managed and monitored through the conditions in the DMLs, Commitments Register and implementation of the final documents, comprising the Cable Statement, IPMP, Scour Protection Plan, Disposal Site Characterisation Report and Offshore Operation and Maintenance Plan. The ExA is satisfied that these documents are appropriately secured through the conditions in the DMLs as part of the recommended draft DCO (appendix F of this Recommendation).
- 5.9.159. Therefore, the ExA concludes the effects on marine and coastal processes carry a little negative weight against making the Order.

5.10. BENTHIC AND INTERTIDAL ECOLOGY

INTRODUCTION

- 5.10.1. This section considers the effects of the proposed development in relation to benthic and intertidal ecology. This section does not consider Habitats Regulations Assessment (HRA) matters or Marine Conservation Zone (MCZ) matters which are covered at appendix C and appendix D of this Recommendation respectively.
- 5.10.2. Methodology and effects in relation to benthic and intertidal ecology was listed in the Examining Authority's (ExA) Initial Assessment of Principal Issues (IAP) [\[PD-011\]](#) Annex C as part of the marine ecology principal issue and would also be considered to apply to the HRA principal issue.
- 5.10.3. In its consideration of benthic and intertidal ecology below, the ExA has had regard to:
- the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) as set out in Section 5.6
 - the National Policy Statement for Renewable Energy (NPS EN-3), as set out in Section 2.8
 - the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)
 - the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans and the UK Marine Policy Statement
 - the Local Impact Report (LIR)
 - any matters prescribed in relation to the development
 - any other important and relevant matters

THE APPLICATION

- 5.10.4. The applicants' assessment of benthic and intertidal ecology was first set out in the Environmental Statement (ES) Chapter 9 (Benthic and Intertidal Ecology) [\[APP-085\]](#) submitted by the applicants in June 2024. A project change request, change request 1 [\[AS-141\]](#), was submitted by the applicants into the examination on 10 January 2025. The key changes to the proposed development are outlined in section 1.5 of this Recommendation.
- 5.10.5. Amendments were made by the applicants to the benthic and intertidal ecology ES chapters and supporting documents throughout the examination, with the last version of ES Chapter 9 being submitted at deadline (DL) 7 [\[REP7-038\]](#), which is to be read along with the following supporting documents which can be found in the examination library:
- Benthic and Intertidal Ecology Figure 9-1 to Figure 9-6 Revision 2 [\[REP7-040\]](#)
 - Appendix 9-1 (Benthic and Intertidal Ecology Consultation Responses) [\[APP-087\]](#)
 - Appendix 9-2 (Intertidal Survey Report) [\[APP-088\]](#)
 - Appendix 9-3 (Benthic Ecology Monitoring Report) [\[APP-089\]](#)
 - Appendix 9-4 (Environmental Features Report) [\[APP-090\]](#)
 - Appendix 9-5 (Biotores of Designated Sites) [\[REP7-041\]](#)
 - Appendix E (Ecological halo effects technical note) (Revision 2) [\[REP7-127\]](#)
 - Stage 1 MCZ Assessment (Revision 2) [\[REP7-111\]](#)
- 5.10.6. ES Chapter 9 [\[REP7-038\]](#) should be read in conjunction with:
- ES Chapter 8 (Marine Physical Environment) [\[REP7-035\]](#)

- ES Chapter 10 (Fish and Shellfish Ecology) [REP7-042]

5.10.7. ES Chapter 9 was split into the following broad sections:

- assessment methodology
- existing environment
- assessment of significance
- potential effects during construction, operation and decommissioning
- potential monitoring requirements
- cumulative effects assessment
- transboundary effects and interrelationships

BASELINE

5.10.8. The benthic and intertidal ecology study area was described in section 9.3.1 [REP7-035]. It was defined on the basis of the potential zone of influence (ZOI) of the proposed development which was set out in ES Chapter 8 [REP7-035]. This was defined using the outputs of numerical modelling of sediment disturbance and transport, as proposed activities would result in sediment disturbance, the suspension and subsequent redeposition of which has the potential to impact benthic receptors that are distant from the source of the disturbance. The ES stated the results of the plume dispersion modelling indicated the application of a 14 kilometre (km) ZOI offshore, based on the tidal ellipse, was a conservative approach and, therefore, 14km was used to determine the search distance from the entire Development Consent Order boundary to screen receptors as shown in Figure 41.

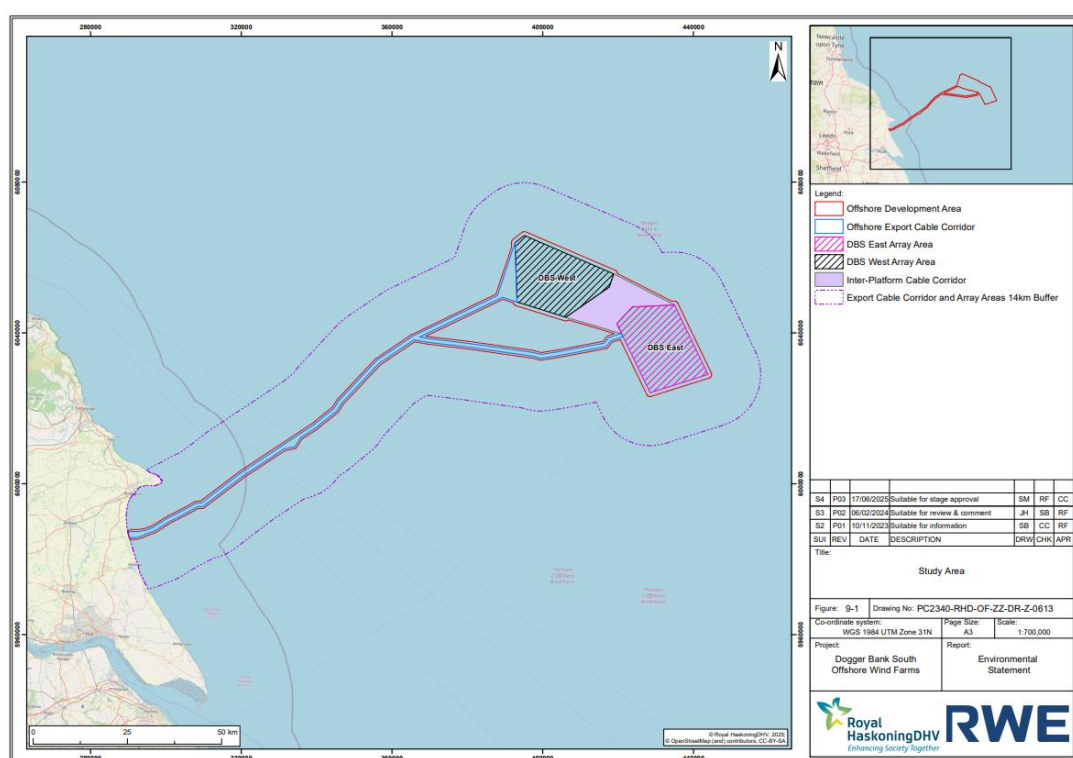


Figure 41: Benthic and intertidal ecology study area

Source: ES Chapter 9, figure 9-1 [REP7-040]

5.10.9. The realistic worst-case design parameters for benthic ecology were documented in section 9.3.2 and table 9-1 [REP7-038] for each scenario: Dogger Bank South (DBS); DBS East or DBS West in-isolation; DBS West and DBS East concurrently and DBS West and DBS East sequentially.

DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO SECRETARY OF STATE FOR ENERGY SECURITY AND NET ZERO: 10 OCTOBER 2025

- 5.10.10. The baseline assessment for benthic and intertidal ecology was presented in section 9.5.
- 5.10.11. The following biotopes and habitats were identified within the offshore development area:
- *Nephtys cirrosa* and *Bathyporeia* spp. In Atlantic infralittoral sand (MB5233).
 - *Abra prismatica*, *Bathyporeia elegans* and polychaetes in circalittoral fine sand (MC5212).
 - *Abra alba* and *Nucula nitidosa* in circalittoral muddy sand or slightly mixed sediment (MC5214).
 - *Branchiostoma lanceolatum* in Atlantic circalittoral coarse sand with shell gravel (MC215).
 - Circalittoral coarse sediment (MC3).
 - *Mediomastus fragilis*, *Lumbrineris* spp. and venerid bivalves in circalittoral coarse sand or gravel (MC3212).
 - Piddocks with sparse associated fauna in sublittoral very soft chalk or clay (MC1251).
- 5.10.12. In the intertidal zone, the entire survey area was classified as the biotope 'barren Atlantic littoral coarse sand' (MA5231).
- 5.10.13. The following potentially sensitive habitats and species were identified:
- sandbanks
 - peat and clay exposures with piddocks
 - subtidal sands and gravel
 - stony reef
 - sandeels
- 5.10.14. The offshore development area would be near several sites designated for the protection of benthic habitats and species. It would overlap with the Dogger Bank Special Area of Conservation (SAC) and would be in the vicinity of the following sites:
- The Humber Estuary SAC
 - The Flamborough Head SAC
 - The Holderness Inshore Marine Conservation Zone (MCZ)
 - The Holderness Offshore MCZ
- 5.10.15. The Dogger Bank SAC is designated for the Annex I habitat sandbanks which are slightly covered by sea water all the time.
- 5.10.16. The Flamborough Head SAC is designated for the Annex I habitats reefs, vegetated sea cliffs of the Atlantic and Baltic Coasts and submerged or partially submerged sea caves.
- 5.10.17. The offshore export cable corridor is located 0.1km from the Holderness Inshore MCZ although the construction buffer zone overlaps by approximately 400m. Construction vessels may occupy this area, but no construction would occur within these areas. The applicants have also committed to not using jack-up vessels or anchoring within the MCZ. The MCZ is designated for the following broadscale marine habitat designated features:
- intertidal sand and muddy sand
 - moderate energy circalittoral rock

- high energy circalittoral rock
- subtidal coarse sediment
- subtidal mixed sediments
- subtidal sand
- subtidal mud

5.10.18. The Holderness Offshore MCZ is designated for broadscale marine habitat designated features of subtidal coarse sediment, subtidal sand and subtidal mixed sediments. It has one designated species feature of conservation importance which is the ocean quahog. The Holderness Offshore MCZ is located approximately 11km offshore from the Holderness coast and 0.7km from the offshore export cable corridor [[REP7-038](#)].

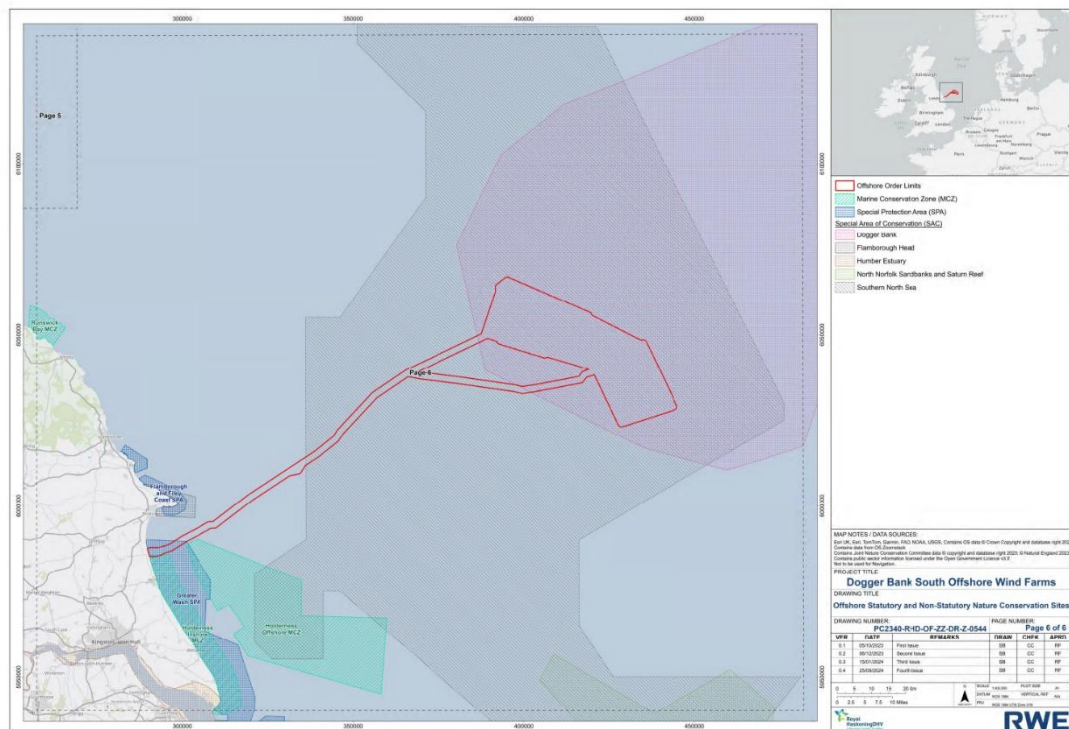


Figure 42: Marine Conservation Sites

Source: Offshore Statutory and Non-statutory Nature Conservation Sites Plan (revision 2) [[PDA-007](#)]

MITIGATION AND MONITORING

5.10.19. Proposed mitigation measures relevant to benthic and intertidal ecology were set out in table 9-3 in section 9.3.3 of ES Chapter 9 [[REP7-038](#)]. These were:

- Route selection of the offshore export cable corridor to minimise impacts on notable sites.
- Minimisation of the use of scour and external cable protection following industry best practice, secured in the Outline Scour Protection Plan [[REP6-045](#)], Cable Statement [[REP6-043](#)], Deemed Marine Licence (DML) 1 and 2 condition 15, DMLs 3 and 4 condition 13 and DML 5 and 6 condition 11 [[REP9-003](#)].
- Any offshore export cables would be buried within the intertidal zone at landfall, and 350m seaward of Mean Low Water Springs (MLWS). No surface cable protection would be used within these areas.

- Cable protection would be limited to 10% of the cumulative length of all cables laid between 350m seaward of MLWS and the 10m depth contour as measured against the lowest astronomical tide before the commencement of construction. These are secured in DML 3 and DML 4 condition 3 [REP9-003].
- Bury offshore export cables to 0.5m to 1.5m (depending on cable location) where practicable (subject to a cable burial risk assessment, secured in the Cable Statement [REP6-043], DMLs 1 and 2 condition 15, DMLs 3 and 4 condition 13 and DML 5 condition 11 [REP9-003].
- Offshore export cables from DBS East and DBS West would be respectively bundled together in individual trenches comprising one trench per project, secured in the Cable Statement [REP6-043], DMLs 1 and 2 condition 15, DMLs 3 and 4 condition 13 and DMLs 5 and 6 condition 11 [REP9-003].
- Final cable burial risk assessments and cable protection plans would be produced in line with the detail provided in the Cable Statement [REP6-043], that has been submitted with the Development Consent Order (DCO) application, and in accordance with conditions attached to the DMLs in the dDCO [REP9-003]. This would aid in determining where shallow areas of glacial till may be located within the offshore development area. If required, the use of micro-siting to avoid any such features would be discussed and agreed with the Marine Management Organisation (MMO) in consultation with Natural England (NE) post-consent. This is secured in the DMLs 1 and 2 condition 15, DMLs 3 and 4 condition 13 and DMLs 5 and 6 condition 11 [REP9-003].
- Mitigation for electro-magnetic fields (EMF) would involve burying offshore export cables to 0.5-1.5m (depending on cable location) where practicable (subject to a cable burial risk assessment, secured in the Cable Statement [REP6-043], DMLs 1 and 2 condition 15, DMLs 3 and 4 condition 13 and DMLs 5 and 6 condition 11 [REP9-003].
- Biosecurity measures in accordance with the following requirements:
 - International Convention for the Prevention of Pollution from Ships (MARPOL).
 - The Merchant Shipping (Control and Management of Ships' Ballast Water and Sediments) Regulations 2022).
 - The Environmental Damage (Prevention and Remediation (England) Regulations 2015.

These are secured in the Outline Project Environmental Management Plan (PEMP) [REP2-041], Marine Pollution Contingency Plan (MPCP) as part of the PEMP and DML 1 and 2 condition 15 DMLs 3 and 4 condition 13 and DMLs 5 and 6 condition 11 [REP9-003].

- Pollution Prevention Measures to comply with MARPOL and the production of one or more Project Environmental Management Plans (PEMPs). This is secured in the PEMP [REP2-041] MPCP as part of the PEMP and DMLs 1 and 2 condition 15, DMLs 3 and 4 condition 13 and DML 5 condition 11 [REP9-003].
- A trenchless technique would be used to install the export cables at the landfall for the proposed development. Any trenchless landfall exit pits would be located 350m or more below between MHWS. This is secured in DML 3 and 4 condition 13 [REP9-003].
- Pre-construction surveys and micro-siting surveys would be undertaken to determine the presence of potential Annex I and UK BAP Priority Habitats within the proposed wind turbine locations or the offshore export cable corridor. If potentially sensitive benthic features are identified, the results of the survey would be discussed at that time with the MMO and NE to agree whether the features constitute Annex I or UK BAP Priority Habitat features and

whether they would be required to be avoided through micro-siting. This is secured in DMLs 1 and 2 condition 15, DMLs 3 and 4 condition 13 and DML 5 condition 11 [REP9-003]. No benthic sampling was proposed for the section of the offshore export cable corridor that lies outside the Dogger Bank SAC.

- Jack-up vessels would not be used within the area of the 1km Construction Buffer Zone which overlaps with the Holderness Inshore MCZ or the Smithic Bank sandbank without agreement of the MMO in consultation with NE. This is secured in DMLs 3 and 4 condition 13 [REP9-003].
- Dredging detail relating to sand wave levelling, deposition and sandbank recovery would be provided in the form of a plan provided as an appendix to the final cable statement(s). Should sand wave levelling be required as part of the proposed development, dredging would be minimised where possible. Dredged material would be disposed of on like sediments both within and beyond the boundary of the Dogger Bank SAC. This is secured in DMLs 1 and 2 condition 15, DMLs 3 and 4 condition 13 and DML 5 condition 11 [REP9-003].
- Where sand waves need to be crossed, they would be crossed, where conditions allow, at an angle as close to 90 degrees as possible to minimise dredge volumes. Cable installation would occur as soon as reasonably practicable after sand wave levelling to reduce the need for additional preparation work and minimise disturbance timeframes. This is secured in DMLs 1 and 2 condition 15, DMLs 3 and 4 condition 13 and DML 5 condition 11 [REP9-003].

- 5.10.20. Proposed monitoring for benthic and intertidal ecology was set out by the applicants in section 9.7. Offshore monitoring requirements were described in the In-Principle Monitoring Plan (IPMP) [REP7-115] secured by condition 22 of Schedules 10 and 11 (DMLs 1 and 2), condition 20 of Schedules 12 and 13 (DMLs 3 and 4) and condition 16 of Schedules 14 and 14A (DMLs 5 and 6) [REP9-003]. The applicants stated that monitoring would be further developed and agreed with stakeholders prior to construction, taking account of the final detailed design and would be agreed as part of the benthic implementation and monitoring plan produced as part of strategic compensation for the Dogger Bank SAC, which may enhance or complement the measures proposed the IPMP.

ASSESSMENT OF EFFECTS

- 5.10.21. The potential impacts identified during the construction phase were:

- Impact 1: temporary physical disturbance.
- Impact 2: increased suspended sediment concentrations (SSC) (including sediment deposition and smothering).
- Impact 3: remobilisation of contaminated sediments.
- Impact 4: underwater noise and vibration.

- 5.10.22. The potential impacts identified during the operational phase were:

- Impact 1: temporary physical disturbance.
- Impact 2: increased SSC (including sediment deposition and smothering).
- Impact 5: permanent habitat loss.
- Impact 6: interactions of EMF (including potential cumulative EMF effects).
- Impact 7: colonisation of introduced substrate, including non-native species.

- 5.10.23. The applicants identified during the decommissioning phase, that potential impacts for wind turbine foundation and cable removal activities would be comparable to those identified for the construction phase and the operational phase, specifically:

- temporary physical disturbance
- temporary increase of SSC (including sediment deposition and smothering)
- remobilisation of contaminated sediments
- underwater noise and vibration

5.10.24. Cumulative effects identified during the construction phase were:

- Impact 1: temporary physical disturbance.
- Impact 2: increased SSC (including sediment deposition and smothering).

5.10.25. Cumulative effects identified during the operational phase were:

- Impact 1: temporary physical disturbance.
- Impact 2: increased SSC (including sediment deposition and smothering).
- Impact 5: permanent habitat loss.
- Impact 7: colonisation of introduced substrate, including non-native species.

5.10.26. A summary of the predicted pre-mitigation and residual (post-mitigation) likely significant effects with respect to benthic and intertidal ecology can be found in table 9-31 of ES Chapter 9 [\[REP7-038\]](#).

5.10.27. Pre-mitigation effects on all receptors were predicted by the applicants to be either negligible or minor adverse. The residual effects for all stages post-mitigation were also predicted by the applicants to be either negligible or minor adverse.

5.10.28. Table 9-29 of ES Chapter 9 [\[REP7-038\]](#) stated that no significant inter-related effects of greater significance compared to the effects considered alone were identified on benthic ecological features during the construction, operation and maintenance or decommissioning phases.

5.10.29. No significant transboundary effects were identified on benthic ecological features during the construction, operation and maintenance or decommissioning phases.

ISSUES CONSIDERED DURING THE EXAMINATION

5.10.30. The Local Impact Report (LIR) [\[PDC-007\]](#) submitted by East Riding of Yorkshire Council (EYRC) did not comment on benthic and intertidal ecology.

5.10.31. The MMO raised concerns in its RR [\[RR-030\]](#) regarding potential impacts on benthic ecology from the release of contaminants from sediments, potential for harm to sensitive habitats from disposal of dredged material and as a potential vector in the spread of non-native invasive species. The MMO also raised concerns and concerns relating to conditions in the Deemed Marine Licences (DMLs).

5.10.32. A response to the Regulation 32 consultation was received from the Federal Maritime and Hydrographic Agency (Bundesamt für Seeschifffahrt und Hydrographie) on behalf of the Federal Republic of Germany [\[OD-011\]](#). It confirmed that due to the distance to the German exclusive economic zone of at least 40 km, no significant cross border impacts were expected to benthos and biotopes.

5.10.33. The Lincolnshire Wildlife Trust raised concerns regarding habitat disturbance from the disposal of dredged material [\[RR-028\]](#) and concerns over the impacts on designated sites.

5.10.34. The Wildlife Trusts (TWT) raised concerns in its relevant representation (RR) [\[RR-057\]](#) regarding strategic compensation for impacts on the Dogger Bank SAC.

- 5.10.35. Dogger Bank D raised concerns in its RR [\[RR-011\]](#) regarding the applicants' cumulative impact assessment, considering much of the cable corridor for Dogger Banks D was in close proximity to the cable corridor of the proposed development.
- 5.10.36. The Doggerland Foundation included concerns regarding potential effects on benthic ecology in its representation [\[AS-004\]](#). Its representation mentioned many aspects of concern including cumulative assessments for activities in the North Sea.
- 5.10.37. Many issues regarding offshore and intertidal ecological EIA aspects were raised by NE in its RR [\[RR-039\]](#) and also in its first risk and issues log at DL1 [\[REP1-067\]](#). This listed principal areas of disagreement in relation to offshore and intertidal ecology related to EIA which were:
- Worst case habitat loss. NE advised the applicants had inadequately considered the potential for changes to the physical and biological structure and function beyond the footprint of the planned infrastructure. They were particularly concerned that secondary 'ecological halo' effects could result in broadscale changes in the benthic habitats and communities.
 - Insufficient characterisation of all benthic receptors to enable a robust, evidenced assessments to be undertaken and presented in light of EIA requirements. NE advised the most sensitive biotope within the broadscale habitat should be used as a basis for assessments.
 - Concerns over the transparency of the calculation of volumes of cable protection required leading to a need for further justification of the proposed volumes.
 - Insufficient mitigation for sediment deposition particularly where there could be direct or indirect effects on priority habitats.
 - Lack of a commitment to remove all on and above seabed infrastructure at the point of decommissioning.
- 5.10.38. The following EIA issues related to benthic and intertidal ecology raised in NE's RRs were considered by the ExA to be resolved by the close of the examination:
- NE's advice to commit to the bundling of export cables. NE confirmed [\[REP9-031\]](#) that whilst it would welcome this being conditioned in the DCO, it was satisfied with the applicants' response [\[REP4-088\]](#) and that the updates to the Cable Statement [\[REP6-043\]](#) and Commitments Register [\[REP9-009\]](#) sufficiently secured this commitment.
 - Avoidance of potential effects on the irreplaceable and priority habitat biotype 'A4.321 Piddocks with a sparse associated fauna in sublittoral very soft chalk or clay' and areas of shallow glacial till. This was resolved at DL1 as the applicants provided an update to the dDCO [\[REP9-003\]](#) setting out micro-siting requirements including a commitment in the Commitments Register [\[REP9-009\]](#) for surficial deposits of glacial till.
 - Whether the exit pits could fall within 350m seaward of MLWS where there would be a commitment to not use cable protection. The applicants confirmed [\[REP6-052\]](#) that the subtidal exit pits would not be located within 350m seaward of mean low water springs, adding this commitment to the updated Cable Statement [\[REP6-043\]](#).
 - NE advised that the in-combination habitat loss estimate should be based on consented parameters. Confirmation of this was provided at DL1 and the issue was considered resolved. [\[REP9-031\]](#)
 - NE advised the use of a tidal ellipse to estimate zone of greatest influence for sediment plumes. This was resolved at DL4 through clarification from the applicants on the use of numerical modelling [\[REP3-025\]](#).

- Concern if plastic-based materials were used as part of scour protection. The applicants updated the Outline Scour Protection Plan [REP6-045] stating that, should they be selected for use, relevant assessments of the impacts of plastic-based scour protection would be included in the final Scour Protection Plans and therefore this issue was considered resolved.
- Biotope sensitivity methodology. Concern that the ES presented insufficient characterisation of all benthic receptors to enable a robust, evidenced assessments to be undertaken and presented in light of EIA requirements [RR-039]. At DL9 [REP9-031] NE confirmed this issue had been satisfactorily resolved through the updates made to ES Chapter 9 (Revision 2) [REP7-039].
- ES documentation inconsistencies requiring updates to documentation. NE confirmed this issue was resolved through updates to the various ES chapters [REP9-031].
- Potential effects on marine habitat designated benthic ecological receptors at the Holderness Inshore and Offshore MCZ were resolved. See appendix D of this Recommendation for conclusions on the MCZ assessments.
- Remaining concerns regarding a lack of commitment to remove all on and above seabed infrastructure at the point of decommissioning related only to the Dogger Bank SAC [REP9-031] and therefore this issue is reported on at appendix C of this Recommendation.
- Loss of benthic habitat as a result of seabed indentations from UXO detonation and jack-up operations. NE considered [RR-039] that recovery was unlikely in the irreplaceable NERC Section 41 habitats such as piddocks with a sparse associated fauna in sublittoral very soft chalk or clay. NE stated that loss of benthic habitat as a result of UXO clearance should be added to the worst-case calculation for the EIA, whether it be temporary or otherwise. NE advised that the applicants also needed to evidence their claim that craters would be expected to re-fill with sediment over the course of days, which applied to both UXO detonations and jack-up operations. NE stated that if depressions were created from UXO clearance or jack-up operations in areas of coarse or mixed sediments, the area may need to be considered as permanent habitat change or loss unless it could be otherwise evidenced that they would backfill with similar sediment types. At the close of the examination, NE stated this issue was largely resolved and would be unlikely to make a material difference to its advice or the outcome of the decision-making process [REP9-031]. With regards to impacts on Section 41 habitats, NE stated it was satisfied with commitment C091 [REP9-009] to avoid impacts.

5.10.39. The MMO's concern regarding the potential for the spread of invasive non-native species (INNS) was also resolved during the examination. The MMO's closing statement [REP8-048] stated it had no concerns regarding INNS in the latest revision of the In Principle Monitoring Plan [REP7-115].

5.10.40. The following main EIA issues relevant to benthic ecology issues that were not fully resolved by the close of the examination were:

- Assessment of the worst case for broad scale changes or loss in benthic habitats from the installation of seabed infrastructure.
- Potential ecological effects from the disposal of material from construction activities.

5.10.41. The detail of the examination and ExA's findings on these issues are presented below.

ASSESSMENT OF THE WORST CASE FOR BROAD SCALE CHANGES OR LOSS IN BENTHIC HABITATS FROM THE INSTALLATION OF SEABED INFRASTRUCTURE

- 5.10.42. Loss and change of benthic habitat could occur from the installation of infrastructure on the seabed during the construction phase, through loss beneath the footprints of the turbines and cable protection, and the deposition of dredged material and drill arisings which could potentially result in a mix of sediment type and size potentially causing benthic habitats loss or change. The replenishment, repair or addition of new cable protection during the operational phase could cause further habitat loss and change. NE stated [\[REP2-065\]](#) that colonisation of hard structures could lead to localised changes in biological communities which, combined with changes to physical processes resulting from the presence of the infrastructure, could alter the characteristic composition of the benthic habitat or biological community in the surrounding area, creating a halo of changed habitat and ecology.

Worst-case scenario quantification of cable protection for benthic ecological effects

- 5.10.43. The worst-case scenario for remedial cable protection presented by the applicants assumed 20% of the export cable route and 10% within the array areas, would require external protection. NE recommended this should be limited to 10% [\[RR-039\]](#) throughout. NE's final position stated [\[REP8-052\]](#) that the applicants' 20% worst-case scenario for external cable protection had not been refined down, maintaining its advice that further rationale for the proposed volume of cable protection should have been provided. The examination of the issue of maximum volume of cable protection in the offshore export cable corridor and near shore area is presented in section 5.9 (marine and coastal processes) of this Recommendation. The examination and ExA's considerations for the worst-case scenario quantification of cable protection within the array areas is presented at appendix C of this Recommendation as the array areas are located within the Dogger Bank SAC.

ExA's consideration

- 5.10.44. The ExA notes concerns whether a maximum of 20% remedial cable protection in the offshore export cable corridor (10% within the array areas) and a need for further cable and scour protection during the operation phase would be appropriate. The ExA considers this is directly relevant to the overall volume of infrastructure on the seabed and benthic communities upon which effects to benthic ecology could be experienced. The ExA concludes in section 5.9 (marine and coastal processes) of this Recommendation that the applicants provided sufficient rationale for the worst-case cable protection in the offshore export cable corridor to remain at 20%. The ExA recognises the applicants' assessment of impacts on benthic ecology has been undertaken on this basis.
- 5.10.45. The ExA acknowledges NE's position that it did not consider the applicants had sufficiently managed down environmental risks. Nevertheless, the ExA accepts the applicants' explanation as to how the worst-case cable and scour protection scenario of 20% of the cable length (10% of the cable length within the Dogger Bank SAC, see appendix C of this Recommendation) has been arrived at. The ExA accepts that the implications of this for the worst-case loss of benthic habitats have been assessed accordingly. The ExA accepts the applicants' reasoning as to why they were unable to further refine the cable protection requirements during examination, acknowledging current uncertainties and the requirement for flexibility in line with relevant policy.

- 5.10.46. The ExA is content that the final cable protection requirements would be presented with full technical justifications as part of the final Cable Statement prior to construction which is secured through conditions in the DMLs as part of the recommended draft DCO (appendix F of this Recommendation). The MMO, in consultation with the Trinity House, the MCA, the relevant SNCB and the United Kingdom Hydrographic Office (UKHO) as appropriate, would be responsible for discharging the conditions.

Addition of further cable and scour protection

- 5.10.47. NE stated in its RR [\[RR-039\]](#) that clarity was needed on how the potential for the addition of further cable and scour protection during the operational phase had been considered and included in the worst-case calculations. NE stated estimates for cable protection replacement requirements had not been provided. NE proposed [\[REP2-066\]](#) wording for the DMLs regarding the reporting of scour and cable protection.
- 5.10.48. The applicants included wording in the dDMLs [\[REP9-003\]](#) with some amendments, (Schedules 10 and 11, Part 2 condition 23 and Schedules 12 and 13 condition 21 and Schedules 14 and 14A Part 2 condition 17). In addition, the applicants provided the worst-case cable protection repairs and reburial in table 8-2 of ES Chapter 8 (Marine Physical Environment) [\[REP7-035\]](#). The applicants had noted [\[AS-048\]](#) that if additional cable protection for maintenance purposes was required beyond the maximum limits authorised by the DMLs, then a separate marine licence or licences would be required.
- 5.10.49. NE considered [\[REP9-031\]](#) the quantities of additional scour or cable protection or replenishment should be a maximum of 10% of any protection laid during installation within a 10-year period, as long as the overall footprint was not increased.
- 5.10.50. In the ExA's schedule of recommended amendments to the applicants' dDCO [\[PD-028\]](#), the ExA sought views on the following wording for cable protection replenishment in schedules 12 and 13 part 2 condition 5(2)(g):
- "(g) Cable protection replenishment outside European marine designated sites with benthic habitats as qualifying features for a maximum period of ten years post construction'.
- 5.10.51. The applicants' response [\[REP7-130\]](#) stated that this amendment to the dDMLs was unnecessary and would serve only to increase bureaucracy without providing any additional environmental benefits. The applicants contended that there would be no environmental harms associated with the installation of replenishment protection up to the limits established by the dDCO that had not already been assessed and that any condition or requirement would therefore be unreasonable and unnecessary.
- 5.10.52. The applicants also highlighted [\[REP7-130\]](#) the reasons that replenishment protection might be required included reducing risks to other sea users which might be caused through exposed cables lying on the seabed, and also to reduce the risk of reductions in operational time or output should exposed cables become damaged whilst waiting for approvals to make protection deposits. Both these risks would increase in proportion with delays to the deposits of replenishment protection that might arise as a result of any need for further consenting after ten years.

- 5.10.53. At DL8, NE maintained its position [\[REP8-052\]](#) and welcomed the suggested dDCO wording by the ExA. The MMO also stated it welcomed the ExA's suggested wording for Schedules 12 and 13 Part 2 condition 5(2)(g).

ExA's consideration

- 5.10.54. With regards to cable repair, replacement and replenishment, the ExA is reassured that the dDMLs secure (Schedules 10 and 11, Part 2, condition (7), Schedules 12 and 13, Part 2, condition (5) and Schedules 14 and 14A, Part 2, condition (3) [\[REP9-003\]](#)) that the operation of the licensed activities must not commence until an offshore operations and maintenance plan, substantially in accordance with the outline offshore operations and maintenance plan, has been submitted and approved in writing by the MMO and that a review must take place every 3 years, which must also be approved in writing by the MMO.
- 5.10.55. The ExA recognises that the cable protection should be maintained to ensure the cables remain in good working order and would not pose any hazards to other marine users. The ExA is content that the maximum volume permitted in the DMLs would be restricted to the maximum assessed in the ES.
- 5.10.56. The ExA is reassured that the SoCG between the applicants and the MMO [\[REP9-013\]](#) shows that the MMO is content with the maintenance reporting that has been included in the DMLs and with the wording of the conditions.
- 5.10.57. Notwithstanding that NE and the MMO's responses to the ExA's schedule of changes to the dDCO welcomed the suggested dDCO wording, the ExA agrees with the applicants that the requirements and conditions in the recommended DCO limits harms to that which has been assessed in the ES, and that the suggested change would not provide any additional environmental benefits.

Ecological halo effects

- 5.10.58. NE [\[RR-039\]](#), NE4, NE6, B4, C6, C18] [\[REP8-052\]](#) [\[REP4-127\]](#) [\[REP5-055\]](#) [\[REP6-073\]](#) raised concerns that the applicants had not adequately considered potential 'halo effects', which were defined as changes to physical or biological structures beyond the immediate footprint of the proposed infrastructure. NE explained these could occur as a result of structures on the seabed such as turbine foundations and cable and scour protection, causing additional ecological effects. NE stated [\[REP8-052\]](#) that owing to localised changes in biological communities colonising hard structures, combined with the changes to the physical processes that were expected, the physical structure and function, and subsequent biological structure and function of the benthos could be expected to be altered over an area many times that of the original infrastructure footprint.
- 5.10.59. TWT [\[REP1-088\]](#) [\[REP5-068\]](#) also considered halo effects should be considered.
- 5.10.60. This aspect related to the conclusions to impact 7, (colonisation of introduced substrate, including non-native species) from the projects alone for the operational phase and cumulatively in ES Chapter 9 [\[REP7-038\]](#).
- 5.10.61. The applicants [\[AS-048\]](#), table 2.1.2] argued that halo effects had not previously been raised as a concern and that existing evidence was inconclusive. NE [\[REP2-065\]](#) maintained that, despite the term 'halo' not being used earlier, the impact pathway was not new or unknown. It acknowledged uncertainties over the scale and likelihood of this impact but considered it should be robustly assessed and monitored due to the location of the proposed development.

- 5.10.62. At DL5, the applicants submitted an assessment of ecological halo effects in the Ecological Halo Effects Technical Note [REP5-041]. The applicants maintained [REP5-037, table 2-20] [REP6-052, table 2-14] that the Dogger Bank was a mosaic of different types of sandbank biotopes and that although there could be some change to communities as a result of the presence of infrastructure and subsequent colonisation, this would be limited spatially. They further explained that it would be difficult to determine if there would be any change from 'characteristic communities' given the variability of biotopes and that change would need to be seen in the context of the ongoing recovery that would be taking place as a result of the cessation of bottom-towed fishing gear [REP6-051, table 2-14] [REP7-128].
- 5.10.63. The applicants submitted revision 2 of the Ecological Halo Effects Technical Note at DL7 [REP7-127] to address NE's comments and also updated ES Chapter 9 [REP7-038] to include calculation of the worst-case ecological halo effects for the east and west array areas in table 9-22 assuming a 50m ecological halo effect. The applicants argued [REP7-127] [REP7-038] this to be unjustified and considered it not credible that small patches of cable protection would have such a disproportionate effect. However, the applicants based their revised assessment of halo effects on a 50m radius as a precautionary basis. In the ES the applicants' worst case ecological halo effect for the array areas and offshore export cable corridor was 9.31km² for the proposed development [REP7-038 table 9-23]. The applicants stated this represented 1% of DBS East and DBS West array areas, together being only 0.08% of the area of the Dogger Bank (using the Dogger Bank SAC area of 12,331km² as a reference). The applicants contended the worst-case area of ecological halo effects was small and it was unlikely that there would be 100% habitat change. It therefore considered this effect to be of negligible magnitude in relation to the site and the wider region.
- 5.10.64. NE [REP8-052] welcomed the proposed 50m as a precautionary figure, acknowledging that halo effects around cable protection would likely be lower and that 50m was likely to be over-precautionary.
- 5.10.65. The ExA asked NE [PD-030] for its final closing position on whether or not it agreed or disagreed with the applicants' conclusions for impact 7 (colonisation of introduced substrate, including invasive and non-native species (operation)), which the applicants had concluded to be minor adverse, presented in table 9-31 in ES Chapter 9 [REP7-038]. NE responded in its DL9 cover letter, section 4, [REP9-028] that it disagreed with the applicants' ES conclusions that this effect would be minor adverse but did not provide its view as to what it should be.

ExA's considerations

- 5.10.66. The ExA agrees with the applicants and NE that the use of a 50m radius is likely to be over precautionary, but considers it to be the best available information on which to base an assessment, given the information presented into the examination. At the end of the examination, NE introduced the concept of a refined buffer distance, but there was insufficient opportunity within the examination for this to be developed or understood.

POTENTIAL ECOLOGICAL EFFECTS FROM THE DISPOSAL OF MATERIAL FROM CONSTRUCTION ACTIVITIES

- 5.10.67. NE raised a number of concerns [RR-039] in relation to ecological effects from the disposal of material from construction activities on benthic habitats and ecology. Concerns were related to the deposition of dredged material and drill arisings which could potentially result in a mix of sediment type and size potentially causing benthic

habitats loss or change. The examination of the deposition of drill arisings and dredged material is presented in detail in section 5.9 (marine and coastal processes) of this Recommendation.

- 5.10.68. At DL6, the applicants committed to depositing sediment on like sediment from dredging in the Cable Statement [\[REP6-043\]](#) across the offshore development area. The applicants also included commitment C192 in the Commitments Register [\[REP9-009\]](#) which committed that detail relating to sand wave levelling, deposition and sandbank recovery would be provided in the form of a plan provided as an appendix to the Final Cable Statement(s) should sand wave levelling be required. It added that dredging would be minimised where possible and that dredged material would be disposed of on like sediments.
- 5.10.69. At DL9 [\[REP9-028\]](#), NE confirmed it disagreed with the applicants' conclusions in ES Chapter 9 [\[REP7-038\]](#) which concluded minor adverse pre-mitigation and residual effects on benthic ecology in relation to issues concerning the disposal of material from construction activities.

ExA's considerations

- 5.10.70. The ExA has drawn on the examination of sand wave clearance and the deposition of drill arisings and dredged material presented in section 5.9 (marine and coastal processes) of this Recommendation in its considerations of this matter.
- 5.10.71. Regarding drill arisings, the ExA recognises that the only areas in which drill arisings would occur would be within the Dogger Bank SAC, which is an HRA matter reported on at appendix C of this Recommendation, in which the ExA concludes that the drill arisings would most likely fall within the assumed footprint which would have already been accounted for in the calculation of the habitat loss surrounding each turbine.
- 5.10.72. As stated in the ExA's considerations in section 5.9 (marine and coastal processes) of this Recommendation, the ExA is satisfied that the proposed disposal sites for dredged material, which are all within the order limits, have been agreed with the MMO and are suitably secured as part of the DMLs in the recommended draft DCO. The ExA considers that the applicants' commitments to deposit sediment on like sediment from dredged material in commitment C192 across the offshore development area is likely to mitigate impacts on benthic habitats and communities. As reported in section 5.9 of this Recommendation, the ExA is content that the secured mitigation commitments would be sufficient to achieve this, notwithstanding the sediment disposal technology that was used.
- 5.10.73. The ExA is therefore in agreement with the applicants that impacts from disposal of all material from construction activities to benthic ecology are likely to be minor adverse, not significant.
- 5.10.74. The ExA was satisfied that the applicants had provided adequate responses to all other raised matters.

CONCLUSIONS

- 5.10.75. The ExA examined all the applicants' submitted assessments and considered all the issues raised during the examination related to benthic and intertidal ecology.
- 5.10.76. The ExA is satisfied the applicants' assessment considers all relevant potential environmental impacts in respect of benthic ecology during the construction,

operation and decommissioning phases of the proposed development alone and cumulatively with other plans and projects.

- 5.10.77. To avoid duplication, the ExA reports on Annex I qualifying features in the HRA section (section 6 and appendix C) of this Recommendation. However, any impacts on those species as receptors in their own right, have been considered here alongside those set out above when considering the planning balance.
- 5.10.78. The ExA is satisfied that the proposed development is in accordance with NPS EN-1, NPS EN-3 and where relevant, NPS EN-5, the relevant policies of the East Inshore and East Offshore and North East Inshore and North East Offshore Marine Plans, the UK Marine Policy Statement, with other national and local policies and strategies and all other relevant legislation and there are no other important or relevant considerations.
- 5.10.79. The ExA is satisfied that the applicants have demonstrated that the impacts associated with the proposed development could be satisfactorily mitigated and managed through measures and commitments in ES Chapter 9 [REP7-038], and the IPMP [REP7-115] secured by relevant requirements of the recommended draft DCO. However, there would be some residual effects and the ExA agrees with the applicants' ES conclusions of minor adverse post-mitigation.
- 5.10.80. Given the conclusions above, the ExA considers that the identified adverse effects on benthic and intertidal ecology carry a little negative weight against making the Order.

6. SUMMARY OF CONCLUSIONS IN RELATION TO THE HABITATS REGULATIONS ASSESSMENT

6.1. INTRODUCTION

- 6.1.1. This section sets out the Examining Authority's (ExA) summary conclusions relevant to the Habitats Regulations Assessment (HRA). This will assist the Secretary of State for Energy Security and Net Zero (SoSESNZ), from here on referred to as the (SoS), as the competent authority, in performing their duties under the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations). The ExA's full analysis of matters relevant to HRA is presented at appendix C of this Recommendation.
- 6.1.2. HRA is a legislated process of assessment of the effects of the proposed development (if any) on defined sites which are subject to protection pursuant to relevant international obligations to which the United Kingdom (UK) has subscribed or to which UK government policy applies. These sites are referred to here as 'European sites', and comprise:
- Special Areas of Conservation (SAC), candidate SACs and proposed SACs
 - Special Protection Areas (SPA) and potential SPAs
 - Ramsar sites and proposed Ramsar sites
 - any sites identified as compensatory measures for adverse effects on any of the above
- 6.1.3. The proposed development was identified as giving rise to the potential for likely significant effects (LSE) on European sites and is therefore subject to an HRA.
- 6.1.4. The ExA has been mindful throughout the examination of the need to ensure that the SoS has the information reasonably required to carry out their duties as the competent authority. The ExA has sought evidence from the applicants and relevant interested parties (IP), including Natural England (NE) and NatureScot as the appropriate nature conservation bodies (ANCB) through the following measures:
- written questions
 - issue specific hearings
 - the ExA's Report on the Implications for European Sites
 - rule 17 requests for further information
- 6.1.5. The proposed development is not directly connected with, or necessary to, the management of a European site. Therefore, the SoS must make an 'appropriate assessment' (AA) of the implications of the proposed development on potentially affected European sites in light of the conservation objectives of those sites.
- 6.1.6. In accordance with the precautionary principle embedded in the Habitats Regulations, consent for this proposed development may be granted only after having ascertained that it would not adversely affect the integrity of European site(s) and no reasonable scientific doubt remains.
- 6.1.7. The applicants' assessment of effects was presented in the HRA which comprised the following documents:

- Report to Inform Appropriate Assessment (RIAA) HRA Part 1 of 4 – Introduction and Terrestrial Ecology ('RIAA Part 1') ([APP-045], updated in [REP5-007])
- RIAA HRA Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish ('RIAA Part 2') ([APP-046], updated in [AS-051] [REP4-014] and [REP7-016])
- RIAA HRA Part 3 of 4 – Annex II Marine Mammals ('RIAA Part 3') ([APP-047] updated in [REP5-009])
- RIAA HRA Part 4 of 4 – Marine Ornithological Features ('RIAA Part 4') ([APP-048], updated in [AS-085] [REP4-016] and [REP6-008])
- RIAA Appendix A – Habitats Regulations Assessment Screening ('HRA Screening') [APP-049]
- RIAA Appendix B – Sandeel Habitat Potential in the Dogger Bank SAC and Southern North Sea (SNS) SAC [APP-050]

6.2. SUMMARY OF FINDINGS IN RELATION TO LIKELY SIGNIFICANT EFFECTS

- 6.2.1. The ExA is satisfied that the correct European sites and qualifying features have been identified for the purposes of the assessment, and that all potential impacts which could give rise to significant effects have been identified.
- 6.2.2. The ExA concludes there would be an LSE from the proposed development alone or in-combination for the following UK European sites, (see tables C3 to C7 of appendix C (HRA) of this Recommendation for the relevant qualifying features and impact pathways):

- Dogger Bank SAC
- Flamborough Head SAC
- River Derwent SAC
- Southern North Sea (SNS) SAC
- Berwickshire and North Northumberland Coast (BNNC) SAC
- The Wash and North Norfolk Coast (WNNC) SAC
- Moray Firth SAC
- Humber Estuary SAC
- Humber Estuary SPA
- Humber Estuary Ramsar site
- Flamborough and Filey Coast (FFC) SPA
- Greater Wash SPA
- Coquet Island SPA
- Farne Islands SPA
- St Abbs Head to Fast Castle SPA
- Forth Islands SPA
- Buchan Ness to Collieston Coast SPA
- Calf of Eday SPA
- Copinsay SPA
- East Caithness Cliffs SPA
- Fair Isle SPA
- Foula SPA
- Fowlsheugh SPA
- Hermaness, Saxa Vord and Valla Field SPA
- Hoy SPA
- Marwick Head SPA
- North Caithness Cliffs SPA
- Noss SPA
- Rousay SPA
- Sumburgh Head SPA

- Troup, Pennan and Lion's Heads SPA
- West Westray SPA

6.3. CONSERVATION OBJECTIVES

- 6.3.1. The conservation objectives for the sites and features for which an LSE was identified by the applicants at the point of the Development Consent Order (DCO) application, were set out in the applicants' HRA Report (RIAA Parts 1 [\[REP5-007\]](#), 2 [\[REP7-016\]](#), 3 [\[REP5-009\]](#) and 4 [\[REP6-008\]](#)).

6.4. SUMMARY OF FINDINGS IN RELATION TO ADVERSE EFFECTS ON INTEGRITY

- 6.4.1. The ExA concurs with the applicants' conclusion that the proposed development would result in adverse effects on integrity (AEol) of the following European sites and features, either alone or in combination with other projects or plans:
- Dogger Bank SAC
 - sandbanks which are slightly covered by sea water all the time due to physical change (to another seabed type) and abrasion (alone and in combination)
 - FFC SPA
 - guillemot (breeding) – disturbance and displacement (in combination)
 - kittiwake (breeding) – collision risk (in combination)
- 6.4.2. Based on the information submitted into the examination, the ExA is also of the view that an AEol from the proposed development alone cannot be excluded beyond reasonable scientific doubt for:
- FFC SPA
 - kittiwake – collision risk (alone)
 - seabird assemblage – collision, disturbance and displacement (alone and in-combination)
 - Farne Islands SPA
 - guillemot – due to in-combination disturbance and displacement
- 6.4.3. The ExA is satisfied that AEol on all qualifying features of all other European sites can be excluded from the proposed development alone or in-combination with other plans or projects.
- 6.4.4. The ExA's conclusions for all sites and features for which an LSE was identified are summarised in table C3 to table C7 at appendix C (HRA) of this Recommendation.
- ### **6.5. HRA DEROGATIONS**
- 6.5.1. If the competent authority cannot conclude the absence of an AEol, such that no reasonable scientific doubt remains, then under the Habitats Regulations the project can proceed only if there are no alternative solutions and there are imperative reasons of overriding public interest (IROPI) why the project must be carried out. Suitable compensatory measures must also be secured to ensure the overall coherence of the UK National Site Network.

- 6.5.2. The applicants submitted a derogation case relating to the kittiwake and guillemot features of the FFC SPA and the sandbank feature of Dogger Bank SAC. An overview was provided in Document 6.2 Habitats Regulations Derogation Provision of Evidence [[APP-051](#), revised in [REP7-018](#)] which related to both sites.
- 6.5.3. The applicants' HRA Report concluded no AEoI on the razorbill qualifying feature of the FFC SPA from the project alone, or in combination with other projects. However, its derogations case for guillemot of FFC SPA was coupled with a 'without prejudice' derogations case for razorbill of FFC SPA. The ExA considers an in-combination displacement of razorbill from FFC SPA can be excluded and therefore concludes that derogations for this qualifying feature are not required. Nevertheless, it has provided information regarding derogations for this feature, should the SoS be unable to exclude an AEoI.
- 6.5.4. The ExA considers an AEoI cannot be ruled out from in combination displacement of guillemot from Farne Islands SPA. It is satisfied that an additional derogations case is not required and that compensation could be managed through adjusting the quanta of the existing auk compensation proposals.
- 6.5.5. Whilst the ExA considers there to be an AEoI on the seabird assemblage, it is content that compensation would be sufficiently accounted for via the species-specific proposals.
- 6.5.6. Matters pertaining to the HRA derogations discussed during the examination are detailed in the following sections and at appendix C (HRA) of this Recommendation.

6.6. CONSIDERATION OF ALTERNATIVES

- 6.6.1. The ExA's full assessment of the applicants' derogation case, including their assessment of alternative solutions, a case for IROPI and the proposed package of compensation measures is at appendix C (HRA) of this Recommendation.
- 6.6.2. The ExA has considered the alternatives solutions test in line with the requirements of the Habitats Regulations with reference to this guidance and the examination submissions.
- 6.6.3. The applicants provided their 'no alternative solutions' case in section 4 of their Derogations Case [[APP-051](#), revised in [REP7-018](#)] which:
- defined the aims and objectives of the proposed development
 - included discussion of the 'do nothing scenario'
 - included information on alternative solutions (including alternative locations, alternative scale, alternative designs and methods, alternative timing), their feasibility and ability to meet the objectives of the proposed development
 - concluded that there are no feasible alternatives to the proposed development (and therefore did not undertake a comparison of the alternatives in relation to their potential effects on the European site(s) and feature(s))
- 6.6.4. The ExA is satisfied that:
- no alternative locations or sites exist for the proposed development that would present a feasible alternative solution
 - an imperative need for the proposed development has been established and that the 'do nothing' option is not a feasible alternative

- no alternative design parameters are known to be implementable that would present a feasible alternative solution
- no alternative solutions exist which would deliver appreciable benefits in terms of adverse effects on the European sites

6.7. IMPERATIVE REASONS OF OVERRIDING PUBLIC INTEREST

- 6.7.1. This section addresses the examination of the IROPI test under the requirements of the Habitats Regulations. The need for the proposed development is discussed in section 3.2 of this Recommendation.
- 6.7.2. The applicants provided their IROPI case in section 5 of the Derogation Provision of Evidence [[APP-051](#), updated in [REP7-018](#)]. It confirmed that the proposed development would not affect any priority habitats or species (as identified in the Habitats Regulations). Therefore, the IROPI can include consideration of social and economic reasons.
- 6.7.3. The case for development consent is addressed in section 7 of this Recommendation which concludes that there is an imperative need for the proposed development. Taking into account the information surrounding the need for the proposed development, the public interests presented, and that the interests are overriding when measured against the adverse effects on the affected features of the FFC SPA and the Dogger Bank SAC, the ExA concludes that IROPI for the proposed development has been established. Whilst the Farne Islands SPA was not specifically mentioned in section 5 of the Derogation Provision of Evidence [[APP-051](#), updated in [REP7-018](#)], the ExA is content that the same conclusion applies.

6.8. COMPENSATORY MEASURES

ANNEX I COMPENSATION - DOGGER BANK SAC

- 6.8.1. The Project Level Dogger Bank Compensation Plan [[REP7-020](#)] proposed a new protected site designation or extension to compensate for adverse impacts on the Dogger Bank SAC. This reflected updates to the habitat loss scenarios discussed during the examination.
- 6.8.2. The ExA concludes on the applicants' case for the following aspects in relation to the compensation proposal at appendix C (HRA) of this Recommendation:
- theoretical merit, technical feasibility and effectiveness
 - mechanisms for delivery and implementation
 - location
 - scale of compensation
 - timing
- 6.8.3. The applicants' key documents to be certified in the recommended draft DCO are:
- Document 6.2.3 Project Level Dogger Bank Compensation Plan (revision 4) [[REP7-020](#)]
 - Document 6.2.3.2 Outline Dogger Bank Compensation Implementation and Management Plan (CIMP) [[APP-061](#)]
- 6.8.4. The Project Level Dogger Bank Compensation Plan [[REP7-020](#)] was revised during the examination to reflect the updates to the impact numbers discussed during the examination.

- 6.8.5. The ExA acknowledges NE's point [\[REP9-031\]](#) that it is not clear if a Dogger Bank CIMP would be required in addition to that specifically for the Round 4 Plan and therefore the ExA considers it adequate that this is clarified as part of the marine recovery fund (MRF) process.
- 6.8.6. In its final risk and issues log [\[REP9-031\]](#), Tab D], NE confirmed matters to be resolved with the exception of the scale of impact and thus compensation quantum. The ExA is satisfied that, based on its recommended impact scenario, the proposed compensation package for the Dogger Bank SAC can be relied upon, and that its delivery is adequately secured through Schedule 18 of the recommended draft DCO.

ORNITHOLOGICAL COMPENSATION

- 6.8.7. The applicants' species specific proposed compensatory measures for kittiwake and guillemot are detailed at appendix C (HRA) of this Recommendation. Information has also been provided for razorbill, should the SoS be unable to exclude an AEol of razorbill from the FFC SPA. Matters discussed during the examination that were common to determining the quantum of compensation measures for all species were:

- methods for determining the level of required compensation
- presentation of confidence intervals
- precaution

FFC SPA – KITTIWAKE

- 6.8.8. The Project Level Kittiwake Compensation Plan [\[REP9-007\]](#) proposed the following primary compensatory measures for kittiwake from the FFC SPA:
- A financial contribution towards the management of fisheries to increase prey availability, to be delivered via the Strategic Compensation Fund operated by Defra.
 - Up to 2 offshore artificial nesting structures (ANS).
- 6.8.9. The applicants further proposed the use of their existing onshore ANS at Gateshead as a potential supporting or adaptive management measure [\[REP9-007\]](#), section 6.4]. This could be relied upon to deliver a proportion of the kittiwake compensation required, for example, to offset any deficit linked to the primary compensation measure (the offshore ANS).
- 6.8.10. As part of their lease conditions, the applicants (along with Outer Dowsing Offshore Wind Farm) must adhere to The Crown Estate's Round 4 Kittiwake Strategic Compensation Plan (KSCP) which was submitted as [\[APP-053\]](#).
- 6.8.11. The ExA concludes on the applicants' case for the following aspects in relation to the compensation proposal at appendix C (HRA) of this Recommendation:
- theoretical merit, technical feasibility and effectiveness
 - mechanisms for delivery and implementation
 - location
 - scale of compensation
 - proposed compensation figures
 - success criteria
 - timing

- 6.8.12. The applicants' key documents to be certified in the draft Development Consent Order (dDCO) were revised during the examination to reflect the updated impact assessment values and proposed compensation measures. These included presentation of the required quantum of compensation using both the applicants' and NE's preferred approaches. The most up to date versions are:
- Appendix 1 - Project Level Kittiwake Compensation Plan (revision 6) [[REP9-007](#)]
 - Outline Kittiwake CIMP (revision 2) [[REP4-022](#)]
- 6.8.13. The ExA is reassured that the statutory nature conservation body (SNCB) would have sufficient control over the content of subsequent iterations of the Kittiwake CIMP (as secured in Schedule 18, Part 2 condition 3 and 4) which would be updated going forward by the steering group. The ExA considers the delivery of compensatory measures for kittiwake would be adequately secured through Schedule 18, Part 2 of the recommended draft DCO.
- 6.8.14. The ExA has considered all representations from the applicants and IPs related to kittiwake compensation submitted into the examination. The ExA concludes that despite the logistical and supply chain challenges, an offshore ANS in the location suggested would be the most ecologically appropriate compensatory measure for offsetting impacts on kittiwake in English waters and that it has a reasonable chance of success. The ExA considers the proposed offshore ANS would be sufficient for the number of breeding pairs recommended by the ExA and options exist to provide further spaces if the SoS decides a greater number would be required. The ExA is satisfied that sufficient controls exist to control the time period for which the offshore ANS must be maintained, whether or not that extends beyond the operational lifetime of the development.

FFC SPA AND FARNE ISLANDS SPA – GUILLEMOT AND RAZORBILL

- 6.8.15. The Guillemot [and Razorbill] Compensation Plan (revision 6) [[REP6-012](#)] proposed predator eradication and control as the primary compensation measure for guillemot (and razorbill) of the FFC SPA and the Farne Islands SPA. Potential adaptive management measures included the provision for nesting locations on the kittiwake onshore ANS and signing up fishers to deliver bycatch reduction measures.
- 6.8.16. The ExA concludes on the applicants' case for the following aspects in relation to the compensation proposal at appendix C (HRA) of this Recommendation:
- theoretical merit, technical feasibility and effectiveness
 - mechanisms for delivery and implementation
 - location
 - scale of compensation
 - proposed compensation figures
 - success criteria
 - timing
- 6.8.17. The applicants' key documents to be certified in the DCO were revised during the examination to reflect the updated impact assessment values and proposed compensation measures. These included presentation of the required quantum of compensation using both the applicants and NE's preferred approaches. The most up to date versions were:
- Appendix 2 Guillemot [and Razorbill] Compensation Plan (revision 5) [[REP6-012](#)]

- Annex A – Outline Guillemot [and Razorbill] CIMP (revision 2) [[REP4-026](#)]

- 6.8.18. The ExA is satisfied that these documents sufficiently capture the proposed compensation measures for guillemot of both the FFC SPA and the Farne Islands SPA and are appropriately secured in schedule 18 of the recommended draft DCO.
- 6.8.19. The ExA considers an AEoI on razorbill can be excluded and has removed the without prejudice drafting for razorbill in the ExA's recommended draft DCO (appendix F) of this Recommendation.
- 6.8.20. In its end of examination position paper on offshore ornithology compensation measures [[REP8-054](#)], NE stated it could not advise the proposed measures for guillemot and razorbill could deliver the required compensatory benefits or could be adequately secured.
- 6.8.21. The ExA has considered all representations from the applicants and IPs related to guillemot and razorbill compensation submitted into the examination. The ExA acknowledges that the applicants' primary compensatory measure was for predator eradication and control for rats which is included within the library of strategic compensatory measures (LoSCM) which demonstrates government confidence in the measure.
- 6.8.22. The ExA acknowledges that government guidance confirmed that strategic measures secured through the MRF cannot be relied on for consent at this time and must be provided alongside project-led measures. The ExA is aware that only 2 of the original potential sites identified by the applicants remained with the possibility to provide the required compensation. It concerns the ExA that neither a delivery mechanism for strategic compensation nor a project-led option has been established and therefore does not consider that feasible, deliverable project-led mitigation has been secured for guillemot (or razorbill if required).
- 6.8.23. In considering its recommendation, the ExA concludes that the only remaining option proposed by the applicants at the close of examination for project-led compensation for auks was unproven. The applicants' alternative strategic approach through the MRF would seem to have potential, but as the MRF had not been established before the end of the examination, the ExA is unable to rely on it to deliver the necessary compensation.

6.9. HRA CONCLUSIONS

- 6.9.1. The proposed development is not directly connected with, or necessary to, the management of a European site, and therefore the implications of the project with respect to adverse effects on potentially affected sites must be assessed by the SoS.
- 6.9.2. The applicants identified an LSE for 32 sites as a result of the proposed development alone or in combination with other plans or projects (see section 6.4 above).
- 6.9.3. The ExA's findings are that, subject to the mitigation measures to be secured in the dDCO, AEoI can be excluded for all sites, except:
- Dogger Bank SAC

- sandbanks which are slightly covered by sea water all the time due to physical change (to another seabed type) (alone and in combination) and abrasion (alone and in combination)
- FFC SPA
 - guillemot (breeding) – disturbance and displacement (in combination)
 - kittiwake (breeding) – collision risk alone or in combination
 - seabird assemblage - collision, disturbance and displacement (alone or in combination)
- Farne Islands SPA
 - guillemot - due to in combination disturbance and displacement

- 6.9.4. The applicants submitted an assessment of alternative solutions, a case for IROPI, and proposed compensation measures. The ExA is satisfied that there are no alternative solutions and that the proposed development has met the test for IROPI.
- 6.9.5. The ExA is satisfied that, based on its recommended impact scenario, the proposed compensation package for the Dogger Bank SAC can be relied upon, and that its delivery is adequately secured through Schedule 18 of the recommended draft DCO.
- 6.9.6. The ExA is satisfied that the compensation package for kittiwake as proposed is feasible and appropriate and is adequately secured in the recommended draft DCO but that the compensation package for guillemot set out in the recommended draft DCO cannot currently be relied upon.
- 6.9.7. The implication of this outcome from the HRA is set out in section 7 (conclusion on the case for development consent) of this Recommendation.

7. CONCLUSION ON THE CASE FOR DEVELOPMENT CONSENT

7.1. INTRODUCTION

7.1.1. The Overarching National Policy Statement for Energy (NPS EN-1), National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) and National Policy Statement for Electricity Networks Infrastructure (NPS EN-5) provide the primary basis for the Secretary of State (SoS) to make decisions on development consent applications for generating station Nationally Significant Infrastructure Projects (NSIP). The Examining Authority's (ExA) conclusions on the case for development consent are therefore reached within the context of the policies contained in these NPSs. In arriving at the conclusions set out in this section, the ExA has also taken account of all other relevant legislation and policy, including appropriate marine policy documents, determined in accordance with section (s)59 of the Marine and Coastal Access Act 2009.

7.1.2. This section sets out the ExA's overall assessment of the planning merits of the proposed development. However, given the overarching relevance and importance to the decision-making process, the ExA considers it appropriate for this section to first consider matters in relation to the Habitats Regulations Assessment (HRA).

7.2. HABITATS REGULATIONS ASSESSMENT

7.2.1. The Secretary of State (SoS) is the competent authority for HRA purposes. To help the SoS satisfy this role, the ExA has given careful consideration to HRA matters in the examination. Appendix C of this Recommendation sets out the ExA's detailed consideration of HRA matters, with section 6 providing a summary of that analysis.

7.2.2. The proposed development is not directly connected with, or necessary to, the management of a European site, and therefore the implications of the proposed development with respect to adverse effects on potentially affected sites must be assessed by the SoS.

7.2.3. The applicants identified a likely significant effect (LSE) for 32 sites as a result of the proposed development alone or in combination with other plans or projects (see appendix C). The ExA's findings are that, subject to the mitigation measures to be secured in the draft Development Consent Order (dDCO) [[REP9-003](#)], adverse effects on integrity (AEol) can be excluded for all sites, except:

- Dogger Bank Special Area of Conservation (SAC)
 - sandbanks which are slightly covered by sea water all the time due to physical change (to another seabed type) (alone and in combination) and abrasion (alone and in combination)
- Flamborough and Filey Coast Special Protection Area (FFC SPA)
 - guillemot (breeding) – disturbance and displacement (in combination)
 - kittiwake (breeding) – collision risk alone or in combination
 - seabird assemblage - collision, disturbance and displacement (alone or in combination)
- Farne Islands SPA
 - guillemot - in combination disturbance and displacement

- 7.2.4. The applicants submitted an assessment of alternative solutions, a case for imperative reasons of overriding public interest (IROPI), and proposed compensation measures. The ExA is satisfied that there are no alternative solutions. Taking into account the information surrounding the need for the proposed development, the public interests presented, and that the interests are overriding when measured against the adverse effects on the affected features of the FFC SPA and the Dogger Bank SAC, the ExA concludes (section 3.1 of this Recommendation) that there is an imperative need for the proposed development and as such, IROPI has been established (appendix C of this Recommendation). The ExA is satisfied that based on its recommended impact scenario (see appendix C of this Recommendation), the proposed compensation package for the Dogger Bank SAC can be relied upon, and that its delivery is adequately secured through schedule 18 of the recommended draft Development Consent Order (DCO). Furthermore, the ExA is satisfied that the compensation package for the kittiwake feature of the FFC SPA as proposed is feasible, appropriate and is adequately secured in the recommended draft DCO. However, the ExA concludes that the compensation package for guillemot set out in the recommended draft DCO cannot currently be relied upon.
- 7.2.5. The ExA has considered all representations from the applicants and interested parties (IPs) related to guillemot (and razorbill) compensation submitted into the examination. The ExA acknowledges that the applicants' primary compensatory measure was for predator eradication and control for rats which is included within the library of strategic compensatory measures (LoSCM) which demonstrates government confidence in the measure.
- 7.2.6. The ExA acknowledges that government guidance 'Strategic Compensation Measures for Offshore Wind Activities: Marine Recovery Fund interim guidance (January 2025)' confirmed that strategic measures secured through the Marine Recovery Fund (MRF) cannot be relied on for consent at this time and must be provided alongside project-led measures. The ExA is aware that only 2 of the original potential sites identified by the applicants remained with the possibility to provide the required compensation. It concerns the ExA that neither a delivery mechanism for strategic compensation nor a project-led option has been established and therefore does not consider that feasible, deliverable project-led mitigation has been secured for guillemot (or razorbill).
- 7.2.7. In considering its recommendation, the ExA concludes that the only remaining option proposed by the applicants at the close of examination for project-led compensation for guillemot (and razorbill) was unproven. The applicants' alternative strategic approach through the MRF would seem to have potential, but as the MRF had not been established before the end of the examination, the ExA is unable to rely on it to deliver the necessary compensation.
- 7.2.8. As such, the ExA has no alternative other than to recommend to the SoS, as the competent authority, that the DCO cannot be made in its current form pursuant to regulations 63 and 64 of the Habitats Regulations.

7.3. MARINE CONSERVATION ZONE ASSESSMENT

- 7.3.1. Appendix D of this Recommendation sets out the ExA's detailed consideration of Marine Conservation Zone (MCZ) assessment matters. The ExA concludes that neither the construction, operation nor decommissioning of the proposed development would hinder the conservation objectives of the marine habitat

designated features of the Holderness Inshore MCZ or the Holderness Offshore MCZ.

7.4. SUMMARY OF MAIN PLANNING ISSUES

- 7.4.1. Whilst the ExA has concluded that there was insufficient evidence before it to demonstrate that adequate compensatory measures could be provided for guillemot (and razorbill), the ExA recognises that the SoS may reach a different conclusion, or that additional information may become available to the SoS between the close of examination and decision-making, such that HRA matters do not preclude making the DCO. Therefore, the ExA has considered all other material considerations and sets them out in the following planning balance.
- 7.4.2. The ExA is satisfied that the Environmental Statement (ES) and other related information submitted by the applicants during the examination has provided an adequate assessment of the environmental effects of the proposed development. The ExA is satisfied that the information meets the requirements under the Environmental Impact Assessment (EIA) Regulations.
- 7.4.3. The ExA finds that the applicants' approach to the assessment of alternatives, as described in the ES, is adequate and complies with the EIA Regulations. The ExA is also satisfied that the applicants considered reasonable alternatives before determining the chosen options. The ExA finds that the applicants have sufficiently justified the reasons for those decisions and considered the effects of those options on the environment. In that regard, the ExA is satisfied that the requirements of section 4.3 of NPS EN-1 are met.
- 7.4.4. The ExA finds that the applicants' methodology for assessing cumulative effects, along with their assessment of decommissioning is adequate. The ExA notes that the application is for the development of 2 offshore wind farms (Dogger Bank South (DBS) West and DBS East). In respect of the ES assessment, the ExA agrees with the applicants' approach towards the consideration of the worst-case scenario and finds that different development scenarios (in-isolation, concurrent, sequential) have been adequately assessed.
- 7.4.5. In considering the application, the ExA has taken full account of all environmental information submitted into the examination. Overall, the ExA is therefore satisfied that the ES is sufficient to enable the SoS to take a decision in compliance with the EIA Regulations.
- 7.4.6. The ExA's findings in relation to the effects of the proposed development and its compliance with relevant policy and legislation can be found in sections 0, 4 and 5 of this Recommendation. In reaching its findings, the ExA has given full consideration to the Local Impact Report (LIR) submitted by East Riding of Yorkshire Council (ERYC) [[PDC-007](#)]. The planning matters and potential effects raised in the LIR are considered in the relevant sections of this Recommendation.

7.4.7. A summary of the ExA's final position on the relevant issues is provided below.

Table 2: Summary of findings on main planning issues

Issue	Finding	Weighting	Section
Need	Positive	Very great or substantial	3.1
Socio-economics	Positive	A little	4.8
Other issues (health)	Positive	A little	4.11
Landscape and visual effects	Negative	Great	4.2
Historic environment	Negative	Great	4.3
Land use and agriculture	Negative	Great	4.4
Offshore ornithology	Negative	Great	5.6
Aviation radar, military and communication	Negative	Moderate	5.3
Other infrastructure and activities	Negative	Moderate	5.4
Commercial fisheries	Negative	Moderate	5.5
Benthic and intertidal ecology	Negative	A little	5.10
Traffic and transport	Negative	A little	4.5
Geology and ground conditions	Negative	A little	4.6
Hydrology and FRA	Negative	A little	4.7
Onshore ecology and biodiversity	Negative	A little	4.1
Tourism	Negative	A little	4.8
Fish and shellfish	Negative	A little	5.7
Marine mammals	Negative	A little	5.8
Marine and coastal processes	Negative	A little	5.9
Shipping and navigation	Negative	A little	5.2
Noise and vibration	Neutral	-	4.9
Air quality	Neutral	-	4.10
Good design	Neutral	-	3.3
Marine archaeology	Neutral	-	5.1
Climate change	Neutral	-	4.12

THE OVERALL PLANNING BALANCE

INTRODUCTION

7.4.8. This section weighs the benefits and adverse impacts of the proposed development and balances them to reach a recommendation as to whether or not the case is made for granting development consent.

LEGAL FRAMEWORK AND POLICY BACKGROUND

- 7.4.9. In reaching a recommendation, the ExA has been mindful of the legal framework within which the SoS must decide this application and, through the examination, has sought to explore and seek representations on the operation of s104 of the Planning Act 2008 (PA2008) and the overall planning balance. Section 104(2) and s104(3) of the PA2008 require the SoS to have regard to and decide the application in accordance with the relevant NPSs, unless relevant considerations arising from s104(4) to (8) of the PA2008 applies.
- 7.4.10. NPS EN-1 sets out that, given the level and urgency of need for the delivery of major energy infrastructure covered by the NPS EN-1, NPS EN-3 and NPS EN-5, the SoS should start with a presumption in favour of granting consent to applications for energy NSIPs. That presumption applies unless, either policies set out in the relevant NPSs clearly indicate that consent should be refused, or the provisions of s104 the PA2008 apply.
- 7.4.11. The ExA considers that the proposed development meets the need as established in the energy suite of NPSs and satisfies the tests of s104(2) and s104(3) of the PA2008. Accordingly, the application should be determined as such.
- 7.4.12. In accordance with its duties under the PA2008, the ExA has had regard to the submitted LIR [[PDC-007](#)], to the Marine Policy Statement, East Inshore and East Offshore and North East Inshore and North East Offshore marine plans, to prescribed matters and to all other important and relevant matters.

PLANNING BALANCE

- 7.4.13. In line with the test set out in s104(7) of the PA2008, the ExA is also required to consider whether the adverse impacts of the proposed development would outweigh its benefits. Paragraph 4.1.6 of NPS EN-1 identifies that when weighing the adverse impacts against its benefits, the SoS should take into account environmental, social and economic benefits and adverse impacts at national, regional and local levels. NPS EN-1 goes on to state (paragraph 4.1.7) that where the NPSs require an applicant to mitigate a particular impact as far as possible, but residual adverse effects would still remain after the implementation of such mitigation measures, those residual effects should be weighed against the benefits of the proposed development.
- 7.4.14. The ExA concludes that the proposed development constitutes nationally significant low carbon infrastructure, for which the government has identified that there is a critical national priority (CNP). Nonetheless, in assessing all nationally significant energy infrastructure, the starting point is the overarching need case which should be given substantial weight as set out in paragraphs 3.2.6 to 3.2.8 of NPS EN-1.
- 7.4.15. The proposed development would make a meaningful contribution towards meeting the urgent need for low carbon electricity infrastructure as well as the government's energy security and net zero ambitions, including delivering up to 50GW of offshore wind by 2030. NPS-EN1 states that substantial weight should be given to this need when considering applications for development consent under the PA2008. Therefore, the ExA considers that the overall need argument weighs heavily in favour of making the Order and have attributed this very great positive weight in the planning balance.
- 7.4.16. The ExA has attributed a little positive weight to the beneficial socio-economic effects as a result of employment opportunities during the construction and

operational phases of the proposed development. Similar weight is also attached to the health benefits associated from wider energy security for vulnerable groups during the operational phase of the proposed development.

- 7.4.17. In terms of adverse effects, the ExA has identified that harm would occur from the construction and operation of the proposed development as a result of the potential impacts on offshore ornithological receptors. In particular the ExA considers there to be a likelihood of significant adverse cumulative effects for guillemot and razorbill (displacement), gannet (displacement and collision) and kittiwake and the great black-backed gull (collision). The ExA concludes offshore ornithology matters carry great negative weight against making the Order.
- 7.4.18. The ExA has found that the proposed development would have significant adverse landscape and visual effects during construction. The proposed development would have localised significant adverse effects during operation on landscape character, including on the Yorkshire Wolds Important Landscape Area. There would also likely be significant adverse effects on visual amenity, taking up to 10 years to mitigate. The ExA has attributed these adverse effects great negative weight against making the Order.
- 7.4.19. The ExA has found that the proposed development would have a harmful impact on the setting of the scheduled monument near to Butt Farm during construction and operation. The ExA has concluded that this would equate to less than substantial harm, at the higher end of the scale. The ExA also identified that there would be less than substantial harm, at the lower end of the scale, to 2 listed buildings during construction of the proposed development. The ExA has attributed these adverse effects upon designated heritage assets great negative weight against making the Order.
- 7.4.20. The ExA has attributed great negative weight to land use and agricultural issues given the residual significant effects and issues identified in relation to the assessment robustness and policy compliance.
- 7.4.21. The ExA has attributed moderate negative weight to matters concerning aviation and defence in relation to DBS West development, including non-compliance with policies of NPS EN-1 and NPS EN-3 in this regard.
- 7.4.22. The ExA has also attributed moderate negative weight to commercial fisheries, due to the residual adverse effects, the potential for transboundary effects and non-compliance with the East and North East Inshore and Offshore marine plans.
- 7.4.23. The ExA identified uncertainty regarding the adequacy of crossing and proximity agreements to mitigate effects identified in the ES on other offshore infrastructure. Moreover, the ExA concluded that the applicants failed to comply with relevant policies of NPS EN-3 with regards to wake effects and did not adequately consider mitigation for other offshore wind farms. Taking account of any residual effects from wake loss on other offshore wind farms, the lack of compliance with NPS EN-3 and the relevant marine plans, and the aforementioned conclusions, the ExA has attributed the effects on other offshore infrastructure and activities moderate negative weight against making the Order.
- 7.4.24. The ExA has assigned either a little negative weight or neutral weight to the remaining matters. Details of those are presented in Table 2 above.

- 7.4.25. The ExA has identified several instances where the application has failed to comply with the relevant policy provisions. Where non-compliance has been identified (aviation and defence, hydrology, effects on agricultural land, commercial fisheries and other offshore infrastructure users and activities), those matters have been attributed negative weight in the planning balance.
- 7.4.26. In relation to effects on aviation and radar, and on other offshore infrastructure users and activities, the ExA has concluded that the applicants failed to adequately follow the mitigation hierarchy. As such, these matters have been attributed negative weight.
- 7.4.27. In all other aspects, the ExA is satisfied that the identified adverse effects would be mitigated as far as reasonably possible. The ExA is content that the appropriate measures to do this could be properly secured through the recommended draft DCO (appendix F of this Recommendation) and the associated control documents, such that the identified adverse effects would be appropriately managed.
- 7.4.28. In order for the proposed development to fail s104(7) of the PA2008, the identified adverse impacts and the weight attached to them would, either individually or cumulatively, need to be of such importance that they are capable of outweighing the very great positive weight to be attached to the need for the proposed development as identified in NPS EN-1.
- 7.4.29. Taking the above into account, the ExA concludes that the harms, even when taken cumulatively, would not be capable of outweighing the very great benefits arising from the need for the proposed development as set out in NPS EN-1, NPS EN-3 and NPS EN-5. This includes weighing the less than substantial harm to designated heritage assets against the public benefits which would be delivered by the proposed development, which the ExA considers outweigh the harm identified.
- 7.4.30. In applying the overall planning balance, the ExA considers that the large-scale generation of renewable energy and the contribution that the proposed development would make to meeting the relevant government climate change and net zero targets, outweigh the harms that have been set out above. However, this is a finely balanced conclusion due to the number and nature of the adverse impacts, particularly those that have been attributed great and moderate negative weight against the making of the Order.
- 7.4.31. Notwithstanding this conclusion, the ExA cannot recommend that the DCO in its current form is made due to the concerns that neither a delivery mechanism for strategic compensation nor a project-led option has been established and therefore does not consider that feasible, deliverable project-led mitigation has been secured for guillemot (or razorbill).

CONSIDERATION OF CRITICAL NATIONAL PRIORITY

- 7.4.32. The ExA concludes that the proposed development constitutes nationally significant low carbon infrastructure, for which the government has identified in NPS EN1 that there is a critical national priority (CNP).
- 7.4.33. Section 4.2 of NPS EN-1 sets out the starting point that the application of CNP policy follows the overarching need case, to which substantial weight should be given. It follows the normal consideration of the impacts of the project, and the application of the mitigation hierarchy to any residual impacts identified (as well as any other legal and regulatory requirements). The CNP policy therefore does not

create an additional need in this regard, but it should be applied following the normal consideration of the need case, the impacts of the project, and the application of the mitigation hierarchy.

- 7.4.34. The ExA has concluded overall that the identified need for the proposed development outweighs the negative impacts identified. Therefore, notwithstanding the ExA's conclusions in relation to HRA matters, given that the ExA finds the planning balance to fall, albeit finely, in favour of the proposed development, it is not necessary to apply the further tests set out in NPS EN-1 in relation to CNP.
- 7.4.35. However, the ExA recognises that its recommendation on the overall planning case is a finely balanced one and acknowledges that the SoS may come to a different view and concludes that the balance falls against the making of the Order. Should this be the case, then the ExA recommends that the SoS would need to consider the proposed development against the CNP test as set out in NPS EN-1. Whilst the ExA has not concluded directly against the CNP tests, in coming to its final recommendation, the ExA has concluded against the relevant details within this Recommendation, to ensure the SoS is able to fully consider the application against the CNP test, should they be required to do so.
- 7.4.36. Paragraphs 4.2.10 and 4.2.11 refer to the need for CNP infrastructure to continue to apply the mitigation hierarchy.
- 7.4.37. Paragraph 4.2.15 of NPS EN-1 identifies that, where residual non-HRA or non-MCZ impacts remain after the mitigation hierarchy has been applied, those residual impacts are unlikely to outweigh the urgent need for this type of infrastructure. Therefore, in all but the most exceptional circumstances, it is unlikely that consent would be refused based on these residual impacts. The exception to this presumption is residual impacts onshore and offshore which present an unacceptable risk to, or unacceptable interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero. Further, the same exception applies to this presumption for residual impacts which present an unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk.
- 7.4.38. When considering paragraphs 4.2.10 and 4.2.11, the ExA concludes that, in relation to impacts on military radar and other offshore infrastructure and activities, the applicants have failed to apply the mitigation hierarchy. As such the proposed development would fail to accord with these paragraphs and the CNP presumptions do not apply.
- 7.4.39. Should the SoS conclude that the applicants' approach did appropriately apply the mitigation hierarchy, then the ExA does not consider that the residual impacts identified would present an unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats, or unacceptable risk to the achievement of net zero. Nor would the proposed development result in unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk.
- 7.4.40. In relation to the HRA residual impacts, the ExA is satisfied that an Appropriate Assessment has been undertaken. The ExA also finds that the proposed development has met the test for IROPI and that there are no deliverable alternative solutions, however the ExA concludes that compensatory measures have not been secured.

7.5. CONCLUSION

- 7.5.1. On the basis of all of the above considerations, on balance, the ExA concludes that there is a case for development consent to be granted. The ExA finds that neither a delivery mechanism for strategic compensation nor a project-led option has been established and therefore does not consider that feasible, deliverable project-led mitigation has been secured for guillemot (or razorbill), as such the DCO as applied for cannot be made in its current form.
- 7.5.2. However, should the SoS conclude that the HRA considerations have been met, the ExA concludes that for the reasons set out and summarised above, development consent should be granted, subject to the inclusion of the changes to the DCO recommended by the ExA and discussed in section 10 of this Recommendation.
- 7.5.3. The ExA considers land rights matters in section 8 of this Recommendation and matters relating to the drafting of the DCO in section 9.

8. LAND RIGHTS AND RELATED MATTERS

8.1. INTRODUCTION

8.1.1. This section sets out the relevant legislative requirements relating to compulsory acquisition (CA) and temporary possession (TP), describes the request by the applicants for CA and TP powers, explains the purpose for which land would be required, describes the examination of the CA and TP case and gives the Examining Authority's (ExA) conclusions and recommendations.

8.1.2. Principal issues including, but not limited to, were identified in the ExA's Rule 6 letter [\[PD-002\]](#):

- Whether the extent of the land, rights and powers sought to be compulsorily acquired is required for the proposed development.
- Whether the TP powers sought are justified and proportionate.
- Whether there is a compelling case in the public interest for the CA of the land, rights and powers sought by the draft Development Consent Order (dDCO).
- Whether all reasonable alternatives to CA and TP have been explored.
- Whether sufficient work has been undertaken to try and acquire rights voluntarily.
- Whether adequate funding is likely to be available to enable the applicants to carry out the CA within the statutory period.
- The approach adopted by the applicants to identifying ownership of land.

LAND RIGHTS TRACKER

8.1.3. Following the request from the ExA in the Rule 6 letter [\[PD-002\]](#), the applicants provided regular updates with regards to the progress of negotiations with affected persons (AP) by means of a Land Rights Tracker (LRT).

8.1.4. Annex F of the Rule 6 letter [\[PD-002\]](#) set out the ExA's reasons for requesting the LRT. This was to provide a comprehensive account of the status of land rights not yet agreed and to provide the ExA with a regular update of the progress being made with voluntary agreements.

8.1.5. The LRT therefore provides an audit trail for all parties and enables all relevant and outstanding matters to be easily identified. This provides the ExA and the Secretary of State (SoS) with a useful reference table of the positions of the APs and plots involved and allows them to sort the entries into whichever order was needed, for example, those APs with signed agreements or signed Heads of Terms (HoT). The Rule 6 letter [\[PD-002\]](#) also provided an example of the format and fields the ExA expected to be contained in the LRT.

8.1.6. The submitted LRT contained the following information:

- unique reference number (URN)
- name of land interest
- agent or representative
- examination library reference
- status of objection
- summary comments on status of objection or land negotiation
- book of reference (BoR) category
- interest
- plot references

- type of acquisition relating to specified plot(s)
- work numbers
- work description
- status of negotiation
- summary of negotiation status

8.1.7. All the information above is normally held within the application and examination but spread across a number of different documents. The LRT therefore brought this together into a single document.

8.1.8. An updated version of the LRT was submitted at Deadline (DL)1 [\[REP1-046\]](#), DL3 [\[REP3-015\]](#), DL4 [\[REP4-079\]](#), DL6 [\[REP6-047\]](#), DL7 [\[REP7-122\]](#) and DL8 [\[REP8-033\]](#). It should be considered in conjunction with the final version of the BoR [\[REP8-010\]](#).

8.2. LEGISLATIVE REQUIREMENTS

8.2.1. The application included a request for CA and TP powers. The source of those powers was in the applicants' preferred dDCO submitted at the end of the examination [\[REP9-003\]](#). Unless otherwise stated, all further references to the dDCO in this section relate to this version.

8.2.2. The CA powers can only be granted if the conditions set out in section (s) 122 and s123 of the Planning Act 2008 (PA2008) are met.

8.2.3. Section 122(2) of the PA2008 states that the land subject to CA must be required for the development to which the development consent relates or must be required to facilitate or be incidental to the development. This means that the land to be taken must be no more than is reasonably required for the purposes of the development, is no more than is reasonably necessary and is proportionate. Section 122(2)(c) also refers to replacement land which is to be given in exchange for order land under s131 and s132 of the PA2008. This does not apply in this case.

8.2.4. Section 122(3) of the PA2008 requires that there must be a compelling case in the public interest to acquire the land compulsorily. This means that the public benefit to be derived from the CA must outweigh the private loss that would be suffered by those whose land is affected. In balancing public interest against private loss, CA must be justified in its own right. That does not mean that the CA proposal can be considered in isolation from the wider consideration of the merits of the project, but there must be a need for the project to be carried out, along with a consistent and coherent decision-making process.

8.2.5. Section 123 of the PA2008 requires the SoS to be satisfied that one of the three following conditions are met:

- the application for the order included a request for CA of the land to be authorised – s123(2); or
- all persons with an interest in the land consent to the inclusion of the provision – s123(3); or
- the prescribed procedure has been followed in relation to the land – s123(4)

8.2.6. In addition to the legislative requirements, the 'Guidance Related to Procedures for the Compulsory Acquisition of Land' (the former Department for Communities and Local Government), September 2013 (CA Guidance) sets out a number of general considerations to be addressed when CA powers are sought. These are that:

- all reasonable alternatives to CA have been explored
- the proposed interference with the rights of those with an interest in the land is for a legitimate purpose and is necessary and proportionate
- the applicant has a clear idea of how it intends to use the land
- the applicant must be able to demonstrate that there is a reasonable prospect of the requisite funds becoming available to meet the compensation liabilities that might flow from the exercise of CA powers
- the decision-maker must be satisfied that the purposes for which the CA of land are included in the application are legitimate and are sufficient to justify interfering with the human rights of those with an interest in the land affected

- 8.2.7. Furthermore, paragraph 25 of the CA Guidance states that applicants should seek to acquire land by negotiation wherever practicable. It adds that, as a general rule, authority to acquire land compulsorily should only be sought as part of an order granting development consent if attempts to acquire by agreement fail. Where proposals would entail the CA of many separate plots of land (such as for long, linear schemes) it may not always be practicable to acquire each plot of land by agreement. Where this is the case, the CA Guidance says it is reasonable to include provision authorising CA covering all the land required at the outset.
- 8.2.8. Section 127 of the PA2008 applies to land acquired by statutory undertakers (SU) for the purpose of their undertaking where a representation is made about the application for the Development Consent Order (DCO) and not withdrawn and, as a result of that representation, the SoS is satisfied that the land is used for the purposes of carrying out the SUs undertaking, or an interest in the land is held for those purposes. Section 127(5) states that an order granting development consent may include provision authorising the creation of a new right over SUs' land, providing it can be done without serious detriment to the carrying out of the undertaking or any detriment can be made good by the undertaker by the use of other land belonging to or available for acquisition by the SUs.
- 8.2.9. Section 138 of the PA2008 provides for an order to include the provision of the extinguishment of the relevant rights, or the removal of the relevant apparatus of SUs only if the SoS is satisfied that such actions are necessary for the purposes of carrying out the development to which the order relates.
- 8.2.10. Section 131 of the PA2008 applies to the CA of common land, open space or fuel or field garden allotments and s132 applies to the CA of rights over such land. Such land is defined as 'special category land' under regulation 2 of the 'Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009' (the APFP Regulations). Section 131 and s132 of the PA2008 make provision for special parliamentary procedure to apply where a DCO authorises the CA of, or rights over special category land unless the SoS is satisfied that one of the relevant subsections applies and that fact is recorded in the order. Special parliamentary procedure requires that powers of CA relating to special category land be subject to further scrutiny by Parliament, before the DCO covering the CA can come into effect. Special category land is considered later in this section and is relevant for s132 of the PA2008 only.
- 8.2.11. Crown land is defined in s227(2) of the PA2008 as land in which there is a crown interest or a Duchy interest: those terms are defined in s227(3) and (4) thereof respectively. Section 135 of the PA2008 provides that an order granting development consent may include a provision authorising the CA of an interest in crown land only if:

- the land interest is for the time being held otherwise than by or on behalf of the crown; and
- if the appropriate crown authority consents to the acquisition.

8.2.12. Further to part 1 of schedule 5 of the PA2008, TP powers are capable of being within the scope of the DCO. The PA2008 and the CA Guidance do not contain the same level of specification and tests to be met in relation to the granting of TP powers as for CA powers because, by definition, such powers do not seek to permanently deprive or amend a person's interests in land. However, they must be justifiable and compatible with the human rights tests as discussed below.

8.2.13. The Neighbourhood Planning Act 2017 (NPA2017) includes a number of provisions related to the TP of land including notice requirements, the service of counter notices and compensation. These provisions are not yet in force and are described as technical changes in the explanatory notes that accompany the NPA2017.

8.2.14. Article 6(e) of the dDCO [[REP9-003](#)] seeks to disapply the provisions of the NPA2017 insofar as they relate to TP of land under articles 30 (temporary use of land for carrying out of the authorised development) and 31 (temporary use of land for maintaining the authorised project) to protect the applicants' position should the provisions be brought into force after any consent is granted.

HUMAN RIGHTS

8.2.15. Human rights have been considered by the ExA with reference to the European Convention on Human Rights (ECHR) and in particular:

- article 6 (fair and public hearing)
- article 8 (respect for private and family life, home and correspondence)
- article 1 of the First Protocol to the ECHR (peaceful enjoyment of possessions)

8.3. THE REQUEST FOR COMPULSORY ACQUISITION AND TEMPORARY POSSESSION POWERS

POWERS SOUGHT

8.3.1. The powers being sought by the applicants and how they relate to the principal articles in the dDCO were set out, described, and explained in the following documents:

- BoR [[APP-031](#)]
- a Statement of Reasons (SoR) [[APP-030](#)]
- dDCO [[APP-027](#)]
- Explanatory Memorandum [[APP-028](#)]
- a Funding Statement (FS) [[APP-033](#)]
- land plans (onshore) [[APP-013](#)]
- works plans (offshore) [[APP-011](#)]
- works plans (onshore) [[APP-012](#)]
- special category land plans [[APP-014](#)]
- access to works plans [[APP-016](#)]
- public rights of way plans [[APP-017](#)]
- streets plans [[APP-018](#)]
- crown land plans [[APP-015](#)]

- 8.3.2. A number of these documents were updated or amended during the examination. The final Guide to the Application [\[REP9-002\]](#) showed that by the close of examination, the most up-to-date versions were as follows:
- BoR (revision 7) submitted at DL8 [\[REP8-010\]](#)
 - SoR (revision 5) submitted at DL8 [\[REP8-008\]](#)
 - dDCO [\[REP9-003\]](#)
 - Explanatory Memorandum [\[REP8-005\]](#)
 - FS (revision 5) submitted at DL8 [\[REP8-012\]](#)
 - land plans (onshore) submitted at DL4 [\[REP4-002\]](#)
 - works plans (offshore) (revision 4) submitted at DL2 [\[REP2-004\]](#)
 - works plans (onshore) (revision 4) submitted at DL2 [\[REP2-005\]](#)
 - special category land plans (revision 3) submitted at DL7 [\[REP7-003\]](#)
 - access to works plan (revision 2) submitted at DL7 [\[REP7-004\]](#)
 - public rights of way plans (revision 2) submitted at DL7 [\[REP7-005\]](#)
 - streets plans (revision 2) submitted at DL7 [\[REP7-006\]](#)
 - crown land plans (revision 3) submitted at DL4 [\[REP4-003\]](#)
- 8.3.3. These documents, taken together, form the basis for the analysis in this section. References to the documents and plans in this section from this point onwards should be read as references to the latest revisions cited above, unless otherwise stated.
- 8.3.4. The applicants submitted a formal change request on 10 January 2025 [\[AS-129\]](#) to [\[AS-152\]](#). In their submissions, the applicants considered that the Infrastructure Planning (Compulsory Acquisition) Regulations 2010 were not engaged, and the procedures set out therein in regulations 5 to 19 did not apply. The ExA agreed with the applicants that the changes would result in a reduction in land take required and a reduction in the use of the land. The ExA also agreed that additional consultation would not be required. The ExA accepted the proposed changes into the examination [\[PD-012\]](#).
- 8.3.5. The applicants stated in the SoR [\[REP8-008\]](#) that it was in discussions with landowners with the intention of reaching voluntary agreements for the land rights to be acquired. Powers of CA were sought on a precautionary basis to ensure that the proposed development could be delivered in the event that all necessary interests in the land could not be secured by agreement, the landowner or occupier defaulted on that agreement or where unknown interests in the land emerged.
- 8.3.6. The applicants' final dDCO [\[REP9-003\]](#) sought powers to compulsorily acquire land and new rights (both temporary and permanent) for the purposes of the construction, operation and maintenance of the proposed development.

8.4. THE PURPOSES FOR WHICH LAND IS REQUIRED

- 8.4.1. The relevant order land and purposes for which CA and TP powers are required are set out in the BoR [\[REP8-010\]](#) and SoR [\[REP8-008\]](#) and shown on the land plans (onshore) [\[REP4-002\]](#).
- 8.4.2. CA is sought for land that would be required or used permanently for the construction, operation and maintenance of the proposed development. The main powers authorising the CA of land are in article 20 (compulsory acquisition of land) of the final dDCO [\[REP9-003\]](#). This article would allow the undertaker to acquire compulsorily so much of the order land as would be required for the authorised development, or to facilitate it, or is incidental to it, subject to the provisions of article

21 (time limit for the exercise of authority to acquire land compulsorily), article 22 (compulsory acquisition of rights) and article 30 (temporary use of land for carrying out the authorised project).

- 8.4.3. Article 21 would limit the time allowed for exercising CA (and TP) powers to 7 years from when the order is made.
- 8.4.4. Article 22 would limit the undertaker's powers of CA to acquire only the rights or impose only the restrictive covenants specified in schedule 7 of the final dDCO [\[REP9-003\]](#) relating to the order land also specified in that schedule.
- 8.4.5. Article 30 would allow the undertaker to enter on and take possession of land set out in schedule 9 of the final dDCO [\[REP9-003\]](#), to facilitate the construction of the proposed development. The article would limit such possession to 1 year after the date of completion of the relevant part of the proposed development. Article 30 would also prevent the undertaker from acquiring this land compulsorily.
- 8.4.6. Article 44 makes provision to prevent the applicants exercising any CA powers until guarantees or alternative forms of security in respect of the liabilities to pay compensation are in place and have been approved.
- 8.4.7. The land plans (onshore) [\[REP4-002\]](#) reflect the above and identified the following:
- land shaded pink - freehold acquisition (permanent CA of land)
 - land shaded blue - acquisition of rights (CA of rights and TP of land)
 - land shaded yellow - temporary possession (TP of land only)
- 8.4.8. Other powers sought by the applicants include article 25 which would provide for the extinguishment of all existing private rights over land subject to CA and as necessary the suspension of those rights over land subject to TP. Article 26 would allow the applicants to acquire compulsorily so much of, or such rights in, the subsoil or the airspace over the land as required. Article 29 would allow the applicants to enter on and use land above and below streets in the order limits without having to acquire any part of the street or an easement right in it.
- 8.4.9. Article 31 would provide for the applicants to take TP of land within the order limits required for the purpose of maintaining the proposed development and to construct such temporary works as may be reasonably necessary for that purpose. This general power would be allowed during the period which the proposed development would export electricity to the national electricity transmission network. However, the TP itself would be time limited for so long as may be reasonably necessary to carry out the maintenance of the part of the proposed development for which possession of the land was taken.
- 8.4.10. Articles 32 and 33 address the CA of SUs' land, including powers to remove or reposition apparatus belonging to SUs.
- 8.4.11. Part 4 of the BoR [\[REP8-010\]](#) identifies the plots within which the crown has an interest, and these are shown on the crown land plans [\[REP4-003\]](#). The BoR identifies that interests in such land are held by the following relevant crown authorities:
- The King's Most Excellent Majesty in Right of His Crown (the King)
 - SoS for Defence and the Ministry of Defence
- 8.4.12. Article 41 includes a provision for the CA of crown interests.

- 8.4.13. The route of the proposed development would also require the CA of rights and TP of land which falls under the definition of ‘special category land’ being land that is currently open space. Part 5 of the BoR [\[REP8-010\]](#) and the special category land plans [\[REP7-003\]](#) identifies the plots that fall within this category. These plots are identified and defined in the BoR [\[REP8-010\]](#) as ‘open space’ and are therefore subject to s132 of the PA2008. Section 131 of the PA2008 is not engaged as the applicants are only seeking the acquisition of rights.

OTHER RIGHTS AND POWERS

- 8.4.14. Other rights and powers in the applicants’ final dDCO [\[REP9-003\]](#) which, if exercised, may interfere with existing property rights and private interests in land were set out in paragraph 6.18 of the SoR [\[REP8-008\]](#) as follows:

- article 10 (temporary closure of streets)
- article 11 (closure and diversion of public rights of way)
- article 15 (use of private roads)
- article 18 (authority to survey and investigate land onshore)
- article 38 (felling or lopping of trees and removal of hedgerows)

8.5. EXAMINATION OF THE COMPULSORY ACQUISITION AND TEMPORARY POSESSION CASE

- 8.5.1. The examination of the application included consideration of all oral evidence and submitted written material relevant to CA and TP.

WRITTEN PROCESS

- 8.5.2. The LRT [\[REP8-033\]](#) set out all the category 1 APs including SUs. The LRT listed where an AP made a relevant representation (RR), written representation (WR) or submission regarding the CA or TP of land in which they held an interest.
- 8.5.3. The ExA’s first written questions (ExQ1) [\[PD-014\]](#) included questions to clarify and test the applicants’ case for CA and TP. The ExA’s Rule 17 letter [\[PD-026\]](#) dated 9 June 2025 sought further information from both the applicants and APs.

HEARINGS

- 8.5.4. Compulsory acquisition hearings (CAH) were held on 14 January 2025 [\[EV3-002\]](#) and 7 April 2025 [\[EV7-001\]](#).
- 8.5.5. The applicants submitted a response to the CAH1 Action Points [\[AS-155\]](#), along with a summary of their submissions at CAH1 [\[REP1-049\]](#) at DL1. At DL4 the applicants submitted a response to the CAH2 Action Points [\[REP4-096\]](#), and a summary of their submission to CAH2 [\[REP4-086\]](#).

SITE INSPECTIONS

- 8.5.6. Unaccompanied site inspections (USI) took place between the 24 September 2024 and 26 September 2024. These enabled the ExA to view much of the land subject to CA and TP from public highways and public rights of way (PRoW). The ExA was also able to gain an appreciation of the general extent of the land being sought to be acquired permanently or possessed temporarily.

GENERAL CONSIDERATIONS

8.5.7. The applicants' case for CA and TP is set out in the SoR [\[REP8-008\]](#). In brief the applicants considered that:

- The conditions in s122 of the PA2008 had been met and the tests in the CA Guidance were satisfied.
- All of the land subject to CA and TP powers was needed to construct, operate, maintain and mitigate the proposed development.
- The extent of the land sought for CA and TP was reasonable and proportionate and was no more than was reasonably required for the purposes of the proposed development.
- The applicants had a clear idea of how they intended to use the land which would be subject to CA and TP.
- All reasonable alternatives to CA (including modifications to the proposed development) had been explored.
- The applicants had engaged with all APs with a view to acquiring land interests by agreement and this was a continuing process.
- There was the necessary funding available.
- The exercise of the CA and TP powers that were sought was necessary and proportionate to the extent that interference with private land rights was required.
- In the absence of CA and TP powers, it would not be possible to proceed with the proposed development and the public benefits of the proposed development would not be realised.
- There was a compelling case in the public interest to include the CA and TP powers sought by the applicants in the dDCO.
- The interference with human rights was both proportionate and justified.

8.5.8. ExQ1 [\[PD-014\]](#) included questions relevant to the applicants case for CA and TP and covered, amongst other things:

- compliance with the BoR and the CA Guidance
- accuracy of the BoR, SoR and land plans
- steps the applicants were taking to identify any persons having an interest in the land, including any rights over unregistered land
- individual objections, issues and voluntary agreements
- funding
- progress with land rights negotiations

8.5.9. At CAH1 [\[EV3-002\]](#), the ExA:

- explored further the applicants' case for CA and TP
- received an update on the progression of voluntary agreements with APs
- heard and orally examined objections from APs
- asked the applicants to justify the need for and size of several individual plots
- heard and orally examined the applicants' case with regards to s131 and s132 of the PA2008
- received an update regarding the CA of crown land including confirmation that all the relevant plots had been identified including any affected by either escheat or bona vacantia
- orally examined the proposed costs of the project and whether sufficient funding would be available to cover the costs of acquiring the land and building out the proposed development

- 8.5.10. Protective provisions (PP) and the interests of SUs were examined by the ExA during issue specific hearing (ISH) 1 [\[EV4-002\]](#), where the ExA heard an update with regard to agreements with SUs with particular reference to the drafting of PPs included within schedule 15 of the dDCO.
- 8.5.11. At CAH2 [\[EV7-001\]](#), the ExA:
- received an oral update from the applicants on the progression of voluntary agreements with APs
 - heard and orally examined objections from APs
 - received an oral update regarding the negotiations with SUs
 - heard and orally examined objections from SUs
 - received an update with regards to the progress made in obtaining crown consent
 - orally examined the proposed costs of the project and whether sufficient funding would be available to cover the costs of acquiring the land and building out the proposed development
- 8.5.12. In the Rule 17 letter [\[PD-026\]](#) dated 9 June, the ExA:
- requested the applicants review the LRT and SoR to remove a number of errors and ensure both were accurate
 - sought an update from all parties on the status of negotiations
 - in respect to specific plots, sought further justification for their need
- 8.5.13. The applicants' consideration of alternatives was provided in the Environmental Statement (ES) Chapter 4 – Site Selection and Assessment of Alternatives (revision 2) [\[AS-017\]](#) and set out the proposed development's evolution, including the options considered and the reasons why they were discounted in favour of the preferred option. The Consultation Report [\[APP-034\]](#) and the Planning Statement [\[APP-226\]](#) also provided information on the consideration of alternatives. Section 3 of this Recommendation considers site selection and alternatives in greater detail and concludes that the applicants have considered all reasonable alternatives for each of the elements of the proposed development and that the proposed development, as applied for, represents the most appropriate location having regard to environmental and technical constraints of the alternatives that were considered. None of the alternative options would obviate the need for CA and TP powers.
- 8.5.14. The SoR [\[REP8-008\]](#) provided the justification for the CA and TP of each plot identified in the land plans (onshore) [\[REP4-002\]](#). The works plans (onshore) [\[REP2-005\]](#) identified how the applicants intended to use the land which would be subject to CA and TP.
- 8.5.15. In terms of demonstrating a compelling case in the public interest for the acquisition of land and rights, the applicants highlight in section 5 of the SoR [\[REP8-008\]](#), section 3 of the Planning Statement [\[APP-226\]](#) and ES Chapter 2 (Need for the Project) [\[APP-065\]](#) that the proposed development would:
- make a significant contribution to meeting the urgent need for new (particularly low carbon) energy infrastructure in accordance with the policy set out in Overarching National Policy Statement for Energy (NPS) EN-1
 - contribute to the ambition to deliver 50 gigawatts (GW) of offshore wind by 2030 as set out in NPS-EN1
 - make a significant contribution to meeting UK policy commitments and legal decarbonisation targets for renewable energy and the wider policy objectives for future UK decarbonisation and energy security

- lower the cost and increase the affordability of generated electricity
- contribute to sustainable development and economic opportunities

8.5.16. At Annex C of the Rule 6 letter [\[PD-002\]](#), the ExA identified a number of principal issues with regards to CA and TP. As the examination progressed, the ExA focused on the examination of:

- whether the extent of the land, rights and power sought were required (compliance with s122(2) of the PA2008 and the CA Guidance)
- whether the applicants had sought to acquire land interests and TP powers by voluntary agreement
- whether adequate funding would be available to enable the applicants to carry out the CA within the statutory period

COMPLIANCE WITH S122(2) OF THE PA2008 AND THE CA GUIDANCE

8.5.17. Section 122(2) of the PA2008 states that land subject to CA must be required for the development to which development consent relates or must be required to facilitate or be incidental to the development. The CA Guidance states that the land to be taken must be no more than is reasonably required for the purposes of the development, is no more than is reasonably necessary and is proportionate.

8.5.18. At CAH1 [\[EV3-002\]](#), the ExA sought clarification as to the need for the amount of land being sought in relation to a number of the works. These included:

- Work Nos. 8a and 8b – works to beach adjacent to the landfall site
- Work Nos. 9a and 10a and Work No 9b and 10b – the emergency beach access
- Work Nos. 13a and 13b – the landfall site
- Work Nos. 16a and 16b – temporary construction compounds
- Work Nos. 17a and 17b – temporary construction access
- Work Nos. 18a and 18b – temporary construction access
- Work Nos. 19a and 19b – temporary improvement to public highway
- Work Nos. 20a and 20b – main temporary construction compound
- Work Nos. 23a and 23b – convertor station temporary construction compound
- Work Nos. 24a and 24b – converter station and associated infrastructure

8.5.19. The applicants provided a detailed explanation [\[REP1-049\]](#) (section 2.1.2) for why the amount of land being sought was necessary for each of the above works.

8.5.20. At CAH1 [\[EV3-002\]](#), the ExA observed that the proposed development consisted of 2 offshore wind farms, Dogger Bank South East (DBS East) and Dogger Bank South West (DBS West). As a result, there were a number of different development scenarios including the possibility that only one, either DBS East or DBS West, of the proposed array areas was built out. However, the ExA noted that the applicants were seeking to acquire all the land to deliver both projects. Given that when seeking to acquire land the CA Guidance states that the amount of land that applicants seek to acquire has to be proportionate and should be no more than reasonably required, the ExA sought further clarification and justification.

8.5.21. The applicants advised [\[EV3-005\]](#) that the approach that had been taken was similar to that used on other offshore wind farms such as The Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024. The applicants considered that, in accordance with the CA Guidance, in practice each project would only take what land it needed and would leave the remainder available for the other project to be developed out. Whilst the DCO as drafted would only allow the undertaker to acquire the land that was needed to deliver the development, the

applicants accepted that as drafted there would be the ability for either DBS East or DBS West to build out across the full width of the order land. However, the applicants considered that in practice this would not happen as it would attract disproportionate compensation if one project took more land than it needed. Moreover, the DCO as drafted contained a protection from one project to another in both directions to ensure that sufficient land would need to remain available to enable delivery of the other project.

EXA'S CONCLUSION

- 8.5.22. The ExA is therefore satisfied with the responses provided and is content that the applicants have demonstrated that the land they are seeking to acquire is no more than is reasonably necessary to enable the construction, operation and maintenance of the proposed development.

THE ACQUISITION OF LAND INTEREST BY AGREEMENT

- 8.5.23. Section 122(3) of the PA2008 requires there to be a compelling case in the public interest for the CA of land.

- 8.5.24. Paragraph 25 of the CA Guidance states:

“Applicants should seek to acquire land by negotiation wherever practicable. As a general rule, authority to acquire land compulsorily should only be sought as part of an order granting development consent if attempts to acquire by agreement fail. Where proposals would entail the compulsory acquisition of many separate plots of land (such as for long linear schemes) it may not always be practicable to acquire by agreement each plot of land. Where this is the case, it is reasonable to include provision authorising compulsory acquisition covering all the land required at the outset.”

- 8.5.25. Paragraph 45 of the CA Guidance makes it clear that further guidance is to be found in the Criche Down Rules (now contained in Guidance on Compulsory Purchase Process and The Criche Down Rules, Department for Levelling Up, Housing and Communities, July 2019). This states in part 2 that:

“The confirming authority will expect the acquiring authority to demonstrate that they have taken reasonable steps to acquire all of the land and rights included in the Order by agreement. Where acquiring authorities decide to/ arrange to acquire land by agreement, they will pay compensation as if it had been compulsorily purchased, unless the land was already on offer on the open market.

Compulsory purchase is intended as a last resort to secure the assembly of all the land needed for the implementation of projects. However, if an acquiring authority waits for negotiations to break down before starting the compulsory purchase process, valuable time will be lost. Therefore, depending on when the land is required, it may often be sensible, given the amount of time required to complete the compulsory purchase process, for the acquiring authority to:

- plan a compulsory purchase timetable as a contingency measure; and
- initiate formal procedures.”

- 8.5.26. At part one of the preliminary meeting (PM) [\[EV2-001\]](#), the ExA noted that the Schedule of Progress for Voluntary Land Interest Agreements [\[APP-032\]](#) recorded that there were no voluntary agreements in place. Furthermore, in its review of the document, the ExA found that initial contact by the applicants with some of the APs had been relatively recent (for example first contact with the Environment Agency

(EA), the Crown Estate and Network Rail was shown as being made in April 2024). Given that CA should only be relied upon once all other reasonable alternatives to acquiring the land have been exhausted, the ExA asked the applicants whether they considered that there would be sufficient time within the examination to acquire the land needed voluntarily and what actions and measures the applicants intended to use to achieve this.

- 8.5.27. The applicants responded [\[EV2-003\]](#) that, whilst there were no binding agreements in place they had agreed HoT with 78% of the land owners and that discussions with the remaining land owners were ongoing. The applicants also advised that they had created a land interest group which included a substantial percentage of the land interests, were working on proposals to incentivise agreements during the examination and that they had both an in-house team and an external team (Dalcour Maclaren) who were engaged full time on pursuing voluntary agreements. The applicants therefore considered that they were in a good position in terms of acquiring the land voluntarily. However, due to the linear nature of part of the scheme and the number of plots involved, they felt that it would be unlikely that agreements would be in place for all of the land required for the proposed development by the close of the examination.
- 8.5.28. At CAH1 [\[EV3-002\]](#), the applicants advised that of the 45 land owners that would be impacted by the cable corridor, onshore substation zone (OSZ) and onward cable corridor, 36 had reached agreement, that is 80% [\[REP1-049\]](#), paragraph 35].
- 8.5.29. At CAH2 [\[EV7-001\]](#), the applicants provided a further update on the progress with voluntary land agreements advising that they had concluded HoT with 37 land owners (82%) and of these, 26 had at this point in the examination agreed an option and easement agreement. The applicants advised that they expected these agreements to be concluded by D5. The remaining 11 parties who had agreed HoT, had yet to agree the form of an option and easement agreement but the applicants were confident that they would be completed before the close of the examination [\[REP4-086\]](#), paragraph 4].
- 8.5.30. The applicants acknowledged that there were still 8 (18%) landowners who were yet to agree HoT. The applicants advised that they were progressing with negotiations and were hopeful that some parties would be able to agree HoT before the close of the examination. However, the applicants acknowledged that they may not be able to agree HoT with all the outstanding land owners due to lack of engagement because of other priorities by the close of the examination [\[REP4-086\]](#), paragraph 5].
- 8.5.31. The applicants reported their progress on land rights negotiations via the LRT which they submitted at each deadline. The applicants' view was this demonstrated meaningful, sustained engagement, along with a willingness to meet reasonable costs and an ongoing effort to reach voluntary agreement with all relevant parties.
- 8.5.32. By the close of the examination, the applicants identified that there was a total of 61 persons with an interest in land (PILs) within the order limits. Of these, less than 10%, had submitted a relevant representation or a written representation and of those that had, only 3 had an outstanding objection to a specific element of compulsory acquisition. Given the small number, the applicants considered this demonstrated the quality of engagement the applicants had with landowners and the successful focus on resolving matters of concern in relation to the CA and TP of land.

- 8.5.33. In summary, the applicants confirmed [\[REP8-042\]](#) that of the 61, 34 (56%) had agreed HoT, with 27 (44%) remaining in active negotiations.

EXA'S CONCLUSION

- 8.5.34. Whilst it is clear to the ExA that the applicants made progress during the early stages of the examination, there is some confusion over the exact numbers provided by the applicants, with unexplained differences between those submitted at the CAHs in comparison to those in the applicants' closing statement [\[REP8-042\]](#).
- 8.5.35. The ExA notes that this may well be down to additional information coming forward during the examination, but this was not clearly explained by the applicants, either in closing or the final LRT. As such, it is therefore difficult for the ExA to be definitive on what progress was made by the applicants. That said, this does not detract from the fact that progress was ongoing during the examination on reaching voluntary agreement with APs, albeit that by the close of the examination this had not secured all the land rights that the applicants required to carry out the proposed development. The submitted LRTs provide evidence of this.
- 8.5.36. The ExA therefore considers that the applicants have made reasonable attempts to acquire the land and rights therein by voluntary means.
- 8.5.37. The ExA is therefore satisfied that in accordance with the CA Guidance the applicants have sought to acquire the land needed by negotiation and that the CA or TP of land would be a last resort. The ExA recognises that, as the proposed development includes a considerable linear element and given the number of plots involved, it might not be possible for the applicants to acquire all the land needed by negotiation and therefore the ExA accepts that the recommended draft DCO would need to include the powers requested by the applicants.

AVAILABILITY AND ADEQUACY OF FUNDS

- 8.5.38. Under regulation 5 2(h) of the APFP Regulations, if a proposed order would authorise the CA of land or an interest or right over land, a SoR and a statement to indicate how an order that contains the authorisation of CA is proposed to be funded are required. Furthermore, under the CA Guidance, an applicant must demonstrate that there is a reasonable prospect of the funds for acquisition being available (paragraph 9) and should provide as much information as possible about the implications of acquiring the land and implementing the project for which the land is required (paragraph 17).
- 8.5.39. The applicants provided a FS [\[APP-033\]](#) which set out that they considered that adequate funding for both the acquisition of land and the project itself would be available. Following CAH1, the FS was updated at DL2 [\[REP2-008\]](#). The applicants provided a further updated FS [\[REP4-012\]](#) at DL4 following CAH2. A final, updated FS was submitted at DL8 [\[REP8-012\]](#).
- 8.5.40. The initial FS indicated that the cost of implementing the proposed development (including land acquisition costs) would be £7 billion (paragraph 36 [\[APP-033\]](#)). This figure included land acquisition costs of £26 million (paragraph 39 [\[APP-033\]](#)) and the costs for the proposed ecological compensation measures of £173 million (paragraph 52 [\[APP-033\]](#)). However, the FS provided no further detail as to how the overall figure of £7 billion had been calculated or how the costs would change for each of the 3 potential build out scenarios (implementation of only either DBS East or DBS West, building both projects concurrently or building the projects sequentially).

- 8.5.41. At CAH1 [\[EV3-002\]](#), the ExA advised that it considered the FS as submitted would not be sufficient to comply with the regulations and guidance. The ExA considered that without further detail as to how the overall costs had been calculated it could not be satisfied that it was realistic.
- 8.5.42. The applicants submitted an updated FS [\[REP2-008\]](#) at DL2. However, they advised (paragraph 7) that due to commercial confidentiality they could not provide more detailed information of how the overall figure had been calculated. However, some additional detail was provided, including that the cost of implementing a single project would be likely to be more than half (this is £3.5 billion) but unlikely to be significantly more [\[REP2-008\]](#), paragraph 38].
- 8.5.43. With regards to the cost differentials between the sequential and concurrent build out scenarios, onshore cable corridor ducts would be installed for both projects during the first phase of construction in both scenarios. However, the sequential scenario might require the haul road to be left in place until the second project cables were installed. Certain construction compounds may also need to be retained. As a result, the applicants advised there would be an additional cost (paragraph 40 [\[REP2-008\]](#)).
- 8.5.44. With regards to the sequential scenario, the applicants advised that the first project would complete all earthworks, drainage and permanent access for the second converter station and as a result the costs for the onshore converter station preparatory works would not significantly vary between the 2 scenarios (paragraph 41 [\[REP2-008\]](#)).
- 8.5.45. Finally, the applicants advised that the concurrent scenario would limit the ability to use the same construction ports and vessels for each project. As a result, this would offset any additional savings on the onshore cable route works and for that reason the applicants advised that the overall impacts on costs would be de minimus (paragraph 42 [\[REP2-008\]](#)).
- 8.5.46. The ExA raised the matter again at CAH2 [\[EV7-001\]](#) and highlighted a number of other FS for similar development where further detail on the proposed ecological compensation measures had been provided and a number of other FS for Nationally Significant Infrastructure Projects that had provided a high-level breakdown of their project costs. Recognising the concerns regarding commercial confidentiality, the ExA suggested that to enable there to be confidence that the figure suggested by the applicants was realistic the applicants could provide details of the project costs for similar schemes that had been built out for comparison.
- 8.5.47. The ExA asked whether, given the initial FS [\[APP-033\]](#) was dated June 2024, the overall project cost needed to be updated. The ExA also noted that each project would be a special purpose vehicle (SPV) funded by its shareholders on a rolling budget which would look ahead to anticipated expenditure (section 4.3 [\[REP2-008\]](#)). However, the SPVs would be funded through direct cash funding from their shareholders RWE Renewables Ltd (51%) and Masdar (49%) and very little information had been provided to demonstrate the financial status of the parent companies. In response, the applicants advised that the project cost included in the initial FS would need to be updated as, while the document was dated 2024, the figure had not been updated since it was originally calculated in 2019.
- 8.5.48. At DL4 the applicants submitted an updated FS [\[REP4-012\]](#) which indicated that the cost of the project at January 2025 had risen to £12.4 billion. The updated cost utilised the estimated £7.1 billion 2019 cost in Chapter 28 of the ES [\[APP-217\]](#) and

uplifted it by 54% to current prices. An additional £1.5 billion had been added to accommodate an option payment to the Crown Estate (paragraph 37 [\[REP4-012\]](#)).

- 8.5.49. Whilst the applicants did not provide a further breakdown of how this new cost had been calculated, it did provide indicative costs of similar schemes (table 4-1 [\[REP4-012\]](#)) to enable the ExA to undertake a comparison with the costs of other offshore wind farms. The final FS [\[REP8-012\]](#) provided updated accounts and audits for the funding companies.

EXA'S CONCLUSION

- 8.5.50. Having reviewed the updated FS [\[REP8-012\]](#), the ExA is satisfied that the revised project cost, including the amount for land acquisition, is up to date and realistic.
- 8.5.51. It is also clear to the ExA that currently the applicants do not have access to the necessary funds to finance the proposed development, including the costs associated with CA. What the ExA has been provided with are a number of funding routes that the applicants have successfully used previously to fund similar projects.
- 8.5.52. However, the ExA notes that article 44 of the recommended draft DCO would ensure that CA powers would not be exercised until such time as a guarantee or alternative form of security in respect of the liabilities to pay compensation had been approved by the SoS.
- 8.5.53. The ExA is therefore satisfied that, in accordance with the CA Guidance, the SoS can be satisfied that there would be a 'reasonable prospect' of the funds becoming available to finance the proposed development, including the costs of CA if the Order is made.

CONSIDERATION OF INDIVIDUAL OBJECTIONS AND ISSUES

- 8.5.54. This section sets out the ExA's consideration of unresolved objections raised by APs, IPs, and SUs in respect of CA and TP powers sought by the applicants and the applicants' response to those. Consideration is given to whether these objections are sufficient to outweigh the ExA's finding on the applicants' general case for CA and TP powers.
- 8.5.55. Many of the issues raised by APs, as considered relevant and necessary, have been addressed in earlier sections of this Recommendation in respect of the planning issues arising from the proposed development. The objections considered in this section relate only to the applicants' request for CA and TP powers.
- 8.5.56. Appendix E of this Recommendation records APs with relevant objections to aspects of the applicants' CA or TP of land or rights therein. It should be read in conjunction with the applicants' final version of the BoR [\[REP8-010\]](#), the land plans (onshore) [\[REP4-002\]](#), the applicants' final dDCO [\[REP9-003\]](#) and the LRT [\[REP8-033\]](#).
- 8.5.57. The table at appendix E to this Recommendation includes the following:
- the reference number in the LRT
 - the name of the land interest
 - the position with regard to a negotiated agreement at the end of the examination
 - the ExA's consideration of the objection and its conclusions thereon

- 8.5.58. TP powers are sought pursuant to articles 30 and 31 of the applicants' final dDCO [\[REP9-003\]](#) to facilitate construction and maintenance activities and, in some instances, as an alternative to reduce the extent of CA. They are not CA powers and accordingly the tests under s122 and s123 of the PA2008 are not applicable. However, the request for such powers must be justified, and there must be adequate compensation provisions in place for those whose land would be affected.
- 8.5.59. The ExA examined objections to the proposed CA and TP of land and rights therein against the tests set out in s122 and s123 of the PA2008, having regard to the CA Guidance and the legal precedent considered earlier in this section. The ExA also considered objections to the application for powers of TP under articles 30 and 31 of the dDCO and by those who may be able to make a claim under s10 of the Compulsory Purchase Act 1965 or part I of the Land Compensation Act 1973. Similarly, the ExA had regard to the Human Rights Act 1998 and the Equality Act 2010 in considering the application for the grant of CA and TP powers.

REQUESTED CA POWERS TO WHICH NO OBJECTION WAS RECEIVED

- 8.5.60. A number of landowners whose land would be subject to CA and TP did not raise objections to the proposed development. Notwithstanding the lack of representation from those landowners or occupiers who would be affected, the ExA has considered whether there is a compelling case in the public interest for the rights to be acquired compulsorily.

EXA'S CONCLUSION

- 8.5.61. The LRT [\[REP8-033\]](#) sets out the position with APs at the final examination deadline. The ExA is satisfied that they have had every opportunity to engage with the examination and that the rights sought for the CA of land, CA of rights and TP of land are for a legitimate purpose, that they are necessary and proportionate and that there is a compelling case in the public interest for the powers to be granted, which would outweigh private loss.

CATEGORY 3

- 8.5.62. Parties with category 3 interests are defined in s44 of the PA2008 as persons who would or might, if the DCO were made and implemented, be entitled to make a claim under s10 of the Compulsory Purchase Act 1965, part 1 of the Land Compensation Act 1973 or s152(3) of the PA2008. The ExA refers to these as category 3 parties.
- 8.5.63. The ExA received 2 RR [\[RR-050\]](#) and [\[RR-060\]](#) from parties who were classified as category 3 in the BoR [\[REP8-010\]](#).
- 8.5.64. One of the submissions [\[RR-050\]](#) advised that they had encountered problems when trying to sell their property due to the impact the proposed convertor stations would have on their outlook. They thought that due to their location they would not qualify for statutory blight and therefore sought to have their concerns considered as discretionary blight so that the applicants could then purchase their property from them. In response, the applicants acknowledged that there would be a temporary significant visual effect (major adverse) on the outlook from this property during construction but that this would reduce over time to moderate adverse. The applicants advised that they would be considering discretionary blight claims on a case-by-case basis at the relevant point if the Order was made [\[PDA-013\]](#), 7.1 and 7.2].

- 8.5.65. Another submission [RR-060] was concerned that there was insufficient information to comment on the impact of the proposed development. They were concerned that the applicants were seeking to run a cable through their garden which they considered to be a valuable natural habitat. They also raised a number of other concerns about the environmental and visual impact on the local landscape, noise and disturbance and impacts on their outlook. In response, the applicants confirmed that, following route refinements, they were not seeking to acquire the objectors land [PDA-013, 7.1 and 7.2].
- 8.5.66. At CAH1 [EV3-002], the ExA sought further detail as to how the applicants had identified category 3 parties. For example, in the BoR 3 properties in Copleflat Lane, Bentley (Lake Farm, Rose Cottage and St Peters House) had been included whilst other properties which form part of the same row had been omitted. Requirement 21 identified a number of properties which would require noise limits to be put in place during operation but only one of these properties, Bentley Lodge, was listed in the BoR [EV3-003, action points 15 and 16].
- 8.5.67. The applicants advised [AS-155, Section 2, 15] that in light of the concerns raised by the ExA they were undertaking a review of all category 3 parties and would provide an update at DL2 including, if required, an updated BoR. Furthermore, if any new category 3 parties were identified then the applicants advised they would write to the APs to make them aware of the application letting them know they were able to take part in the examination. The applicants were satisfied that such an approach would comply with government's 'Guidance on the pre-application stage for Nationally Significant Infrastructure Projects'. Whilst they recognised that this would be retrospective, they considered that the principles set out in relation to any updates to land interests would apply equally during the examination stage. Furthermore, they considered that the addition of any new category 3 parties would not trigger the Infrastructure Planning (Compulsory Acquisition) Regulations 2010 as these only apply where additional land that would be the subject of CA powers was introduced.
- 8.5.68. At DL2 [AS-158, Appendix B] the applicants advised that the 3 properties on Copleflat Lane, Bentley, listed as category 3 interests in the BoR, had been identified on a precautionary basis as having the potential to make a claim based on construction noise. Church Cottage and 1-4 Manor Farm Cottages in Bentley were owned by Albanwise Limited and Albanwise Synergy Limited (Albanwise) who were identified in the BoR as having category 1 and 2 interests in a number of other plots. The applicants confirmed that they were in the process of negotiating a voluntary agreement with Albanwise which would take into account their interests in land and property including any impact that may result in a category 3 claim. As a result, the applicants advocated that it would not be appropriate to list these properties in the BoR.
- 8.5.69. However, Lake Farm, Rose Cottage and St Peters House in Bentley were all privately owned, and this was the reason for their inclusion in the BoR. However, in undertaking their review the applicants accepted that Keepers Cottage in Bentley had been omitted as a category 3 interest [AS-158, Appendix B]. The applicants had notified the owners via a notice of invitation to register as an interested party under s102A of the PA2008 and updated the BoR [REP2-006]. The applicants highlighted that the owners of Keepers Cottage should be aware of the application as they would have been consulted as part of the statutory consultation conducted under s47 of the PA2008 in June 2023.

- 8.5.70. With regards to the properties listed in requirement 21, the applicants [AS-158, Appendix B] clarified that there was no direct correlation between the properties listed and the category 3 list, as they would be used for different purposes. Category 3 parties are those that might be entitled to make a relevant claim, with the purpose of requirement 21 being to monitor and control noise during the operational phase. The applicants advised that they had reviewed the properties listed in requirement 21 and concluded that, based on the operational noise assessment [REP1-019], they considered that they did not need to be identified as category 3.

EXA'S CONCLUSION

- 8.5.71. The ExA is satisfied, given the responses provided, that the applicants have correctly identified the relevant category 3 properties. The ExA agrees with the applicants that the late notification of the owners of Keepers Cottage has not prevented them from participating in the examination if they had chosen to do so. As a result, the ExA is satisfied that they would not be prejudiced by their initial omission from the BoR.
- 8.5.72. The ExA notes the concerns set out in [RR-050] and that the applicants have identified this property as falling within category 3, and therefore the owners of this property would have the right to submit a statutory blight claim. The ExA is satisfied that the applicants are not proposing to acquire the garden of [RR-060]. The ExA is also satisfied that there is sufficient information in the public domain about the proposal to enable people to assess the effects that the proposed development would have on them or their property. The general concerns raised in [RR-060] are considered in section 4 of this Recommendation.
- 8.5.73. Finally, the ExA notes that the remedies of making a claim under s10 of the Compulsory Purchase Act 1965 or in due course under part 1 of the Land Compensation Act 1973 would be available to these objectors.

8.6. STATUTORY UNDERTAKERS LAND, RIGHTS AND APPARATUS

- 8.6.1. Section 127 of the PA2008 applies to land acquired by SUs for the purposes of their undertaking, and places restrictions on the CA or CA of a new right of such land where a representation has been made in relation to a DCO application and has not been withdrawn by the close of the examination. Article 32 of the dDCO [REP9-003] includes the provision to authorise the CA of land and rights held by SUs for the purposes of their undertaking.
- 8.6.2. If s127 applies, the CA and CA of rights of SUs' land can only be authorised if the SoS is satisfied that:
- The land can be purchased and not replaced without serious detriment to the carrying on of the undertaking, or if purchased it can be replaced with other land belonging to, or available for acquisition by, the relevant undertaker without serious detriment to the carrying on of the undertaking.
 - The right over land can be purchased without serious detriment to the carrying on of the undertaking, or any detriment to the carrying on of the undertaking, in consequence to the acquisition of the right, can be made good by the undertakers by the use of other land belonging to or available for acquisition by them.

- 8.6.3. Section 138 of the PA2008 applies where an order authorises the acquisition of land, either compulsorily or by agreement, and there subsists over the land a relevant right or there is on, under or over the land relevant apparatus.
- 8.6.4. Section 138(4) provides that an order may include provision for the extinguishment of the relevant right or the removal of relevant apparatus only if the SoS is satisfied that the extinguishment or removal is necessary for the purposes of carrying out the development to which the order relates. Article 32 of the dDCO [\[REP9-003\]](#) includes such a provision.
- 8.6.5. The ExA received objections from:
- The Beverley and Holderness Internal Drainage Board [\[AS-123\]](#)
 - National Rail Infrastructure (NR) [\[RR-010\]](#)
 - The Environment Agency (EA) [\[RR-015\]](#)
 - National Gas Transmission (NGT) [\[RR-017\]](#)
 - National Grid Electricity Transmission (NGET) [\[RR-035\]](#)
 - National Grid Interconnector Holdings Ltd (subsequently withdrawn [\[AS-049\]](#))
 - Northern Powergrid (Yorkshire) (NPY) [\[RR-055\]](#)
- 8.6.6. Throughout the examination, the applicants sought to reach agreement with affected SUs and to include PPs within the DCO to protect their interests.
- 8.6.7. At the close of the examination, the final LRT [\[REP8-033\]](#) set out the applicants' position in relation to these matters. In addition, at ISH1 [\[EV7-003\]](#), action point 26] and CAH2 [\[EV7-002\]](#), action point 11] the applicants were asked at DL8 to provide, if the SUs had not withdrawn their objections, a s127/ 138 case setting out why the DCO as drafted would ensure adequate protection of the relevant SUs' assets, which the applicants provided [\[REP8-044\]](#).
- 8.6.8. The ExA notes that schedule 15 of the final dDCO [\[REP9-003\]](#) contains generic provisions for the protection of electricity, gas, water and sewerage undertakers (part 1) and the operators of electronic communications code networks (part 2). In addition, it contains bespoke provisions for the protection of the EA (Part 3), drainage authorities (part 4), NR (part 5), NGT (part 6) and NGET (part 7).
- 8.6.9. This section sets out the ExA's consideration of objections and issues raised by SUs in respect of CA and TP and the applicants' responses to those. It should be read in conjunction with section 9 of this Recommendation which considers the drafting of PPs, and the applicants' final version of the LRT that was submitted at DL8 [\[REP8-033\]](#).
- 8.6.10. The ExA's conclusions with regard to the exact wording of PPs and the recommended draft DCO are set out in section 9 of this Recommendation.

BEVERLEY AND NORTH HOLDERNESS INTERNAL DRAINAGE BOARD (BNH IDB)

- 8.6.11. The BNH IDB is listed in the BoR [\[REP8-010\]](#) as having an interest in 16 plots. The applicants are seeking to acquire rights in 11 plots and TP of 5 plots.
- 8.6.12. In its submissions, the BNH IDB [\[AS-123\]](#) sought changes to the wording and inclusion of additional wording in the PPs. It also sought an amendment of article 16 of the dDCO to include a paragraph that where the undertaker discharged water into, or made any opening into, a watercourse, public sewer or drain belonging to or under the control of a drainage authority (as defined in part 4 of schedule 15), the

provisions of part 4 of schedule 15 would apply in substitution for the above provisions. The matters were discussed at ISH1 [EV4-002], along with the BNH IDB concerns in relation to the applicants' failure to adopt trenchless technology for all the BNH IDB watercourses.

- 8.6.13. At DL1 [REP1-052], the applicants advised that they had updated the drafting of the dDCO [REP1-004] to reflect the alternative drafting suggested by the BNH IDB. For article 16, the applicants had not used the BNH IDB suggested drafting but had updated the drafting to include a reference to the PPs.
- 8.6.14. In relation to the use of trenchless crossings, the applicants confirmed at DL4 [REP4-087, 2.1, REP3-062: HF.1.12] that, following further meetings with the BNH IDB, they agreed that the Outline Code of Construction Practice (oCoCP) [REP4-040] and Appendix 5.2 Obstacle Crossing Register [REP4-030] would be updated to commit to trenchless crossing methodology for crossings Wx-007 (Dunnington sewer), Wx-028 (Arnold and Riston Drain) and Wx-039 (Turf Gutter and Eske River side drain).
- 8.6.15. At DL8 [REP8-044], the applicants confirmed that they had agreed PPs with the BNH IDB.

EXA'S CONCLUSION

- 8.6.16. As the BNH IDB's objection to the CA and TP of its land has not been withdrawn, the tests of s127 and s138 of the PA2008 apply. The ExA is satisfied that the wording of the PPs for the benefit of drainage authorities in schedule 15, part 4 of the final dDCO [REP9-003] would, subject to the comments on drafting covered in section 9 of this Recommendation, represent an appropriate form of protection for the BNH IDB.
- 8.6.17. As a result, the ExA is satisfied that the rights sought by the applicants could be acquired without serious detriment to the carrying out of the BNH IDB undertakings. Therefore, the ExA considers that in relation to the BNH IDB, the tests in s127(5) and s138(4) of the PA2008 would be met. Consequently, the CA and TP of these plots is recommended.

NETWORK RAIL INFRASTRUCTURE

- 8.6.18. NR is listed in the BoR [REP8-010] as having an interest in 4 plots where the applicants are seeking to permanently acquire rights and 3 plots that the applicants are seeking TP.
- 8.6.19. NR in its RR [RR-010] objected to the CA of rights over operational railway land and objected to the seeking of powers to carry out works in the vicinity of the operational railway until relevant agreements had been entered into.
- 8.6.20. Negotiations between the 2 parties continued during the examination, with the applicants confirming [REP8-044] that these had narrowed the disagreement, but there were still unresolved issues. By the close of the examination, the applicants confirmed in the Statement of Common Ground (SoCG) with NR [REP8-025] that progress had been made in relation to a voluntary property agreement required for DBS cables to cross underneath the railway.
- 8.6.21. In relation to other matters, HoT had been agreed and negotiations on an Option for Easement had commenced, however there remained a number of outstanding points of disagreement. The main areas of concern were:

- option agreement - NR sought to include a right to terminate the option agreement
- deed of easement – NR sought to include an obligation on the applicants to cease operating or cut off supply should NR require, in the event of an emergency or if NR were undertaking works to the railway

8.6.22. The applicants' view on these [REP8-044] was that, as currently drafted, they posed a significant risk to the delivery of the proposed development and that it would be unreasonable for NR to have an absolute right to terminate the supply. To address the matter, the applicants included a proposed provision [REP8-044] that required, in addition to approval mechanisms, a basic asset protection agreement must be entered into prior to carrying out any works in the vicinity of the railway.

EXA'S CONCLUSION

8.6.23. As NR's objection to the CA and TP of its land has not been withdrawn, the tests of s127 and s138 of the PA2008 apply. The ExA is satisfied that the inclusion of PPs for the benefit of NR in schedule 15, part 5 of the final dDCO [REP9-003] would, subject to the comments on drafting covered in section 9 of this Recommendation, represent an appropriate form of protection for NR.

8.6.24. As a result, the ExA is satisfied that the rights sought by the applicants could be acquired without serious detriment to the carrying out of NR's undertakings. Therefore, the ExA considers that in relation to NR, the tests in s127(5) and s138(4) of the PA2008 would be met. Consequently, the CA and TP of these plots is recommended.

THE ENVIRONMENT AGENCY

8.6.25. The BoR states that the EA has an interest in 15 plots, with the applicants seeking to acquire the rights in 13 plots and TP 2 plots. The EA [RR-015] advised that because the applicants were seeking to disapply the provision of the Environmental Permitting Regulations (England & Wales) 2016 (the EPR), related to permits for flood activities, part 3 of schedule 15 of the dDCO included bespoke PPs for the benefit of the EA. However, the EA advised that it was considering whether it would be appropriate to agree the disapplication of the EPR. If it did, then the EA advised that it normally only agreed to disapplication with the inclusion of PPs in their preferred form.

8.6.26. Discussions continued throughout the examination between the parties. At DL8, the LRT [REP8-044] confirmed that updated, bespoke PPs for the protection of the EA had been included in the applicants' final dDCO [REP9-003] which reflected the EA's preferred drafting. The final SoGC [REP8-016] confirmed the EA's agreement to these.

EXA'S CONCLUSION

8.6.27. As the EA's objection to the CA of its land has not been withdrawn, the tests of s127 and s138 of the PA2008 apply. The ExA is satisfied that the wording of the PPs for the benefit of the EA in schedule 15, part 3 of the final dDCO [REP9-003] would represent an appropriate form of protection for the EA.

8.6.28. As a result, the ExA is satisfied that the rights sought by the applicants could be acquired without serious detriment to the carrying out of the EA's undertakings. Therefore, the ExA considers that in relation to the EA the tests in s127(5) and

s138(4) of the PA2008 would be met. Consequently, the CA of these plots is recommended.

NATIONAL GAS TRANSMISSION

- 8.6.29. NGT is listed in the BoR [\[REP8-010\]](#) as having an interest in 14 plots. The applicants are seeking to acquire the freehold of one plot and the acquisition of rights in the remaining plots. NGT [\[RR-017\]](#) advised that it required appropriate protection for retained apparatus including compliance with relevant standards for proposed works within close proximity of its apparatus. Furthermore, NGT needed to retain its right of access to inspect, maintain, renew and repair such apparatus. NGT requested that the DCO include bespoke PPs for its benefit and that in the absence of an agreed form of PPs, NGT objected to what would amount to an unfettered ability by the applicants to exercise CA powers in respect of NGT's assets, land or rights over its land. These concerns were repeated in NGT's WR [\[REP1-078\]](#).
- 8.6.30. Negotiations continued throughout the examination, with NGT confirming in its closing statement [\[REP8-049\]](#) that only its form of PPs would provide sufficient protection for existing assets and interests as well as compliance with relevant safety standards.
- 8.6.31. In their closing statement [\[REP8-044\]](#) the applicants considered that adequate protection for NGT's assets and interests were included within the PPs at part 6 of schedule 15 of their final dDCO [\[REP9-003\]](#). As a result, the applicants considered that any interference would not cause serious detriment to NGT carrying on its undertaking. The applicants considered that the PPs would safeguard NGT's interests and that the tests set out in section 127 of the PA2008 were therefore satisfied.
- 8.6.32. The applicants confirmed that they were not intending to extinguish any rights or remove any apparatus belonging to NGT. They however sought to reserve the right to do so through the DCO. If needed, such powers would be carried out in accordance with the PPs which set out constraints with a view to safeguarding NGT's interests. The applicants therefore considered that the test set out in s138 of the PA2008 was satisfied.

EXA'S CONCLUSION

- 8.6.33. As NGT's objection to the CA of its land has not been withdrawn, the tests of s127 and s138 of the PA2008 apply. The ExA is satisfied that, whilst not agreed with NGT, the inclusion of PPs for the benefit of NGT in schedule 15, part 6 of the final dDCO [\[REP9-003\]](#) would, subject to the comments on drafting covered in section 9 of this recommendation, form an appropriate form of protection for NGT.
- 8.6.34. As a result, the ExA is satisfied that the rights sought by the applicants could be acquired without serious detriment to the carrying out of NGT's undertakings. Therefore, the ExA considers that in relation to NGT, the tests in s127(5) and s138(4) of the PA2008 would be met. Consequently, the CA of these plots is recommended.

NATIONAL GRID ELECTRICITY TRANSMISSION PLC

- 8.6.35. NGET is listed in the BoR [\[REP8-010\]](#) as having an interest in 42 plots. The applicants are seeking to acquire the freehold of one 1 plot, acquire rights in 18 plots and TP of 23 plots. NGET [\[RR-035\]](#) advised that it had a number of assets that

would be located within or in close proximity to the order limits. As a result, it was seeking to safeguard these assets and maintain its ability to undertake its statutory duty. As a result, it required PPs to be included within the DCO to ensure that existing and future assets and interests would be adequately protected, as well as to ensure compliance with relevant safety standards. NGET cited the precedent set for the protection of NGET future assets via PPs provided by The Awel y Môr Offshore Wind Farm (Correction) Order 2024 (AYM DCO). NGET advised that due to a proposed number of NGET upgrade projects it was seeking the imposition of similar provisions.

- 8.6.36. NGET in its WR [\[REP1-079\]](#) and [\[REP1-80\]](#) advised that the projects that NGET was bringing forward in or near the location of the proposed development included:
- an upgrade to the existing Creyke Beck substation (the Wanlass Beck Extension Project)
 - the construction of a new substation to the north of the existing Creyke Beck substation (Birkhill Wood Substation Project) (this and the project above are referred to by NGET as the NGET Upgrade Projects)
 - construction of a new high voltage transmission line between the Wanlass Beck Extension and a new substation at High Marnham in Nottingham (the NHHM project)
 - the construction of an access road off the A1079 to facilitate the construction, maintenance and operation of the NGET Upgrade Projects
- 8.6.37. NGET advised [\[REP1-079\]](#), paragraph 4] that the proposed development would overlap with existing and future NGET infrastructure both physically and with regards to the timings of the works. As a result, there would be the potential for the proposed development to compromise or prejudice the construction or operation of one or more of the future NGET Projects to the detriment of not just NGET but the third party connectees reliant on those projects. NGET therefore repeated its need to have PPs included in the DCO to ensure that existing and future assets and interests would be adequately protected as well as complying with the relevant safety standards. NGET reiterated that the preferred drafting was that included in the AYM DCO.
- 8.6.38. Negotiations between the 2 parties continued during the examination. In its closing submissions, NGET [\[REP8-050\]](#) confirmed that its position remained as set out in its submissions and continued to request that its version of the PPs be included in the Order.
- 8.6.39. In response, the applicants included a set of bespoke PPs in their dDCO submitted at DL8 [\[REP8-003\]](#). In their closing statement [\[REP8-044\]](#) the applicants considered that adequate protection for NGET's assets and interests were included within the PPs at part 7 of schedule 15 of the final dDCO [\[REP9-003\]](#). As a result, the applicants considered that any interference caused would not be a serious detriment to NGET carrying on its undertaking. The applicants considered that the PPs would safeguard NGET's interests and that the test set out in s127 of the PA2008 was therefore satisfied.
- 8.6.40. The applicants confirmed that they were not intending to extinguish any rights or remove any apparatus belonging to NGET but sought to reserve the right to do so through the DCO. If needed, such powers would be carried out in accordance with the PPs, which set out constraints with a view to safeguarding NGET's interests. The applicants therefore considered that the test set out in s138 of the PA2008 Act was satisfied.

EXA'S CONCLUSION

- 8.6.41. As NGET's objection to the CA and TP of its land has not been withdrawn, the tests of s127 and s138 of the PA2008 apply. The ExA is satisfied that, whilst not agreed with NGET, the inclusion of PPs for the benefit of NGET in schedule 15, part 7 of the final dDCO [\[REP9-003\]](#) would, subject to the comments on drafting covered in section 9 of this Recommendation, represent an appropriate form of protection for NGET.
- 8.6.42. As a result, the ExA is satisfied that the rights sought by the applicants could be acquired without serious detriment to the carrying out of NGET's undertakings. Therefore, the ExA considers that in relation to NGET the tests in s127(5) and s138(4) of the PA2008 would be met. Consequently, the CA and TP of these plots is recommended.

NORTHERN POWERGRID (YORKSHIRE)

- 8.6.43. NPY is listed in the BoR [\[REP8-010\]](#) as having an interest in 63 plots. The applicants are seeking to permanently acquire 8 plots, acquire rights in 30 plots and TP of 25 plots. NPY advised [\[RR-055\]](#) that whilst it was supportive in principle of the proposed development, it had concerns regarding the impacts of the proposed onshore infrastructure on NPY's assets.
- 8.6.44. Discussions between the parties continued throughout the examination. At DL8 [\[REP8-044\]](#), the applicants confirmed that the parties had agreed the wording of a private agreement. The signed SoCG [\[REP8-022\]](#) between the parties confirmed this.

EXA'S CONCLUSION

- 8.6.45. As NPY's objection to the CA and TP of its land has not been withdrawn, the tests of s127 and s138 of the PA2008 apply. The ExA is satisfied that the confirmation of the side agreement along with the generic PPs in schedule 15, part 1 of the applicants' final dDCO [\[REP9-003\]](#) would represent an appropriate form of protection for NPY.
- 8.6.46. As a result, the ExA is satisfied that the rights sought by the applicants could be acquired without serious detriment to the carrying out of NPY undertakings. Therefore, the ExA considers that in relation to NPY the tests in s127(5) and s138(4) of the PA2008 would be met. Consequently, the CA and TP of these plots is recommended.

OTHER STATUTORY UNDERTAKERS

- 8.6.47. The LRT [\[REP4-079\]](#), part 2] includes a number of other SUs with interests in the order land, including:
- Centrica Plc
 - INEOS Manufacturing (Hull) Ltd
 - KCOM Group Ltd
 - Northern Gas Networks Ltd
 - Openreach Ltd
 - Yorkshire Water Services Ltd
- 8.6.48. None of these SUs made any representations or if they did, did not raise any concerns or objections during the examination in relation to CA matters or PPs. As a result, s127 of the PA2008 is not engaged in relation to these SUs.

- 8.6.49. Part 1 of schedule 15 of the applicants' final dDCO [\[REP9-003\]](#) includes generic PPs for the benefit of electricity, gas, water and sewerage undertakers. Part 2 of the same schedule includes PPs for the benefit of electronic communications code networks.
- 8.6.50. In respect of the plots in which the above-mentioned SUs hold interests, the ExA is satisfied that the powers sought by the applicants are necessary for the proposed development and consistent with s138 of the PA2008 and that the proposed development would not be detrimental to any of the SUs' undertakings.
- 8.6.51. Submissions were received from Dogger Bank Offshore Wind Farm Project 1 Projco Ltd and Dogger Bank Offshore Wind Farm Project 2 Projco Ltd, who were seeking the inclusion of PPs between the applicants and the relevant Projco to regulate the onshore crossing of the Dogger Bank A and Dogger Bank B offshore wind farm export cables by the proposed development onshore cables. At DL3, the LRT confirmed that a form of crossing agreement to mitigate any potential impact had been agreed between the parties. As such, the ExA has not considered the matter any further.

SPECIAL CATEGORY LAND

- 8.6.52. Special category land is defined in regulation 2 of the AFP Regulations 2009 as land identified as forming part of a common, open space, National Trust land or fuel or field garden allotment. No open space would be subject to CA of land and, as a result, s131 of the PA2008 would not be relevant.
- 8.6.53. Section 132(2) of the PA2008 states that an order granting development consent which authorises the CA of a right over open space will be subject to special parliamentary procedures unless the SoS can be satisfied that one of the subsections (3) to (5) applies, and that fact, and the subsection concerned, are recorded in the order or otherwise in the instrument or other document containing the order. Subsection (3) applies if the order land, when burdened with the order, would be no less advantageous than it was before to: (a) the persons whom it is vested; (b) other persons, if any, entitled to rights of common or other rights; and (c) the public.
- 8.6.54. Part 5 of the BoR [\[REP8-010\]](#) identifies plots of land which constitute special category land for the purposes of s132 of the PA2008 that would be affected by the proposed development and the rights in the Order. The BoR identifies that the proposed development would affect land which is designated as open space and was also identified on the special category land plans [\[REP7-003\]](#).
- 8.6.55. The applicants considered that 18 plots within the order limits were or could be viewed as open space as defined in the Acquisition of Land Act 1981. These plots formed part of the foreshore, beach and cliff at Ulrome and Skipsea.
- 8.6.56. For plots 02-001 to 02-012 (inclusive) the applicants are seeking the permanent acquisition of new rights (including restrictions) and the suspension or extinguishment of easements, servitudes and other private rights. For plots 01-010 to 01-015 (inclusive) the applicants are only seeking the temporary use and suspension of rights. These plots comprise the emergency beach access, along with where the offshore export cable would make landfall.
- 8.6.57. The acquisition of rights would be required for landfall cable installation works comprising Works No. 8A/8B and 12A/12b. The cables would be installed beneath

the beach and cliff by horizontal directional drilling (HDD) construction techniques underneath the beach so there would be little or no physical impact on the beach itself. The public, for health and safety reasons, would only temporarily be excluded from using the area during the installation of the cables. Upon completion, the land would then be available for its current use. There would also be a temporary reduction in amenity for beach users during the construction period. However, during construction, the remainder of the open space at Skipsea Sands and Ullrome Sands would be available.

- 8.6.58. No above ground works are proposed that would permanently affect the public recreational use of the land or its physical appearance. Once the underground cables have been installed and the proposed development is operational, the ExA is satisfied that the order land, when burdened with the rights sought, would be no less advantageous than it was before to the persons in whom it is vested, other persons, if any, entitled to rights of common or other rights, or the public.
- 8.6.59. The ExA therefore concludes that the test set out in s132(3) of the PA2008 is satisfied.
- 8.6.60. In respect of plots 01-10 to 01-15 (inclusive) the applicants are seeking only TP and as such it is considered that the requirements of s132 of the PA2008 would not be triggered.

CROWN LAND

- 8.6.61. Section 135 of the PA2008 would apply to the articles of the DCO as they would include provision authorising the CA of an interest in crown land owned by or on behalf of the crown and the consent of the appropriate crown authority would be required.
- 8.6.62. Part 4 of the BoR [\[REP8-010\]](#) lists the 29 plots of land in which a crown interest exists. The land in which the crown holds an interest is also shown on the crown land plans [\[REP4-003\]](#).
- 8.6.63. The proposed array areas and offshore cabling would be situated within seabed owned by The Crown Estate (TCE). No CA is proposed in this area as an agreement for lease of the array areas is already in place with TCE. The applicants have submitted the proposed offshore export cable corridors to TCE for consideration through TCE's cable route identification and approval process. This has commenced the process for entering into the agreements for lease for the offshore export cable corridors for the proposed development.
- 8.6.64. The remaining plots in which the crown holds an interest are within the intertidal and foreshore area and along the River Hull. There is also an area of agricultural and highway land in which the SoS and Ministry of Defence have an interest.
- 8.6.65. Article 41 of the dDCO [\[REP9-003\]](#) confirms that the applicants do not seek to CA or seek to interfere with the rights of the crown. However, the consent of the Ministry of Defence, SoS for Defence and The King's Most Excellent Majesty in Right of His Crown c/o of TCE Commissioners would still be required.
- 8.6.66. Throughout the examination, the applicants were engaged in active discussions with TCE in order to reach agreement to acquire the necessary interests in the land. At the close of the examination [\[REP8-042\]](#), the applicants advised that the s135 consent was still under negotiation.

8.6.67. At CAH1 [EV3-003, action point 18] the ExA had requested that should the matter of crown consent remain outstanding that it required a submission at DL8 setting out how the proposed development could proceed if all of the crown land was removed from the order land. The applicants were reminded of this request at the close of ISH6 [EV11-010]. At the close of the examination, this was not submitted by the applicants.

8.6.68. In the absence of a submission from the applicants on the matter, the ExA is of the view that if crown consent was not issued, it would not be possible for the applicants to be granted CA powers over any crown land in respect of interests held by other persons. The ExA needs to make a recommendation based on the latest status of the s135 consent, which the applicants identified [REP8-033] was not expected to be completed before the end of examination, but would be forthcoming during the recommendation period. In this respect, the ExA notes that s135 of the PA2008 only requires TCE Commissioners to provide consent prior to a decision being issued by the SoS.

THE KING'S MOST EXCELLENT MAJESTY IN RIGHT OF HIS CROWN

8.6.69. The applicants are seeking the permanent acquisition of rights and imposition of restrictions in plots 02-001 to 02-014 (inclusive). These plots consist of the foreshore seaward of mean high-water springs (MHWS) at Skipsea Sands. For plots 01-010 to 01-015 (inclusive), which also consist of foreshore seaward of MHWS, the applicants are only seeking TP.

8.6.70. In addition, the applicants are seeking the acquisition of rights in plot 12-014 which consists of the foreshore and riverbed of the River Hull.

SECRETARY OF STATE FOR DEFENCE AND MINISTRY OF DEFENCE

8.6.71. The applicants are seeking the acquisition of rights in plots 05-004, 06-018, 06-021 and 13-004, and TP of 06-019, 06-020, 06-022, 06-023, 06-024, 06-025 and 13-006. The land is a combination of agricultural land, public road and verge.

EXA'S CONCLUSION

8.6.72. The ExA considers that, in the absence of any information from the applicants, should these plots be removed from the order land, then the project would not be able to proceed without access to this crown land.

8.6.73. The ExA therefore concludes that the proposed development could not and cannot proceed without access to, and CA of rights in crown land. As the applicants have failed to secure consent from the relevant crown authorities, the ExA recommends that the SoS must ask the applicants for an update on the progress of their negotiations. However, the SoS cannot make the Order without the necessary consent from the crown in respect of the CA and TP of these plots. If this consent is not forthcoming, then, as the scheme could not proceed without these plots, the SoS would need to withhold consent for the proposed development.

OTHER LAND INTERESTS

8.6.74. The ExA is satisfied that, with respect to all other land interests, the rights sought for the CA of land, the CA of rights in land and the TP of land are for a legitimate purpose, that they are necessary and proportionate and that there is a compelling case in the public interest for the powers to be granted, which would outweigh any private loss.

TEMPORARY POSSESSION

- 8.6.75. TP powers are sought to facilitate some construction and maintenance activities, and, in some instances, as an alternative to reduce the extent of CA. The ExA considers that the powers sought would be appropriate to support the delivery of the proposed development in respect of the plots identified for TP in the land plans (onshore) [\[REP4-002\]](#) and BoR [\[REP8-010\]](#).
- 8.6.76. These powers are not CA powers, and accordingly the tests under s122 and s123 of the PA2008 do not apply. However, the request for TP powers to enable the proposed development to be implemented and maintained must be justified. Moreover, the inevitable interference with human rights must be justified, and there must be adequate compensation provisions in place for those whose lands and rights would be affected.
- 8.6.77. The ExA has considered the objections raised by those persons affected by the proposed development for the permanent acquisition of land and the permanent acquisition of rights in land where they would be preceded by TP. The ExA has also taken all relevant objections into account in reaching conclusions on the application for TP powers on plots where they are sought alone, in the same way as for permanent acquisition.
- 8.6.78. The ExA is satisfied that the TP powers sought would be needed to facilitate implementation of the proposed development and that they are justified, including the period of operation. Adequate provisions for dealing with compensation for APs are included within the applicants final dDCO [\[REP9-003\]](#).

THE NEED TO OBTAIN OPERATIONAL AND OTHER CONSENTS

- 8.6.79. The ExA's consideration of other consents and licences that would be required to implement the proposed development is covered in section 1 of this Recommendation and is not repeated here. The SoR [\[REP8-008\]](#) indicates that the applicants are in discussion with all the relevant bodies and are not aware of anything that is likely to prevent the grant of consent. The ExA is therefore satisfied that there should be no impediment to obtaining any operational or other consents which may be necessary to construct and operate the proposed development. Consequently, the ExA is satisfied that paragraph 19 of the CA Guidance would be met.

HUMAN RIGHTS ACT 1998

- 8.6.80. The Human Rights Act 1998 places the ECHR into UK statute. The ECHR is subscribed to by member states of the Council of Europe. ECHR rights are enforceable in the domestic courts but with final recourse to the European Court of Human Rights. The ECHR, the Council of Europe and the European Court of Human Rights are not European Union (EU) institutions and were therefore not affected by the UK's decision to leave the EU.
- 8.6.81. Schedule 1 of the Human Rights Act 1998 sets out the articles. Articles 6 and 8 and article 1 of the First Protocol would be engaged by the proposed development.
- 8.6.82. Paragraph 10 of the CA Guidance states that the SoS must ultimately be persuaded that the purposes for which an order authorises the CA of land are legitimate and are sufficient to justify interfering with the human rights of those with an interest in the land affected. In particular, regard must be given to the provisions of article 1 of the First Protocol to the ECHR.

- 8.6.83. The applicants' case to justify interference with human rights is set out in the SoR [REP8-008]. The applicants acknowledged that given the inclusion of CA powers in the dDCO, there was a possibility that article 1 of the First Protocol and article 8 of persons who hold an interest in the order land would be infringed.
- 8.6.84. In preparing the application, the applicants considered article 1 and the potential infringement of ECHR rights because of the inclusion of CA powers within the Order and, as a result, sought to minimise the amount of land over which they would require the powers of CA. The applicants advised that there would be very significant public benefits arising from the grant of the Order, but that this benefit would only be realised if the grant of the Order was accompanied by the grant of CA powers.
- 8.6.85. The applicants advocated that, on balance, the significant public benefits would outweigh the effects on persons who have an interest in the land within the order limits. For those affected by expropriation or dispossession, compensation would be payable in accordance with the compensation code. The applicants considered that the Order would strike the right balance between public interest in the delivery of the project and those private rights that would be affected by the Order.
- 8.6.86. In relation to article 6, the applicants considered that there had been an opportunity for those with an affected land interest to make representations regarding the proposed development. The application and examination had been widely publicised and pre-application consultation was undertaken with the community, affected landowners and occupiers alongside key stakeholders.
- 8.6.87. With regards to article 8, while no rights were proposed to be acquired over land that was used in connection with dwellings such as accesses, driveways and boundary features, and there are residential premises within close proximity of the order limits, there are no dwellings within the order land. No residents would be displaced by the powers of CA sought by the Order and no residential properties were proposed to be acquired or demolished for the purposes of the proposed development.

EXA'S CONCLUSIONS

- 8.6.88. The ExA's overall conclusion relating to article 1 of the First Protocol is that the purpose for which the CA of land within the order limits is being sought is legitimate and would be sufficient to justify interfering with the human rights of those with an interest in the land affected.
- 8.6.89. In respect of article 6, the ExA concludes that the process of examining this application, including the opportunities to submit representations, respond to written questions and requests for further information alongside the opportunities to be heard at hearings, means that those whose rights may be affected have been given access to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law.
- 8.6.90. Regarding article 8, the ExA agrees with the applicants that the right of the individual to respect for their private and family life, their home and their correspondence would not be adversely affected.

8.7. EXA'S CONCLUSIONS ON THE CASE FOR COMPULSORY ACQUISITION AND TEMPORARY POSSESSION

SECTION 123(2) OF THE PA2008 LAND TO WHICH AUTHORISATION OF CA CAN RELATE

- 8.7.1. The ExA concludes that in accordance with s123(2) of the PA2008 there is appropriate provision for CA in the DCO.
- 8.7.2. In accordance with the requirement in the AFP Regulations, the applicants have included and updated throughout the examination as required, a SoR, a FS, land plans (onshore) and a BoR.

SECTION 122(2) OF THE PA2008 THE SCOPE AND PURPOSE FOR WHICH CA IS SOUGHT

- 8.7.3. The SoR [\[AS-146\]](#) sets out the considerations that the SoS would need to take into account in deciding whether the conditions of s122(2) of the PA2008 have been met. Paragraph 7 of the CA Guidance expands on s122 of the PA2008 stating that applicants must be prepared to justify their proposals for CA of any land to the satisfaction of the SoS. Paragraphs 8 to 22 of the CA Guidance provide several general considerations that applicants should demonstrate to the satisfaction of the decision maker.
- 8.7.4. For s122(2)(a) to be met, the applicants should be able to demonstrate that the land in question is needed for the development for which the consent is sought or is land that is required to facilitate or is incidental to that development. The SoS needs to be satisfied that land to be acquired is no more than is reasonably required for the purposes of the development. Further guidance is also provided in relation to compliance with s122(2)(b).
- 8.7.5. The ExA explored this at CAH1 [\[EV3-002\]](#) and through written questions [\[PD-014\]](#). The ExA is content with the responses and explanations it received and is satisfied that the powers in the applicants' final dDCO [\[REP9-003\]](#) with regards to land associated with these matters would be necessary.
- 8.7.6. As the proposed development would not require the provision of replacement land, s122(2)(c) does not apply.
- 8.7.7. The ExA is therefore satisfied that the land subject to CA is required for the development to which development consent relates or is required to facilitate or is incidental to the development, and that the land and rights to be taken are no more than is reasonably necessary and is proportionate and therefore complies with s122(2) of the PA2008 and the CA Guidance.
- 8.7.8. The ExA is satisfied that the CA rights sought in all the plots of land included within the BoR [\[REP8-010\]](#) and shown on the land plans (onshore) [\[REP4-002\]](#) would be required for, or to facilitate or would be incidental to the proposed development to which the development consent relates. The principal and the associated development identified by the applicants would be needed for that purpose. The ExA therefore considers that the requirements of s122(2)(a) and (b) of the PA2008 would be satisfied.

SECTION 122(3) OF THE PA2008 WHETHER THERE IS A COMPELLING CASE IN THE PUBLIC INTEREST

- 8.7.9. Section 122(3) of the PA2008 requires there to be a compelling case in the public interest for the CA of land.
- 8.7.10. Paragraph 13 of the CA Guidance states:
- “for this condition to be met the SoS will need to be persuaded that there is compelling evidence that the public benefits that would be derived from CA will outweigh the private loss that would be suffered by those whose land is being acquired. Parliament has always taken the view that land should only be taken compulsorily where there is clear evidence that the public benefit will outweigh the private loss.”
- 8.7.11. The applicants considered that public interest was based on the needs and benefits case that was set out in Chapter 2 of the ES (Need for the Project) [\[APP-065\]](#) and summarised in the SoR [\[AS-146\]](#), Section 5]. In summary, the applicants consider that the proposed development would:
- make a significant contribution to meeting the urgent need for new (particularly low carbon) energy infrastructure in accordance with the policy set out in NPS EN-1
 - contribute to the ambition to deliver 50GW of offshore wind by 2030 as set out in NPS-EN1
 - make a significant contribution to meeting UK policy commitments and legal decarbonisation targets for renewable energy and the wider policy objectives for future UK decarbonisation and energy security
 - lower the cost and increase the affordability of generated electricity
 - contribute to sustainable development and economic opportunities
- 8.7.12. The ExA has considered the need for the proposed development in detail in section 0 of this Recommendation, concluding that there was a need for the proposed development. However, the ExA has to balance these public benefits against other economic and environmental considerations.
- 8.7.13. The ExA has had regard to all the objections raised by APs. Notwithstanding the objections, the ExA concludes that the public benefits associated with the proposed development would strongly outweigh the private loss that would be suffered by those who would be affected by the CA powers sought.
- 8.7.14. The ExA has also considered the particular points made by objectors in relation to alternatives. The ExA is satisfied that the applicants have explored all reasonable alternatives to CA, including modifications to the proposed development and acquiring the land voluntarily.
- 8.7.15. The applicants have demonstrated a clear idea of how they intend to use the land and they have shown that there would be a reasonable prospect of the requisite funds, both for the CA and implementing the proposed development, becoming available.
- 8.7.16. The ExA considers that:
- The development for which land is sought would be in broad accordance with national policy as set out in the relevant NPS.

- NPS EN-1 identifies that it is critical that the UK continues to have secure and reliable supplies of electricity as it makes the transition to a low carbon economy.
- The need to secure the land and construct the proposed development within a reasonable timeframe represents a significant public benefit to weigh in the balance.
- The applicants have taken reasonable steps to acquire all of the land and rights included in the Order by voluntary agreement.
- The private loss of those affected has been mitigated through the selection of the application land and the extent of the land, and the private loss would be outweighed by the public benefit derived from the CA powers sought.
- The applicants have explored all reasonable alternatives to CA, and there are no alternatives which ought to be preferred.
- There is a reasonable prospect that adequate and secure funding would be available to enable the CA within the statutory period following the Order being made.

8.7.17. Taking these various factors together, the ExA concludes that there is a compelling case in the public interest for the CA powers sought in respect of the CA land shown on the land plans (onshore) [\[REP4-002\]](#) and in the BoR [\[REP8-010\]](#). The ExA is therefore satisfied that the proposed development would comply with s122(3) of the PA2008.

STATUTORY UNDERTAKERS

8.7.18. The ExA's conclusions with regards to the drafting of PPs are set out in section 9 of this Recommendation.

8.7.19. The ExA is satisfied that the powers sought by the applicants are necessary for the proposed development and that the test in s138(4) of the PA2008 has been met and, subject to the PPs in the recommended draft DCO, there would be no serious detriment to the undertakings of the identified SUs.

OPEN SPACE

8.7.20. Given the limited extent of disturbance to land identified as open space, the ExA is satisfied that the effects on it would be short term and temporary. The ExA therefore concludes that the test set out in s132(3) of the PA2008 is satisfied and that there would be no need to include any replacement land within the order limits.

CROWN LAND

8.7.21. At the close of the examination, crown consent had not been received from any of the relevant crown authorities (TCE, SoS for Defence and the Ministry of Defence). In the absence of consents from the relevant crown authorities, the ExA concludes that the order cannot authorise the CA or TP of those plots of land or interests which are crown land because the requirement of s135(1) and s135(2) of the PA2008 have not been met.

8.7.22. However, the ExA is not aware of any impediments to the granting of crown consent by the relevant crown authorities. The SoS will therefore need to ensure that crown consents are forthcoming from the relevant crown authority should they decide to make the order and prior to the grant of development consent.

TEMPORARY POSSESSION

- 8.7.23. The ExA is satisfied that the TP powers sought are necessary to implement and maintain the proposed development and that adequate provisions for dealing with compensation for APs are included in the recommended draft DCO.

PUBLIC SECTOR EQUALITY DUTY

- 8.7.24. The public sector equality duty (PSED) under the Equality Act 2010 is applicable to the ExA in the conduct of this examination and reporting to the SoS in decision making. In compliance with the duties under the PSED, the ExA invited representations through a range of different methods including in writing and orally through attendance at a hearing either online or via the telephone. The ExA is therefore satisfied that it has fulfilled its duties under the PSED.

HUMAN RIGHTS

- 8.7.25. The ExA has had regard to the provisions of the Human Rights Act 1998. These are qualified rights and the weight of national policy in favour of the proposed development and the public benefits arising from the proposed development means that the interference in the human rights of APs would be proportionate and justified in the public interest.
- 8.7.26. The ExA is further reassured that the applicants are seeking to acquire the minimum possible rights and interests that would be needed to construct, operate and maintain the proposed development.

AVAILABILITY AND ADEQUACY OF FUNDS

- 8.7.27. The parent companies of the partnership of which the applicants are comprised have substantial assets and considerable experience in infrastructure development. In addition, the applicants have included article 44 in the dDCO [\[REP9-003\]](#) which provides that the CA powers in the dDCO must not be exercised unless a guarantee (or an alternative form of security) in respect of the liabilities of the undertaker to pay compensation in respect of the exercise of the relevant powers is in place. The form and the amount of the guarantee (or other form of security) must be approved by the SoS.
- 8.7.28. The ExA therefore concludes that there would be a reasonable prospect of the requisite funds for acquisition becoming available within the necessary timescale, to meet all financial liabilities arising from the exercise of the CA and TP powers sought.

8.8. THE EXA'S RECOMMENDATIONS ON COMPULSORY ACQUISITION AND TEMPORARY POSSESSION

- 8.8.1. Should the SoS be minded to grant development consent for the proposed development, the ExA recommends that:
- As set out in the Recommendation, the SoS goes back to the applicants and those APs who had outstanding objections to the CA or TP of their land interests and ask for an update with regards to the progress on securing a voluntary agreement since the examination closed.
 - The CA powers included in the recommended DCO (including the currently preferred drafting for the PPs unless alternatives have been agreed since the

close of the examination) be granted, subject to consents being forthcoming from the relevant crown authorities in relation to crown land.

- The TP powers included in the recommended DCO be granted, subject to consents being forthcoming from the relevant crown authorities in relation to crown land.
- The CA and TP sought in relation to crown land should not be granted until the necessary consent from the appropriate crown authority has been obtained.
- The CA of SU land and rights over land, subject to the matters set out above and included in the recommended draft DCO, be granted.
- The powers authorising the extinguishment of rights and removal of apparatus of SUs be included in the recommended draft DCO, subject to the matters set out above, be granted.
- The CA of rights over open space included in the recommended draft DCO, subject to the matters set out above, be granted.
- The powers included in the recommended draft DCO to apply, modify or exclude a statutory provision, subject to the matters set out above, be granted.

9. DRAFT DEVELOPMENT CONSENT ORDER AND RELATED MATTERS

9.1. INTRODUCTION

9.1.1. This section describes the draft Development Consent Order (dDCO) as applied for and the changes made to it during the examination. It also describes matters that were not resolved at the close of the examination and the Examining Authority's (ExA) recommendations on those matters and any corresponding changes that would result. The ExA's recommended draft DCO can be found at appendix F of this Recommendation.

9.1.2. The ExA reports on the main discussion points and the contentious matters. The ExA has not reported on every change made in updated versions. This is because many amendments were made as a result of typographical or referencing errors, slight revisions of the wording following either discussion between the applicants and relevant interested parties (IPs) or from their written representations (WR), or as a result of discussions at hearings or following the ExA's first written questions (ExQ1) [\[PD-014\]](#) and second written questions (ExQ2) [\[PD-021\]](#). The recommended draft DCO at appendix F of this Recommendation incorporates these minor changes.

9.2. THE ORDER AS APPLIED FOR

9.2.1. This section records the structure of the dDCO. It is based on the applicants' final dDCO [\[REP9-003\]](#) is as follows:

- Part 1, articles 1 and 2 deals with preliminary matters including how the Order may be cited, when it comes into force and the meaning of various terms used in the Order and the disapplication of other legislation.
- Part 2, articles 3 to 7 are the principal powers of the Order, allowing amongst other things, the undertaker to implement, maintain and, if necessary, transfer the benefits of the Order.
- Part 3, articles 8 to 15 provided for the undertaker to be able to carry out works to and within streets, alter layouts, to create or improve accesses, to temporarily close streets, to undertake agreements with street authorities, to create and maintain new, altered or diverted streets, to undertake agreements with street authorities and where necessary to use private roads.
- Part 4, articles 16 to 19 concern supplemental powers relating to the discharge of water, undertaking of protective works to buildings and gives the authority to survey and investigate land onshore.
- Part 5, articles 20 to 33 provide for the undertaker to be able to compulsorily acquire the order land for the construction or maintenance of the proposed development. The provisions provide for the compensation to be payable to affected persons (AP) in respect of those powers, where that is not already secured somewhere else. These articles also provide for powers in relation to land and equipment owned by statutory undertakers (SUs).
- Part 6, articles 34 and 35 provides the undertaker with the power to operate the proposed development and grant the deemed marine licences (DMLs).
- Part 7, articles 36 to 52 deal with a variety of miscellaneous and general matters including amongst other things, the application of landlord and tenant law; the power to fell or lop trees, including those covered by a tree preservation order, and remove hedgerows; saving provisions for Trinity House; crown rights;

certification of plans and documents; abatement of works abandoned or decayed; funding; service of notices; arbitration; requirements and appeals; compensation; inconsistent planning permission; no double recovery; and modification to the Air Navigation Order 2016.

9.2.2. There are 19 schedules to the Order:

- schedule 1 provides the description of the authorised development and ancillary works
- schedule 2 sets out the requirements which apply to it
- schedules 3 to 6 relate to matters in relation to streets, access and rights of way
- schedules 7 to 9 concern land rights, temporary possession (TP) and compensation
- schedules 10 to 14a contain the DMLs (see below for details)
- schedule 15 provides protective provisions for the SUs and their apparatus
- schedule 16 sets out the rules in relation to arbitration
- schedule 17 deals with the removal of hedgerows
- schedule 18 sets out the ecological compensation measures
- schedule 19 lists the documents and plans to be certified

9.2.3. Schedules 10 to 14a contained 6 DMLs, which cover the following:

- schedule 10: DML1: Dogger Bank South (DBS) East Project Offshore Generation – Work Nos. 1A, 4A and 7A
- schedule 11: DML 2: DBS West Project Offshore Generation – Work Nos. 1B, 4B and 7B
- schedule 12: DML 3: DBS East Project Offshore Transmission – Work Nos. 2A, 3A, 7A and 8A
- schedule 13: DML 4: DBS West Project Offshore Transmission – Work Nos. 2B, 3B, 7B and 8B
- schedule 14: DML 5: DBS East Project Offshore Transmission – Work Nos. 5A and 7A
- schedule 14A: DML6: DBS West Project Offshore Transmission – Work Nos. 5B and 7B

9.2.4. The structure of the dDCO is set out in the contents and listed on its face. The ExA is content that the structure is fit for purpose and does not recommend any changes to it.

9.3. EXAMINATION AND EVOLUTION OF THE DEVELOPMENT CONSENT ORDER

EVOLUTION OF THE DDCO

9.3.1. The application dDCO [[APP-027](#)] and the explanatory memorandum (EM) [[APP-028](#)] were submitted by the applicants as part of the application for development consent. Both the dDCO and EM were updated throughout the examination with the latest version of the dDCO [[REP9-003](#)] and EM [[REP8-005](#)] being submitted at deadlines (DL) 9 and 8 respectively.

9.3.2. The EM explains the purpose and effect of each article of, and schedules to, the DCO and why the applicants consider that they are required. It identifies where the drafting has been taken from wording in other orders made under the Planning Act 2008 (PA2008). The original application dDCO and subsequent iterations are in the form of a statutory instrument as required by section (s) 117(4) of the PA2008.

- 9.3.3. During both pre-examination and the examination, further drafts of the dDCO were submitted by the applicants. These incorporated progressive changes arising from ExA's written questions, submissions made by IPs and from the matters discussed at issue specific hearings (ISH).
- 9.3.4. During the examination, the ExA examined the specific provisions of the dDCO at the following ISH:
- ISH1 on 15 January 2025 [\[EV4-001\]](#) and [\[EV4-002\]](#)
- 9.3.5. The ExA also examined the provisions of the dDCO through the following rounds of written questions:
- ExQ1 issued on 28 February 2025 [\[PD-014\]](#)
 - ExQ2 issued on 13 May 2025 [\[PD-021\]](#)
 - Rule 17 issued on 9 June 2025 [\[PD-026\]](#)
- 9.3.6. On the 19 June 2025, the ExA [\[PD-028\]](#) issued a Schedule of Recommended Amendments to the applicants' dDCO. These amendments were drafted in light of responses from IPs, matters arising out of ISH1, ExQ1, ExQ2 and the Rule 17 letter issued on 9 June 2025.
- 9.3.7. Responses to these recommendations were received at DL7 from the applicants [\[REP7-130\]](#). Additional responses were received from:
- DBA Projco, DBB Projco and DBC Projco [\[REP7-139\]](#)
 - East Riding of Yorkshire Council [\[REP7-143\]](#)
 - Marine Management Organisation [\[REP7-148\]](#)
 - Natural England [\[REP7-151\]](#)
 - Orsted IPs [\[REP7-157\]](#)
 - The Royal Society for the Protection of Birds [\[REP7-159\]](#)
- 9.3.8. These, along with the ExA's Schedule of Recommended Amendments are considered in the relevant section of this Recommendation.
- 9.3.9. The applicants updated the dDCO several times throughout the examination in response to issues raised in written questions, hearings and written submissions. At each revision, the applicants supplied a clean copy of the updated dDCO, a copy showing changes from the previous version as tracked changes and where necessary, an updated clean and tracked version of the EM. A schedule of changes made to the dDCO was also submitted. The versions of the dDCO submitted by the applicants are summarised in Table 3, below.

Table 3 dDCO documentation submitted into the examination

Draft DCO Version	Deadline	Examination Library (EL) Reference
2	application	APP-027 Application dDCO APP-028 EM
3	additional submission	AS-120 (dDCO clean) AS-121 (dDCO tracked) AS-107 (EM clean)

Draft DCO Version	Deadline	Examination Library (EL) Reference
		AS-108 (EM tracked) AS-122 (Schedule of Changes)
4	additional submission	AS-130 (dDCO clean) AS-131 (dDCO tracked) AS-132 (EM clean) AS-133 (EM tracked) AS-134 (Schedule of Changes)
5	DL1	REP1-004 (dDCO clean) REP1-005 (dDCO tracked) REP1-006 (EM clean) REP1-007 (EM tracked) REP1-008 (Schedule of Changes)
6	DL3	REP3-004 (dDCO clean) REP3-005 (dDCO tracked) REP3-006 (EM clean) REP3-007 (EM tracked) REP3-008 (Schedule of Changes)
7	DL4	REP4-005 (dDCO clean) REP4-006 (dDCO tracked) REP4-007 (EM clean) REP4-008 (EM tracked) REP4-008 (Schedule of Changes)
8	DL5	REP5-002 (dDCO clean) REP5-003 (dDCO tracked) REP5-004 (EM clean) REP5-005 (EM tracked) REP5-006 (Schedule of Changes)
9	DL6	REP6-003 (dDCO clean) REP6-004 (dDCO tracked) REP6-005 (EM clean) REP6-006 (EM tracked)

Draft DCO Version	Deadline	Examination Library (EL) Reference
		REP6-007 (Schedule of Changes)
10	DL7	REP7-011 (dDCO clean) REP7-012 (dDCO tracked) REP7-013 (EM clean) REP7-014 (EM tracked) REP7-015 (Schedule of Changes)
11	DL8	REP8-003 (dDCO clean) REP8-004 (dDCO tracked) REP8-005 (EM clean) REP8-006 (EM tracked) REP8-007 (Schedule of Changes)
12	DL9	REP9-003 (dDCO clean) REP9-004 (dDCO tracked) REP9-006 (Schedule of Changes)

NOTABLE CHANGES TO THE DDCO DURING EXAMINATION

- 9.3.10. The applicants' final Schedule of Changes to the dDCO [[REP9-006](#)] sets out all of the changes made to the dDCO between the submission and final versions, together with the rationale for each change.
- 9.3.11. As already identified, the ExA does not report on every change made to the dDCO during the examination, so in the interests of conciseness, the ExA focuses on the notable changes made to the dDCO in Table 4 below.

Table 4: Notable changes made to dDCO

Version	Notable changes made
5	- amendment to definitions in article 2 - amendment to article 8(1) to clarify provision applies to temporary and permanent street works - amendment to article 12(1) to clarify that provision allows for both permanent and temporary alterations - amendment to article 13 to make clear that requirement 15 applies; - addition of article 16(10) at request of Internal Drainage Board - deletion of article 19 (removal of human remains) - various amendment to schedule 1 (authorised project) to reflect discussions at ISH1 and ISH2 - amendment to requirement 9 to address comments from ERYC on design parameters

Version	Notable changes made
	▪ amendment to requirement 10 to clarify procedure for approval of early landscape planting ▪ amendment to requirement 11 to secure long-term management of landscaping works at onshore converter station site ▪ amendment to requirement 25 to reflect comments from Internal Drainage Board ▪ amendment to requirement 27 to clarify matters around onshore decommissioning ▪ insertion of new requirement 36 dealing with the permanent access road to the onshore converter stations ▪ various amendments to the deemed marine licences to reflect discussions at ISH1 and 2 ▪ amendment to schedule 10 (DML1) part 2, condition 15(1)(b), condition 17 to change submission deadlines from four months to six months to reflect Marine Management Organisation's (MMO) comments ▪ amendment to schedule 11 (DML2) part 2, condition 15(1)(b), condition 17 to change submission deadlines from four months to six months to reflect MMO's comments ▪ amendment to schedule 12 (DML3) part 2, condition 13(1)(b), condition 15 to change submission deadlines from four months to six months to reflect MMO's comments ▪ amendment to schedule 13 (DML4) part 2, condition 13(1)(b), condition 15 to change submission deadlines from four months to six months to reflect MMO's comments ▪ amendment to schedule 14 (DML5) part 2, condition 11(1)(b) to change submission deadlines from four months to six months to reflect MMO's comments ▪ amendment to schedule 15, part 4 to delete definition of drainage authority as no included within article 2 ▪ amendment to schedule 15, part 4 definition of scheduled works to reflect comments from Internal Drainage Authority ▪ amendment to schedule 17 to correct error where hedgerows were mistakenly listed to be removed
6	▪ amendments to references to mean high water springs in article 1 and part 1 of schedules 10, 11, 12, 13 and 14 ▪ amendment to article 11 to more accurately reflect the consent period for footpath diversions ▪ amendment to requirement 3 and condition 2 of schedules 10 and 11 to align with the DMLs ▪ amendment to requirement 5 to align with DMLs ▪ amendment to schedule 10 (DML1) to reflect updated Disposal Site Characterisation Report ▪ addition of new definition to part 1 (interpretations) of schedules 10, 11, 12, 13 and 14 to reflect updated Disposal Site Characterisation Report ▪ amendment to part 1 (interpretations) of schedules 10, 11, 12, 13 and 14 to reflect comments from MMO and Maritime and Coastguard Agency (MCA) ▪ amendment to schedule 10, part 1 to reflect updated Disposal Site Characterisation Report

Version	Notable changes made
	▪ amendment to schedule 10, DML1, part 2, condition 6; schedule 11, DML2 part 2, condition 6; schedule 12, DML3, part 2, condition 4; schedule 13, DML4, part 2, condition 4; schedule 14, DML5, part 2, condition 2; to reflect comments from MMO for a period of six months as opposed to four months ▪ amendment to schedule 10, DML1, part 2, condition 7(6); schedule 11, DML2, part 2, condition 7(6); schedule 12, DML3, part 2, condition 5(6); schedule 13, DML4, part 2, condition 5(6); schedule 14, DML5, part 2, condition 3(6); to reflect comments from MMO for agreement an any extension to be made in writing ▪ various amendments to the DMLs in schedule 10, 11, 12, 13 and 14 to reflect comments from the MMO in relation to notice periods ▪ amendment to schedule 10, DML1, part 2, condition 9; schedule 11, DML2 part 2, condition 9; schedule 12, DML3, part 2, condition 7; schedule 13, DML4, part 2, condition 7; schedule 14, DML5, part 2, condition 5; to include notification of the MCA ▪ amendment to schedule 10, DML1, part 2, condition 15(1); schedule 11, DML2, part 2, condition 15(1); schedule 12, DML3, part 2, condition 13(1); schedule 13, DML4, part 2, condition 13(1); schedule 14, DML5, part 2, condition 11(1); to include notification of the Civil Aviation Authority (CAA) ▪ amendments to schedule 10, DML1, part 2, condition 26; schedule 11, DML2, part 2, condition 26; schedule 12, DML3, part 2, condition 24; schedule 13, DML4, part 2, condition 24; to address changes sought by the MMO in relation to information to be provided and by when to the Marine Noise Registry ▪ addition of new condition on ornithological monitoring as conditions 29 of schedules 10 and 11 ▪ addition to schedule 11, part 2 condition 15(1) and schedule 12, part 2, condition 13(1), schedule 13, part 2, condition 13(1), schedule 14, part 2, condition 11(1) of need to submit a final cable statement ▪ amendment to schedule 12, DML 3, part 1, paragraph 2; schedule 13, DML 4, part 1, paragraph 2; schedule 14, DML 5, part 1, paragraph 2; to reflect Disposal Site Characterisation Report ▪ amendment to schedule 17 to reflect updated information ▪ amendment to schedule 19 to include Disposal Site Plan
7	▪ amendment to article 9 to reflect East Riding of Yorkshire Council (ERYC) comments ▪ update to schedule 1, part 1 to reflect changes to project description ▪ change to requirement 6 in schedule 2 to reflect applicants' commitment to cable bundling ▪ amendment to requirement 15 in schedule 2 to reflect request from ERYC ▪ update to requirement 19 in schedule 2 to address request from NE and amend previous change which was mistakenly made to incorrect sub-paragraph ▪ update to requirement 31 in schedule 2 to reflect comments from Ministry of Defence (MOD)

Version	Notable changes made
	▪ update to schedules 7 and 9 to reflect updates to the BoR ▪ amendments to schedule 10 part 2, condition 9; schedule 11 part 2, condition 9; schedule 12 part 2, condition 7; schedule 13 part 2, condition 7; and schedule 14, part 2, condition 5 to address MMO comments ▪ amendment to schedule 10 part 2, condition 11; schedule 11 part 2, condition 11; schedule 12 part 2, condition 9; and schedule 13 part 2, condition 9 to reflect agreed wording between MMO and Trinity House ▪ update to schedule 10 part 2, condition 13; schedule 11 Part 2, condition 13; schedule 12 Part 2, condition 11; schedule 13 part 2, condition 11; and schedule 14 part 2, condition 9 to respond to MMO comments ▪ amendments to schedule 10, part 1, paragraph 2; schedule 11 part 1, paragraph 2; schedule 12 part 1, paragraph 2; schedule 12 part 2, condition 3; schedule 13 part 1, paragraph 2; schedule 13 part 2, condition 3; and schedule 14 part 1, paragraph 2 to reflect the applicants' commitment to cable bunding ▪ amendments to schedule 12 part 1, paragraph 2, Work No. 8A; schedule 13 part 1, paragraph 2, Work No. 3B; and schedule 13 part 1, paragraph 2, Work No. 8B to reflect changes to project description ▪ update to schedule 18 and schedule 19 to reflect submission of kittiwake CIMP
8	▪ update to part 1, article 2 to respond to ExQ2 ▪ update to part 1 of schedule 2 to reflect updates to the Disposal Site Characteristics Report ▪ amendment to schedule 2, R1 and R16 to respond to ExQ2 ▪ update to schedule 10 part 1, paragraph 2; schedule 11 part 1, paragraph 2; schedule 12, part 1, paragraph 2; schedule 13 part 1, paragraph 2; and schedule 14 part 1, paragraph 2 to reflect updates to the Disposal Site Characteristics Report ▪ amendment to schedule 10 part 2, condition 1 and schedule 11 part 2, condition 1 to respond to ExQ2 ▪ amendment to schedule 10 part 2, condition 9; schedule 11 part 2, condition 9; schedule 12, part 2, condition 7; schedule 13 Part 2, condition 7; and schedule 14 part 2, condition 5 to address comments from the MMO ▪ update to schedule 10 part 2, condition 12; schedule 11 part 2, condition 12; schedule 12, part 2, condition 10; schedule 13 part 2, condition 10; and schedule 14, part 2, condition 8 to address comments from CAA ▪ update to schedule 10 part 2, condition 13; schedule 11 part 2, condition 13; schedule 12, part 2, condition 11; schedule 13 part 2, condition 11; and schedule 14 part 2, condition 9 to address request from MMO ▪ update to schedule 10 part 2, condition 13; schedule 11 part 2, condition 13; schedule 12, part 2, condition 11; schedule 13 part 2, condition 11; and schedule 14 part 2, condition 9 to respond to request from MCA ▪ update to schedule 10 part 2, condition 15; schedule 11 part 2, condition 15; schedule 12 part 2, condition 13; schedule 13 Part

Version	Notable changes made
	2, condition 13; and schedule 14 Part 2, condition 11 to reflect request from MMO
9	▪ amendment to article 2 to include definition of haul road ▪ update to R3 of schedule 2 to reflect comments from MMO ▪ amendment to R14 of schedule 2 to reflect agreed wording with Hull City Council ▪ update to schedule 10 part 1, paragraph 1(1); schedule 11 part 1, paragraph 1(1); schedule 12 part 1, paragraph 1(1); schedule 13 part 1, paragraph 1(1); and schedule 14, part 1, paragraph 1(1) to remove Work Nos 9A/ B from definition ▪ amendment to schedule 10 part 2, condition 2 and schedule 11 part 2, condition 2 to correct previous omission in response to MMO comments ▪ update to schedule 18 to include reference to onshore artificial nesting structure (ANS) to align with HRA documentation ▪ amendment to schedule 18 to add without prejudice reference to Farne Islands SPA for guillemot and razorbill
10	▪ amendment to article to include decommissioning in relation to the definition of undertaker ▪ update to article 16 to include reference to the highway authority ▪ inclusion of new article 52 to include reference to the Air Navigation Order 2016 ▪ amendment to R4 in schedule 2 to include reference to offshore accommodation platform ▪ amendment to R9 of schedule 2 to delete cross reference to R13 ▪ amendments to R10, R13 and R22 of schedule 2 to ensure submitted details accord with the Design and Access Statement ▪ amendment to R11 of schedule 2 to include additional work nos ▪ amendments to R16 and R19 of schedule 2 to cover pre-commencement works ▪ amendments to R26, R32 and R36 of schedule 2 to respond to ExA recommended amendments to the dDCO ▪ amendment to schedule 10 part 1, paragraph 1; schedule 12 part 1, paragraph 1; schedule 13 part 1, paragraph 1; and schedule 14 part 1, paragraph 1 to respond to MMO comments ▪ amendment to schedule 10 part 2, condition 15, pre-construction plans and documentation; schedule 11 part 2, condition 15, pre-construction plans and documentation; schedule 12 part 2, condition 13, pre-construction plans and documentation; schedule 13 part 2, condition 13, pre-construction plans and documentation; and schedule 14 part 2, condition 11 pre-construction plans and documentation to reflect agreed wording with MMO and NE ▪ amendment to schedule 10 part 2, condition 30; schedule 11 part 2, condition 30; schedule 12 part 2, condition 27; and schedule 13 part 2, condition 27 to insert without prejudice wording in relation to noise restrictions ▪ addition of new condition 28 in relation to export cable restrictions to schedule 12 part 2, and schedule 13 part 2 ▪ amendments to schedule 15, part 3 to reflect update to protective provision with the EA

Version	Notable changes made
	- amendments to schedule 15, part 5 to reflect update to protective provision with the Network Rail - amendments to schedule 15, part 6 to reflect update to protective provision with National Gas Transmission PLC - amendments to schedule 15, part 7 to reflect update to protective provision with National Grid Electricity Transmission PLC - amendments to schedule 19 to reflect agreed wording with MMO
11	- update to article 2 to include reference to DML6 - amendment to R31 of schedule 2 to reflect agreed wording with MOD - amendment to schedule 10 part 1, paragraph 1(1); schedule 12 part 1, paragraph 1(1); schedule 13 part 1, paragraph 1(1); and schedule 14 part 1, paragraph 1(1) to reflect agreement with MMO on site disposal references - consequential amendments to schedule 14 part 1 and part 2 to reflect addition of DML6 - addition of new condition 22 (notification of works) in schedule 14, part 2 to address MMOs concern in relation to joint undertakers and ensure that only schedule 14 or schedule 14A is implemented, not both - insertion of new schedule 14A to include new DML6 - amendments to schedule 15, part 3 to reflect update to protective provision with the EA - amendments to schedule 15, part 5 to reflect update to protective provision with the Network Rail - amendment to schedule 18 to respond to comments from the RSPB - update to schedule 19 to respond to ExA's request
12	- amendment to schedule 10 part 1, paragraph 2(a); schedule 11 part 1, paragraph 2(a); schedule 12 part 1, paragraph 2(a); schedule 13 part 1, paragraph 2(a); schedule 14 part 1, paragraph 2(a); and schedule 14A part 1, paragraph 2(a) to reflect discussions with MMO - update to schedule 19 to add updated PINS examination library reference

9.4. MAIN ISSUES CONSIDERED IN THE EXAMINATION

9.4.1. This section of the Recommendation considers the main issues that arose during the examination relating to the dDCO, primarily those provisions which were not agreed between specific IPs and the applicants or matters that the ExA considers notable to report. Where matters arose regarding provisions in the dDCO which were material to the consideration of specific planning issues, these have been considered in the relevant sections of this Recommendation and are not repeated here. A summary list of those matters can be found below in paragraph 9.4.68 (other matters).

9.4.2. The applicants sought to address matters raised by the ExA and IPs in relation to the provisions of the dDCO through drafting amendments during the examination. The applicants generally explained the reasons and provided further clarification or

justification within the EM or the relevant management plans where changes were not made to the provisions of the dDCO.

9.4.3. However, the following matters remain worthy of further discussion:

- transfer of the benefit of the Order (article 5)
- commencement period for the proposed development (requirement 1 and article 21)
- operational lifespan of the proposed development
- inclusion of force majeure provisions (condition 14 in schedules 10 and 11, condition 12 in schedules 12 and 13, condition 10 in schedules 14 and 14A)
- determination dates for discharging conditions (conditions 17 in schedules 10 and 11, condition 15 in schedules 12 and 13, condition 11(5) in schedules 14 and 14A)

TRANSFER OF THE BENEFIT OF THE ORDER (ARTICLE 5)

9.4.4. The MMO raised an objection to the wording proposed by the applicants in article 5. It was made clear to the ExA early in the examination by both the applicants and the MMO that, despite on-going discussions, it was unlikely that the issue would be resolved by the end of the examination and that it would fall to the SoS to make a final determination on the wording to be included in the DCO, should it be made. This was the final position in the SoCG between the parties [\[REP9-013\]](#).

9.4.5. Both parties made submissions on the matter throughout the examination:

- MMO – [\[RR-030\]](#), [\[REP1-075\]](#), [\[REP2-061\]](#), [\[AS-169\]](#) and, [\[REP5-049\]](#)
- applicants – [\[PDA-013\]](#), [\[AS-048\]](#), [\[REP2-058\]](#), [\[REP3-028\]](#), [\[REP4-088\]](#) and [\[REP6-052\]](#)

9.4.6. The applicants and the MMO set out their final positions in their respective closing statements [\[REP8-042\]](#) and [\[REP8-048\]](#). Summaries of these are provided below.

MMO position

9.4.7. The MMO acknowledged that article 5 was drafted in a similar way to previous consents granted by the Secretary of State (SoS), however they had major concerns over the proposed wording. The MMO was of the view that even though similar articles had been included in other made DCOs, it did not mean that those provisions should continue to be included, as the drafting process should be iterative, with articles needing to be particular to the order in which they are to be included.

9.4.8. The MMO [\[RR-030\]](#), section 3.4] advised that the reason for their request was that the proposed drafting represented a clear departure from the Marine and Coastal Accesses Act (MCAA 2009), which would normally require an application to transfer the licence to be made to the MMO who is the regulatory authority. Under article 5(3) the undertaker would only apply to the SoS.

9.4.9. Article 5(6) was also of concern to the MMO because as drafted there was no obligation for the SoS to take into account the views of the MMO when providing consent [\[RR-030\]](#). The MMO advocated that the decision to transfer the licence should be the decision of the regulatory authority in that area. Article 5(14) would explicitly disapply sections 72(7) and (8) of the MCAA 2009 which would otherwise govern these procedures.

- 9.4.10. The MMO considered that the wording was also inconsistent with PINS guidance (Advice Note 11(AN11)) on how DMLs should operate within a DCO. Furthermore, as the MMO would be responsible for enforcing the DML, the MMO considered that it was important that they were clear and enforceable and the best way of ensuring this would be for the MMO to be fully responsible for the marine licence process.
- 9.4.11. The MMO were also unclear what purpose the written consent of the SoS would serve.
- 9.4.12. Finally, the MMO had a number of practical concerns as to how article 5 would work in practice and were concerned that, as drafted, it could lead to confusion and potential duplication.

Applicants' position

- 9.4.13. The applicants confirmed that paragraph 14 of article 5 disapplied sections 72(7) and (8) of the MCAA 2009 in relation to a transfer or grant of the benefit of a DML and that this reflected long established precedent in relation to the transfer of DCO powers and DMLs. The applicants advised that the drafting of the article reflected the equivalent provision in recent offshore wind DCOs including Hornsea Three, Norfolk Boreas, Norfolk Vanguard, East Anglia One North, East Anglia Two, Awel y Môr, Hornsea Four, Sheringham Shoal and Dudgeon Extensions and Rampion 2.
- 9.4.14. The view of the applicants was that the PA2008 was clear that marine licences may be deemed in a DCO in appropriate areas (s149A) and that a DCO may include such further provisions ancillary to the operation of that DML (s120(3)). This included transfer along with the benefit of the other parts of the DCO. The applicants submitted that the ability to transfer the DML was related to the deeming and was a sensible, expedient part of the wider power to transfer the benefit of the DCO. The applicants identified there was no legal barrier to the inclusion of these provisions and there was strong precedent which had not been subject to legal challenge as to its competency.
- 9.4.15. In terms of the process, the applicants submitted that where a transfer of a DML was sought under article 5, the SoS would consider the context of all the provisions of the DCO being transferred and would consider the appropriateness of the party to whom the transfer or grant is proposed. The SoS would also take into account any representations made by the MMO before determining whether to grant consent, with paragraphs 6 and 9 including provisions requiring notification and consultation with the MMO where a transfer or grant of the benefit of a DML was proposed. The view of the applicants was that the process would be robust in ensuring a suitable approach was taken and that it was appropriate that the SoS had the ability to approve the transfer or grant of a DML, such that the transfer or grant would fully reflect the relevant DCO and DML powers.
- 9.4.16. The applicants also identified that the undertaker was required by statute to transfer the transmission assets to an Offshore Transmission Owner and could not retain those in the same ownership as the generation assets. A transfer of some of the benefit of the DCO and two of the DMLs at an early stage was therefore a statutory necessity. The applicants' view was that it was undesirable to separate the transfer of the benefit of the Order generally and the transfer of the benefit of the DMLs. In their view, this could result in transfers occurring at different times and result in an inconsistency in position. The applicants considered it important that the timing of any transfer or grant of powers or authorisations under the DCO and a DML should be aligned due to the overlap between the requirements and conditions.

- 9.4.17. Having deemed the marine licence in the DCO, the applicants stated that it was therefore also appropriate that any transfer under the Order would include the DML as part of the wider transfer. They considered that it was one element of the wider Order powers and should not be separated out from the authority to construct, operate and maintain the proposed development granted by the Order. The applicants submitted that this justified a departure from the procedure under the MCAA 2009.
- 9.4.18. The applicants acknowledged that article 5 would provide for a transfer to take place in a different way to s72(7) of the MCA2009. As a result, it was necessary to specify that s72(7) only applied to a transfer not falling within article 5 in order to enable article 5 to operate. Without specifying this, article 5 might be claimed to be inoperative because of adopting a different wording from s72(7).
- 9.4.19. The applicants advocated that the article as drafted was necessary to provide them with the appropriate commercial freedom to sell or lease the authorised projects, while ensuring that the SoS could control such sale or lease through the need to obtain their consent.

ExA's considerations

- 9.4.20. In considering the applicants' approach, the ExA has had regard to AN15 and in particular paragraph 6.3.28, which provides advice in relation to the transfer of provisions. It identifies that there is no legal reason to prevent a DCO from allowing part of a DML to be transferred.
- 9.4.21. The ExA agrees with the MMO that this does not necessarily mean that such measures should be included as a matter of course, but that each case should be considered on its own merits and specific requirements. However, it is clear to the ExA that both AN15 and the provided precedents demonstrate that the approach proposed by the applicants is in no way novel and is an accepted, unchallenged alternative process for dealing with the transfer of benefits as opposed to the use of s72.
- 9.4.22. The ExA agrees with the applicants that there are clear and obvious benefits to having a single approach for the transfer of benefits as opposed to the dual system that would result from the use of s72 as advocated by the MMO. The ExA is not persuaded by the submissions of the MMO that such a route would be any better than the one laid out in the dDCO. Therefore, given this, and the fact that the approach does not conflict with AN15 and has been accepted in other made DCOs, in this case, the ExA considers the approach adopted by the applicants to be an appropriate method for dealing with the issue.
- 9.4.23. The ExA does not see any justification as to why the SoS is not sufficiently competent to make a decision on the transfer. In this respect the ExA notes that 5(6) requires the SoS to consult the MMO before giving consent, with 5(9) requiring the undertaker to also notify the MMO, if it relates to powers in their area. Therefore, whilst there is no written requirement within article 5 for the SoS to take into account the view of the MMO, the ExA considers this to be implicate within the requirement to undertake consultation. Should the SoS decide to take a decision contrary to the advice of the MMO, then they would need to provide a full and reasoned explanation as to why they had come to such a decision.
- 9.4.24. For these reasons, the ExA is content with the approach proposed by the applicants, and therefore the recommended draft DCO retains article 5 as drafted.

COMMENCEMENT PERIOD FOR THE PROPOSED DEVELOPMENT (REQUIREMENT 1 AND ARTICLE 21)

- 9.4.25. The applicants are seeking a period of 7 years within which to commence the proposed development (requirement (R) 1) and to exercise compulsory acquisition (CA) powers (article 21).
- 9.4.26. At ISH1 [\[EV4-003\]](#) (action point 11) the ExA sought further clarification from the applicants on their proposed time period and in particular a further explanation as to why a time limit of 7 years was required given the critical national need for low carbon infrastructure identified in NPS EN-1.
- 9.4.27. In response [\[AS-155\]](#), the applicants recognised the critical need for low carbon infrastructure and stated that they intended to begin construction of the proposed development as soon as possible, should consent be granted. However, they identified that due to the scale and complexity, it could take considerable amount of time to move into the construction phase following grant of consent, due to matters that would need to be in place prior to construction.
- 9.4.28. The applicants highlighted that they may need to secure a Contract for Difference (CfD) for both DBS East and DBS West and referred to the complexity around this and recent changes made to the timings of the CfD auction rounds. Furthermore, the applicants stressed [\[AS-155\]](#) that these timings were entirely outside of their control and as such, sought contingency within the implementation period to reflect this.
- 9.4.29. The applicants also referred to the potentially long lead in times for the manufacture and supply of major parts of the proposed development's key components, such as wind turbine generators and cabling, along with the high demand for specialist vessels required to support the offshore construction. The applicants stated that, whilst their intention was to commission these services as early as possible, there was still a high degree of uncertainty at this stage and that supply chain availability could potentially delay implementation.
- 9.4.30. For these reasons, the view of the applicants was that, despite their intention to commence construction as soon as practicable, a 7 year time limit for implementation was proportionate and justified. In support of this, the applicants referred [\[AS-155\]](#) to precedent of this approach being accepted by the SoS on other recent offshore wind farm developments including the Sheringham Shoal and Dudgeon Extensions DCO, the Hornsea Four DCO and the Hornsea Three DCO.
- 9.4.31. In the ExA's Schedule of Recommended Amendments to the applicants' dDCO [\[PD-028\]](#), the ExA proposed that the time limit should be reduced to a period of 5 years, on the basis of the importance of the proposed development to the delivery of identified government targets. The ExA also saw no reason why either or both projects could not reasonably be commenced within a shorter timeframe.
- 9.4.32. In response, the applicants [\[REP7-130\]](#) referred back to their submissions made earlier during the discussion at ISH1. They also identified that since those submissions the SoS had approved a 7 year commencement period for Rampion 2, continuing recent precedent. In addition to the above, the applicants referred to the potential for legal challenge, which in their view had become increasingly common for large infrastructure schemes. In the applicants' view, even if ultimately unsuccessful, this had the potential to cause long and unforeseen delays to implementation of projects. This would be more so if cases were taken all the way

through to the Supreme Court. In support of their position, the applicants referred to the Norfolk Vanguard project which due to legal challenge, resulted in more than 12 months delay to the reapproval of the DCO.

- 9.4.33. The applicants also highlighted the decision by the developer to discontinue the proposed Hornsea Four development, however the ability to rely on a 7 year implementation meant that the project could be resurrected at a later date and ensure the UK Government's clean energy targets would be realised.
- 9.4.34. The applicants' final position was that there remained the possibility that several of the factors they had outlined could result in delay to the start of construction, such that the full 7 year implementation period was required. Due to the presence of 2 separate nationally significant infrastructure projects in the dDCO, the applicants considered this increased the uncertainty. The applicants therefore submitted [\[REP7-130\]](#) that any reduction in this period would introduce uncertainty and inconsistency in the consenting regime, undermining investor confidence and increasing risk premiums across the industry.
- 9.4.35. The applicants therefore maintained that, whilst they would seek to implement the proposed development as soon as possible, there may be factors, or a combination of factors, outside of their control which could cause unforeseen delays. The applicants' view was that these supported their position that a 7 year implementation period was required.
- 9.4.36. The applicants final dDCO [\[REP9-003\]](#) maintained the time limit at 7 years.

ExA's considerations

- 9.4.37. The ExA accepts that there is a need for the inclusion of R1, however on the basis of the evidence, do not consider there to be sufficient justification for the time limit for the commencement of the proposed development to be 7 years.
- 9.4.38. The ExA notes the concerns of the applicants in relation to supply chains and the potential significant delays this could cause to the overall implementation of the proposed development. In this respect, the ExA notes the decision taken by the developer to discontinue the proposed Hornsea Four offshore wind farm (OFW). However no substantive evidence is before the ExA to support the applicants' position in relation to supply chain issues. Given the UK Government's commitment to the scaling up of the provision of OFW, which the applicants acknowledge, the ExA is also not persuaded by the applicants' arguments in relation to CfD auctions and the potential for this to impact on implementation.
- 9.4.39. Whilst the ExA recognises the issues identified by the applicants, along with their justification for the time limit period and their intention to commence development as soon as possible, the ExA does not find these issues to be any different to matters that would impact on any other development, be it an OFW or any other piece of national infrastructure. The ExA therefore finds that the urgent need for low carbon energy outweighs the applicants' justification for seeking 7 years in which to commence. Taking the above into account, the ExA considers that 5 years would be a sufficient length of time.
- 9.4.40. The ExA accepts the position of the applicants in relation to the implications of any potential legal challenge and the effects this could have upon the implementation timescale. In this respect, the ExA notes the approach taken on a number of

recently made DCOs, such as Hornsea 4 and Rampion 2 and has added additional wording to reflect this.

- 9.4.41. The ExA notes that article 21, which identifies the period for exercise of authority to acquire land compulsorily also includes for a period of 7 years. To ensure consistency the ExA recommends that this period should also be reduced to 5 years to correspond with the recommended changes to R1.
- 9.4.42. The ExA therefore recommends that article 21(1) and R1 are amended so that the time limit is reduced to the standard 5 years. This is reflected in the ExA's recommended draft DCO.

OPERATIONAL LIFESPAN OF PROPOSED DEVELOPMENT

- 9.4.43. In ExQ1 [\[REP3-027\]](#), the ExA asked about the operation period of the proposed development and whether this period of time should be specified and secured within the dDCO. This was on the basis that if not, the DCO could potentially allow for a longer operation period to occur, which could have implications for the assessments and conclusions of the Environmental Statement (ES).
- 9.4.44. In its DL4 submissions [\[REP4-128\]](#) Natural England (NE) raised a similar issue and requested that the dDCO include a condition or requirement to ensure that the proposed development did not exceed the operational lifetime considered within the ES. NE considered there to be a need for a robust process to assess any extension to the operational life of the proposed development, such as through a variation or a new licence process, or other appropriate regulatory process.
- 9.4.45. In response to ExQ1 [\[REP3-027\]](#), the applicants did not think that it was appropriate to specify the operational lifetime of the proposed development within the dDCO. They confirmed that the operational period of 30 to 32 years as set out in the ES was an estimate to enable the assessment of the environmental effects of the proposed development. They were of the view that the operational lifetime of a wind farm was generally not fixed, but instead driven by fatigue, operational maintenance and expected life of the turbines. To maximise the contribution that the proposed development would make to UK Government net zero targets, along with the need to increase provision of low carbon renewable generating capacity, the applicants were of the view that it was important to retain flexibility in the operational period [\[REP3-027\]](#).
- 9.4.46. The applicants highlighted [\[REP3-027\]](#) that the lifetime of the proposed development was also controlled through the Energy Act 2004, which required them to submit a decommissioning programme to the SoS prior to commencement of any offshore works. This would need to include details of the measures to be taken for decommissioning along with the times at which, or the periods within which, those measures would be taken. The programme would require approval from the SoS, thereby retaining control over the operational lifetime of the proposed development.
- 9.4.47. In their view [\[REP3-027\]](#), the applicants submitted that the ES assessed the realistic worst-case scenario and was based on the indicative design of 30 to 32 years but did acknowledge [\[REP3-027\]](#) that this could be extended further as technology advanced. If the operation period were to be extended, the applicants' view [\[REP3-027\]](#) was that a longer operational period would not alter the outcomes of the assessments, and that the relevant mitigation would still be in place ensuring the levels of impact were acceptable.

- 9.4.48. In responding to the submission of NE [\[REP5-037\]](#), the applicants provided no further detail but instead referred back to their answer in ExQ1 [\[REP3-027\]](#).

ExA's considerations

- 9.4.49. The ExA accepts the position put forward by the applicants in relation to controls that exist around the operational lifetime of the proposed development. There is no evidence before the ExA to suggest that these controls would not adequately deliver the necessary protection. As such, the ExA does not recommend any changes to the DCO in this regard.

THE INCLUSION OF FORCE MAJEURE PROVISIONS (CONDITION 14 IN SCHEDULES 10 AND 11, CONDITION 12 IN SCHEDULES 12 AND 13, CONDITIONS 10 IN SCHEDULES 14 AND 14A)

- 9.4.50. The MMO was of the view [\[REP2-061\]](#) that reference to force majeure was not necessary in the DMLs and was not something they would seek to include in a standalone marine licence. In this respect the MMO referred to PINS advice note Annex 11 (AN11), which identified that DMLs should be broadly consistent with standalone marine licences.
- 9.4.51. In its view, the MMO considered force majeure to relate to events, situations and circumstances that arise which are outside of a person's control. In contrast, the MMO considered that the wording as drafted could apply for stress of weather or any other cause which in their view was very broad. It could also cover anything, including causes which were entirely within the master's control, such as negligence matters.
- 9.4.52. As such, the MMO submitted that condition 14 in DML 1 and 2, condition 13 in DML 3 and 4 and condition 10 in DML 5 did not meet the 5 tests as set out in the National Planning Policy Framework.
- 9.4.53. Overall, the MMO did not agree with the applicants' reasons for including this provision and considered reference to it should be removed. The matter was adequately covered by s86 of MCAA 2009 if the applicants or vessel masters needed to make a deposit for a force majeure reason.
- 9.4.54. In their closing statement [\[REP8-042\]](#), the applicants confirmed that condition 14 of DMLs 1 and 2, condition 12 of DMLs 3 and 4 and condition 10 of DMLs 5 and 6 included a provision which meant that if, due to stress of weather or any other cause, the master of a vessel determined that it was necessary to deposit the authorised deposits within or outside of the order limits because the safety of human life or of the vessel was threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.
- 9.4.55. The applicants submitted that 'force majeure' was defined in law as covering events outwith a parties' reasonable control. The applicants did not accept that there was any basis for submitting that force majeure would cover the applicants' contractor's negligence. The applicants also submitted that there was nothing in the DCO or DMLs that differentiated between the undertaker and its contractors. As such, the undertaker was not able to 'pass off' responsibility to a contractor and become immune under the DCO. The applicants were therefore of the opinion that the MMO's position was contrary to judicial interpretation of 'force majeure' and that on this basis, it was entirely reasonable for this to be included.

- 9.4.56. In relation to consistency, the applicants' position was that the reference to broadly consistent with in the AN11, did not mean identical. Furthermore, the applicants considered that the provision was well preceded in recent offshore wind DCO decisions including Rampion 2, Sheringham Shoal and Dudgeon Extension Projects, Awel y Mor, Hornsea Four and East Anglia ONE North.
- 9.4.57. The applicants' position was that the drafting of the provision met the relevant legal tests. In their view, the master of a vessel must be able to take necessary actions to preserve the safety of their vessel and persons on it. "Any other cause" covers unforeseen events that endanger a vessel and cannot therefore be listed. The applicants highlighted that "any other cause" is wording which is preceded in other DMLs. For these reasons the applicants considered it to be reasonable to include the wording.

ExA's considerations

- 9.4.58. The ExA is not persuaded by the position taken by the MMO. The ExA accept that the potential for the clause to be enacted is likely to be extremely small and agree with the applicants that in the unlikely event action was needed, the clause would provide the necessary actions and measures to report the incident. The ExA is therefore satisfied with the inclusion of force majeure provisions within the draft DMLs on the basis that the provisions have been included in a large number of OWF made orders. As such, precedent seems to be well-established.
- 9.4.59. The ExA notes that s86 of the MCAA 2009 requires a person to inform the MMO within a 'reasonable time' of the activity carried out, the locality and circumstances in which it was carried out and any substances or objects concerned. The conditions in the DMLs impose a stricter timescale, requiring the undertaker to notify the MMO within 48 hours. In this regard, the conditions in the DMLs do not necessarily duplicate the requirements of s86 and, for this reason, there is merit in their retention.
- 9.4.60. The ExA notes the concerns expressed by the MMO in the drafting of the conditions, in particularly the words "or any other cause". The ExA agrees that this could be considered to have a broad interpretation and could present enforcement difficulties for the MMO. That said, no substantive evidence was presented to fully justify this to be the case and the ExA finds the response of the applicants to be more convincing on the matter. In this regard, the ExA also notes that the drafting proposed by the applicants is identical to the wording used in other OWF orders and that no evidence has been put to the ExA to demonstrate that this has proved to be problematic.
- 9.4.61. The ExA's recommended draft DCO therefore makes no changes to the conditions in the DMLs which deal with the issue of force majeure.

DETERMINATION DATES FOR DISCHARGING CONDITIONS (CONDITIONS 17 IN SCHEDULES 10 AND 11, CONDITION 15 IN SCHEDULES 12 AND 13, CONDITION 11(5) IN SCHEDULES 14 AND 14A)

- 9.4.62. The MMO did not agree with the inclusion of determination dates for the approval of submitted plans and documents [\[REP7-148\]](#). Condition 17(2) of DMLs 1 and 2, condition 15(2) of DMLs 3 and 4 and condition 11(5) DMLs 5 and 6 included provision for the MMO to determine an application for approval under the conditions relating to preconstruction plans and documentation and the Site Integrity Plan within 6 months from the date of receipt of the relevant application, unless otherwise agreed in writing with the undertaker. The applicants had originally proposed a 4

month period. However following comments from the MMO, this period was extended to 6 months. This was welcomed by the MMO [REP7-148]. However, the MMO maintained its disagreement to the principle of including a determination period.

- 9.4.63. The MMO considered [REP5-049] that it was inappropriate to put timeframes on complex technical decisions. In its view, the time it takes the MMO to make such determinations was dependant on the quality of the application made, the complexity of the issues, along with the amount of consultation the MMO was required to undertake with other organisations. The MMO considered that the inclusion of determination dates would create disparity between licences issued under the DCO process and those issued directly by the MMO, as marine licences issued by the MMO are not subject to set determination periods.
- 9.4.64. The MMO recognised [REP5-049] the applicants' wish for certainty and acknowledged that delays could be problematic for developers and that they could have financial implications. However, the MMO submitted that it did not delay determining whether to grant or refuse such approvals unnecessarily and sought to make determinations in as timely a manner as it was able to do so. The MMO's position was that it was the responsibility of the developer to ensure that it applied for any such approval (with all information required) in sufficient time.
- 9.4.65. In seeking to justify the need for the inclusion of determination dates, the applicants stated that it required certainty that the discharge of conditions under the DMLs would not cause undue delay to the delivery of the proposed development. The applicants noted that, whilst the MMO was not subject to set determination periods for the discharge of conditions for marine licences issued by the MMO, the MMO aimed to make decisions on most marine licence applications within 13 weeks of an application being validated. The applicants therefore considered that it would be reasonable to assume that the MMO was able to make a decision on the discharge of conditions in a longer period. The applicants submitted that 6 months was a reasonable amount of time for the MMO to determine any approvals sought. The applicants also noted that the provisions of the DMLs allowed for an alternative timeframe to be agreed between the MMO and the undertaker if required on individual cases, where they were considered to deal with more technical issues.
- 9.4.66. The applicants considered the inclusion of determination periods to be well precedented and that in some instances (Rampion 2 and Sheringham Shoal and Dudgeon Extension Projects) a 4 month determination period was included. The applicants therefore suggested that such conditions were reasonably required in order to ensure that no undue delay was caused in the delivery of critical national infrastructure.

ExA's considerations

- 9.4.67. The ExA agrees with the applicants and considers that, given the nature of the proposed development, there should be some certainty with regards to the approval of matters of detail. Furthermore, the ExA notes that the proposed timeframe falls well within the usual determination period identified by the MMO. The ExA agrees with the MMO that its ability to determine the details in an expedient manner does depend on the quality of the submissions, but in this respect the ExA considers there to be sufficient safeguards in the DCO to allow the MMO to seek additional time should further details or clarification be required. On this basis, the ExA supports the inclusion of a determination period, and considers 6 months to be an acceptable period and does not recommend any changes to the DCO.

OTHER MATTERS

9.4.68. A number of other dDCO provisions, including conditions within the DMLs, are considered elsewhere in this Recommendation where they are material to a particular issue. For brevity they are not repeated here. Those matters include:

- requirement 10, provision of landscaping (section 4.2)
- requirement 25, restoration of land used temporarily for construction (section 4.4)
- requirement 26, skills and employment strategy (section 4.8)
- requirement 30, port traffic (section 4.5)
- requirement 31, military radar (section 5.3)
- new requirement in relation to wake effects plan (section 5.4)
- issues in relation to cable protection (section 5.9 and appendix D)
- seasonal piling restrictions (section 5.7)
- schedule 18, compensation measures (section 6 and appendix C)

9.5. PROTECTIVE PROVISIONS

9.5.1. Schedule 15 of the dDCO provides protective provisions (PPs) for SUs and their apparatus. The status of the PPs with SUs can be found in the Final Position Statement on Statutory Undertakers and Crown Land (the final position statement) [\[AS-042\]](#). Schedule 15 includes PPs for the following entities:

- part 1 - protection of electricity, gas, water and sewerage undertakers
- part 2 - protection for operators of electronic communications code networks
- part 3 - for the protection of the Environment Agency
- part 4 - for the protection of the drainage authorities
- part 5 - for the protection of Network Rail Infrastructure Limited
- part 6 - for the protection of National Gas Transmission Plc as gas undertaker
- part 7 - for the protection of National Grid Electricity Transmission Plc as electricity undertaker

9.5.2. At the close of the examination, there remained areas of disagreement in relation to the form of PPs with three SUs, namely:

- Network Rail (NR)
- National Gas Transmission (NGT)
- National Grid Electricity Transmission (NGET)

9.5.3. Further additional PPs had been proposed by a number of IPs, namely:

- Dogger Bank Projcos and Orsted IPs
- Orsted Hornsea Project Four Limited
- Creyke Beck Solar Limited and Padero Solaer Limited

NETWORK RAIL

9.5.4. NR's concerns throughout the examination were to protect its assets and its statutory responsibilities from the effects of the proposed development and it sought the inclusion of acceptable PPs to secure this. NR made representations in relation to PPs in part 5, schedule 15 of the dDCO in its RR [\[RR-010\]](#), its WR [\[REP1-081\]](#) and at various deadlines throughout the examination [\[REP3-061\]](#), [\[REP4-120\]](#) and [\[REP6-068\]](#).

9.5.5. Whilst the applicants and NE continued to discuss the matter during the examination, at DL7 [\[REP7-156\]](#), NR submitted its preferred version of the PPs,

along with details of the main areas of disagreement. NR confirmed that whilst negotiations were ongoing in respect of the PPs, they were contingent on a property agreement being entered into. NR also submitted that the applicants' version of the PPs was inadequate as important provisions had been deleted or amended. The main differences (amongst other drafting points) were:

- deletion of regulatory consents
- deletion of paragraphs on restriction of compulsory acquisition powers unless NR consent
- deletion of access provisions
- deletion of electro-magnetic interference (EMI) provision
- amendments to the indemnity provisions
- deletion of notification provision in respect of a transfer of the Order
- deletion of the dispute resolution

9.5.6. Full details of NRs position can be found in its response to the ExA's Rule 17 letter [\[REP6-068\]](#).

9.5.7. The applicants acknowledged that discussions had taken place during the course of the examination and that parties had narrowed the areas of disagreement [\[REP8-044\]](#), but there were still some outstanding points to be resolved. The applicants' considered the main area of disagreement between the parties to be in relation to paragraph 4 of the PPs, which related to restrictions on CA powers and other DCO powers.

9.5.8. The applicants submitted that NR was seeking to restrict their ability to exercise various powers in the DCO in relation to NR property, including the use of CA. As such, the applicants focussed efforts on negotiating a property agreement to reach a voluntary agreement with NR. With no agreement in place, the applicants considered that this would impede the applicants' ability to implement and operate the proposed development. Moreover, given the depth of the cable beneath the railway, the applicants did not consider it necessary or reasonable and the rights sought could co-exist without causing detriment to NR's undertaking. The applicants considered that such restrictions could have implications on the ability of the applicants to construct and operate the proposed development and the ultimate delivery of the benefits of the proposed development.

9.5.9. To address the matter, the applicants proposed a provision which would require that a basic asset protection agreement must be entered into prior to carrying out any works in the vicinity of the railway. The applicants considered this to be proportionate given the nature of the interface between the proposed development and NR's assets and would ensure NR's undertaking was adequately protected. The applicants cited The Net Zero Teesside Order 2024 as a recent example of a DCO which did not include the restrictions sought by NR.

9.5.10. Remaining outstanding matters which the applicants identified in their closing statement [\[REP8-044\]](#) were:

- regulatory consents
- railway property
- future programme of works
- EMI provisions
- indemnity

EXA'S CONSIDERATIONS

9.5.11. Whilst the ExA accepts the position of the applicants that they need to protect their position to ensure they can construct, operate and maintain the proposed development, the ExA finds that the applicants do not explain sufficiently why the NR PPs [REP7-156] would be so unreasonable, or how the applicants proposed wording, in the dDCO [REP9-003] would avoid causing serious detriment to the operations of NR. Moreover, the applicants have not fully explained the circumstances, in this particular case, to justify why PPs that are substantially different from those previously accepted by the SoS, at Sheringham Shoal and Dudgeon Extension and Rampion 2, should be applied to this Order.

9.5.12. Given this, the ExA sees no obvious reason not to recommend the change in this Order as requested by NR [REP7-156]. The ExA considers that the Order should make provisions to ensure NR has the adequate protection of its assets and can carry out its role and functions. The ExA thus agrees with NR, and the changes are considered necessary in the interests of consistency to protect the apparatus and operation of the railway and are set out in the recommended draft DCO.

NGT

9.5.13. NGT made representations throughout the examination in relation to the PPs in part 6, schedule 15 of the dDCO in its submissions [REP1-078], [REP4-112], [REP5-063], [REP6-066], [REP7-149], [REP8-050] and [REP9-026]. NGT's position was it required its PPs to be included in the Order for the following reasons:

- to provide for an appropriate level of control and protection for all retained assets and assurance that industry standards would be complied with in connection with works to and in the vicinity of the same
- to support its assets and protecting these from CA and related powers in the Order was a fundamental safety issue

9.5.14. In relation to the second issue, NGT considered that failure in this regard could lead to:

- personnel being unable to access assets for maintenance repair and inspection
- risk of strike to buried assets if development occurs within the easement zone which seeks to protect such buried assets
- risk of inappropriate development within the vicinity of the assets, thereby increasing the risk of damage to the asset and to the integrity of the gas transmission network

9.5.15. With regards to the applicants' intention to compulsorily acquire NGT land or rights, NGT's position was that serious detriment would be caused to its undertaking unless the NGT PPs were included in the Order. NGT sought controls over works in proximity to or affecting its apparatus or the rights to ensure the safety of the apparatus and the integrity of the network. NGT's view was that the applicants had not sufficiently demonstrated how they would ensure that the tests under s127 and s138 PA 2008 would be met, particularly given the deficiencies in PPs they had identified.

9.5.16. Discussions continued between the applicants and NGT during the examination.

9.5.17. In their closing submission [REP8-044], the applicants confirmed that they had been in active discussions with NGT to agree the PPs since the pre-application stage. The applicants clarified that NGT had interests in land but did not own any land

within the order limits. The applicants were not proposing to extinguish any of NGT's interests or interfere with NGT apparatus and therefore considered that the proposed development export cables and associated rights could co-exist.

9.5.18. The applicants' position at the end of the examination was that they strongly disagreed with NGT's position and considered that the PPs in the dDCO [REP9-003] would avoid serious detriment to NGT's undertaking. The applicants considered that the following matters remained outstanding:

- acceptable security
- definition of authorised works
- acquisition of land
- retained apparatus
- expenses
- indemnity
- arbitration
- amendments replacing 'authorised works' with 'specified works'
- other amendments

9.5.19. In its final submission [REP9-026], despite the inclusion of PPs in the dDCO, NGT considered that its submissions made at DL6 continued and that the PPs still did not provide sufficient protection for NGT and that the applicants had failed to provide adequate explanation or evidence as to why the NGT PPs should not be included in the dDCO.

EXA'S CONSIDERATIONS

9.5.20. The ExA finds that the Order should make provisions to ensure NGT's assets and its role and functions are protected.

9.5.21. Whilst discussions continued throughout the examination, the ExA notes that there were still a number of areas of disagreement between the parties, although these appeared to be more about the precise wording of the PPs or their intended functions, as opposed to any fundamental disagreements on the issues that should be covered within them.

9.5.22. In their various submissions, both NGT and the applicants explained and provided detailed justifications as to why their form of wording was preferred. The ExA has considered the details of these submissions, along with the draft wordings for the PPs provided by both parties and, having considered these, finds that NGT has provided persuasive submissions on its reasons for requesting its PPs to include safeguarding and protecting assets.

9.5.23. The ExA notes the concerns expressed by the applicants but is not persuaded that the wording put forward by NGT would prejudice the delivery of the proposed development or that the applicants wording would avoid serious detriment to NGT's undertaking any more than those put forward by NGT. Furthermore, the ExA notes that similarly worded PPs are preceded in other DCOs.

9.5.24. The ExA therefore finds that NGT's preferred PPs are necessary to avoid serious detriment to its undertaking and consequently has included NGT's PPs in the recommended draft DCO.

NGET

- 9.5.25. NGET made representations throughout the examination in relation to the PPs in part 7, schedule 15 of the dDCO in its submissions [\[REP1-080\]](#), [\[REP4-111\]](#), [\[REP5-064\]](#), [\[REP6-067\]](#), [\[REP7-150\]](#) and [\[REP8-050\]](#). NGET's position was that it had existing and future infrastructure that needed to be protected, and that this was best achieved by including its standard PPs in the dDCO.
- 9.5.26. NGET and the applicants continued to engage throughout the examination. At DL6 [\[REP6-067\]](#), NGET submitted a detailed representation, which raised a number of concerns with the PPs put forward by the applicants, and included a version of its own preferred PPs, which in their view would avoid serious detriment to its undertaking.
- 9.5.27. As well as seeking to ensure existing apparatus and interests in the vicinity of the proposed development were adequately protected, NGET also sought to safeguard land which would be utilised for the construction, maintenance and operation of the Birkhill Wood Substation and the Wanlass Beck Substation (Birkhill Wood and Wanlass Beck Project) and the North Humber to High Marnham Project (NHHM Project) (together the NGET Projects) which multiple third parties, including the applicants, would be reliant on. In relation to other customers who would connect into the Birkhill Wood Substation once built, NGET sought to ensure that the applicants' proposals did not have the effect of sterilising the land for that purpose. NGET considered that it needed to retain control of the land in order to facilitate those connections in the most economical and efficient manner. Full details of NGET's position can be found in the DL6 submissions [\[REP6-067\]](#).
- 9.5.28. NGET submitted that the PPs in the dDCO for its benefit should be consistent with those already incorporated in other made DCOs. In support of its position, it referred to the PPs in the Awel Y Môr Offshore Wind Farm DCO 2023. In its final submission at DL9 [\[REP9-027\]](#), NGET referred to the recently published Mona Offshore Wind Farm DCO 2025, which included a set of PPs for the benefit of NGET which aligned with the NGET PPs and, critically, included reference to the protection of future infrastructure. As such, its position was that it did not consider that a different approach should be taken in this Order as was taken by the SoS in relation to those projects.
- 9.5.29. NGET submitted its preferred wording at Appendix 1 of its DL6 submissions [\[REP6-067\]](#) as well as a tracked change version which compared them with those proposed by the applicants at Appendix 3.
- 9.5.30. At DL9 [\[REP9-027\]](#), NGET acknowledged that the applicants had offered a solution as to how it considered that potential engineering interfaces could be managed and that NGET was reviewing this, however no agreement would be reached by the close of the examination. NGET identified that the parties would continue to engage in respect of the PPs following the close of the examination.
- 9.5.31. In their closing statement [\[REP8-044\]](#), the applicants' position was that they strongly disagreed with NGET that the PPs contained in the dDCO would result in serious detriment to NGET's undertaking. This was based on:
- NGET had made a proposition that the proposed development should be subordinate to NGET's emerging proposals for grid infrastructure, despite none of the NGET Projects having consent or NGET owning any of the land or rights needed to construct them.

- NGET's reference to the protections offered to statutory undertakers in s127 and s138 of the PA 2008 was misconceived.
- In relation to future connectees to the NGET Projects, the applicants did not know what arrangements existed between any other projects and NGET in respect of those proposed assets. As such, the applicants would be in a position where, within any as yet undefined shared access area, they could only commit to a final design and then commence construction with the approval of NGET.
- This was not a case of 2 rival projects seeking control of land or rights at the expense of another, but a question of responsible and cooperative phasing of development that was mutually dependant. The proposed development could not progress without a substation to connect to, and NGET's works were to serve projects such as the proposed development.
- There was a risk that the applicants would be under significant pressure to delay critical parts of the construction programme, with limited incentive on NGET to avoid that delay.
- The appropriate approach was to recognise whatever level of certainty exists at the time decisions are being made on powers being sought.
- Protection should not extend to land and rights not yet acquired and in doing so, would deprive the applicants of the certainty in respect of their ability to deliver the proposed development that compulsory acquisition powers in a DCO are designed to give.
- NGET's references to other DCOs where similar rights have been granted to it do not support its case as no commentary on the facts was provided.

9.5.32. The applicants' final position statement stated that the set of provisions in the final dDCO [REP9-003] had not been agreed between the parties and discussions to reach an agreed position were ongoing. The applicants considered that the outstanding issues were:

- acceptable security and acceptable insurance
- acquisition of land provisions
- facilities and rights
- retained apparatus
- NGET guidance notes
- expenses
- arbitration
- amendments replacing 'authorised works' with 'specified works'

EXA'S CONSIDERATIONS

9.5.33. The ExA concurs with NGET and considers that the Order should make provisions to ensure National Grid can protect its assets and carry out its role and functions, along with ensuring that the implementation of future projects is safeguarded.

9.5.34. The ExA notes that, whilst at the close of the examination the PPs were not agreed, a possible solution had been proposed by the applicants, with NGET committing to further discussions following the close of the examination. Both parties provided an explanation of why their form of wording was preferred. Having considered the submissions made by the parties throughout the examination, the ExA finds that NGET has provided persuasive submissions on its reasons for requesting its PPs to include safeguarding and protecting assets as well as standard security and insurance provisions.

9.5.35. The ExA notes the concerns expressed by the applicants in relation to the potential impacts NGET's PPs would have upon their ability to implement the proposed development, but the ExA is not persuaded that the wording put forward by NGET

would prejudice the delivery of the proposed development. Furthermore, the ExA notes that similarly worded PPs are preceded in other DCOs.

- 9.5.36. The ExA therefore finds that NGET's preferred PPs are necessary to avoid serious detriment to its undertaking and consequently have included NGET's PPs in the recommended draft DCO.

DOGGER BANK PROJCOS AND ORSTED IPS

- 9.5.37. At DL5 [\[REP5-071\]](#), Dogger Bank Projcos and Orsted IPs submitted the drafting for PPs which they proposed should be included in the DCO. The ExA's consideration of the proposed PPs is set out in section 5.4 of this Recommendation. In summary, the ExA does not recommend the inclusion of the proposed PPs.

ORSTED HORNSEA PROJECT FOUR LIMITED (HORNSEA FOUR)

- 9.5.38. At DL6 [\[REP6-085\]](#), Hornsea Four submitted the drafting for PPs which it proposed should be included within the DCO. The ExA's consideration of the proposed PPs is set out in section 5.4 of this Recommendation. In summary, the ExA does not recommend the inclusion of the proposed PPs.

CREYKE BECK SOLAR LIMITED AND PADERO SOLAER LIMITED.

- 9.5.39. PPs in favour of Creyke Beck Solar Limited [\[REP7-138\]](#) and Padero Solaer Limited [\[REP7-158\]](#) were submitted at DL7.
- 9.5.40. In response, the applicants [\[REP8-044\]](#) confirmed that they had been in discussions with Albanwise Synergy Ltd (previous owners of the Creyke Beck solar project) in relation to the interaction between the Creyke Beck solar project and the proposed development. Albanwise Synergy Ltd had not raised concerns in relation to the viability of the solar farm and were happy to sign heads of terms for an option to easement for the onshore cable corridor.
- 9.5.41. The applicants recognised that the proposed development could have an interaction with the Creyke Beck Solar project in respect of Plots 18-054, 18-055 and 19-007. The applicants, therefore, subject to further detailed design and discussion on respective construction programmes, committed to collaborate with Creyke Beck Solar [\[REP8-044\]](#). The applicants considered that bespoke PPs in favour of these parties were not needed and that s127 or s138 was not engaged on the basis that they were not statutory undertakers. Furthermore, the applicants referred to the PPs in part 1, schedule 15 of the dDCO which they considered would ensure any electricity undertakers would be protected.
- 9.5.42. Whilst no explanation or context was provided with their DL7 submissions, the parties made further submissions at DL9 [\[REP9-032\]](#) and [\[REP9-036\]](#). Both parties confirmed that neither was a statutory undertaker for the purpose of the PA2008 and they acknowledged that the applicants had been negotiating with the freeholder of the land, Albanwise.
- 9.5.43. As they had recently purchased Creyke Beck solar project, they considered [\[REP9-032\]](#) and [\[REP9-036\]](#) that the PPs were necessary to manage the interface between the projects and ensure suitable protections were in place. Importantly, they were of the view that a third-party development did not need to be owned or operated by a statutory undertaker in order to benefit from PPs in a DCO and referred to precedent in the Sunnica Order and the Net Zero Teesside Order 2024. On this

basis, the parties considered the PPs were required and would enable both projects to co-exist and deliver the government's net zero agenda.

EXA'S CONSIDERATIONS

- 9.5.44. The ExA notes the potential for interaction between the Creyke Beck solar project and the proposed development but agrees with the applicants that any interaction can be addressed through collaborative working and that, in the event the Creyke Beck solar project is operational in advance of any agreement, then there are already adequate provisions in the dDCO.
- 9.5.45. As such, the ExA does not recommend that the PPs as suggested by Creyke Beck Solar Limited and Padero Solaer Limited are included in the recommended draft DCO.

9.6. EXA'S RECOMMENDED CHANGES

- 9.6.1. The ExA recommends that the changes set out in Table 5 below are made to the applicants' final dDCO [\[REP9-003\]](#). The recommended draft DCO, which can be found at appendix F of this Recommendation, incorporates all the amendments discussed in this section, along with others that have been discussed in sections 3 and 4.
- 9.6.2. Minor typographical errors and minor text omissions in the dDCO are also identified for rectification in Table 5 but require no expanded explanation in this section. Recommended text insertions are shown in bold text for ease of identification, whilst text deletions are shown with strikethrough.

Table 5: DCO provisions recommended to be changed

Provision	Recommendation	ExA Reasoning
Contents page	PART 3—Flamborough and Filey Coast Special Protection Area ~~{and Farne Islands Special Protection Area}: Guillemot {and Flamborough and Filey Coast Special Protection Area: Razorbill}~~ Compensation Measures	
Page 4	The examining authority, having examined the application with the documents that accompanied the application, ~~{and considered the representations made and not withdrawn}~~ has made a report and recommendation to the Secretary of State under section 74(2)(f) of the 2008 Act.	
Article 21	Time limit for exercise of authority to acquire land compulsorily 21.—(1) After the end of the period of ~~7~~ 5 years beginning on the day on which this Order is made—	See paragraphs 9.4.25 to 9.4.42 of this section for fuller discussion and reasons on recommended changes

Provision	Recommendation	ExA Reasoning
R1	Time limits 1.—(1) The DBS East Project must commence no later than the expiration of ~~seven~~ five years beginning with the date this Order comes into force. (2) The DBS West Project must commence no later than the expiration of ~~seven~~ five years beginning with the date this Order comes into force. (3) If proceedings are begun to challenge the validity of this Order before the end of the period referred to in sub-paragraph (1) or (2) the period in sub-paragraph (1) or (2) must be taken to be extended by one year.	See paragraphs 9.4.25 to 9.4.42 of this section for fuller discussion and reasons on recommended changes
R31	(1) No part of any wind turbine generator shall be erected as part of Work No. 1B until the Secretary of State, having consulted with the Ministry of Defence, confirms in writing that appropriate mitigation will be implemented and maintained for the life of the authorised development and that arrangements have been put in place with the Ministry of Defence to ensure that the approved mitigation is implemented, unless it is otherwise agreed it is not necessary. ~~(42) No wind turbine generator forming part of Work No. 1B is permitted to rotate its rotor blades on its horizontal axis until the Secretary of State, having consulted with the Ministry of Defence, confirms satisfaction in writing that appropriate mitigation will be the~~ approved mitigation has been implemented and will be maintained for the life of the DBS West Project Offshore development works and that ~~arrangements have been put in place with the Ministry of Defence to ensure that the approved mitigation is implemented.~~	See section 5.3 (aviation and radar) of this Recommendation for fuller discussion and reasons on recommended changes

Provision	Recommendation	ExA Reasoning
	(23) For the purposes of this requirement— “appropriate mitigation” means measures to prevent or remove any adverse effects which the DBS West Project Offshore works will have on the air defence radar(s) at Remote Radar Head (RRH) Staxton Wold, and the Ministry of Defence’s air surveillance and control operations; “approved mitigation” means the detailed Radar Mitigation Scheme (RMS) that will set out the appropriate measures and timescales for implementation as agreed with the Ministry of Defence at the time the Secretary of State confirms satisfaction in writing in accordance with sub-paragraph (1); and “Ministry of Defence” means the Ministry of Defence as represented by Defence Infrastructure Organisation – Safeguarding, St George’s House, DIO Head Office, DMS Whittington, Lichfield, Staffordshire, WS14 9PY or any successor body. (34) The undertaker must thereafter comply with all other obligations contained within the approved mitigation for the life of the DBS West Project Offshore works.	
New Requirement for submission of a wake effects plan	Wake effects plan (1) Work No. 1A must not be commenced until either— (a) A wake effects plan relating to that part of the authorised project has been submitted to and approved by the Secretary of State following consultation with owners of the relevant offshore wind farm(s); or (b) The undertaker has provided evidence to the Secretary of State that alternative mitigation for wake effects has been agreed with the owners of the relevant offshore wind farm(s); or	See section 5.4 (offshore industries and other activities) for fuller discussion and reasons on recommended inclusion of this requirement

Provision	Recommendation	ExA Reasoning
	(c) A combination of (1)(a) and (1)(b) is provided to and agreed by the Secretary of State to ensure that each of the relevant offshore wind farm(s) is considered. (2) Work No. 1B must not be commenced until either— (a) A wake effects plan relating to that part of the authorised project has been submitted to and approved by the Secretary of State following consultation with each of the owners of the relevant offshore wind farm(s); or (b) The undertaker has provided evidence to the Secretary of State that alternative mitigation for wake effects has been agreed with the relevant offshore wind farm(s); or (c) A combination of (2)(a) and (2)(b) is provided to and agreed by the Secretary of State to ensure that each of the relevant offshore wind farm(s) is considered. (3) Any wake effects plan(s) provided in accordance with paragraphs (1)(a), (1)(c), (2)(a) or (2)(c) must include: (a) the wake effects from the approved development on the annual energy production of the relevant offshore wind farm(s); (b) details of reasonable steps that have been taken or are proposed to be taken by the undertaker to minimise wake effects on the relevant offshore wind farm(s) whilst maximising the capacity and energy output of the authorised development within the identified technical, environmental and other constraints of the authorised development; (c) the timescales for implementation of any wake effect mitigation measures; (d) any time limits for wake effect mitigation measures; and	

Provision	Recommendation	ExA Reasoning
	(e) details of any necessary monitoring of the wake effect mitigation measures. (4) The layout plan submitted to the MMO under condition 15(1)(a) of schedule 10 of this Order must be in accordance with any approved wake effects plan submitted in accordance with sub-paragraph (1) above. (5) The layout plan submitted to the MMO under condition 15(1)(a) of schedule 11 of this Order must be in accordance with any approved wake effects plan submitted in accordance with sub-paragraph (2) above. (6) Each approved wake effects plan submitted under this requirement must be implemented as approved. (7) For the purposes of this requirement—“relevant offshore wind farms” means the two offshore wind farms consented under the Dogger Bank Creyke Beck Offshore Wind Farm Order 2015 (SI2015/318) as amended at the date of this Order and known as Dogger Bank A and Dogger Bank B, the offshore wind farm consented under the Dogger Bank Teesside A and B Offshore Wind Farm Order 2015 (SI2015/1592) as amended at the date of this Order and known as Dogger Bank C, the offshore wind farm consented under the Hornsea One Offshore Wind Farm Order 2014 (SI2014/3334) as amended at the date of this Order, the offshore wind farm consented under the Hornsea Two Offshore Wind Farm Order 2016 (SI2016/844) as amended at the date of this Order and the offshore wind farm consented under the Hornsea Three Offshore Wind Farm Order 2020 as amended at the date of this Order.	
Schedule 10 and Schedule 11, Part 2,	(bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent	See section 5.9 (marine and coastal processes) of this Recommendation for further discussion

Provision	Recommendation	ExA Reasoning
condition 15(1)(c)(i); Schedule 12 and Schedule 13, Part 2, condition 13(1)(c)(i); and Schedule 14 and Schedule 14A, Part 2, condition 11(1)(c)(i).	of navigable depth referenced to Chart Datum ~~and~~; (cc) in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House and the MMO in consultation with the statutory nature conservation body) to be taken to ensure existing and future safe navigation is not compromised, including updated nearshore sediment transport modelling and comparison and demonstration against the environmental statement if within the 10m depth contour and/ or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and ~~(ee)~~ (dd) proposals for monitoring cables including cable protection until the authorised scheme is decommissioned which includes a risk-based approach to the management of unburied or shallow buried cables;	and reasoning on the proposed changes
Schedules 10 and 11, Part 2, condition 30 Schedules 12 and 13, Part 2, condition 27	Without prejudice seasonal restrictions on piling should be applied to the made Order, with deletion of [] from identified conditions.	The ExA recommends that the without prejudice seasonal restrictions on piling should be applied to the made Order, section 5.7 (fish and shellfish ecology) of this Recommendation for the ExA's reasoning
Schedule 15 Part 5	Deletion of current wording and insertion of PPs from NR DL7 submission [REP7-156].	See paragraphs 9.5.4 to 9.5.12 of this section for fuller discussion and reasons on recommended changes
Schedule 15 Part 6	Deletion of current wording and insertion of PPs from Appendix 1 of NGT DL6 submissions [REP6-066].	See paragraphs 9.5.13 to 9.5.24 of this section for fuller discussion and reasons on recommended changes

Provision	Recommendation	ExA Reasoning
Schedule 15 Part 7	Deletion of current wording and insertion of PPs from Appendix 1 of NGET DL6 submissions [REP6-067] .	See paragraphs 9.5.25 to 9.5.36 of this section for fuller discussion and reasons on recommended changes
Schedule 18	Retention of reference to Farne Islands Special Protection Area. Deletion of reference to razorbill	See section 6 (HRA summary) and appendix C for fuller discussion and reasons for changes
Schedule 19	Part 2 Other documents to be certified Removal of [-] from Herring Spawning Plan and insertion of EL ref REP9-020	See section 5.7 (fish and shellfish ecology) for fuller discussion and reasons for changes

9.7. CONCLUSIONS

- 9.7.1. The ExA has considered all iterations of the dDCO as set out in Table 5 above and the degree to which the applicants' final version has addressed matters arising during the examination. A number of matters are the subject of recommendations in this section and are included in the recommended draft DCO in appendix F of this Recommendation.
- 9.7.2. Taking all matters raised in this section and all matters relevant to the dDCO raised in the remainder of this Recommendation fully into account, if the SoS is minded to make the DCO, it is recommended that the DCO should be made in the form set out in the recommended draft DCO (appendix F).

10. SUMMARY OF FINDINGS AND CONCLUSIONS

10.1. INTRODUCTION

- 10.1.1. This section summarises the Examining Authority's (ExA) conclusions and sets out its recommendation to the Secretary of State for Energy Security and Net Zero (SoSESNZ) (the SoS).

10.2. CONSIDERATION OF FINDINGS AND CONCLUSIONS

- 10.2.1. Section (s) 104(2) and s104(3) of the Planning Act 2008 (PA2008) require the SoS to have regard to, and to decide the application in accordance with any National Policy Statement (NPS), any Local Impact Report (LIR) and any other important or relevant matters, unless one or more of subsections (4) to (6) and (8) of s104 apply, these being:
- where deciding the application in accordance with any relevant NPS would lead to the United Kingdom (UK) being in breach of any of its international obligations
 - where deciding the application in accordance with any relevant NPS would lead to the SoS being in breach of any duty imposed on her or him by or under any enactment
 - where deciding the application in accordance with any relevant NPS would be unlawful by virtue of any enactment
 - where any condition prescribed for deciding an application otherwise than in accordance with a NPS is met
 - subsection (7) of s104 relates to the planning balance which the ExA has considered in section 7 of this Recommendation
- 10.2.2. In relation to the overall planning balance, the ExA considers that the large-scale generation of renewable energy and the contribution that the proposed development would make to meeting the relevant government climate change and net zero targets, outweigh the harms that have been identified. However, this is a finely balanced conclusion due to the number and nature of the adverse impacts, particularly those that have been attributed great and moderate negative weight against the making of the Order.
- 10.2.3. The Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017 (the Habitats Regulations) require the competent authority (in this case the SoS) to be satisfied that, prior to agreeing to the proposed development, it would not affect the integrity of affected European sites. The ExA's findings are that, subject to the mitigation measures to be secured in the draft Development Consent Order (dDCO) [\[REP9-003\]](#), adverse effects on integrity (AEoI) can be excluded for all sites, except:
- Dogger Bank Special Area of Conservation (SAC)
 - sandbanks which are slightly covered by sea water all the time due to physical change (to another seabed type) (alone and in combination) and abrasion (alone and in combination)
 - Flamborough and Filey Coast Special Protection Area (FFC SPA)
 - guillemot (breeding) – disturbance and displacement (in combination)
 - kittiwake (breeding) – collision risk alone or in combination
 - seabird assemblage - collision, disturbance and displacement (alone or in combination)

- Farne Islands SPA
 - guillemot - in combination disturbance and displacement

10.2.4. The applicants submitted an assessment of alternative solutions, a case for imperative reasons of overriding public interest (IROPI), and proposed compensation measures. The ExA is satisfied that there are no alternative solutions. Taking into account the information surrounding the need for the proposed development, the public interests presented, and that the interests are overriding when measured against the adverse effects on the affected features of the FFC SPA and the Dogger Bank SAC, the ExA concludes (section 3.1 of this Recommendation) that there is an imperative need for the proposed development and as such, IROPI has been established (appendix C of this Recommendation).

10.2.5. In this respect, the ExA has concluded, at the close of the examination, that whilst the proposed compensation package for the Dogger Bank SAC can be relied upon, and that the compensation package for the kittiwake feature of the FFC SPA as proposed is feasible, appropriate and is adequately secured, the compensation package for the guillemot feature of the FFC SPA and Farne Islands SPA, as set out in the recommended draft Development Consent Order (DCO) cannot currently be relied upon.

10.2.6. As a result, the ExA concludes that to allow the proposed development in these circumstances would constitute a breach of the Habitats Regulations. Therefore, the ExA considers that the exception outlined in subsection (5) of s104 of the PA2008 applies as it would lead to the SoS being in breach of a duty imposed on the SoS by an enactment.

10.2.7. Given this finding and having regard to subsection (5), the ExA concludes that it has no alternative but to recommend to the SoS that the DCO as applied for cannot be made.

10.2.8. As advised in NPS-EN1, the proposed development comprises CNP. In this instance, whilst the ExA is satisfied that there are no alternative solutions and that the proposed development has met the test for IROPI, the ExA finds that compensation measures are not secured to offset the adverse effects to site integrity and that, when applying the relevant critical national priority (CNP) tests in relation to residual Habitats Regulations, the DCO as applied for still cannot be made.

10.3. CIRCUMSTANCES SHOULD THE SOS CONCLUDE THAT HABITATS REGULATIONS ASSESSMENT MATTERS ARE SATISFACTORY

10.3.1. As set out in section 7 of this Recommendation, as the competent authority, the SoS may reach a different conclusion to that set out above, or additional information may have become available to the SoS between the close of the examination and the application being determined, to the effect that Habitats Regulations Assessment (HRA) matters do not preclude the SoS from making the Order. In those circumstances the test to be applied is that set out in s104(3) of the PA2008.

10.3.2. The ExA concludes that the proposed development is covered by NPS EN-1, NPS EN-3 and NPS EN-5 and the making of a DCO would be in general accordance with them. Accordingly, s104(3) would be satisfied. The ExA has found that the benefits of the proposed development would outweigh the harm identified in the planning

balance undertaken in accordance with s104(7) of the PA2008, although this is a finely balanced judgement. Given this, the ExA acknowledges that the SoS may come to a different view and conclude that the balance falls against the making of the Order. Should this be the case, then the ExA recommends that the SoS would need to consider the proposed development against the CNP tests as set out in NPS-EN1.

- 10.3.3. The ExA has had regard to the LIR produced by East Riding of Yorkshire Council and its development plan as set out in sections 4 and 5 of this Recommendation.
- 10.3.4. Regarding designated heritage assets and in consideration of regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 (Decisions Regulations), the ExA has found the proposed development would result in less than substantial harm to designated heritage assets. However, those harms are outweighed by the public benefits from the provision of low carbon energy to meet the need identified in NPS EN-1.
- 10.3.5. In terms of biodiversity and considering regulation 7 of the Decisions Regulations, the ExA is satisfied that biodiversity, ecological and nature conservation issues have been adequately assessed and that the requirements of NPS EN-1 are met.
- 10.3.6. Appendix D of this Recommendation sets out the ExA's detailed consideration of Marine Conservation Zone (MCZ) assessment matters. The ExA concludes that neither the construction, operation nor decommissioning of the proposed development would hinder the conservation objectives of the marine habitat designated features of the Holderness Inshore MCZ or the Holderness Offshore MCZ.
- 10.3.7. Not all issues raised by interested parties had been resolved by the close of the examination, though in the majority of cases the relevant planning authorities or regulators would have control over approval of detailed management documents which would be secured through the recommended draft DCO (appendix F of this Recommendation). The resolution of these matters at this stage does not undermine the ExA's ability to make its recommendation to the SoS and as such no further action is required.
- 10.3.8. The ExA has considered the case for compulsory acquisition (CA) and temporary possession (TP) of land and rights in order to implement the proposed development. The ExA is satisfied that the legal interests in all plots of land included in the final Book of Reference (BoR) [\[REP8-010\]](#) and indicated on the final land plans (onshore) [\[REP4-002\]](#) would be required for the proposed development with regard to both CA and TP powers. In relation to land subject to CA, the ExA is satisfied that the applicants have explored reasonable alternatives to the CA of land, rights and interests sought and that there would be no alternatives that ought to be preferred. The ExA is satisfied that adequate and secure funding would be available to enable CA within the relevant timeframe following the Order being made.
- 10.3.9. However, by the close of the examination the applicants had not obtained consent from the relevant crown authority. The applicants advised that discussions had progressed during the examination and therefore the ExA does not consider there to be any obvious barrier or reason why consent from the crown estate would not be forthcoming. However, the SoS cannot grant the Order without the consent of the relevant crown authority and such a consent must be obtained before any Order is made.

- 10.3.10. At the close of the examination, there were outstanding objections from statutory undertakers (SU). As a consequence, s127 and s138 of the PA2008 were engaged. The ExA is satisfied that the protective provisions in the recommended draft DCO (appendix F of this Recommendation) would afford the SUs with onshore interests the protections they require and ensure that they could continue to carry out their statutory functions without any serious detriment.
- 10.3.11. Considering all of the above factors together and, subject to the consent of the crown estate in respect of crown land, the ExA considers there to be a compelling case in the public interest for the CA and TP powers sought in respect of the plots listed in the BoR [\[REP8-010\]](#). The ExA concludes that the proposed development would comply with s122(2) and s122(3) of the PA2008.
- 10.3.12. The ExA is satisfied that the recommended draft DCO includes the relevant mitigation and compensation elements referred to above.
- 10.3.13. In circumstances where the SoS considers that the exception in s104(5) of the PA2008 with regard to HRA is not engaged, the conclusion of the ExA is that development consent should be granted for the reasons set out above and subject to receipt of the consent of the relevant crown authority and the incorporation of the changes to the DCO which the ExA has recommended at appendix F of this Recommendation.

10.4. MATTERS FOR THE SECRETARY OF STATE

- 10.4.1. The ExA considers the evidence before the SoS at the close of the examination is sufficient for them to determine the application. Whilst at the close of the examination, crown consent had not been specifically received from any of the relevant crown authorities, the ExA is not aware of any impediments to the granting of crown consent. There are some other important areas that the ExA would like to draw to the SoS's attention. These are detailed below:
- The SoS would need to obtain the consent of the crown estate before the Order could be made.
 - The Marine Management Organisation (MMO) stated that should the SoS provide any changes to the seasonal piling restriction in condition 30 of DMLs 1 and 2 and condition 27 of DMLs 3 and 4, the MMO would like to review the final wording to understand how this would work in practice.
 - The MMO and Natural England (NE) did not have the opportunity to comment on revision 2 of the applicants' Without Prejudice Herring Spawning Plan [\[REP9-020\]](#), so at the close of the examination it was not known if the applicants, NE or the MMO might propose any changes to these conditions.
 - The ExA understands that discussion regarding the back-calculation method to refine the seasonal restrictions further may continue post-examination and further information may be submitted to the SoS for consideration, in which case the ExA would recommend that the wording of commitment 206 is updated in consultation with the MMO such that the MMO is satisfied with the back-calculation method used.
 - The SoS may wish to undertake further consultation with NE in relation to the 50m radius for ecological halo effects and whether additional information is available which may lead to a refined buffer distance being achieved.
 - The ExA would highlight to the SoS that NE, the MMO and the applicants may have further proposed changes to the In Principle Monitoring Plan (IPMP) [\[REP7-115\]](#) in relation to monitoring for marine mammals given there were outstanding monitoring concerns at the close of the examination, but no details

of those discussions and suggestions for amendments were before the ExA at the close of the examination.

- If the SoS considers that there would be merit in including protective provisions within the DCO for the protection for either the Projcos or Orsted IPs, they may wish to seek the views of the applicants in relation to the drafting proposed by those parties and seek an update from all parties on the status of their negotiations.

10.5. RECOMMENDATION

- 10.5.1. The SoS is the competent authority for HRA purposes and to help the SoS satisfy this role, the ExA has given careful consideration to HRA matters in the examination and has concluded that the ExA has no alternative other than to recommend to the SoS, as the competent authority, that the Order in the form applied for cannot not be made pursuant to regulations 63 and 64 of the Habitats Regulations.
- 10.5.2. In relation to the overall planning balance, the ExA has concluded that there is a finely balanced case for Order to be granted.
- 10.5.3. On this basis the ExA does not consider there is a need to apply the CNP tests as set out in section 4.2 of NS-EN1, however should the SoS come to a different conclusion on the overall planning balance case, then the SoS will need to consider those tests. In this regard, whilst the ExA finds that the proposed development would satisfy the identified exceptions (paragraph 4.2.15 of NPS-EN1), the ExA concludes that the mitigation hierarchy has not been followed in relation to impacts on military radar and other offshore infrastructure. In relation to the HRA residual effects, the ExA finds that the compensation measures are not secured to offset the adverse effects to site integrity and that, when applying the relevant CNP tests in relation to residual Habitats Regulations, the DCO as applied for still cannot be made.
- 10.5.4. In the event that the SoS disagrees with the ExA's findings in relation to the HRA, or if additional information has become available to the SoS between the close of examination and decision-making, such that HRA matters do not preclude making the Dogger Bank South Offshore Wind Farms Order, then the ExA recommends that, subject to obtaining crown consent, the SoS should make the Order in the form recommended in appendix F of this Recommendation, having given consideration to the matters set out above.

APPENDIX A: OTHER LEGISLATION AND POLICY

APPENDIX A: OTHER LEGISLATION AND POLICIES

Table A1 Other legislation

- Air Quality (England) Regulations 2000
- Air Quality (Amendment of Domestic Regulations) (EU Exit) Regulations 2019
- Ancient Monuments and Archaeological Areas Act 1979
- Building Act 1984 and the Building Regulations 2010 (as amended)
- Carbon Budget Order 2009
- Carbon Budget Order 2011
- Carbon Budget Order 2016
- Carbon Budget Order 2021
- Climate Change Act 2008
- Climate Change Act 2008 (2050 Target Amendment) Order
- Climate Change Act 2008 (Credit Limit) Order 2021
- Conservation of Habitats and Species Regulations 2017 (as amended) and the Conservation of Offshore Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations 2017')
- Contaminated Land (England) (Amendment) Regulations 2012 ('Contaminated Land Regulations')
- Control of Pollution Act 1974 (as amended Eels (England and Wales) Regulations 2009
- Electricity Act 1989
- Energy Acts (2004, 2008, 2013, 2023)
- Environment Act 1995
- Environment Act 2021
- Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020
- Environmental Noise (England) Regulations 2006 (as amended)
- Environmental Permitting (England and Wales) (Amendment) (EU Exit) Regulations 2019
- Environmental Protection Act 1990 (as amended)
- European Commission Circular Economy Package Environmental Protection Act 1990
- Hazardous Waste (England and Wales) Regulations 2005 (as amended)
- Hedgerow Regulations 1997
- Highways Act 1980 Section 105A
- Flood Risk Regulations 2009
- Flood and Water Management Act 2010 Environmental Damage (Prevention and Remediation) (England) Regulations 2015
- Groundwater (Water Framework Directive) (England) Direction 2016
- Infrastructure Planning (Decisions) Regulations 2010
- International Maritime Organisation: for the Prevention of Marine Pollution from Ships (MARPOL 1973 and protocols 1978 & 1997, as amended) given effect in UK law by the:
 - Merchant Shipping (Prevention of Oil Pollution) Order 1983,
 - Merchant Shipping (Prevention of Pollution) (Law of the Sea Convention) Order 1996,
 - Merchant Shipping (Pollution) Act 2006,
 - Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998 (as amended),
 - Merchant Shipping (Prevention of Pollution by Sewage and Garbage) Order 2006 (as amended),

- Merchant Shipping (Prevention of Air Pollution from Ships) Regulations 2008
- Merchant Shipping (Prevention of Oil Pollution) Regulations 2019
- Land Drainage Act 1991
- Levelling up and Regeneration Act 2023
- Localism Act 2011
- National Parks and Access to the Countryside Act 1949 (as amended)
- Natural Environment and Rural Communities (NERC) Act 2006
- Noise Insulation Regulations 1975
- Planning (Listed Buildings and Conservation Areas) Act 1990
- Pollution Prevention and Control Act 1999
- Protection of Badgers Act 1992 (as amended)
- Protection of Military Remains Act 1986
- Protection of Wrecks Act 1973
- Salmon and Freshwater Fisheries Act 1975 (as amended)
- The Commons Registration Act 1965
- The Countryside and Rights of Way Act 2000
- The Council of Europe Landscape Convention, 2000, as amended by the Protocol amending the European Landscape Convention, 2016
- The Espoo and Aarhus Conventions
- The Health and Social Care Act 2012
- The National Parks and Access to the Countryside Act 2000
- The Paris Agreement
- The Water Resources (Abstraction and Impounding) Regulations 2006
- Town and Country Planning Act 1990 (as amended)
- United Nations Convention on Law of the Sea (UNCLOS), acceded to by the UK July 1997
- Waste (England and Wales) Regulations 2011 (as amended)
- Waste Electrical and Electronic Equipment ('WEEE') Regulations 2013
- Water Abstraction and Impounding (Exemptions) Regulations 2017
- Water Act 2003 (as amended) Environmental Permitting (England and Wales) (Amendment) Regulations 2016/1154
- Water Act 2014
- Water Environment (Water Framework Directive) (England and Wales) Regulations 2017
- Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
- Water Industry Act 1991
- Water Resources Act 1991 (WRA 1991) (as amended)
- Water Resources (Abstraction and Impounding) Regulations 2006
- Water Supply (Water Quality) Regulations 2018
- Wildlife and Countryside Act (WCA) 1981 (as amended)
- Wildlife and Countryside Act 1981 (as amended)

Table A2 Other relevant Directives and assimilated EU laws

- Habitats Directive (92/43/EEC)
- Hazardous Waste Directive (2008/98/EC)
- Landfill Directive (1999/31/EC)
- The Birds Directive (2009/147/EC)
- Water Framework Directive (2000/60/EC)
- Waste Framework Directive (2008/98/EC)

Table A3 Other relevant policies, statements and guidance

▪ A Green Future: Our 25 Year Plan to Improve the Environment (2018) ▪ Assessing Greenhouse Gas Emissions and Evaluating their Significance (2022) ▪ Climate Change Adaption and Resilience (2020) ▪ Getting Great Britain building again: speeding up infrastructure delivery (2023) ▪ Guidance on the Assessment of the Impact of Offshore Wind Farms: Seascape and Visual Impact Report (2005) ▪ Guidelines for Landscape and Visual Impact Assessment: Third Edition (2013) ▪ Holford Rules: guidelines for the routing of new high voltage overhead transmission lines (1959) ▪ Landscape Institute Technical Guidance Note: Residential Visual Amenity Assessment (2019) ▪ Marine Guidance Note (MGN) 654 (2021) ▪ National Grid, Horlock Rules: National Grid company substations and the environment – guidelines on siting and design (2009) ▪ Offshore Energy Strategic Environmental Assessment Review and Update of Seascape and Visual Buffer study for Offshore Wind farms Final Report for Hartley Anderson (2020) ▪ The Clean Growth Strategy (2017) ▪ The Glasgow Pact COP26 (2021) ▪ National Planning Policy Framework ▪ The Noise Policy Statement for England (2010) ▪ The state of environmental impact assessment in the UK, IEMA (2011) ▪ The United Nations Adoption of the Paris Agreement COP21 (2015) ▪ Transmission Acceleration Action Plan (2023) ▪ UK Marine Policy Statement (2011) ▪ UK Offshore Energy Strategic Environmental Assessment 4 (2022) ▪ United Nations Framework Convention on Climate Change (1992)

Table 4 Relevant development plan policies

East Riding Local Plan Update 2020-2039	▪ Policy S1: Sustainable development ▪ Policy S2: Addressing Climate Change ▪ Policy S3: Focussing Development ▪ Policy S4: Supporting development in Villages and the Countryside ▪ Policy S5: Managing the Scale and Distribution of New Development ▪ Policy S8: Connecting People and Places ▪ Policy S9: Strengthening blue / green infrastructure ▪ Policy EC1: Supporting the growth and diversification of the East Riding economy ▪ Policy EC4: Enhancing sustainable transport ▪ Policy EC5: Supporting the renewable and low carbon energy sector ▪ Policy EC6: Protecting Mineral resources ▪ Policy ENV1: Integrating high quality design ▪ Policy ENV2: Promoting a high quality landscape ▪ Policy ENV3: Valuing our Heritage ▪ Policy ENV4: International, National and Local Sites of Importance for Biodiversity

	▪ Policy ENV5: Enhancing biodiversity and geodiversity ▪ Policy ENV6: Managing environmental hazards ▪ Policy C1: Providing infrastructure and facilities

Table A5 Other made DCOs identified by the applicants

▪ Awel y Mor Offshore Wind Farm Order 2023 ▪ Dogger Bank Teesside A and B Offshore Wind Farm Order 2015 ▪ East Anglia One North Offshore Wind Farm Order 2022 ▪ East Anglia Two Offshore Wind Farm Order 2022 ▪ Hornsea Three Offshore Wind Farm Order 2020 ▪ Hornsea Four Offshore Wind Farm Order 2023 ▪ National Grid (Yorkshire Green Energy Enablement Project) Order 2024 ▪ Norfolk Boreas Offshore Wind Farm Order 2021 ▪ Norfolk Vanguard Offshore Wind Farm Order 2020 ▪ Rampion 2 Offshore Wind Farm Order 2025 ▪ Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024 ▪ Triton Knoll Electrical System Order 2016 ▪ Net Zero Teesside Order 2024 ▪ Hornsea Two Order 2016 ▪ The Dogger Bank Teesside A and B Offshore Wind Farm Order 2015 ▪ The Southampton to London Pipeline Order 2020 ▪ Silvertown Tunnel Order 2018 (Silvertown Tunnel) ▪ The Port of Tilbury Expansion Order 2019 (Port of Tilbury) ▪ Immingham Open Cycle Gas Turbine Order 2020 ▪ Longfield Solar Farm Order 2023. ▪ Drax Power Station Bioenergy with Carbon Capture and Storage Extension Order 2024. ▪ Mona Offshore Wind Farm Order 2025

APPENDIX B: ABBREVIATIONS LIST

Abbreviations Used

AA	appropriate assessment
ADD	acoustic deterrent devices
Amsl	above mean sea level
AEol	adverse effects on integrity
AEP	annual energy production
AEZ	archaeological exclusion zone
ALC	agricultural land classification
ANCB	appropriate nature conservation body
ANS	artificial nesting structure
AP	action point
APFP Regulations	Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
AQMA	air quality management area
AAWT	annual average weekday traffic
ALARP	as low as reasonably possible
ATC	air traffic control
AYM	Awel y Môr
AYM DCO	The Awel y Môr Offshore Wind Farm (Correction) Order 2024
BAP	biodiversity action plan
BAS	burial assessment study
BDMPS	biologically defined minimum population scale
BHP	BHP Group (UK) Limited and BHP Billiton Petroleum Great Britain Limited
BMV	best and most versatile
BOCC	birds of conservation concern
BNNC	Berwickshire and North Northumberland Coast
BNG	biodiversity net gain
BNH IDB	Beverley and North Holderness Internal Drainage Board
BoR	book of reference
BRAG	black-red-amber-green
BTO	British Trust for Ornithology
BS	British Standard
CA	compulsory acquisition
CA Guidance	Guidance Related to Procedures for the Compulsory Acquisition of Land' DCLG, September 2013 (the former Department for Communities and Local Government)
CA Regs	Infrastructure Planning (Compulsory Acquisition) Regulations 2010
CAA	Civil Aviation Authority
CAH	compulsory acquisition hearing
CAP	civil aviation publication
CBRA	cable burial risk assessment
CCRA	climate change resilience assessment
CCS	carbon capture and storage
CEA	cumulative environmental assessment
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CGNS	Celtic and Greater North Seas
CGR	counterfactual of growth rate
CES	Coastal East Scotland
CfD	contracts for difference

CFWG	commercial fisheries working group
CHVP	cultural heritage viewpoint
CIB	clean industry bonus
CIMP	compensation implementation and management plan
CO₂	carbon dioxide
CO₂e	carbon dioxide equivalent
CoCP	code of construction practice
COMAH	control of major accident hazard
COWSC	collaboration in offshore wind strategic compensation
CPGR	counterfactual of population growth rate
CPS	counterfactual of population size
CRM	collision risk modelling
CNP	critical national priority
CRTN	calculation of road traffic noise
CTMP	construction traffic management plan
DAS	design and access statement
DATRAS	database of trawl surveys
dB	decibel
DBA	Dogger Bank A
DBB	Dogger Bank B
DBC	Dogger Bank C
DBD	Dogger Bank D
DBS	Dogger Bank South
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security and Net Zero
DFBMP	drilling fluid breakout management plan
DL	deadline
DML	Deemed Marine Licence
dDML	draft Deemed Marine Licence
dDCO	draft Development Consent Order
EA	Environment Agency
EATM	environmental assessment of traffic and movement
ECC	export cable corridor
ECHR	European Convention on Human Rights
eDNA	environmental deoxyribonucleic acid
EEA	European Economic Area
EIA	environmental impact assessment
EIP	environment improvement plan 2023
EL	examination library
EM	Explanatory Memorandum
EMF	electro-magnetic fields
EMP	ecological management plan
EPP	evidence plan process
EPR	Infrastructure Planning (Examination Procedure) Rules 2010
EPS	european protected species
EPUK	Environmental Protection UK
ERYC	East Riding of Yorkshire Council
ES	Environmental Statement
ESO	electricity systems operator
ESP	electrical switching platform

APPENDIX B: ABBREVIATIONS LIST

DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO THE SECRETARY OF STATE: 10 OCTOBER 2025

ETG	expert topic group
ExA	Examining Authority
ExQ1	Examining Authority's first written questions
ExQ2	Examining Authority's second written questions
FFC	Flamborough and Filey Coast
FIR	flight information region
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables Group
FRA	flood risk assessment
FS	funding statement
GBS	gravity base structure
GCN	great crested newts
GHG	greenhouse gas
GIS	gas insulated
GLVIA3	Guidelines for Landscape and Visual Impact Assessment Third Edition (2013)
GNS	Greater North Sea
GP	general practitioners
GVA	gross value added
GW	gigawatts
GWh	gigawatt hours
H_{3p2}	Hornsea Project 3 Part 2 method ('new colony approach')
H₄	Hornsea Project 4 method
ha	hectare
HCC	Hull City Council
HDD	horizontal directional drilling
HDN	holistic design network
HE	Historic England
HGV	heavy goods vehicle
HLC	historic landscape character
HMRI	helicopter main routing indicators
HoT	heads of terms
HPAI	highly pathogenic avian influenza
HPI	habitats of principal importance
HRA	habitats regulations assessment
HVDC	high voltage direct current
IAP	initial assessment of principal issues
IAQM	Institute of Air Quality Management
ICES	International Council for the Exploration of the Sea
ICNIRP	International Commission on Non-ionizing Radiation Protection
IDB	internal drainage board
IHLS	international herring larvae survey
ILA	important landscape area
IMP	implementation and monitoring plan
INEOS	INEOS UK SNS Limited
INIS	invasive non-indigenous species
INNS	invasive non-native species
IP	interested party
iPCoD	interim population consequence of disturbance
IPMP	in principle monitoring plan
IROPI	imperative reasons of overriding public interest
ISH	issue specific hearing
JLAF	Joint Local Access Forum

APPENDIX B: ABBREVIATIONS LIST

DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO THE SECRETARY OF STATE: 10 OCTOBER 2025

JNCC	Joint Nature Conservation Committee
KSCP	kittiwake strategic compensation plan
KSIMP	kittiwake strategic implementation and monitoring plan
km	kilometre
km²	kilometre squared
KP	kilometre point
l/s	litre per second
LAT	lowest astronomical tide
LB	listed building
LCA	landscape character area
LCT	landscape character type
LIR	local impact report
LLFA	lead local flood authority
LMP	landscape management plan
LNR	local nature reserve
LONI	letter of no impediment
LoSCM	library of strategic compensatory measures
LRT	land rights tracker
LSE	likely significant effects
LT	Los Trustees
LTMWS	long term mean wind speed
LTRE	Los Trustees and Riplingham Estates
LVIA	landscape and visual impact assessment
LWS	local wildlife site
m	metre
MarESA	marine evidence-based sensitivity assessment
MARPOL	International Convention for the Prevention of Pollution from Ships
MCA	Maritime and Coastguard Agency
MCAA2009	Marine and Coastal Access Act 2009
MCZ	marine conservation zone
MDS	maximum design scenario
MEEB	measures of equivalent environmental benefit
MGN	marine guidance note
MHWS	mean high water springs
MLWS	mean low water springs
MMMP	marine mammal mitigation protocol
MMO	Marine Management Organisation
MMObs	marine mammal observers
MOD	Ministry of Defence
MoU	memorandum of understanding
MPA	marine protected area
MPCP	marine pollution contingency plan
MPS	Marine Policy Statement
MRF	marine recovery fund
MRSea	Marine Renewables Strategic environmental assessment (MRSea) R package, an extension to the R statistical programming language developed at the University of St Andrews
MSL	mean sea level
MSP	United Kingdom Marine Spatial Plan
MU	management units

MW	megawatts
MWh	megawatt hours
NaFRA	national flood risk assessment
NAS	noise abatement system
NCA	national character area
NE	Natural England
NEA001	Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations
NERC Act 2006	Natural Environment and Rural Communities Act 2006
NERL	NATS En Route
NFFO	National Federation of Fishermen's Organisations
NGET	National Grid Electricity Transmission Plc
NGT	National Gas Transmissions Plc
NH	National Highways
NH₃	ammonia
NHMH project	North Humber to High Marnham Project
Nm	nautical miles
NO₂	nitrogen dioxide
NO_x	nitrogen oxide
NPA2017	Neighbourhood Planning Act 2017
NPPF	National Planning Policy Framework 2024
NPS	National Policy Statement
NPS EN-1	Overarching National Policy Statement for Energy
NPS EN-3	National Policy Statement for Renewable Energy Infrastructure
NPS EN-5	National Policy Statement for Electricity Networks Infrastructure
NPY	Northern Powergrid (Yorkshire) Plc
NR	Network Rail Infrastructure Limited
NRA	navigational risk assessment
NRMM	non-road mobile machinery
NS	North Sea
NSIP	nationally significant infrastructure project
NSSS	North Sea sandeel survey
NZNSS Ltd	Net Zero North Sea Storage Limited
oANS	offshore artificial nesting structure
oCoCP	outline code of construction practice
OCS	onshore converter station(s)
oCTMP	outline construction traffic management plan
OD	ordnance datum
ODOWF	Outer Dowsing Offshore Wind Farm
oEMP	outline ecological management plan
oFLCP	outline fisheries liaison and co-existence plan
oLMP	outline landscape management plan
oMMMP	outline marine mammal mitigation protocol
OOMP	offshore operations and maintenance plan
oOOMP	outline offshore operation and maintenance plan
oPEMP	outline project environmental management plan
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
oSPP	outline scour protection plan

APPENDIX B: ABBREVIATIONS LIST

DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO THE SECRETARY OF STATE: 10 OCTOBER 2025

OSZ	onshore substation zone
OWF	offshore wind farm
OWIC	Offshore Wind Industry Council
oWSI	outline written scheme of investigation
PA2008	Planning Act 2008
PAH	polyaromatic hydrocarbon
PAM	passive acoustic monitoring
PC	parish council
PEIR	preliminary environmental information report
PEMP	project environmental management plan
PILs	persons with an interest in land
PINS	The Planning Inspectorate
PM	preliminary meeting
PPG	planning practice guidance
PRoW	public rights of way
PSED	public sector equality duty
pSPA	proposed SPA
PSR	primary surveillance radar
PTS	permanent threshold shift
PVA	population viability analysis
R	requirement
R17	rule 17 of the Infrastructure Planning (Examination Procedure) Rules 2010 (request for further information)
RAF	Royal Air Force
RE	Riplingham Estates
RIAA	Report to Inform Appropriate Assessment
RIAA Part 1	RIAA HRA part 1 of 4 – introduction and terrestrial ecology
RIAA Part 2	RIAA HRA part 2 of 4 – Annex I offshore habitats and Annex II migratory fish
RIAA Part 3	RIAA HRA part 3 of 4 – Annex II marine mammals
RIAA Part 4	RIAA HRA part 4 of 4 – marine ornithological features
RIES	Report on the Implications for European Sites
RLoS	radar line of site
ROV	remotely operated vehicle
RPG	registered park and garden
RR	relevant representation
RRH	remote radar head
RSPB	Royal Society for the Protection of Birds
s	section
s61 consent	consent under section 61 of the Control of Pollution Act 1974
s106	section 106 of the Town and Country Planning Act 1990
SAC	special area of conservation
SACO	supplementary advice on the conservation objectives
SAR	search and rescue
SE	south-east
SELss	sound exposure level single strike
SEP and DEP	Sheringham Shoal and Dudgeon Extension Projects
SGAR	second generation anti-coagulant rodenticides
SIP	site integrity plan
SNCB	statutory nature conservation body

APPENDIX B: ABBREVIATIONS LIST

DOGGER BANK SOUTH OFFSHORE WIND FARMS EN010125
REPORT TO THE SECRETARY OF STATE: 10 OCTOBER 2025

SNS	Southern North Sea
SOAEL	significant observed adverse effect level
SoCG	statement of common ground
SoR	statement of reasons
SoS	secretary of state
SoSESNZ	secretary of state for energy security and net zero
SPA	special protection area
SPV	special purpose vehicle
SSC	suspended sediment concentration
SSSI	site of special scientific interest
SU	statutory undertaker
SuDS	sustainable drainage systems
TA	transport assessment
TCC	temporary construction compound
TCE	The Crown Estate
TJB	transition joint bays
TPCA90	Town and Country Planning Act 1990
TP	temporary possession
TPO	tree preservation order
TSHD	trailing suction hopper dredger
TTS	temporary threshold shift
TTSA	traffic and transport study area
TWT	The Wildlife Trusts
UCI	upper confidence interval
UCL	upper confidence limit
UK	United Kingdom
UKCoS	United Kingdom Chamber of Shipping
UKHO	United Kingdom Hydrographic Office
UK NSN	United Kingdom National Site Network
UNCLOS	United Nations Convention on Law of the Sea
URN	unique reference number
USI	unaccompanied site inspection
UWN	underwater noise
UXO	unexploded ordnance
VMS	vessel monitoring system
VP	viewpoint
WNNC	Wash and North Norfolk Coast
WCA	Wildlife and Countryside Act 1981
WCS	worst-case scenario
WEEE	Waste Electrical and Electronic Equipment Regulations 2013
WER	Water Environment Regulations
WFD	Water Framework Directive
WMS	written ministerial statement
WRA	Water Resources Act 1991
WR	written representation
WSI	written scheme of investigation
WTG	wind turbine generator
WW1	World War 1
WW2	World War 2
ZOI	zone of influence
ZTV	zone of theoretical visibility

APPENDIX C: HABITATS REGULATIONS ASSESSMENT

CONTENTS

C.1	INTRODUCTION	2
C.2	FINDINGS IN RELATION TO LSE.....	6
C.3	CONSERVATION OBJECTIVES	11
C.4	FINDINGS IN RELATION TO AEOI – INTRODUCTION	12
C.5	FINDINGS IN RELATION TO AEOI – NON-DISPUTED SITES	20
C.6	FINDINGS IN RELATION TO AEOI – TERRESTRIAL ECOLOGY AND ORNITHOLOGY	21
C.7	FINDINGS IN RELATION TO AEOI – ANNEX I HABITATS.....	21
C.8	FINDINGS IN RELATION TO AEOI – ANNEX II MIGRATORY FISH.....	43
C.9	FINDINGS IN RELATION TO AEOI – MARINE MAMMALS.....	44
C.10	FINDINGS IN RELATION TO AEOI – MARINE ORNITHOLOGY	47
C.11	FINDINGS IN RELATION TO AEOI – SUMMARY	65
C.12	ENGAGING WITH THE HRA DEROGATIONS.....	80
C.13	CONSIDERATION OF ALTERNATIVES.....	80
C.14	IMPERATIVE REASONS OF OVERRIDING PUBLIC INTEREST (IROPI)	81
C.15	COMPENSATORY MEASURES.....	82
C.16	HRA CONCLUSIONS	109

C.1 INTRODUCTION

- C.1.1 This appendix sets out the Examining Authority's (ExA) analysis and conclusions relevant to the Habitats Regulations Assessment (HRA). This will assist the Secretary of State for Energy Security and Net Zero (SoSESNZ), from here on referred to as the Secretary of State (SoS), as the competent authority, in performing their duties under The Conservation of Habitats and Species Regulations 2017 and The Conservation of Offshore Marine Habitats and Species Regulations 2017 ('the Habitats Regulations').
- C.1.2 This appendix is structured as follows:
- Section C.1: Introduction
 - Section C.2: Findings in relation to Likely Significant Effects (LSE)
 - Section C.3: Conservation Objectives
 - Section C.4 Findings in relation to Adverse Effects on Integrity (AEol) – Introduction
 - Section C.5: Findings in relation to AEol – Non-Disputed Sites
 - Section C.6: Findings in relation to AEol – Terrestrial Ecology and Ornithology
 - Section C.7: Findings in relation to AEol – Annex I Habitats
 - Section C.8: Findings in relation to AEol – Annex II Migratory Fish
 - Section C.9: Findings in relation to AEol – Marine Mammals
 - Section C.10: Findings in relation to AEol – Marine Ornithology
 - Section C.11: Findings in relation to AEol – Summary
 - Section C.12: Engaging with the HRA Derogations
 - Section C.13: Consideration of Alternatives
 - Section C.14: Imperative Reasons of Overriding Public Interest (IROPI)
 - Section C.15: Compensatory Measures
 - Section C.16: HRA Conclusions
- C.1.3 In accordance with the precautionary principle embedded in the Habitats Regulations, consent for the proposed development may be granted only after having ascertained that it will not adversely affect the integrity of European site(s) and no reasonable scientific doubt remains (CJEU Case C-127/02 Waddenzee 7 September 2004).
- C.1.4 For the purpose of this appendix, in line with the Habitats Regulations and relevant Government policy, the term 'European sites' includes Special Areas of Conservation (SAC), candidate SACs, proposed SACs, Special Protection Areas (SPA), potential SPAs, listed and proposed Ramsar sites and sites identified or required as compensatory measures for adverse effects on any of these sites.
- C.1.5 Policy considerations and the legal obligations under the Habitats Regulations are described in section 2 of this Recommendation.
- C.1.6 The ExA has been mindful throughout the examination of the need to ensure that the SoS has such information as may reasonably be required to carry out their duties as the competent authority. European sites located within England and Scotland were identified by the applicants for consideration in the assessment. The ExA therefore sought evidence from the applicants and Natural England (NE), NatureScot and the Joint Nature Conservation Committee (JNCC) as the Appropriate Nature Conservation Bodies (ANCB), through written questions, issue specific hearings (ISH) and the Report on the Implications for European Sites

(RIES) (see below). NE was the only ANCB to register as an IP. JNCC did not register as an IP, with NE's relevant representation (RR) [RR-039] explaining that NE is authorised to exercise JNCC's functions as a statutory consultee in respect of applications for offshore renewable energy installations in offshore waters (0nm to 200nm) adjacent to England (including the application for the proposed development). JNCC participated in the examination in response to questions from the ExA.

- C.1.7 The ExA asked NatureScot [HRA.1.4, PD-014] [HRA.2.3, PD-022] to confirm whether it agreed with the applicants' assessments for relevant Scottish sites. The ExA also asked NatureScot to review annex 1 of the RIES (see below) and provide any corrections if necessary [RIES Q48, PD-025]. No responses or submissions were received from NatureScot.

REPORT ON THE IMPLICATIONS FOR EUROPEAN SITES (RIES) AND CONSULTATION

- C.1.8 During the examination, the ExA produced a RIES [PD-025] which compiled, documented, and signposted HRA-relevant information provided in the DCO application and examination representations up to deadline (DL) 5 (23 May 2025). The RIES was issued to set out the ExA's understanding on HRA-relevant information and the position of the IPs in relation to the effects of the proposed development on European sites at that point in time. Consultation on the RIES took place between 6 June 2025 and 26 June 2025. Comments were received from the applicants [REP7-129], East Riding of Yorkshire Council (ERYC) [REP7-144], the Marine Management Organisation (MMO) [REP7-148] and NE [REP7-152]. These comments have been taken into account in the drafting of this appendix.
- C.1.9 A number of examination submissions at DL6 and DL7 included HRA-relevant information. NE [REP7-152] noted that the RIES did not take account of this information and recommended that the RIES be updated and included in the ExA's Recommendation to the SoS. NE advised that consultation on the RIES did not adequately discharge the statutory requirement to consult NE on appropriate assessments (AA) [REP7-152].
- C.1.10 In accordance with the Planning Inspectorate's National Significant Infrastructure Project (NSIP) Advice Page: Advice on Habitats Regulations Assessments, the RIES is not revised following consultation and as such the ExA did not republish a revised version. This appendix considers all HRA representations made by IPs during the examination, including those made after consultation on the RIES.
- C.1.11 Given the amount of HRA information submitted following publication of the RIES, the SoS may wish to undertake further consultation to fulfil the duties under Regulation 63(3) of the Habitats Regulations and Regulation 28(4) of the Offshore Habitats Regulations.

PROPOSED DEVELOPMENT DESCRIPTION AND HRA IMPLICATIONS

- C.1.12 The proposed development is described in section 1.3 of this Recommendation.
- C.1.13 The spatial relationship between the order limits of the proposed development and European sites within the United Kingdom National Site Network (UK NSN) is shown on figures 4-1, 4-2, 4-3, 4-4 and 4-5 of [APP-049] and [PDA-007].

Designated sites in the immediate vicinity of the proposed development are indicated in Figure C1 below.

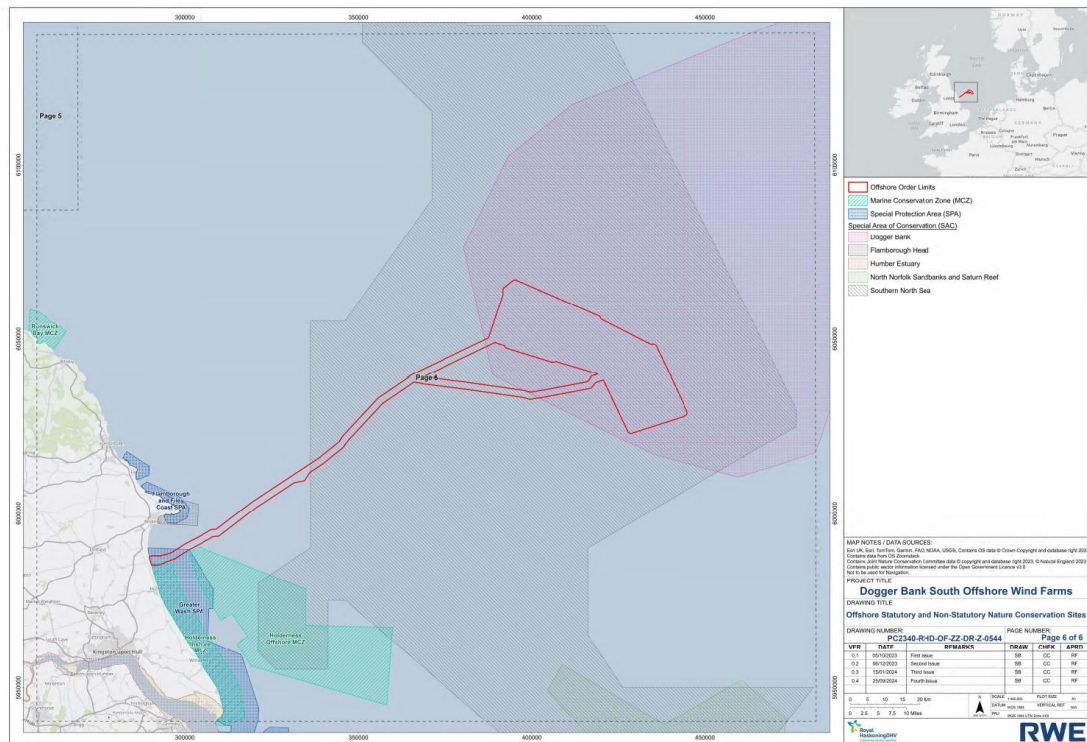


Figure C1: Designated sites in the immediate vicinity of the proposed development

Source: Offshore Statutory and Non-statutory Nature Conservation Sites Plan (Revision 2) [\[PDA-007\]](#)

- C.1.14 The proposed development is not directly connected with, or necessary to, the management of any European site. Therefore, the SoS must make an AA of the implications of the proposed development on potentially affected European sites in light of their conservation objectives.
- C.1.15 The applicants' assessment of effects was presented in the Habitats Regulations Assessment (HRA) Report ('the HRA Report') which comprised the following documents:
- Report to Inform Appropriate Assessment (RIAA) HRA Part 1 of 4 – Introduction and Terrestrial Ecology ('RIAA Part 1') [\[APP-045\]](#), updated in [REP5-007](#)
 - RIAA HRA Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish ('RIAA Part 2') [\[APP-046\]](#), updated in [AS-051](#), [REP4-014](#) and [REP7-016](#)
 - RIAA HRA Part 3 of 4 – Annex II Marine Mammals ('RIAA Part 3') [\[APP-047\]](#), updated in [REP5-009](#)
 - RIAA HRA Part 4 of 4 – Marine Ornithological Features ('RIAA Part 4') [\[APP-048\]](#), updated in [AS-085](#), [REP4-016](#) and [REP6-008](#)
 - RIAA Appendix A – Habitats Regulations Assessment Screening ('HRA Screening') [\[APP-049\]](#)
 - RIAA Appendix B – Sandeel Habitat Potential in the Dogger Bank SAC and Southern North Sea (SNS) SAC [\[APP-050\]](#)

- C.1.16 The Planning Inspectorate issued section 51 advice of the Planning Act 2008 [[PD-001c](#)] to the applicants following acceptance of the application for examination, as it was noted that some differing information was provided between the RIAA documents [[APP-045](#), [APP-046](#), [APP-047](#) and [APP-048](#)] and the HRA screening [[APP-049](#)]. The applicants provided clarity on this matter at appendix A of [[AS-003](#)] and later updates to the RIAA documents. The applicants also provided additional figures to show the relationship between the order limits and SPA and Ramsar sites [[PDA-007](#)].
- C.1.17 The applicants' HRA Report was revised several times during the examination, with both the application and final versions referenced above. This appendix distinguishes between versions, dependent on the matter being discussed, with relevant examination library references.

APPLICANTS' PRE-APPLICATION CONSULTATION

- C.1.18 The applicants undertook a pre-application evidence plan process (EPP) involving NE, JNCC, MMO, Centre for Environment, Fisheries and Aquaculture Science (CEFAS), the Royal Society for the Protection of Birds (RSPB) and The Wildlife Trusts (TWT). The EPP included Expert Topic Groups for several aspects relevant to the HRA including offshore ornithology, marine mammals and benthic subtidal and intertidal ecology. Details of the aspect topics, the discussions that took place and the associated documentation were provided in ES appendices as follows:
- terrestrial ecology [[APP-142](#)]
 - Annex I habitats [[APP-082](#) and [APP-087](#)]
 - Annex II fish [[APP-093](#)]
 - Annex II marine mammals [[APP-097](#)]
 - offshore ornithology [[APP-104](#)]
- C.1.19 Further details of the pre-application consultation were provided in the Consultation Report [[APP-034](#) to [APP-044](#)].
- C.1.20 Each of the 4 parts of the HRA RIAA [[REP5-007](#)] [[REP7-016](#)] [[REP5-009](#)] [[REP6-008](#)] and the HRA Screening [[APP-049](#)] contained a summary section or table of HRA matters raised during pre-application consultation and the action taken by the applicants to address the comments.

CHANGE REQUESTS

- C.1.21 During the examination, the applicants submitted a change request as described in section 1.5 of this Recommendation. These changes were accepted by the ExA as described in section 1.5 of this Recommendation.

TRANSBOUNDARY

- C.1.22 Non-United Kingdom (UK) European sites in European Economic Area (EEA) states were considered in the applicants' assessment. The applicants identified LSE on harbour porpoise, grey seal and harbour seal of the Klaverbank SAC and harbour porpoise, grey seal and harbour seal of the Doggersbank SAC in the Netherlands (table 4-7 of the HRA Screening [[APP-049](#)] and section 8.3.12 of the RIAA Part 3 [[REP5-009](#)]). The applicants concluded no AEoI from the proposed development alone or in combination for both of these sites (section 8.3.12 of the RIAA Part 3 [[REP5-009](#)]).

- C.1.23 The Planning Inspectorate, on behalf of the relevant SoS, published a transboundary screening [\[OD-009\]](#) following acceptance of the application for examination which identified a requirement to consult with Germany, Norway and the Netherlands, and to renotify Belgium, Denmark and France that it considered there to be an LSE on the environment in their state. Sweden had previously confirmed that it did not require to be consulted.
- C.1.24 Responses were received from Denmark [\[OD-010\]](#), Germany [\[OD-011\]](#) and the Netherlands [\[OD-012\]](#). The applicants provided a response to these at [\[AS-117\]](#), with HRA relevant matters limited to impacts on marine mammals. No further correspondence regarding transboundary matters was received by the relevant EEA states or other IPs during the examination.

C.2 FINDINGS IN RELATION TO LSE

INTRODUCTION

- C.2.1 Under regulation 63 of the Habitats Regulations and regulation 28 of The Offshore Habitats Regulations, the competent authority must consider whether a development will have LSE on a European site, either alone or in combination with other plans or projects. The purpose of the LSE test is to identify the need for an AA and the activities, sites or plans and projects to be included for further consideration in the AA.

APPLICATION INFORMATION

- C.2.2 Section 3.3 of the HRA Screening [\[APP-049\]](#) set out the process undertaken by the applicants to identify the European sites and features to be included in the screening assessment. Sections 4.1 to 4.5 identified European sites and qualifying features for consideration in the assessment based on the following groups:
- Annex I offshore habitats – 3 UK European sites in table 4-2 and figure 4-1 of [\[APP-049\]](#)
 - Annex II migratory fish – 2 UK European sites in table 4-4 and figure 4.2 of [\[APP-049\]](#)
 - Annex II marine mammals – 5 UK European sites in table 4-7 and figures 4-3 and 4-4 of [\[APP-049\]](#)
 - marine ornithological features – 105 UK European sites in table 4-10 and [\[PDA-007\]](#)
 - terrestrial ecology – 5 UK European sites on figure 4-5 of [\[APP-049\]](#)
- C.2.3 It should be noted that some European sites were included in the assessment for more than one receptor group (for example the Humber Estuary SAC, Humber Estuary SPA and Hornsea Mere SPA).
- C.2.4 The HRA Screening Report was issued to stakeholders alongside the Preliminary Environmental Information Report (PEIR) in June 2023. Section 4.5.4 of the RIAA Part 1 [\[APP-045\]](#) summarised the changes made to the screening conclusions in response to feedback received. This did not identify any new sites for inclusion in the assessment.
- C.2.5 No additional UK European sites were identified by IPs for inclusion in the assessment during the examination.

LSE FROM THE PROPOSED DEVELOPMENT ALONE

C.2.6 Section 4 of the HRA Screening [\[APP-049\]](#) detailed the potential impact pathways from the proposed development during construction, operation and decommissioning. The HRA Screening stated that:

“Impacts during decommissioning are expected to be similar in nature to those anticipated during construction, but of smaller magnitude.”

C.2.7 The applicants identified the potential impacts of the proposed development which could result in LSEs in sections 4.1 to 4.5 of the HRA Screening Report [\[APP-049\]](#). These are summarised in Table C1 below.

Table C1: Pathways for LSE assessed by the applicants

C – Construction		O – Operation		D – Decommissioning	
Receptor group		LSE pathways			
Annex I habitats (table 4-1 of [APP-049])		▪ abrasion/ disturbance of the substrate on the surface of the seabed (C, O, D) ▪ changes in suspended solids (water clarity) (C, O, D) ▪ electromagnetic changes (O) ▪ habitat structure changes – removal of substratum (extraction) (C) ▪ hydrocarbon and polyaromatic hydrocarbon (PAH) contamination (C, O, D) ▪ introduction or spread of invasive non-indigenous species (INIS) (C, O, D) ▪ penetration and/ or disturbance of the substratum below the surface of the seabed, including abrasion (C, O*, D) ▪ physical change (to another seabed type) (C, O, D) ▪ physical change (to another sediment type) (C, O, D) ▪ smothering and siltation rate changes (heavy) (C, O, D) ▪ smothering and siltation rate changes (light) (C, O, D) ▪ synthetic compound contamination (including pesticides, antifoulants, pharmaceuticals) (O)			
Annex II migratory fish species (table 4-3 of [APP-049])		▪ barrier to species movement (C, D) ▪ changes in suspended solids (water clarity) (C, D) ▪ electromagnetic changes (O) ▪ physical change (to another seabed type) (C, O, D) ▪ physical change (to another sediment type) (C, O, D) ▪ smothering and siltation rate changes (heavy) (C, O, D) ▪ smothering and siltation rate changes (light) (C, O, D) ▪ underwater noise (C)			
Annex II marine mammals (table 4-6 of [APP-049])		▪ physical or auditory injury resulting from underwater noise (C, O, D) ▪ behavioural impacts resulting from underwater noise (C, O, D) ▪ disturbance from vessels due to presence and underwater noise (C, O, D)			

	▪ barrier effects from underwater noise (C, O, D) ▪ vessel interaction (increase in risk of collision) (C, O, D) ▪ disturbance at seal haul-out sites (C, O, D) ▪ disturbance to seals foraging at sea (C, O, D) ▪ barrier effects due to the physical presence of offshore infrastructure (O) ▪ changes to prey availability (C, O, D)
Marine ornithological features (table 4-9 of [APP-049])	▪ disturbance/ displacement (C, O, D) ▪ indirect impacts through effects on habitats and prey species (C, O, D) ▪ collision risk (O) ▪ barrier effects (O)
Terrestrial ecology (table 4-12 of [APP-049])	▪ permanent and temporary loss of habitats (C, O, D) ▪ temporary habitat fragmentation and species isolation (C, O, D) ▪ impacts on protected species or on their resting or breeding sites (C, O, D) ▪ disturbance of bird populations (C, O, D) ▪ spread of non-native invasive species (C, O, D)

* The impact pathway of 'penetration and/ or disturbance of the substratum below the surface of the seabed, including abrasion penetration' for Annex I habitats was identified for construction and decommissioning only in the HRA screening [APP-049], but was also assessed for operation [APP-046, section 6.4.2.1.1].

C.2.8 The European sites and qualifying features for which an LSE impact pathway was identified by the applicants at the point of application were summarised in tables 1 and 4-7 of the RIAA Part 1 [APP-045]. This reflected changes to the conclusions of the HRA Screening Report which were made following feedback on the PEIR.

TERRESTRIAL ECOLOGY AND ONSHORE ORNITHOLOGY

C.2.9 The Humber Estuary SPA and Ramsar sites were the only terrestrial sites for which an LSE was identified by the applicants. This was agreed by NE, however, NE raised concerns regarding air quality impacts on the sites due to vessel movements and back-up generators (for which other LSEs had been identified) [RR-039, I5]. Table 2.4 of the RIES [PD-025] explained how NE agreed during the examination that these matters could be scoped out.

C.2.10 In relation to air quality impacts from construction traffic, ERYC [REP7-144] also confirmed agreement that LSE could be ruled out due to nitrogen oxides (NO_x). However, it noted that for NH₃, NE's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA001), modelled impacts at 1.2% of the critical level. As modelled impacts for NH₃ exceed 1%, the ExA considers this LSE impact pathway should be screened in, in accordance with NEA001 guidelines.

ANNEX I OFFSHORE HABITATS

C.2.11 NE agreed that all relevant sites had been screened in for Annex I offshore habitats [RR-039, C28]. It initially identified the vegetated sea cliffs of the Atlantic and Baltic Coasts feature of the Flamborough Head SAC as a feature for which outstanding

concerns remained [RR-039, table 5.1]. However, further to the applicants confirming that there would be no interaction of concern between this qualifying feature and the offshore export cable corridor [RIAA Part 2 REP7-016], NE agreed an LSE could be excluded [REP5-055] [REP5-062] [REP7-152, Q2].

ANNEX II MIGRATORY FISH

C.2.12 No sites designated for Annex II fish were screened out by the applicants in their entirety. NE [RR-039, E34] [REP3-059] [REP4-129] [REP7-152] advised that in addition to the other impact pathways assessed, indirect impacts on sea lamprey and river lamprey of the Humber Estuary SAC and Ramsar site from effects on prey availability during the construction phase should be considered. The applicants [AS-048, table 2.6.1] [REP2-058, table 2-7] advised that, given the wide range of prey types, determining any source-pathway-receptor relationship specific to the proposed development was not possible. NE [REP3-059] [REP4-129] [REP7-152, Q3] acknowledged that the uncertainties and data poor environment would prevent a reliable assessment being made, but maintained the pathway should be screened in.

C.2.13 Annex II migratory fish features of the Humber Estuary Ramsar site were not considered in the applicants' screening assessment. In response to the RIES, the applicants confirmed [REP7-129, Q4] that the Humber Estuary Ramsar site covers the same geographic area as the Humber Estuary SAC. They updated section 7.5 of the RIAA Part 2 (revision 5) [REP7-016] to confirm an LSE from underwater noise and vibration impacts (due to unexploded ordnance (UXO) clearance during construction) on sea lamprey and river lamprey of the Humber Estuary Ramsar site.

MARINE MAMMALS

C.2.14 No sites designated for Annex II marine mammals were screened out in their entirety. No specific concerns were raised in relation to screening of marine mammals.

MARINE ORNITHOLOGY

C.2.15 The applicants concluded no LSE for all qualifying features of the SPAs and Ramsar sites detailed in table 4-10 of the HRA Screening Report [APP-049]. In response to the RIES, NE confirmed it agreed with this conclusion [REP7-152, Q1].

C.2.16 The RIAA Part 1 [APP-045] confirmed that in addition, the following 2 sites were screened out:

- Outer Firth of Forth and St Andrews Bay complex proposed SPA (pSPA)
- Northumberland Marine SPA

C.2.17 No specific concerns were raised during the examination in relation to screening of marine ornithology features.

LSE FROM THE PROPOSED DEVELOPMENT IN COMBINATION

C.2.18 Section 3.3.1 of the HRA Screening [APP-049] introduced the applicants' approach to assessing in-combination effects. It identified the types of projects that could be considered and stated that the approach followed NE's 'Phase III Best Practice for Data Analysis and Presentation at Examination guidance note'.

- C.2.19 For some European sites with terrestrial or marine ornithological features, the applicants concluded no LSE ‘alone’ and did not go on to consider potential in-combination effects for those sites. In ExQ1 [HRA 1.2, [PD-014](#)], the ExA asked that for all sites for which an LSE has been excluded from the proposed development alone, the applicants provide a robust rationale for the conclusion of no LSE from the project in combination with other plans or projects. The applicants’ response [[REP3-027](#), HRA1.2] signposted to its assessments of AEoI but did not provide the requested information in relation to its screening conclusions.
- C.2.20 This was pursued by the ExA in ExQ2 [HRA.2.4, [PD-022](#)]. The applicants responded [[REP5-036](#), [PD-022](#)] that the rationale for screening out sites on the likelihood of the risk of LSE was based initially on proposed development alone effects, but also on the potential for a contribution to in-combination effects. The applicants stated that although in-combination effects were not explicitly detailed in the rationale presented in [[APP-049](#)], the basis for screening out proposed development alone effects was considered to also rule out the risk of contributing to an LSE in combination.

LSE ASSESSMENT OUTCOMES – EXA’S CONSIDERATIONS

- C.2.21 The ExA is satisfied that the correct European sites and qualifying features have been identified for the purposes of the assessment, and that all potential impacts which could give rise to significant effects have been identified.
- C.2.22 The ExA is content that an LSE on all qualifying features of the SPAs and Ramsar sites listed in paragraph 2.4.4 of the RIES [[PD-025](#)] can be excluded, alone or in combination. The ExA notes that this view is shared by NE [[REP7-152](#), Q1]. Therefore, these sites are not considered further in this appendix.
- C.2.23 Having had regard to the view of NE, which was maintained throughout the examination, the ExA is unable to rule out an LSE on river lamprey and sea lamprey of the Humber Estuary SAC and Ramsar site as a result of indirect impacts through effects on preferred prey availability during construction. As such, the ExA considers that an LSE should be concluded. The ExA considers the information provided by the applicants is sufficient to inform consideration of AEoI.
- C.2.24 The ExA considers that where the applicants concluded no LSE from the proposed development alone, the subsequent in-combination assessment lacked detail or transparency. However, no evidence has been put forward by IPs to suggest that any in-combination LSEs are missing from the applicants’ assessment.
- C.2.25 The ExA is otherwise satisfied with the applicants’ approach to the assessment of alone and in-combination LSE as presented in the final versions of the RIAA and that the correct sites, features and impacts have been screened in.
- C.2.26 The ExA concludes there would be an LSE from the proposed development alone or in combination for the following UK European sites (see Tables C3 to C7 of this appendix for the relevant qualifying features and impact pathways):
- Dogger Bank SAC
 - Flamborough Head SAC
 - River Derwent SAC
 - Southern North Sea (SNS) SAC

- Berwickshire and North Northumberland Coast (BNNC) SAC
- The Wash and North Norfolk Coast (WNNC) SAC
- Moray Firth SAC
- Humber Estuary SAC
- Humber Estuary SPA
- Humber Estuary Ramsar site
- Flamborough and Filey Coast (FFC) SPA
- Greater Wash SPA
- Coquet Island SPA
- Farne Islands SPA
- St Abbs Head to Fast Castle SPA
- Forth Islands SPA
- Buchan Ness to Collieston Coast SPA
- Calf of Eday SPA
- Copinsay SPA
- East Caithness Cliffs SPA
- Fair Isle SPA
- Foula SPA
- Fowlsheugh SPA
- Hermaness, Saxa Vord and Valla Field SPA
- Hoy SPA
- Marwick Head SPA
- North Caithness Cliffs SPA
- Noss SPA
- Rousay SPA
- Sumburgh Head SPA
- Troup, Pennan and Lion's Heads SPA
- West Westray SPA

C.3 CONSERVATION OBJECTIVES

C.3.1 The conservation objectives for the sites and features for which an LSE was identified by the applicants at the point of the DCO application, were set out in the HRA Report (RIAA Parts 1 [[REP5-007](#)], 2 [[REP7-016](#)], 3 [[REP5-009](#)] and 4 [[REP6-008](#)]).

C.3.2 The applicants noted [[REP3-027](#), appendix E] that the following UK sites were in unfavourable condition or have a restore conservation objective target:

- Humber Estuary SPA – dunlin, ruff, bar-tailed godwit, common redshank
- Dogger Bank SAC – sandbanks which are slightly covered by sea water all the time
- River Derwent SAC – sea lamprey and river lamprey
- WNNC SAC – harbour seal
- BNNC SAC – grey seal
- FFC SPA; Sumburgh Head SPA; Forth Islands SPA; Fowlsheugh SPA; St Abbs Head to Fast Castle SPA; and Buchan Ness to Collieston Coast SPA – kittiwake
- Hermaness, Saxa Vord and Valla Field SPA; Noss SPA; Farne Islands SPA; and Hoy SPA – kittiwake, guillemot and puffin
- Troup, Pennan and Lion's Heads SPA – guillemot and razorbill
- North Caithness Cliffs SPA – kittiwake and puffin
- Calf of Eden SPA; Marwick Head SPA; Copinsay SPA; and Rousay SPA – kittiwake and guillemot

- West Westray SPA – kittiwake, guillemot and razorbill
- Fair Isle SPA; and Foula SPA – kittiwake, guillemot, razorbill and puffin

C.3.3 The applicants noted [\[REP3-027\]](#), appendix E] that condition assessments were not available for the following site features:

- Humber Estuary SPA – red knot and little tern
- Flamborough Head SAC – reefs and submerged or partially submerged sea caves
- Humber Estuary SAC – mudflats and sandflats not covered by sea water at low tide, sea lamprey and river lamprey
- Greater Wash SPA – red-throated diver and common scoter
- Coquet Island SPA – puffin

C.4 FINDINGS IN RELATION TO AEol – Introduction

C.4.1 The European sites, qualifying features and LSE pathways identified in tables 1 and 4-7 of the RIAA Part 1 [\[APP-045\]](#) superseded by [\[REP5-007\]](#) were further assessed by the applicants to determine if they could be subject to AEol from the proposed development, either alone or in combination, in view of their conservation objectives. These were assessed on a receptor group basis in the following:

- RIAA Part 1 – Terrestrial Ecology [\[APP-045\]](#) superseded by [\[REP5-007\]](#)
- RIAA Part 2 – Annex I Offshore Habitats and Annex II Migratory Fish [\[APP-046\]](#) superseded by [\[REP7-016\]](#)
- RIAA Part 3 – Annex II Marine Mammals [\[APP-047\]](#) superseded by [\[REP5-009\]](#)
- RIAA Part 4 – Marine Ornithology [\[APP-048\]](#) superseded by [\[REP4-016\]](#) and [\[REP6-008\]](#).

BASELINE

C.4.2 The baseline information used to inform the applicants' assessment of effects for each receptor group was detailed in the relevant parts of the RIAA.

C.4.3 Although NE raised initial concerns over baseline characterisation for marine ornithology features [\[RR-039\]](#), G13], these were resolved through the applicants' response in [\[PDB-006\]](#) and updated RIAA Part 4 (revision 3) [\[AS-085\]](#).

C.4.4 The RSPB [\[RR-049\]](#) [\[REP1-087\]](#) raised concerns throughout the examination with the marine ornithological digital surveys, advising that any biases needed to be carefully described. It noted [\[REP4-113\]](#) there was no independent external quality assurance and raised the need for increased clarity on quality assurance and data validation. It noted a review of aerial survey methods by NatureScot was published in January 2023, which was not accounted for in NE's guidance. Its remaining concerns were set out in the statement of common ground (SoCG) between the RSPB and the applicants [\[REP4-071\]](#), table 3.3].

C.4.5 The applicants [\[PDA-013\]](#) responded to confirm that methodological details were provided in [\[APP-105\]](#). They stated [\[REP2-057\]](#), table 2-14] [\[REP5-036\]](#), OR.2.3] [\[REP5-038\]](#), that surveys followed NE's best practice methodology using the same methods for numerous offshore wind farm (OWF) ornithology assessments. They considered the baseline data obtained to be robust and reliable. A further response was provided in [\[REP3-029\]](#), confirming that digital aerial surveys had been used for all UK OWFs for more than 10 years and followed statutory guidance. The

applicants provided further information on the quality assurance process in [\[REP5-038\]](#). Whilst NE [\[REP5-062\]](#), OR.2.3] confirmed it was happy with the digital aerial surveys undertaken by the applicants, this remained a matter of contention with the RSPB at the close of examination [\[REP9-016\]](#), with the RSPB seeking more detail of the methods in order to provide reassurance as to the reliability of the baseline density values.

C.4.6 The effect of Highly Pathogenic Avian Influenza (HPAI) on seabird populations was also subject to discussion during the examination. NE noted that the ornithological baseline data were collected both before and during HPAI outbreaks (which began to affect seabirds in the region from summer 2022) and advised the applicants to consider the interannual variation in their survey data along with other relevant datasets for the area. This was provided by the applicants in [\[REP6-016\]](#). In response, NE [\[REP8-053\]](#) agreed that the variation in the baseline data fell within the patterns seen in comparable datasets.

C.4.7 NE also raised concerns regarding a lack of evidence relating to the baseline of Flamborough Head SAC: these are discussed further in section C.7 of this appendix.

C.4.8 No concerns were raised regarding the baseline for terrestrial ecology, Annex II migratory fish or Annex II marine mammals.

EXA'S CONSIDERATION

C.4.9 The ExA considers that the baseline provided by the applicant in the RIAA for all qualifying features can be relied upon to inform the assessment.

MITIGATION

C.4.10 The mitigation measures taken into account in the applicants' assessment of effects on integrity were detailed in the HRA Report as summarised in Table C2 below.

Table C2: Mitigation measures taken into account in the applicants' assessment of effects on integrity

Receptor group	Mitigation measure	How secured in the dDCO [REP9-003]
Terrestrial Ecology (table 5-2 of RIAA Part 1 [REP5-007])	Ecological Management Plan (EMP) in line with the Outline Ecological Management Plan (oEMP) [REP7-107] .	requirement 12
Offshore Annex I Habitats (table 6-2 of RIAA Part 2 [REP7-016])	Route selection for offshore export cable corridor.	n/ a
	Cable Statement including Cable Burial Risk Assessments and Cable Protection Plans	condition 15 (draft Deemed Marine Licences (dDML) 1 and 2) condition 13 (dDMLs 3 and 4)

	to be developed in accordance with the outline Cable Statement [REP6-043] .	condition 11 (dDMLs 5 and 6)
	Project Environmental Management Plan (PEMP) to be developed in accordance with the Outline Project Environmental Management Plan (oPEMP) [REP2-041] (to include a Marine Pollution Contingency Plan (MPCP) and biosecurity measures).	condition 15 (dDMLs 1 and 2) condition 13 (dDMLs 3 and 4) condition 11 (dDMLs 5 and 6)
	Scour Protection Plan to be developed in accordance with the Outline Scour Protection Plan (oSPP) [REP6-045] .	condition 15 (dDMLs 1 and 2) condition 13 (dDMLs 3 and 4) condition 11 (dDMLs 5 and 6)
	Offshore Operations and Maintenance Plan (OOMP) to be developed in accordance with the Outline Offshore Operation and Maintenance Plan (oOOMP) [REP2-045] .	condition 7 (dDMLs 1 and 2) condition 5 (dDMLs 3 and 4), condition 3 (dDMLs 5 and 6)
	Conditions in the dDMLs [REP9-003] in relation to cable protection and sediment disposal.	condition 15 (dDMLs 1 and 2) conditions 13 (dDMLs 3 and 4) condition 11 (dDMLs 5 and 6)
Annex II migratory fish (table 7-2 of RIAA Part 2 [REP7-016])	Low-order methods would be utilised for the detonation of UXO where viable. This is stated to be the default method in the Outline Marine Mammal Mitigation Protocol (oMMMP). The Marine Mammal Mitigation Plan (MMMP) to be developed in accordance with the oMMMP [REP7-117] .	condition 15 (dDMLs 1 and 2) condition 13 (dDMLs 3 and 4)

Marine mammals (tables 8-2 and 8-3 of RIAA Part 3 [REP5-009])	Site Integrity Plan (SIP) for the SNS SAC to mitigation disturbance of harbour porpoise. To be developed in accordance with the In Principle SIP [REP7-119].	condition 16 (dDMLs 1 and 2) condition 14 (dDMLs 3 and 4)
	PEMP to include vessel movements controls and a MPCP.	condition 15 (dDMLs 1 and 2) condition 13 (dDMLs 3 and 4) condition 11 (dDMLs 5 and 6)
	MMMP to include soft-start and ramp-up for piling activities and additional mitigation measures to minimise physical injury or Permanent Threshold Shift (PTS) to marine mammals. To be developed in accordance with the oMMMP [REP7-117].	condition 15 (dDMLs 1 and 2) condition 13 (dDMLs 3 and 4)
Marine ornithology (section 9.4.1 of RIAA Part 4 [REP6-008])	Site selection and wind turbine design.	wind turbine design parameters: requirement 2 and condition 1 (DMLs 1 and 2) in the dDCO [REP9-003]
	PEMP (to include restrictions on vessel traffic).	condition 15 (dDMLs 1 and 2) condition 13 (dDMLs 3 and 4) condition 11 (dDMLs 5 and 6)

C.4.11 In relation to Annex II migratory fish, the only mitigation measure listed in RIAA Part 2 [REP7-016, table 7-2] is that low-yield methods would be utilised for the detonation of UXO where viable. The applicants confirmed during the examination [REP5-036, FSE.2.16] that the conclusions of no AEoI presented in the RIAA Part 2 [REP7-016] for Annex II migratory fish were not reliant on use of low-yield methods for the detonation of UXO.

C.4.12 The applicants provided a Commitments Register [APP-248], updated as a final version in revision 4 [REP9-009], which is to be a certified document. The Commitments Register summarises all proposed mitigation and confirms how these would be secured.

ASSESSMENT METHODOLOGY

C.4.13 Site or feature specific methodological concerns are detailed as relevant in sections 1.6 to 1.10 below. However, the ExA considers it prudent to note here that NE's RR [RR-039] identified numerous concerns with the applicants' overarching marine

ornithology assessment methodology, including in relation to the interpretation of Population Viability Analysis (PVA) results. The RSPB raised similar methodological concerns [\[RR-049\]](#).

- C.4.14 In response, the applicants provided several updates to the RIAA Part 4 during pre-examination and examination, with the final version being revision 5 [\[REP6-008\]](#).
- C.4.15 NE confirmed at DL5 [\[REP5-053\]](#) that impact values were available according to both the applicants' and the statutory nature conservation body's (SNCB) preferred parameters. NE's end of examination position on offshore ornithology paper [\[REP8-053\]](#) confirmed that, with respect to the assessment methodology, its concerns had been satisfactorily resolved. However, it stated that NE would base its conclusion on its preferred parameters and assessments of current and potential future population trends.
- C.4.16 NE [\[RR-039\]](#), G22] also highlighted concerns that auk displacement could take place between the 2 array areas but outside the buffers. The applicants produced 'Potential Auk Displacement Between Dogger Bank South (DBS) array areas' [\[REP6-053\]](#) which noted a lack of guidance on this aspect and concluded that birds in the inter-array zone would not be subject to displacement effects. NE [\[REP9-031\]](#), G12] subsequently agreed the HRA assessment did not need to be further updated.

USE OF PRECAUTION IN ASSESSMENTS

- C.4.17 There was extensive debate between the applicants, NE and the RSPB during the examination regarding the extent of precaution required by NE's advice. NE [\[RR-039\]](#), G7] [\[AS-159\]](#) [\[REP3-057\]](#), annex A] explained that the assessment process relied on limited empirical evidence which introduced complications and layers of precaution, to ensure false layers of confidence were not assigned to predicted impacts. The RSPB [\[REP1-087\]](#) also expressed concerns about the applicants' assertion that recommended methods and parameters were 'overly precautionary'.
- C.4.18 The applicants [\[PDB-006\]](#) [\[REP3-028\]](#), table 2-13] [\[REP4-087\]](#), appendix B] [\[REP8-042\]](#) considered that there were several points in NE's methodology which adopted the worst case or upper levels of statistical distributions as the starting point for the following stage of the assessment. They considered a balanced approach would be to combine central values (that is mean, median) or their probability distributions, such that the ranges are preserved, and then assess the full range of outcomes in the PVA.
- C.4.19 The applicants submitted 'Precaution in the Ornithology Assessment and Implications for Compensation Quantum' [\[REP3-030\]](#) which provided a breakdown of parameters and detailed how changes in them can affect the assessment. The applicants considered the following of NE's advised approach to be overly precautionary:
- The assumption that 100% of the birds recorded are adults, due to challenges of ageing birds at sea (as opposed to the applicants' use of stable age structures) [\[RR-039\]](#), G36] [\[REP3-057\]](#), annex A] [\[REP4-124\]](#) [\[REP8-053\]](#). The applicants confirmed they had applied NE's apportioning approach, but noted that the proposed development is over 100 kilometres (km) from the FFC SPA and therefore considered that a large proportion of the birds would not be breeding

birds from the FFC SPA. They maintained that stable age structures are appropriate for use for adult apportioning [REP4-087, table 2-10].

- NE's advised ranges for auk displacement (30% to 70%) and mortality rates (1% to 10%) [RR-039, G25] (the applicants considered 50% and 1% as suitably precautionary). A summary of the positions of the applicants, NE and the RSPB up to DL5 was provided in section 3.4 of the RIES [PD-025]. At DL8, the RSPB [AS-183] continued to identify issues with the evidence provided by the applicants.
- NE's advice to apply the mean maximum plus 1 standard deviation (SD) foraging range for auks in the absence of site-specific data [REP3-057] [REP4-124] [REP5-060]. The applicants [REP4-087, appendix B] [REP5-037, table 2-23] argued that this is not representative of typical foraging ranges and that the mean-maximum is clearly a precautionary value and the mean-max plus 1SD is highly precautionary. As a result, they strongly contested NE's assumption that the proposed development is within the foraging range of breeding birds at the FFC SPA [REP6-052, table 2-25].

C.4.20 In contrast, NE [REP3-057, annex A] highlighted the following potential sources of under-precaution (although did not dispute them for use in the assessment):

- The use of mean density and abundance values from baseline surveys.
- Assuming an even distribution of all guillemot and razorbill from North Sea colonies during the 'non-breeding' season for guillemot and the 'winter' and 'pre-breeding migration' seasons for razorbill.
- The mortality-led approach to displacement assessments which does not consider the potential effects of displacement on the reproductive success of displaced individuals. This was also noted by the RSPB [REP4-113].

C.4.21 With regards to the interpretation of PVA results, NE advised that its integrity judgements would take into account both the counterfactual of population growth rate (CPGR) and counterfactual of population size (CPS) [RR-039, G57]. The applicants [PDB-006] confirmed they had presented a full range of PVA outputs but considered the CPGR to be the more robust metric to use.

ExA's considerations

C.4.22 The ExA acknowledges the applicants' position that many steps requiring the use of the upper estimates could combine to result in the overall assessment of impact magnitude being highly precautionary and increasingly improbable. The ExA also accepts that precaution is required to deal with uncertainty. The ExA acknowledges the need for the SoS to be fully assured, such that no reasonable scientific doubt remains (CJEU Case C-127/02 Waddenzee 7 September 2004).

C.4.23 The ExA is satisfied that it has taken account of positions from both the applicants and IPs on the matter of precaution in reaching its conclusions in this appendix.

DECOMMISSIONING

C.4.24 In respect of marine ornithological impacts from decommissioning, detailed assessments were not provided by the applicants and table 9-10 of the RIAA Part 4 [APP-048] stated that:

"It is anticipated that for the worst-case scenario, the impacts [of decommissioning] will be no greater than those identified for the construction phase".

C.4.25 NE [\[RR-039, G18\]](#) advised that displacement impacts at decommissioning be included for all species in the displacement assessment and calculated as per construction displacement impacts. However, the applicants [\[PDB-006\]](#) explained that the decommissioning assessment was assumed to be equivalent to construction effects. Whilst NE considered the exclusion of quantified decommissioning impacts from the marine ornithological assessment represented a source of under precaution [\[REP3-057\]](#), it noted the matter as unlikely to make a material difference to its advice [\[REP3-060\]](#). The applicants [\[REP4-087, table 2-10\]](#) considered that to be an extreme position since it relates to a short period of lower impacts at the end of a 30-year projection period.

C.4.26 In respect of wider impacts from marine decommissioning, NE raised concerns in its RR [\[RR-039, NE7\]](#) that there was no proposed commitment from the applicants to the removal of cable or scour protection at the decommissioning stage within the Dogger Bank SAC; these matters are detailed in section C.7 of this appendix.

ExA's considerations

C.4.27 The ExA considers that the applicants' assessment methodology for marine ornithological displacement impacts from decommissioning is adequate. The ExA considers the assumption that the worst-case impacts would be no greater than for construction to be appropriate.

IN-COMBINATION ASSESSMENT

C.4.28 The projects assessed in the applicants' Stage 2 in-combination assessment at the point of DCO application were identified in the following sections of the RIAA:

- Annex I habitats [\[APP-046, superseded by REP7-016\]](#):
 - table 6-5 for the Dogger Bank SAC
 - section 6.5.2.2 for the Flamborough Head SAC
 - section 6.6.2.2 for the Humber Estuary SAC
- Annex II migratory fish [\[APP-046, superseded by REP7-016\]](#):
 - section 7.4.2.2 for the River Derwent SAC
 - section 7.5.2.2 for the Humber Estuary SAC
- Annex II marine mammals [\[APP-047, superseded by REP5-009\]](#):
 - section 8.3.5.5 for the SNS SAC
 - section 8.3.6.6 for the Humber Estuary SAC
 - section 8.3.7.6 for the WNNC SAC
 - section 8.3.8.6 for the BNNC SAC
 - section 8.3.9.5 for the Moray Firth SAC

C.4.29 Examination matters regarding these in-combination assessments are detailed where relevant in sections 1.6 to 1.10 below.

C.4.30 With regards to marine ornithological features, the OWFs assessed in the in-combination assessment (at the point of application) with the FFC SPA were detailed in tables 9-15, 9-16, 9-2, 9-24 and 9-30 of [\[APP-048\]](#). The applicants did not provide in-combination assessments for the other European sites for which they had identified LSEs. This was on the basis that there was no measurable increase in mortality from the proposed development alone, therefore it would not contribute

to in-combination effects. NE [RR-039, G4 and G50] considered that as a minimum, in-combination assessments should be carried out for all species that meet the 1% baseline mortality threshold (calculated according to SNCB guidance). The applicants subsequently provided in-combination assessments for guillemot and puffin of the Farne Islands SPA and red-throated diver of the Greater Wash SPA in the RIAA Part 4 [REP6-008]. They apportioned 1.4 puffin mortalities from the proposed development to the FFC SPA and considered an in-combination assessment was not required. NE [REP7-152, Q38] confirmed the matter to be satisfactorily resolved.

- C.4.31 Throughout the examination, the RSPB [RR-049] [REP1-087] [AS-183] [REP9-016] maintained its disagreement with the applicants' 'de minimis' approach that small scale negative impacts (less than 1% increase in baseline adult mortality rate) should be regarded as not measurable and therefore ignored in an in-combination assessment. It requested PVA be carried out if this total impact is greater than the threshold (1% background mortality for English sites and 0.02% adult annual survival rate for Scottish sites). The applicants [REP2-057, table 2-14] considered that if background mortality was reduced by less than 1%, the predicted in-combination population status impact estimated with and without the projects would be indistinguishable from each other. The applicants [REP6-051, table 2-14] considered they had provided an appropriate consideration of risks of the proposed development alone effects for these sites and did not consider there a need to assign impacts on individual SPA colonies. They did not consider it appropriate to apply different thresholds for undertaking PVA.
- C.4.32 NE [RR-039, G5 and G51] noted the omission of the Outer Dowsing OWF (ODOWF), Five Estuaries OWF, North Falls OWF and Forthwind OWF from the in-combination assessment. These were subsequently incorporated into the RIAA Part 4 (revision 5) [REP6-008], along with consideration of Hornsea Project 4 OWF at 70% displacement and 5% mortality. Consideration of in-combination effects from Dogger Bank D OWF was presented in 'The Applicants' Consideration of the Dogger Bank D PEIR' [REP7-133] following the publication of Dogger Bank D's PEIR.
- C.4.33 NE [REP5-058] [REP7-152, Q35] [REP7-053] [REP8-053] highlighted some discrepancies in the in-combination values between projects which the applicants [REP6-052, table 2-21] [REP7-129, Q43] considered were due to the mis-application of the latest guidance in other OWF submissions and would make no material differences. NE acknowledged that totals are ultimately estimates of impacts that are not well understood. It could not confirm which are the 'right' in-combination totals but was satisfied that any remaining discrepancies were unlikely to have a material impact on assessment conclusions. It acknowledged these discrepancies were not likely to affect the assessment conclusions or compensation quantum but considered it important to be as accurate as possible as it may be used as a reference for future projects.
- C.4.34 NE [REP8-053] also confirmed that, in line with NE advice, the applicants had presented in-combination totals both inclusive and exclusive of 'compensated-for' impact, to take account of uncertainty regarding the effectiveness of compensatory measures. NE stated that it had considered both totals and that it had not resulted in changes to its conclusions on adverse effects.

- C.4.35 An in-combination assessment was not provided in respect of terrestrial ecology in the RIAA Part 1 (section 5 of [APP-045](#), superseded by [REP5-007](#)). The applicants confirmed [REP3-027](#), HRA.1.2] that following consultation with NE, it was agreed that there would be no impact on functionally linked land with the Humber Estuary SPA, and therefore there would be no potential for in-combination effects to occur (section 5.4.2 of RIAA Part 1 refers). The applicants confirmed [REP3-027](#), HRA.1.6] that the conclusions presented in section 5.4 of RIAA Part 1 equally apply to the Humber Estuary Ramsar site.

EXA'S CONSIDERATIONS

- C.4.36 Based on the findings of the examination, the ExA is satisfied that an assessment of AEoI from the proposed development in combination with other plans or projects can be based on this information provided. The applicants incorporated data from Dogger Bank D's PEIR at DL7. NE was unable to review the Dogger Bank D OWF PEIR before the close of the examination and therefore could not comment on the applicants' position regarding in-combination assessment in [REP7-133](#). The ExA agrees with NE [REP9-031](#), B33] that the SoS should consider Dogger Bank D OWF in its HRA for the proposed development and advises that the SoS seeks the views of NE on the applicants' consideration of effects presented in [REP7-133](#).

C.5 FINDINGS IN RELATION TO AEoI – Non-disputed sites

- C.5.1 At the close of the examination, the applicants' conclusions of no AEoI alone or in combination had not been disputed by any IPs in relation to:
- the River Derwent SAC (river lamprey and sea lamprey qualifying features), as assessed in section 7.4 of RIAA Part 2 [REP7-016](#)
 - the Moray Firth SAC (bottlenose dolphin qualifying feature), as assessed in sections 8.3.7 and 8.3.9 of RIAA Part 3 [REP5-009](#)
- C.5.2 The ExA is satisfied that the correct impacts have been assessed for these sites and features (see tables in section C.11 of this appendix), and that the scope of the applicants' in-combination assessment for Annex II diadromous fish and marine mammals is correct and no additional plans or projects need to be considered.
- C.5.3 The conclusion of no AEoI alone or in combination for the River Derwent SAC has been agreed with NE [REP3-057](#), HRA.1.7]. As noted previously, NatureScot did not engage with the examination. Therefore, the ExA does not have its view on impacts on the Moray Firth SAC.
- C.5.4 The ExA notes the applicants' commitment to mitigation measures as outlined in Table C2 above. The oPEMP and oMMMP would be certified documents under Schedule 19 of the recommended draft DCO (appendix F of this Recommendation). Providing that the proposed mitigation measures are adhered to, the ExA is satisfied that on the basis of the information provided, an AEoI of the River Derwent SAC and Moray Firth SAC and their qualifying features can be excluded, alone and in combination.
- C.5.5 Although not all sites with marine ornithological features were explicitly identified and individually discussed in the examination, the ExA understands the overarching methodological concerns related to the assessment of all marine ornithological

sites: hence, marine ornithological sites have not been included in the above section.

- C.5.6 Sections C.6 to C.10 of this appendix detail the examination matters for disputed sites of each receptor group.

C.6 FINDINGS IN RELATION TO AEol – Terrestrial ecology and ornithology

HUMBER ESTUARY SPA AND RAMSAR SITE

- C.6.1 Humber Estuary SPA and Ramsar site is located approximately 7km south of the proposed offshore export cable corridor [APP-049]. The applicants' description of the Humber Estuary SPA and assessment of effects on integrity from impacts on functionally linked land was presented at the application stage in section 5 of RIAA Part 1 [APP-045, superseded by REP5-007]. It concluded that the proposed development would not adversely affect the integrity of the site, either alone or in combination with other projects or plans.
- C.6.2 During the examination, the applicants [REP3-027, HRA 1.6] explained that the Humber Estuary Ramsar site covers the same geographic area as the Humber Estuary SPA and does not include any additional qualifying species not included in the SPA designation. As such, they considered the conclusions presented in the RIAA Part 1 equally apply to the Humber Estuary Ramsar site.
- C.6.3 Whilst no concerns were raised regarding direct impacts of the proposed development, the potential for indirect effects on supporting habitats was a key concern of NE and was maintained throughout the examination. As noted above, NE [REP3-059] [REP5-053] [REP8-051] advised that the qualifying features of the Humber Estuary SPA and Ramsar site could be affected if the impacts on the benthic habitats of the Humber Estuary SAC (and Spurn Point) which support internationally important birds were not ruled out.

EXA'S CONSIDERATIONS

- C.6.4 The ExA is content that subject to adherence to the EMP, an AEol from direct impacts on functionally linked land used by the qualifying features of the Humber Estuary SPA and Ramsar site can be excluded.
- C.6.5 As detailed above, the ExA has concluded no AEol on the Humber Estuary SAC. As such, the ExA also considers an AEol on the Humber Estuary SPA and Ramsar site from indirect effects can be excluded.

C.7 FINDINGS IN RELATION TO AEol – Annex I habitats

FLAMBOROUGH HEAD SAC

- C.7.1 Flamborough Head SAC is located 3km south-east of the offshore export cable corridor [APP-049]. The applicants' description of the Flamborough Head SAC and assessment of effects on integrity was presented at the application stage in section 6.5 of RIAA Part 2 [APP-046]. It concluded that the proposed development would not adversely affect the integrity of the site, either alone or in combination with other projects or plans.

- C.7.2 NE [\[RR-039, C38\]](#) initially queried the applicants' assessment of effects on reefs or submerged or partially submerged sea caves from the LSE pathway of smothering and siltation rate changes. It considered there was a lack of sufficient evidence relating to the baseline (sensitivity of biotopes) to allow for a robust assessment. The applicants responded [\[AS-048, table 2.4.1\]](#) to state that Flamborough Head SAC is located approximately 3km from the offshore export cable corridor and that there was no pathway for direct impact. As such, no baseline survey was considered necessary by the applicants and existing information from NE was used as the baseline. The applicants considered [\[AS-048, table 2.4.1\]](#) that the value of the habitats and receptor sensitivity had been taken into account in the RIAA [\[APP-046\]](#).
- C.7.3 The applicants provided further methodological detail in [\[REP3-028, table 2-9\]](#) [\[REP4-088, table 2-19\]](#) and a 'Benthic Ecology Technical Note' [\[REP3-025\]](#). The applicants also confirmed the anticipated worst-case scenario of cable repairs and burials [\[REP4-088, appendix A\]](#), following a request from NE [\[REP3-058\]](#). This information was captured in revision 4 of the RIAA Part 2 [\[REP4-014\]](#). The applicants explained [\[REP3-027, appendix E\]](#) that information on the unit condition of the Flamborough Head site of special scientific interest (SSSI) (which encompasses the same geographical footprint as the SAC) indicated the habitat was in good overall condition.
- C.7.4 Following these updates and information provided in [\[REP3-025\]](#), NE confirmed it was in agreement with the applicants' conclusions of no AEoI of all Annex I habitat features of the Flamborough Head SAC [\[REP5-053\]](#) [\[REP5-062, BE.2.6\]](#).
- C.7.5 At DL7, the applicants reviewed the Dogger Bank D OWF PEIR and RIAA and explained that the documentation did not include an assessment of impacts on Flamborough Head SAC due to the distance involved [\[REP7-133\]](#). The applicants stated there was therefore no way to update the in-combination assessments for the proposed development at this time [\[REP7-133\]](#).

EXA'S CONSIDERATIONS

- C.7.6 The ExA notes the applicants' explanation [\[REP3-027, appendix E\]](#) that information on the unit condition of the Flamborough Head SSSI (which encompasses the same geographical footprint as that of the SAC) indicates the habitat is in good overall condition. Noting the distance of the offshore export cable corridor from the SAC and providing that the proposed mitigation measures are adhered to, the ExA concludes that AEoI from the proposed development can be excluded, both alone and in combination with other plans or projects, for all qualifying features of the Flamborough Head SAC as a result of smothering and siltation rate changes.

HUMBER ESTUARY SAC

- C.7.7 The Humber Estuary SAC is located 44km south of the proposed landfall zone [\[APP-049\]](#). The applicants' description of the site and assessment of effects on integrity was presented at the application stage in section 6.6 of RIAA Part 2 [\[APP-046\]](#). It concluded that the proposed development would not adversely affect the integrity of the site, either alone or in combination with other projects or plans.
- C.7.8 NE did not initially agree with the applicants' conclusion of no AEoI due to air quality changes during construction or from smothering and siltation rate changes (due to the use of cable protection interrupting longshore sediment transport) for:

- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- estuaries
- mudflats and sandflats not covered by seawater at low tide
- *Salicornia* and other annuals colonising mud and sand
- sandbanks which are slightly covered by sea water all the time

C.7.9 See below for further details.

AIR QUALITY IMPACTS DUE TO CONSTRUCTION TRAFFIC

C.7.10 The applicants assessed the potential impacts of NO_x and ammonia (NH₃) from construction road traffic on the mudflat and sandflat habitat not covered by seawater at low tide under the heading of 'the introduction of other substances (solid, liquid or gas)' in RIAA Part 2 (section 6.6.2.2.1 [REP7-016]).

C.7.11 As reported in ID 3.4.3 of the RIES [PD-025], the applicants provided 'Technical Note: Comparison of Approaches using the NE Guidance NEA001 and JNCC Guidance' [AS-048, annex A] in response to advice from NE [RR-039, I1, I6, I12] on the assessment of air quality impacts. This was reflected in revision 5 of the RIAA Part 2 [REP7-016]. In response to the RIES, NE clarified [REP7-152, Q25] that its advice on air quality related to relevant habitats associated with the Humber Estuary SAC and Ramsar site (as well as supporting habitat for Humber Estuary SPA species) which occur within 200 metres (m) of the road network.

C.7.12 NE has concurred with the conclusion of no AEol of the Humber Estuary SAC, SPA and Ramsar site from air quality impacts due to construction traffic [REP1-066] [REP7-152]. ERYC [REP7-144] also agreed that AEol could be ruled out.

ExA's considerations

C.7.13 The ExA concludes that that AEol from the proposed development can be excluded, both alone and in combination with other plans or projects, for all qualifying features of the Humber Estuary SAC, SPA and Ramsar site as a result of air quality impacts due to construction traffic.

NEARSHORE CABLE PROTECTION POTENTIALLY CAUSING SMOTHERING AND SILTATION RATE CHANGES (HEAVY AND LIGHT)

C.7.14 The applicants assessed impacts on sediment transportation processes under the heading of 'Smothering and siltation rate changes' [REP7-016].

C.7.15 NE [RR-039, NE3, B2, B35, B50, C23] noted the draft condition 3(4) of dDMLs 3 and 4 in the application version of the dDCO [APP-027] allowing 10% of the export cable to be protected from 350m seaward of mean low water springs (MLWS) to the 10m depth contour. It advised that cable protection within the active nearshore environment could act as a groyne-like structure and restrict longshore sediment transport supply to the Humber Estuary SAC (and Spurn Point) and subsequently impact on benthic habitats of the Humber Estuary SAC. It advised the impact could be exacerbated should cables not be bundled and advised that alternative methods of cable burial be explored to remove the need for cable protection in water depths less than 10m. The MMO [REP1-074] agreed with NE that the cable protection should be reduced as much as possible to prevent any disruption within the nearshore zone.

- C.7.16 The applicants [\[REP5-040\]](#) explained that they could not exclude the requirement for protection due to the presence of shallow chalk bedrock in the nearshore. However, they committed to the separate bundling of pairs of the export cables in revision 2 of the Cable Statement [\[AS-080\]](#) which would reduce the amount of cable protection required. The applicants confirmed that each dDML contained a condition restricting the commencement of construction until a final statement had been submitted to and approved by the MMO (in consultation with statutory bodies) [\[REP3-028, table 2-12\]](#) [\[REP5-040\]](#).
- C.7.17 The applicants [\[REP3-027, MCP.1.3\]](#) [\[REP3-028, table 2-6\]](#) [\[REP5-037, table 2-17\]](#) [\[REP7-131, table 2-15\]](#) confirmed that the approximate (but not secured) length of cable protection measures would be 116m per cable trench (assuming cables were laid in a straight line) as shown in figure C-1 in appendix C of [\[REP3-028\]](#). They did not consider cable protection would create a complete blockage effect in the water column, rather that sediment would bypass the structures, with no effect in terms of sediment supply to the Humber Estuary SAC. They explained that changes to sediment transport budgets at the landfall zone would be less than 1% and that these changes would become less pronounced with distance from the cable protection measures. They considered it would not be possible to detect or measure a change of this magnitude or isolate the proposed development as the source of the change, considering the high degree of natural variability in the coastal system, high sediment supply rates due to erosion on the Holderness coast and the potential effects of other projects and schemes located much closer to the SAC. The applicants supported their position with a conceptual assessment and sediment transport modelling at the landfall zone in technical note 'Assessment of Coastal Processes at the DBS Landfall' [\[REP5-040\]](#), which was reflected in revision 5 of the RIAA Part 2 [\[REP7-016\]](#).
- C.7.18 NE [\[RR-039, B35\]](#) further advised that if cable protection could not be removed from the project envelope, design solutions should be investigated such as reducing the maximum height of any protrusions and alternatives to rock protection in order to minimise the impact on sediment transport. The applicants explained [\[AS-048\]](#) [\[REP3-027, MCP.1.3\]](#) [\[REP3-028, table 2-6\]](#) that, for navigational safety, cable protection height would be governed by the guidance contained in Marine Guidance Note (MGN) 654 in relation to cable protection, namely that cable protection would not change the charted water depth by more than 5%, unless otherwise agreed with the Maritime and Coastguard Agency (MCA) and Trinity House (secured through the DML). As such, cable protection within the 10m depth contour would be limited to a height of no greater than 50cm and therefore rock placement would not be used in this area: alternative solutions such as mattresses would be considered. NE [\[REP6-072\]](#) advised that if cable protection would be required at greater heights, that this should also be agreed with the MMO in consultation with the SNCB.
- C.7.19 The ExA [\[PD-028\]](#) therefore proposed an amendment to the DMLs in the dDCO that if any cable protection that exceeds 5% of navigable depth is required, this should also be agreed with the MMO in consultation with the SNCB. NE welcomed this [\[REP9-031, B23\]](#). The MMO also welcomed the ExA's recommendation but suggested updated nearshore sediment transport modelling and comparison and demonstration against the ES if within the 10m depth contour [\[REP7-148\]](#). NE stated in [\[REP7-151\]](#) that it had seen and was supportive of the MMO's proposed amendments. However, the applicants were of the view that the ExA's (and the MMO's) recommended amendments to the dDCO were unnecessary [\[REP7-130\]](#) [\[REP8-043\]](#) and did not incorporate them into their final dDCO [\[REP9-003\]](#).

- C.7.20 NE [\[REP6-072\]](#) [\[REP8-051\]](#) [\[REP8-052\]](#) [\[REP9-031\]](#), B23] acknowledged that cable protection may not be required and it was unlikely it would be placed within the nearshore shallowest waters. However, as the applicants did not intend to refine the cable protection requirements until post-consent, it advised conclusions must be based on the worst-case scenario. It considered the evidence was insufficient to categorically rule out risks to the Humber Estuary SAC and maintained that it was unable to rule out AEoI on the Humber Estuary SAC if cable protection was placed within the 10m depth contour, citing remaining uncertainty in the assessment of nearshore cable protection on nearshore sediment transport processes and coastal morphology. It advised that in combination with other plans and projects, sediment transport to Spurn Head could be reduced to an extent that Spurn was breached, with significant implications for the Humber Estuary Annex I intertidal mudflats and sandflats and saltmarsh which support internationally important birds. NE advised that modelling of nearshore sediment processes was expected where impacts on designated sites are predicted, as had been provided for other OWFs.
- C.7.21 NE further advised, that should the SoS be minded to consent the works without further restrictions on cable protection placement, a condition to undertake physical remediation to address the sediment blockage and also repair any breach at Spurn point would be sufficient to address the risk of an AEoI of the Humber Estuary SAC [\[REP6-072\]](#).
- C.7.22 The applicants [\[REP7-131\]](#), table 2-17] maintained that Spurn Head was highly unlikely to be breached due to a reduction in sediment supply of less than 1% of annual sediment budgets and as it was located 53km away. They maintained their position of no AEoI on the Humber Estuary SAC throughout the examination. They were of the view that NE had not presented any evidence to support its concerns and considered their modelling presented in [\[REP5-040\]](#) was based on a highly precautionary scenario.

In-combination effects

- C.7.23 In relation to in-combination effects, NE [\[RR-039\]](#), B48] [\[REP5-061\]](#), B33] stated that Dogger Bank D OWF should be included in the in-combination assessment for the Humber Estuary SAC. An update to the applicants' assessments was sought by the ExA in RIES Q27 [\[PD-025\]](#), following publication of the Dogger Bank D OWF PEIR. The applicants reviewed the Dogger Bank D OWF PEIR and RIAA and explained that documentation had screened out the Humber Estuary SAC from assessment, due to the distance of the offshore export cable corridor from the Humber Estuary SAC (25km) [\[REP7-133\]](#). The applicants stated that there was no way to update the in-combination assessments for the proposed development at this time.

ExA's considerations

- C.7.24 The ExA has drawn on its considerations in the MCZ assessment (appendix D of this Recommendation) to support its considerations in this section.
- C.7.25 The ExA notes the distance of the Humber Estuary SAC is 44.6km south of the proposed landfall zone (table 4-2 of the HRA screening [\[APP-049\]](#)).
- C.7.26 The ExA agrees with NE [\[REP8-052\]](#) that under the Habitats Regulations, the onus is on the applicants to demonstrate that there would not be an AEoI and that it is not for NE to demonstrate that there would be one. However, the ExA also considers

that the SNCB should provide sufficient evidence and reasoning as to why it disagrees with the applicants' position.

- C.7.27 The ExA acknowledges NE's outstanding concerns [\[REP6-071\]](#) regarding the applicants' sediment transport modelling [\[REP5-040\]](#) but is satisfied that they are not relevant to potential impacts on the Humber Estuary SAC (see appendix D (MCZ assessment) of this Recommendation for further detail).
- C.7.28 It is the ExA's view that the applicants have provided sufficient evidence to demonstrate that the principal source of sediment supply to the Humber Estuary SAC and Spurn Point would not be from the seabed, but from wave erosion of the Holderness Cliffs extending some distance northwards from Spurn Point. In addition, the ExA notes that most of the longshore sediment transport from wave erosion would occur close to the shoreline, within 250m of the cliff line, and that the magnitude of wave driven transport would decrease with distance offshore. The ExA also accepts that the applicants have committed to a long trenchless landfall technique and would not install any cable protection measures within 350m of MLWS.
- C.7.29 The ExA is reassured by the applicants' conclusions in their assessment of sediment transport modelling regarding nearshore cable protection [\[REP5-040\]](#) which demonstrated a less than 1% reduction in the annual net sediment transport budget. The ExA agrees that this reduction would be negligible and accepts the applicants' additional evidence, in response to NE's concerns, to demonstrate that most of the sediment occurring at the bottom of the water column had been considered, with the applicants' model assuming 100% blockage with no bypass. In addition, the ExA acknowledges that the coastline is already adjusting to a highly variable sediment budget driven by continued coastal erosion.
- C.7.30 The ExA therefore accepts that, based on the applicants' models and evidence as part of the assessments undertaken, no cable protection would be located within the zone of greatest longshore sediment potential. The ExA agrees with the applicants' conclusions that there would be no material change to sediment supply to Spurn Point and the Humber Estuary SAC as a result of the proposed development and therefore Spurn Point is unlikely to be breached. Whilst NE has provided some explanation as to its views and ongoing concerns regarding sediment transport along the coastline towards the Humber Estuary SAC and Spurn Point, the ExA does not consider that sufficient evidence as to their detailed concerns, or why NE would not accept the applicants' findings and conclusions, has been provided.
- C.7.31 The ExA concludes that the conservation objectives of maintaining or restoring the extent, distribution, structure of function of qualifying natural habitats of the Humber Estuary SAC, or the supporting processes on which they rely, would not be undermined. It agrees with the applicants that an AEoI from the proposed development can be excluded, both alone and in combination with other plans or projects, for all Annex I habitat qualifying features of the Humber Estuary SAC.
- C.7.32 Notwithstanding the ExA's conclusions, the ExA would draw the SoS's attention to NE's suggestion to include an additional condition to undertake physical remediation to address the sediment blockage and also repair any breach at Spurn Point.
- C.7.33 However, the ExA notes that NE had not been able to review the Dogger Bank D OWF PEIR by the close of the examination and therefore could not comment on the

applicants' position regarding the in-combination assessment in [\[REP7-133\]](#). In section 1.4 above, the SoS may wish to consider Dogger Bank D OWF in their HRA.

DOGGER BANK SAC

- C.7.34 Part of the Dogger Bank SAC overlaps with the proposed array areas. It is designated for the Annex I habitat Sandbanks which are slightly covered by sea water all the time, an extensive sublittoral sandbank in the SNS formed by glacial processes and submergence through sea-level rise [\[APP-049\]](#). The applicants' description of the site and assessment of integrity was presented at the application stage in section 6.4 of RIAA Part 2 [\[APP-046\]](#).
- C.7.35 The applicants concluded that the proposed development would result in an AEoI of sandbanks which are slightly covered by sea water all the time of the Dogger Bank SAC due to physical change to another seabed type (permanent habitat loss due to the footprint of infrastructure above the seabed) (alone and in combination). They acknowledged that:
- "Given that the restore objectives were in place from the designation of the Dogger Bank SAC (i.e. before any wind farms were present) and that the objectives apply at the fine scale it is clear that any permanent footprint would be considered to hinder the restore objectives no matter how small."
- C.7.36 At DL4, the applicants' calculation of the worst-case area of permanent habitat loss within the SAC was revised down from the calculations made at application stage as a result of change request 1: the applicants' conclusion of AEoI remained. The applicants' final calculation of permanent habitat loss from infrastructure alone was 1,815,352m² (identified as scenario one in revision 5 of the RIAA Part 2 [\[REP7-016 table 6-7\]](#)).
- C.7.37 NE [\[RR-039, C1\]](#) agreed with the conclusion of AEoI of the site but disagreed with elements of the applicants' approach to cable and scour protection and their quantification of effects, as detailed below.

CABLE AND SCOUR PROTECTION

Maximum design scenario (MDS)

- C.7.38 NE [\[RR-039, NE8, B11, C1, C11\]](#) [\[REP5-062, MCP.2.10\]](#) [\[REP6-073\]](#) noted the applicants had acknowledged an AEoI of the Dogger Bank SAC as a result of habitat loss. However, it considered the methods and information used to determine the amount of cable protection and any associated lasting loss or change of Annex I sandbank habitat were neither comprehensive or transparent and that it was unclear how realistic the MDS was. NE was not clear where in the Dogger Bank SAC cable protection may be required and questioned the need for cable protection, citing the static nature of Annex I sandbanks, proposed sand wave levelling, and a trawling ban that reduces snagging risk to asset integrity. It advised that cable burial should be prioritised and requested a more realistic worst-case scenario informed by geotechnical data, to be included in the Cable Burial Risk Assessment [then [APP-242](#)]. It considered that mitigation could be applied to reduce the quantities required.
- C.7.39 Although NE welcomed the reduction in cable length and associated seabed preparation and cable protection from change request 1, it maintained that AEoI could not be ruled out due to the lasting impacts of cable protection [\[REP3-058\]](#).

- C.7.40 The applicants [AS-048, table 2.1.2] [REP1-049] [REP1-050] [REP4-088, table 2-19] responded that burial would be the primary method and that 10% of cable length requiring protection was a precautionary worst-case scenario, consistent with the Round 4 Plan Level HRA. They committed to refining protection locations post-consent, based on further studies, and confirmed that it would not exceed the worst-case values presented in the dDCO. The applicants reiterated that flexibility was essential, as exact requirements could not yet be determined [REP5-036, MCP 2.9] and considered that this approach was in accordance with the principles laid out in policies such as 2.6 of National Policy Statement (NPS) EN-3 [REP7-131, table 2-21]. They emphasised that the worst-case scenario was based on experience and aligned with policy, and whilst minimisation of cable protection where practicable was a commitment, reductions to the assessed figures were not possible [REP5-036, MCP 2.9].
- C.7.41 The applicants [REP5-040] confirmed that that cable protection may be required within the array areas and inter-platform cable corridor where bedrock is exposed at the seabed. They updated the Cable Statement (revision 5) [REP6-043, figure 1-2] to provide indicative locations of cable protection based on a Burial Assessment Study (BAS) (2024). They confirmed [REP7-131, table 2-21] that the final cable protection requirements would be presented, with full technical justifications, in the final Cable Statement(s), required to be submitted (in accordance with the Cable Statement) for decision-maker approval prior to the commencement of construction under each DML.
- C.7.42 NE [REP6-073] [REP7-152, Q10] [REP8-052] noted that the worst-case scenario for cable protection had not been refined or fully justified based on the BAS. It maintained that cable protection requirements should be justified by evidence rather than arbitrary conditions. Its end of examination position on benthic ecology [REP8-052] accepted that conditions based on 10% of cable lengths being protected had been widely implemented. However, it advised that it should be demonstrated that these requirements would be necessary, especially within designated sites, and that the burden of evidence to demonstrate necessity is higher due to the uniqueness and ecological importance of the Dogger Bank SAC. It considered that strategic compensation (see section C.15 below) was unlikely to provide like for like compensation and therefore emphasised the importance of the mitigation hierarchy to minimise impacts on the Dogger Bank SAC and aid recoverability rather than relying on compensation and having the flexibility to build out to the current MDS. NE did not consider the environmental risks had been sufficiently managed down.
- C.7.43 Taking into consideration NE's concerns, the ExA [PD-028] suggested revisions to the DML conditions requiring a report to be submitted to the MMO to justify the evidence for the proposed locations and extent of cable protection in areas of (inter alia) Annex I subtidal habitat. NE stated [REP7-151], this did not fully address its concerns, however, it welcomed the suggestion to inform further requirements for cable protection. The MMO [REP7-148] queried what action the MMO would take should such justification not be in line with the consultees advice and noted it could delay a project. The applicants [REP7-130] similarly noted the potential for delays and considered they had already committed to providing details of exclusion zones or micro-siting arrangements, as well as to minimising cable protection. They considered the proposed wording to be impractical in nature and that there was no way to prioritise trade-offs in relation to impacts on different receptors.

ExA's considerations

- C.7.44 The ExA acknowledges NPS EN-1, paragraph 4.3.18 which states that:
- “the Secretary of State should consider the worst-case impacts in its consideration of the application and consent, providing some flexibility in the consent to account for uncertainties in specific project details”.
- C.7.45 The ExA acknowledges NE's position that it did not consider the applicants had sufficiently managed down environmental risks. Nevertheless, the ExA accepts the applicants' explanation as to how the worst-case cable and scour protection scenario of 10% of the cable length within the Dogger Bank SAC has been arrived at and the implications of this for the worst-case loss of qualifying habitats on the Dogger Bank SAC have been assessed accordingly. The ExA accepts the applicants' reasoning as to why they were unable to further refine the cable protection requirements during examination, acknowledging current uncertainties and the requirement for flexibility in line with relevant policy.
- C.7.46 The ExA is content that the final cable protection requirements would be presented with full technical justifications as part of the final Cable Statement prior to construction, which is secured through conditions in the DMLs as part of the recommended draft DCO (appendix F of this Recommendation). The MMO, in consultation with the Trinity House, the MCA, the relevant SNCB and the United Kingdom Hydrographic Office (UKHO) as appropriate, would be responsible for discharging the conditions.
- C.7.47 The ExA is satisfied that the wording in Schedules 10 and 11, Part 2 condition (5)(2), Schedules 12 and 13, Part 2 condition (3)(2) and Schedules 14 and 14A, Part 2 condition (1)(2) is adequate to secure a maximum of 10% cable protection deployment of the total length of cables, within the Dogger Bank SAC.

End date for cable and scour protection deployment

- C.7.48 NE [\[RR-039\]](#), NE2, A3, A19, A25, C12, C13] [\[REP2-066\]](#) raised a concern that the dDCO lacked an end date for deployment of cable and scour protection within designated sites. It noted that the oOOMP [then [APP-248](#)] and ES Chapter 5 (Project Description) [\[APP-071\]](#) allowed for cable protection to be installed over the proposed development's lifespan. NE advised [\[REP2-066\]](#) [\[REP8-052\]](#) that within any designated sites for benthic features such as the Dogger Bank SAC, the condition should stipulate that there should be no deployment of cable protection after the completion of construction. NE therefore requested a MDS of only cable and scour protection anticipated to be installed during construction and advised that a condition requiring any protection post-construction be subject to a new marine licence. NE [\[REP2-065\]](#) also sought clarity over what activities were permitted through the dDCO and dDML and highlighted the potential for habitat loss or impacts on the structure or function of the Annex I feature from the dispersal of rock protection.
- C.7.49 The applicants [\[AS-048\]](#), table 2.1.2] [\[REP3-028\]](#), table 2-12] [\[REP4-086\]](#) [\[REP4-088\]](#) [\[REP5-036\]](#), MCP.2.10] explained that the MDS reflected protection that could be required during construction and operation. They stated that new protection in areas not protected during construction would require a separate marine licence; a position echoed by the MMO [\[REP5-049\]](#), MCP.2.10]. The applicants suggested that these could be pre-licensed in 10-year intervals, as the impacts had already been

assessed and compensated for. This would enable safe and continuous operation of the proposed development. They noted that licensing every new deposit would be impractical due to long lead in times (at least 12 months), potentially increasing the risk of cable damage and structural failure without offering any appreciable environmental benefits. They noted that the dDML conditions (for example condition 22 in dDML 1 [\[REP5-002\]](#)) would ensure the reporting of all new cable and scour deposits during operation.

- C.7.50 Regarding replenishment, the applicants [\[AS-048, table 2.1.2\]](#) [\[REP3-028, table 2-7\]](#) [\[REP4-086, section 5.4\]](#) [\[REP4-088, table 2-2\]](#) [\[REP5-036, MCP.2.10\]](#) considered that replacement protection within areas protected during construction would not require a new licence, unless such protection would exceed the maximum amounts authorised by the DMLs. The MMO [\[REP5-049, MCP.2.10\]](#) agreed this was acceptable and could be managed through the OOMP. NE [\[REP2-066\]](#) disagreed, stating that each campaign of cable protection within designated sites requires a new marine licence. It advised that for each campaign, an LSE should be assumed due to lasting habitat loss and an AA undertaken (plus derogations, if necessary).
- C.7.51 NE [\[REP5-062, MCP.2.10\]](#) [\[REP5-062\]](#) [\[REP6-077\]](#) continued to disagree with the applicants' position, stating it is not in the spirit of the Strategic Compensation Strategy or Marine Recovery Fund (MRF) which require the mitigation hierarchy to be fully adopted to avoid, reduce and mitigate impacts on designated sites.
- C.7.52 The ExA suggested a new condition in the DMLs to restrict cable replenishment within European marine designated sites with benthic habitats as a qualifying feature unless otherwise agreed in writing by the MMO in consultation with the relevant SNCB and the MCA [\[PD-028\]](#). NE [\[REP7-151\]](#) welcomed the addition, yet stipulated that it should be subject to a new marine licence. The MMO [\[REP7-148\]](#) highlighted concerns with such a condition and similarly advised a new marine licence should be applied for.
- C.7.53 The applicants [\[REP7-130\]](#) considered this would increase bureaucracy without providing any additional environmental benefits and that such a condition would be unreasonable and unnecessary. They stated that delays to cable protection replenishment would increase risks to other seabed users and the risk of reductions in operational time or output.

ExA's considerations

- C.7.54 The ExA acknowledges that existing cable protection should be maintained throughout the lifetime of the proposed development, and that new cable protection in areas not protected during the construction phase may be required, to ensure the cable would remain in good working order and would not pose any hazards to other marine users.
- C.7.55 With regards to cable and scour protection repair, replacement and replenishment of existing cable protection within the Dogger Bank SAC, the ExA considers that a new licence would not be required as long as the total volumes placed remain within the worst case assessed. The ExA is reassured that the dDMLs secure (Schedules 10 and 11, Part 2, condition (7), Schedules 12 and 13, Part 2, condition (5) and Schedule 14 and 14A, Part 2, condition (3) [\[REP9-003\]](#)), that the operation of the licensed activities must not commence until an OOMP, substantially in accordance with the oOOMP, has been submitted and approved in writing by the MMO and that

a review must take place every 3 years, which must also be approved in writing by the MMO. The ExA considers that the MMO would retain sufficient control of the operation and maintenance plan such that only works that were deemed necessary would be approved.

- C.7.56 In terms of new cable or scour protection within the Dogger Bank SAC to parts of the cable which were not protected during construction, the ExA agrees with the applicants, MMO and NE that a new licence would be required, which would be subject to a separate HRA.

Decommissioning of scour and cable protection

- C.7.57 NE [\[RR-039\]](#), NE7, B3, B16, B37, C4, C43, C44] [\[REP1-063\]](#) [\[REP2-065\]](#) [\[REP3-058\]](#) [\[REP4-129\]](#) [\[REP8-052\]](#) recommended that the dDCO secure a commitment to remove all on- and above-seabed infrastructure within benthic designated sites (excluding cable crossings) at decommissioning. It stated that this approach has been required for other wind farms in the Dogger Bank SAC due to its unfavourable condition and restoration objectives. Without such a commitment, NE advised the infrastructure should be assessed as a permanent impact. It also noted [\[RR-039\]](#), C44] that the unknown type and method of cable protection warranted further assessment.
- C.7.58 NE [\[REP5-062\]](#), BE.2.10 and MCP.2.10] [\[REP8-052\]](#) cited government guidance 'Decommissioning of offshore renewable energy installations under the Energy Act 2004. Guidance notes for industry (England and Wales)' (2019) which set out the expectation for decommissioning. It considered that returning the seabed to its pre-development status would contribute to achieving Good Environmental Status of the wider marine environment as required by the UK's Marine Strategy, and noted it is in line with the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) requirements.
- C.7.59 The applicants [\[REP7-129\]](#), Q11] confirmed they would comply with the guidance in relation to the preparation and submission of the decommissioning programmes required under requirement 7 of the dDCO [\[REP9-003\]](#). They maintained [\[REP5-036\]](#), BE.2.10 and MCP.2.1] their approach was consistent with legislation, guidance and OWF precedents. They updated the Cable Statement (revision 5) [\[REP6-043\]](#) to confirm that an assessment of types of protection would be included in both the final Cable Statement(s) and the Decommissioning Programme(s) to be produced for submission to the SoS prior to the commencement of construction; this would consider removability. They stated [\[AS-048\]](#), table 2.2.1] [\[REP3-028\]](#), table 2-7] [\[REP4-088\]](#), table 2-2] [\[REP5-037\]](#), table 2-14] that they could not commit to full removal due to potential future changes in technology and understanding of impacts. They stated that removable protection would be considered during detailed design and that post-consent controls would allow NE to review proposals. Compensation would be secured permanently to address any lasting impacts. The applicants confirmed that as full removal could not be guaranteed, the RIAA had assessed habitat loss as permanent and concluded an AEol [\[REP4-086\]](#).
- C.7.60 NE [\[REP2-065\]](#) [\[REP8-052\]](#) acknowledged the compensation but emphasised the need to apply the mitigation hierarchy and avoid and reduce impacts before compensating, in line with Department for Environment, Food and Rural Affairs (Defra) guidance for marine compensatory measures. It also cited other wind farms where decommissioning of cable protection was required despite compensation. It

also acknowledged [\[REP8-052\]](#) that technologies and understandings could change but did not consider it to be sufficient reason for not committing to decommissioning.

ExA's considerations

- C.7.61 The applicants acknowledged that full removal could not be guaranteed. However, they stated they would consider removable protection during the detailed design stage prior to construction [\[REP5-036\]](#), BE.2.10] and that post-consent controls would allow NE to review proposals. As such aspirations cannot be secured at this stage, the ExA agrees with the applicants' approach in the RIAA Part 2 [\[REP7-016\]](#) to assess habitat loss from scour and cable protection as permanent.
- C.7.62 The ExA notes that requirement 7 in the dDCO states that offshore works must not be commenced until a written decommissioning programme has been submitted to the SoS for approval. This commitment is also made in C153 [\[REP7-101\]](#).
- C.7.63 The ExA is reassured by section 7.4 of the Guidance (Decommissioning of offshore renewable energy installations under the Energy Act 2004. Guidance notes for industry (England and Wales)), which notes that the initial decommissioning programme could be supported by an assessment completed for a consent application. This would need to be updated prior to the act of decommissioning. The ExA notes that the applicants contended [\[REP5-036\]](#) B.E.2.10] that the updated assessment would need to strike the balance between potential environmental damage from cable and cable protection removal to any benthic ecology which may have become established during the operational lifetime and the overall benefits of cable retention to the designated site. The ExA is reassured that the Guidance states that AAs and marine licences may be required for decommissioning activities, depending on the proposals and the legislation which applies at the time.
- C.7.64 The ExA further notes that decommissioning is controlled under the requirements of the Energy Act 2004.
- C.7.65 The ExA therefore concludes that there is sufficient legislation in place for the SoS to be satisfied that the lack of commitment from the applicants at this stage of the process to remove all cable and scour protection at decommissioning within designated sites, would not unduly harm the designated sites.

ECOLOGICAL HALO EFFECTS

- C.7.66 NE [\[RR-039\]](#), NE4, NE6, B4, C6, C18] raised concerns that the applicants had not adequately considered potential 'halo effects' — changes to physical or biological structures beyond the immediate footprint of the proposed infrastructure — which could affect a significant portion of the Dogger Bank SAC and hinder its restoration objectives. NE was also concerned that cable protection could modify the hydrodynamic regime and affect sediment transport pathways, contributing to the halo effect. Whilst it acknowledged the applicants' aspirations to minimise cable protection, it considered an ecological halo effect was still likely to result from cable protection and that the worst-case impact should be factored into the predicted impacts and any subsequent compensation [\[REP6-073\]](#).
- C.7.67 TWT [\[REP1-088\]](#) also considered halo effects should be considered.
- C.7.68 NE [\[REP4-127\]](#) [\[REP5-055\]](#) [\[REP6-073\]](#) and TWT [\[REP5-068\]](#) raised particular concerns about changes to characteristic benthic communities. NE considered that

a change in biotope would represent the conservation objective being taken further away from the restore objective. It also advised the applicants to consider the likelihood that scour protection could become colonised and contribute to halo effects, as well as to consider changes in predator-prey interactions. It considered that changes to biological structures within the Annex I sandbank could contribute to an AEoI and confirmed in [\[REP7-152, Q8\]](#) that it considered halo effects to represent permanent habitat loss.

- C.7.69 The applicants [\[AS-048, table 2.1.2\]](#) argued that halo effects had not previously been raised as a concern and that existing evidence was inconclusive. NE [\[REP2-065\]](#) maintained that, despite the term ‘halo’ not being used earlier, the impact pathway was not new or unknown. It acknowledged uncertainties over the scale and likelihood of this impact but considered it should be robustly assessed and monitored due to the location of the proposed development. It confirmed [\[REP6-073\]](#) that it had raised the concerns due to the location of the array being wholly within the Dogger Bank SAC and noted that there was limited opportunity to understand the applicants’ scope in pre-application due to the applicants’ approach to the evidence plan process. This was disputed by the applicants [\[REP7-131, table 2-21\]](#).
- C.7.70 The applicants [\[REP3-028, table 2-7\]](#) [\[REP4-086\]](#) considered halo effects were unlikely to be expressed in dynamic environments such as the Dogger Bank, to such a degree that it would represent a change from Annex I sandbank. They noted [\[REP5-041\]](#) that halo effects were not included in the Plan Level HRA and proposed to address the issue through operational monitoring in the updated In Principle Monitoring Plan (IPMP) [\[REP2-043\]](#) and subsequently at [\[REP4-052\]](#).
- C.7.71 The applicants maintained [\[REP5-037, table 2-20\]](#) [\[REP6-052, table 2-14\]](#) that Dogger Bank is a mosaic of different types of sandbank biotopes and that although there may be some change to communities as a result of the presence of infrastructure and subsequent colonisation, this would be limited spatially and would not represent loss of Annex I habitat. They further explained that it would be difficult to determine if there would be any change from ‘characteristic communities’ given the variability of biotopes and that change would need to be seen in the context of the ongoing recovery that would be taking place as a result of the cessation of bottom-towed fishing gear [\[REP6-051, table 2-14\]](#) [\[REP7-128\]](#).
- C.7.72 The applicants submitted ‘Ecological Halo Effects Technical Note’ [\[REP5-041\]](#), updated in [\[REP7-127\]](#), highlighting that there was limited evidence of significant halo effects from other wind farms. The note concluded that halo effects would not occur within the footprint of scour protection as heavy detritus would be deposited in the immediate footprint of turbine towers and as the scour protection footprint was already included in the worst-case assessment of habitat loss. Furthermore, it considered the potential for increases in fish within wind farms due to reef or refugia effects would likely be undetectable above natural variations. The note provided a methodology for assessing the scale of impact if required and a ‘without prejudice’ estimate of 0.9 square kilometre (km²) additional habitat loss. It noted that as the area is in the immediate vicinity of the infrastructure, it is coincident with the area that would be disturbed during construction. Therefore, if it was to be considered a long-term effect as per NE’s advice, then the area affected by halo effects would already be accounted for in the compensation.

- C.7.73 NE initially considered [\[REP6-073\]](#) that a 50m buffer should be applied to cable protection. The applicants' note [\[REP7-127\]](#) argued this to be unjustified and considered it not credible that small patches of cable protection would have such a disproportionate effect. NE [\[REP8-052\]](#) acknowledged that that halo effects around cable protection would likely be lower and agreed with the applicants' concerns that 50m was likely to be over-precautionary.
- C.7.74 The applicants' note [\[REP7-127\]](#) also responded to NE's concerns in [\[REP6-073\]](#) that it was not appropriate to reduce the predicted impact area by 75% based on wake and bed shear stress effects, explaining that in the absence of any advice on how to quantify potential impact, the tidal wake effect was considered a reasonable proxy for the direction of any input of detritus, faecal matter or sediment changed.
- C.7.75 The applicants' note [\[REP7-127\]](#) further explained that there were no targets for a favourable condition of the sandbank, which is not 'natural' due to historical fishing and historically encompassed reef habitat. It considered there to be contradictions in NE's position of wanting to restore the SAC to an unknown and undefined target condition, whilst also viewing any change that arises in the array areas as counter to that objective. NE [\[REP8-052\]](#) responded that the restore objective is not to an unknown pre-impacted state, but to one at the time of designation. However, it recognised that the banning of bottom towed trawling would also restore the site to a more natural state.
- C.7.76 The applicants fundamentally disagreed with halo effects being considered as significant and that the footprints proposed by NE [\[REP6-073\]](#) reasonably reflected the evidence of likely effects in environments such as the Dogger Bank. Nevertheless, they provided a 'without prejudice' updated estimate for halo effects in table 5-2 of [\[REP7-127\]](#) of 13.2km².

ExA's considerations

- C.7.77 The ExA concludes that ecological halo effects should be recognised as a contributing factor to AEoI from the LSE pathway of habitat change or loss.
- C.7.78 The ExA is reassured that the applicants have undertaken worst-case scenarios for the ecological halo effect based on the conservative assumption of 50m buffer from seabed infrastructure of all types. However, the ExA recognises that the 50m buffer may be overly precautionary for cable protection and that NE stated it might be able to agree a reduced buffer distance, but that this was not achieved in the examination. The ExA is satisfied that the 50m buffer figure for all seabed infrastructure types would represent the worst-case scenario for ecological halo effects within the Dogger Bank SAC. However, the ExA recognises that as NE has stated a refined buffer distance might be able to be achieved, the SoS may wish to consult NE on this matter.

ABRASION/ DISTURBANCE

- C.7.79 The application version of the RIAA Part 2 [then [APP-046](#)] grouped the following impacts under the single heading of 'abrasion and disturbance of the seabed':
- abrasion and disturbance of the substrate on the surface of the seabed
 - penetration and/ or disturbance of the substratum below the surface of the seabed, including abrasion
 - habitat structure changes – removal of substratum (extraction)

- C.7.80 It concluded no AEol from the proposed development alone or in combination with other plans or projects, noting that seabed disturbance would be limited and temporary, with rapid biotope recovery. NE disagreed with the applicants' conclusions, considering that abrasion and disturbance could contribute to AEol, as detailed below.

Recovery timescales

- C.7.81 NE [\[RR-039\]](#), B39, B40, B47, C21, C31, C27, C49] [\[AS-025\]](#) [\[REP2-065\]](#) [\[REP4-126\]](#) [\[REP4-127\]](#) [\[REP4-128\]](#) disagreed with the applicants' position on recovery timescales from sandbank disturbance during construction or operation. It cited the Round 4 Plan Level HRA which indicated recovery could be up to 25 years. It advised that should depressions be created from UXO clearance or jack-up operations in areas of coarse or mixed sediments, the area may need to be considered as permanent habitat change or loss unless it could be otherwise evidenced that they would backfill with similar sediment types. It advised that UXO should be added to worst-case habitat loss whether it be temporary or otherwise. NE maintained that the Dogger Bank SAC's unique sandy mound sandbanks have limited recovery ability, and whilst there may be shorter recovery rates for specific biotopes, full site recovery would take longer and would delay restoration of the SAC. NE [\[REP3-057\]](#) stated that given pre-existing impacts on the site and unfavourable condition of the site, it is challenging for any impact not to be considered a material consideration in in-combination assessments. NE [\[REP4-127\]](#) [\[REP5-055\]](#) consistently advised these impacts should be considered as permanent habitat change or loss (rather than temporary disturbance or damage).
- C.7.82 The applicants [\[AS-048\]](#), table 2.4.1] explained that they had previously asked NE to provide evidence for its advice on recovery times but had not received a response. They considered that habitat damage was not adequately assessed in the Round 4 Plan Level HRA. They submitted a 'Review of Evidence on Recovery of Sandbank Habitat Following Habitat Damage' [\[AS-025\]](#), updated in [\[REP3-021\]](#) concluding that recovery could occur within months to less than 4 years, referencing other SACs and previous SoS decisions. It provided results from several high-order UXO clearance campaigns which indicate rapid infilling from local surface sediments. The applicants [\[REP5-037\]](#), table 2-19] [\[REP7-129\]](#), Q17] maintained that UXO clearance would not constitute permanent habitat loss and that additional consideration of footprint was not required.
- C.7.83 The applicants challenged NE's evidence as outdated and inconsistent with Marine Evidence-based Sensitivity Assessment (MarESA) Guidance (which they detailed in [\[REP3-021\]](#)), arguing that any disturbance would be highly localised, episodic and short term [\[REP3-027\]](#), BE.1.7] [\[REP4-087\]](#), table 2-9]. They further noted that there was no clear understanding how the cessation of fishing will affect Dogger Bank. The applicants confirmed that geophysical monitoring (pre- and post-construction) would detect seabed changes, and that provision for this was included in revision 3 of the IPMP [\[REP4-052\]](#).
- C.7.84 TWT [\[RR-057\]](#) [\[REP1-088\]](#) [\[REP1-041\]](#) [\[REP4-072\]](#) echoed NE's comments and did not agree that project level studies could override the Round 4 Plan Level HRA conclusions. It was unconvinced by the applicants' recovery evidence [\[REP3-069\]](#) [\[REP5-068\]](#).

- C.7.85 Both the applicants [AS-158] and NE [REP2-065] [REP3-057] acknowledged that agreement on the matter was unlikely.
- C.7.86 The applicants maintained that disturbance should not contribute to AEol [REP6-051, table 2-14]. Nevertheless, they updated the RIAA Part 2 (revision 5) [REP7-016, tables 6-3 and 6-7] on a 'without prejudice' basis to provide 4 habitat loss scenarios (including 3 worst-case 'without prejudice' scenarios), as follows:
- scenario 1 – permanent habitat loss from infrastructure alone (that for which the applicants agreed there would be AEol) = 1,815,352m²
 - scenario 2 – habitat loss from infrastructure, including from jack-up activities and UXO clearance = 3,152,672m²
 - scenario 3 – habitat loss from infrastructure and habitat disturbance (from infrastructure, seabed preparation, jack-up footprints, cable trench areas and anchoring footprints) = 25,017,704m²
 - scenario 4 – habitat loss from infrastructure and 50m halo effect + temporary habitat disturbance = 35,069,191.13m².
- C.7.87 The applicants explained [REP8-042] that UXO clearance did not form part of the DCO application. They noted [REP5-037, table 2-19] [REP6-052, table 2-24] that:
- “If the SoS concludes that habitat disturbance contributes to Adverse Effects on Integrity (AEol) then the jacking-up footprint would be within the disturbance footprint and therefore already taken into account. Therefore, the footprint of jacking up should only be added to the permanent habitat loss footprint a) if SoS agrees that this is not a temporary disturbance impact and b) if the SoS agrees with the applicants that other construction disturbance is temporary and does not contribute to AEol.”
- C.7.88 At the close of the examination, NE stated this issue was largely resolved [REP9-031, C11] through the presentation of the 'without prejudice' scenarios.
- ExA's considerations*
- C.7.89 The ExA has considered all evidence presented on this issue from the applicants and IPs. The ExA accepts that some habitats may well recover after a short time period but considers that doubt remains that recovery for some depressions may take longer, given the evidence presented by NE that some depressions at other OWFs have remained for up to 10 years after installation [REP4-127].
- C.7.90 Given the extent of potential damage from the installation of up to 200 turbines, all within the SAC, the ExA considers there to be a reasonable chance that recovery would take time and amount to permanent damage. This is additionally supported by the conclusions of the Plan level HRA. Therefore, the ExA concludes that habitat disturbance should be considered as permanent habitat change or loss on a precautionary basis contributing to AEol. However, the ExA does agree with the applicants that the UXO and jack-up effects would already be accounted for in the impact footprint. The ExA considers scenario 4 the most appropriate for the assessment of habitat loss.

Dredging and drilling material disposal – suspended sediments and smothering

- C.7.91 The RIAA Part 2 [then [APP-046](#), section 6.4.2] assessed the potential for disturbance impacts from sediment removal and disposal during construction. It stated that any sediment removed from within the Dogger Bank SAC during construction activities would be disposed of within the SAC boundary, ensuring no sediment would be lost from the sandbank habitat. However, NE considered the applicants' proposed mitigation to be insufficient [[RR-039](#), B65, C10, C35, C41, C56] [[REP2-065](#)].
- C.7.92 In respect of drill arisings, NE had advised [[RR-039](#), B65, C41] that these should be deposited within similar sediment characteristics, meaning not on sandbanks. Therefore, the applicants' proposal to dispose of them adjacent to turbines was unlikely to be appropriate and could result in further habitat loss or change. It advised that otherwise, this would need to be assessed as a lasting impact and commitments to remove the drill arisings at the time of decommissioning would be required. The applicants [[REP3-028](#), table 2-7] clarified that drill arisings would be deposited adjacent to turbine foundations and within the scour protection footprint, thus falling within the existing habitat loss estimates. They explained that they had assumed a 11m monopile with 63m diameter scour protection extending outwards up to 26m from the base of the turbine. This equated to a footprint of 3,117m² per turbine. The applicants stated that arisings would be within this footprint and that within the assessment there was already an assumption of 100% permanent habitat loss within these footprints and therefore there was no need to add additional habitat loss as this would be double counting. They confirmed that the IPMP (revision 3) [[REP4-052](#), table 1-3] included additional detail with regards to monitoring of drill arisings.
- C.7.93 However, NE [[REP5-061](#), C25] questioned the feasibility of ensuring drill arisings would remain within the footprint of any scour protection, noting that it also compromised the applicants' commitments to only utilise removable material. It queried what would happen if drill arisings were to move into surrounding Annex I sandbanks and maintained that drill arisings should be deposited within similar sediment. In response, the applicants [[REP5-037](#), table 2-20] [[REP6-052](#), table 2-26] explained that the drilling platform would sit on top of the monopile being installed, with arisings discharged into the sea in proximity to the drilling location. This approach would minimise interference with any pre-installed scour protection or planned offshore export cable corridors. This did not address NE's concerns [[REP7-152](#), Q16].
- C.7.94 In respect of dredged sediment from seabed preparation (including sand wave levelling), NE [[RR-039](#), B65, C56] [[REP2-065](#)] also advised that a fall pipe should be used to deposit dredged sediment and for this to be done adjacent and upstream of the dredge location, and within the same ('like') sediment type to promote sand wave recovery. The MMO [[RR-030](#)] echoed the need to deposit dredged material on the same material type. The final Cable Statement [[REP6-043](#)] and C192 of the final Commitments Register (revision 4) [[REP9-009](#)] committed to depositing like sediment on like from dredging. However, the applicants [[AS-155](#)] [[REP3-028](#), table 2-7] noted that fall pipes are typically used on rock installation vessels, not dredgers, and that they were unaware of vessels capable of meeting this requirement. Although NE [[REP2-065](#)] [[REP4-126](#)] [[REP4-129](#)] [[REP5-054](#)] [[REP8-052](#)] pointed to commitments made by Five Estuaries OWF and ODOWF to use a

downpipe measure, the applicants disputed this claim and requested evidence of the existence of suitable vessels with fall pipes: they would not commit to mitigation they did not believe to be technically feasible [REP5-037, table 2-25] [REP5-036, MCP.2.7] [REP6-052, table 2-9]. NE did not provide specific vessel types [REP5-062, MCP.2.6] but maintained that the measure was feasible and that the commitment should be secured in the examination phase. It considered this an alternative best practice approach not committed to by the applicants.

C.7.95 The applicants also noted [REP5-037, table 2-28] that should material be deposited updrift of a dredging site, this material could move to re-fill the area before any relevant works are completed, which could require further remedial dredging activity. As a result, they considered that applying this mitigation could result in avoidable ecological impacts. NE [REP6-072] acknowledged this but noted the concern had not been raised by other projects proposing sand wave levelling. It considered that, without this commitment, there was a risk that sand wave levelling would become impactful in its own right.

C.7.96 By the close of examination, the applicants also committed to disposing of material removed from the Dogger Bank SAC within the part of the Dogger Bank SAC which falls within the order limits and to a plan for sand wave levelling (should it be required) (revision 5 of the Cable Statement [REP6-043] and C142 of the Commitments Register (revision 4) [REP9-009]). NE welcomed these revisions [REP7-152, Q15] but [REP8-052] considered this should be updated to explicitly include provision of a plan should sand wave levelling be needed. The applicants also noted [REP7-129, Q14] that C89 of the Commitments Register (revision 4) [REP9-009] committed to route selection and micro-siting to minimise the requirement for seabed preparation.

ExA's considerations on the deposition of drill arisings

C.7.97 Regarding the deposition of drill arisings, the ExA acknowledges that at the close of the examination NE [REP9-031, C25] remained concerned in respect of further habitat loss or change from the possible movement of drill arisings from the turbines into surrounding Annex I habitats. The ExA notes the applicants' calculations and agrees that the arisings would most likely fall within the assumed footprint which would have already been accounted for in the calculation of the habitat loss surrounding each turbine. The ExA considers any movement of sediment out of the footprint area calculated, into surrounding Annex I habitats, would be prevented by the scour protection which would be placed on top of the drill arisings, as this would be its function. The ExA therefore considers it is beyond reasonable scientific doubt that impacts from the deposition of drill arisings would not cause an impact and therefore considers that AEol can be excluded.

ExA's considerations on the deposition of sediment from dredging

C.7.98 In respect to the deposition of material from dredging, the ExA notes the following commitments by the applicants:

- Dredging would be minimised where possible and dredged material would be disposed of on like sediment, within the Dogger Bank SAC, in commitment C192 [REP9-009].
- To dispose of material originating in the Dogger Bank SAC within that part of the designated area within the order limits, in commitment C142 [REP9-009].

- Detail relating to sand wave levelling, deposition and sandbank recovery would be provided in the form of a plan provided as an appendix to the final Cable Statement(s), in commitment C192 [\[REP9-009\]](#).

C.7.99 The ExA recognises the applicants have not committed to the use of a suction hopper with a fall pipe, as advocated by NE, due to concerns over its feasibility, nor to the disposal of sediment updrift. The ExA accepts that how the above commitments are achieved is taken on at the applicants' risk. In other words, the method to deliver the sediment on like sediment outcome is not as important at this stage as the fact the commitment must be adhered to. If another method is used by the undertaker to deliver this commitment other than a suction hopper with a fall pipe, that is regarded as suitable by the SNCB and the MMO, then the ExA would regard the commitment as being met. The ExA is satisfied that the dDCO [\[REP9-003\]](#) secures that licensed activities must not commence until the construction method statement has been submitted to and approved in writing by the MMO in consultation with the SNCB (Schedules 10 and 11, part 2, condition 15, Schedules 12 and 13, Part 2, condition 13 and Schedules 14 and 14A, Part 2, condition 11). The ExA is content that the MMO and NE would therefore have sufficient control over the content of the construction method statement to adequately control activities such that above commitments would be met.

C.7.100 The ExA considers these commitments are reasonable and sufficient to mitigate habitat loss and therefore considers that dredged sediment would not contribute to an AEoI of the Dogger Bank SAC.

CHANGES TO WAVE AND TIDAL REGIME

C.7.101 NE [\[RR-039\]](#), B29, B30, B43] [\[REP3-058\]](#) [\[REP4-122\]](#) stated that changes to wave energy and tidal regimes from the presence of infrastructure could affect bedload sediment transport and seabed morphology (and in turn the biological communities) of the Dogger Bank SAC. It advised that the implications of predicted changes to current speeds and bed shear stress over the lifespan of the proposed development needed to be fully considered in terms of seabed sediment composition, sediment mobility, and seabed morphology of the Dogger Bank SAC. It considered [\[REP7-152\]](#), Q20] that changes to the hydrodynamic regime could contribute to the following LSE pathways:

- indirect effects (impacts on sandeel leading to impacts on the characteristic community and ecological function of the Dogger Bank SAC)
- changes in suspended solids (water clarity) (C, O, D)
- smothering and siltation rate changes (heavy) (C, O, D)
- smothering and siltation rate changes (light) (C, O, D)

C.7.102 The applicants [\[AS-048\]](#), table 2.3.1] responded that the footprint of blockage effects from changes to waves heights would be insignificant compared to the area of the SAC, and any changes to the tidal regime would be negligible. They updated the Marine Physical Processes Modelling [\[REP2-018\]](#) to reflect change request 1 and NE's advice.

C.7.103 The applicants acknowledged [\[REP4-088\]](#), table 2-18] that modelling showed the proposed development would result in a secondary wave component from the south and south-west and that their frequency when compared to those approaching from the north would be lower, but that significant wave height, defined by the applicants as the average height of the highest of one third of the waves in a given sea state

[[REP7-035](#)], would be similar. The modelling showed that changes to the wave regime under the typical regime would be low, with maximum changes of less than 1% of the baseline occurring within 30km of the wind turbine structure. In a 1 in 1 year event, changes of less than 1% could occur within 56km of the turbines. The applicants noted that if similar distances were to be applied to waves approaching from south and south-west, there would be potential for cumulative effects. However, effects would remain low and at less than 1% of the baseline and would remain negligible. The applicants concluded that the predicted small changes to the wave regime would not significantly alter the seabed morphology or sediment composition, and associated habitat characteristics. Therefore, they stated that predicted changes in the wave regime would not hinder the conservation objectives of the Dogger Bank SAC.

- C.7.104 In addition, the applicants stated [[REP4-088](#)] that effects on bedload sediment transport due to changes in the tidal regime and bed shear stress would be less than 3% of the baseline and this would not significantly change the seabed composition or mobility.
- C.7.105 However, NE [[REP5-061](#), B18 and B19] [[REP5-062](#), MCP.2.3] advised that there was a need to refine the (conceptual) sediment transport model to increase understanding of the implications of the predicted changes to bed shear stress, sediment transport potential, and areas of erosion and deposition, on and around the southwest of the Dogger Bank SAC. It maintained this position at DL 9 ([REP9-031](#), B18).
- C.7.106 The applicants [[REP8-042](#)] disputed that changes in suspended sediment concentrations (SSC) or smothering could contribute to AEoI and stated that any non-trivial changes in SSC or sedimentation would occur within the footprint already assessed for abrasion and disturbance.

ExA's considerations

- C.7.107 The ExA agrees with the applicants that the predicted small changes to the wave regime would not significantly alter the seabed morphology or sediment composition, and associated habitat characteristics. The ExA also notes the applicants' explanation regarding a secondary wave component from the south and south-west and accepts the conclusions that the effects would remain low and at less than 1% of the baseline. On that basis, the ExA agrees that predicted changes to the wave regime would not significantly alter the seabed morphology or sediment composition. In addition, the ExA accepts that effects on bedload sediment transport due to changes in tidal regime and bed shear stress would be less than 3% of the baseline and this would not significantly change the seabed composition or mobility. The ExA is therefore satisfied that changes to the wave and tidal regime would not cause an AEoI of the Dogger Bank SAC.

INDIRECT EFFECTS (IMPACTS ON SANDEEL LEADING TO IMPACTS ON THE CHARACTERISTIC COMMUNITY AND ECOLOGICAL FUNCTION OF THE DOGGER BANK SAC)

- C.7.108 Sandeel are not a qualifying feature of the Dogger Bank SAC. However, the applicants acknowledged they are included in the characteristic communities of the SAC in the site conservation objectives and are a vital food source for seabirds and marine mammals, some of which are themselves qualifying features of protected sites [[REP7-016](#), section 6.4]. The assessment of effects in the RIAA was supported

by 'Sandeel Habitat Potential in the Dogger Bank SAC and the SNS SAC' [APP-050] which concluded that the potential area of habitat affected within the sites would be a small fraction (5.71%) of the available habitat.

C.7.109 NE [RR-039, NE11, annex E1] [REP5-056] [REP7-152, Q22] advised that impacts on sandeel were a contributing factor to its conclusion for an AEoI of the Dogger Bank SAC. It advised that the Supplementary Advice on the Conservation Objectives (SACO) for the Dogger Bank SAC notes that sandeel form part of the characteristic communities relevant to the biological structure and function in certain areas of the site. NE noted that the loss of the characterising sandbank biological assemblages or sandbank sediments from an area of the feature would constitute a reduction in overall feature extent. It advised that biological communities are important in not only characterising the sandbank feature but supporting the health of the feature (meaning its conservation status and the provision of ecosystem services by performing functional roles). It therefore advised that the conservation objectives were likely to be hindered. It requested a robust assessment of the impact on sandeel spawning habitat within the Dogger Bank SAC sandbank features. Furthermore, NE considered that populations would not be able to recover due to a lack of commitment to remove cable or scour protection at end of life and that 'reef effects' from the presence of wind turbines could increase pelagic species which would forage on sandeels.

C.7.110 The applicants submitted updated heat mapping for sandeel in [AS-105] demonstrating that sandeel spawning grounds are widespread across the SNS outwith the boundaries of the Dogger Bank SAC. They [REP3-057, HRA.1.3] confirmed that the footprint of the proposed development within the Dogger Bank SAC represents:

- 0.23% of the medium to high potential habitat for sandeel of the SAC with regard to disturbance
- 0.018% of the medium to high potential habitat for sandeel of the SAC with regard to permanent habitat loss

C.7.111 The applicants' 'Effects on Prey Species Technical Note' [REP4-093, updated in REP6-049] considered that habitat within the Dogger Bank SAC was not unique in its potential to support sandeel, with areas of similar potential surrounding the site and present across the southern North Sea and that the presence of sandeel was not relevant to the boundaries of the Dogger Bank SAC which was designated on the basis of bathymetry and benthic communities.

C.7.112 The applicants considered [REP7-129, Q21] their assessment for loss of sandeel spawning habitat in the RIAA had been undertaken on a worst-case and conservative basis: NE [REP9-031, NE11] confirmed a satisfactory assessment had been provided. The applicants further highlighted [REP7-129, Q22] [REP8-042] that the seabed within the offshore development area within the Dogger Bank SAC, as well as being Annex I sandbank, was all potential spawning habitat for sandeel. Therefore, the applicants considered that any seabed habitat loss or disturbance within the Dogger Bank SAC would also be loss or disturbance of potential sandeel spawning habitat.

ExA's considerations

C.7.113 The ExA notes NE's agreement that a satisfactory assessment of effects on sandeel spawning habitat has been provided by the applicants [REP9-031, NE11]. It notes

the applicants concluded an AEol of sandbanks due to habitat loss from the permanent footprint of above surface infrastructure and agrees with the applicants [\[REP8-042\]](#) that there should be no additionality of disturbance effect.

- C.7.114 Therefore, the ExA does not consider that impacts on sandeel spawning habitat would contribute to AEol on the characteristic community and ecological function of the Dogger Bank SAC. This matter is not considered further in this appendix.

INTRODUCTION OR SPREAD OF INIS

- C.7.115 At DL7, NE [\[REP7-152\]](#), Q59] stated that the introduction or spread of INIS would contribute to AEol conclusions, as it includes the introduction of species non-native to soft-substrate habitats so is associated with the colonisation of hard infrastructure and ecological halo effects. This matter was not discussed further in the examination.

ExA's considerations

- C.7.116 The ExA notes that section 6.3 of the oPEMP [\[REP2-041\]](#) outlines the relevant regulations and guidance to be complied with to reduce risk of spreading INIS. It also identifies control measures to be undertaken in accordance with latest available guidance. The ExA considers that adherence to the PEMP adequately controls the risk from INIS and therefore does not consider that this would contribute to an AEol of the Dogger Bank SAC.

EXA'S FINAL CONSIDERATIONS IN RELATION TO ANNEX I HABITATS

- C.7.117 NE's end of examination position on benthic ecology [\[REP8-052\]](#) noted that the Dogger Bank sandbank and the wider ecosystem services it provides are unique in the UK and it provides a substantial proportion of sandbank to achieve designated sites network sufficiency requirements. It noted that the recent updates to the conservation advice package for the site indicates the presence of new infrastructure is preventing the site from recovering from unfavourable condition, as set out in the conservation objectives.
- C.7.118 The ExA agrees with the applicants' original conclusion of AEol of sandbanks of the Dogger Bank SAC from physical change to another seabed type (habitat loss) (alone and in combination), noting this accords with the Round 4 Plan Level HRA. As detailed above, the ExA also considers abrasion or disturbance to contribute to AEol.
- C.7.119 By the close of the examination, the applicants had presented 4 scenarios of habitat loss, including 3 'without prejudice' scenarios (revision 5 of the RIAA Part 2 [\[REP7-016\]](#), table 6-7]) as follows:
- 1) habitat loss from infrastructure alone (that is for which the applicants concluded there would be AEol) = 1,815,352m²
 - 2) habitat loss from infrastructure, UXO clearance and jack-up footprint = 3,152,672m²
 - 3) habitat loss and habitat disturbance (from infrastructure, seabed preparation, jack-up footprints, cable trench areas and anchoring footprints) = 25,017,704m²
 - 4) habitat loss from infrastructure and 50m halo effect + habitat disturbance = 35,069,191.13m²

- C.7.120 The applicants [REP7-129, Q17] noted that these potential effects would overlap and would therefore not be additive.
- C.7.121 Based on the conclusions reached in the preceding sections of this appendix, the ExA considers scenario 4 to represent the worst-case impact scenario of habitat loss. As acknowledged by NE [REP9-031], in areas where cable protection is placed, there would be an overlap between the halo effect and the habitat disturbance impact area.

C.8 FINDINGS IN RELATION TO AEol – Annex II migratory fish

HUMBER ESTUARY SAC AND RAMSAR SITE

- C.8.1 The Humber Estuary SAC is located 44km south of the proposed landfall zone [APP-049]. The applicants' description of the Humber Estuary SAC and assessment of effects on integrity on sea lamprey and river lamprey was presented at the application stage in section 7.5 of RIAA Part 2 [APP-046]. The applicants concluded that the proposed development would not adversely affect the integrity of the site, either alone or in combination with other projects or plans.
- C.8.2 The RIAA Part 2 was updated during the examination to include reference to the Humber Estuary Ramsar site (revision 5 [REP7-016]). At DL7, the applicants reviewed the Dogger Bank D OWF PEIR and RIAA and confirmed this did not change their in-combination conclusions for the Annex II migratory fish sites [REP7-133].
- C.8.3 No concerns were raised regarding the applicants' assessment of effects from underwater noise and vibration impacts on river and sea lamprey of the Humber Estuary SAC and Ramsar site. However, as detailed in section C.2 of this appendix, the ExA identified an additional LSE pathway from indirect impacts through effects on preferred prey availability. NE [RR-039, table 5.1] initially did not agree that AEol could be excluded from indirect impacts through effects on preferred prey availability but acknowledged that the uncertainties and data poor environment would prevent a reliable assessment being made [REP3-059]. The applicants considered [AS-048, table 2.6.1] that the conclusions of no significant effect on fish species reached in ES Chapter 10 [REP7-042] could be used as the basis to determine that there is no potential for impacts on preferred prey availability for SAC species.
- C.8.4 From DL3 onwards, river and sea lamprey of the Humber Estuary SAC and Ramsar site were no longer identified as features for which NE had outstanding concerns in terms of potential AEol [REP3-059] [REP5-053]. This was noted in the RIES [PD-025] and not disputed by NE in its comments on the RIES [REP7-152].

EXA'S CONSIDERATIONS

- C.8.5 The applicants confirmed [REP3-027, appendix E] that there is no current publicly available information regarding the condition of river lamprey or sea lamprey populations within the Humber Estuary SAC or SSSI. The ExA notes the applicants' commitment to minimise adverse impacts through utilising low-order methods for the detonation of UXO where viable, which is stated to be the default method in the oMMMP [REP4-054]. The oMMMP would be a certified document under Schedule 19 of the dDCO [REP6-003]. The ExA however notes the applicants' confirmation

[[REP5-036](#), FSE.2.16] that the conclusions of no AEol for Annex II migratory fish presented in the RIAA Part 2 [[REP4-014](#)] are not reliant on use of low-order methods for the detonation of UXO.

- C.8.6 The ExA agrees with the applicants that the information provided regarding indirect effects on prey availability is sufficient to inform consideration of AEol and has no reason to disagree with the applicants' conclusion from this LSE pathway. As such, based on the information submitted, the ExA is content that AEol from the proposed development can be excluded, both alone and in combination with other plans or projects, on river and sea lamprey of the Humber Estuary SAC and Ramsar site for all LSE pathways identified in table C5 of this appendix.

C.9 FINDINGS IN RELATION TO AEol – Marine mammals

- C.9.1 The applicants identified LSEs for 6 sites within the UK NSN designated for Annex II marine mammals (see tables in section C.11 of this appendix). LSEs were identified from: physical or auditory injury, behavioural impacts and barrier effects resulting from underwater noise; changes to prey availability; disturbance from vessels due to presence and underwater noise; vessel interaction; disturbance to mammals foraging at sea; and barrier effects due to the presence of offshore infrastructure during operation. For harbour porpoise only, an LSE was also identified from indirect effects (spawning habitat loss for prey species during operation).

- C.9.2 The applicants' description of the sites and assessment of effects on integrity was presented at the application stage in section 8.3 of the RIAA Part 2 [[APP-046](#)]. The applicants concluded that the proposed development would not adversely affect the integrity of any of the 6 sites, either alone or in combination with other projects or plans.

SNS SAC, BNNC SAC, HUMBER ESTUARY SAC, HUMBER ESTUARY RAMSAR SITE AND WNNC SAC – IMPACTS FROM UNDERWATER NOISE

- C.9.3 NE did not initially agree that it could rule out AEols for the following sites and features due to impacts from underwater noise:

- SNS SAC – harbour porpoise as the seasonal and daily disturbance thresholds would be significantly breached in combination with other activities and due to an over-reliance on the SIP process and securing additional mitigation post-consent to manage in-combination impacts [[RR-039](#), F3, F33, F34].
- Humber Estuary SAC – grey seal as more than 9% of the population could be disturbed by piling in the offshore export cable corridor and as conclusions should be based on the highest predicted impact values [[RR-039](#), F35].
- BNNC SAC – grey seal as more than 5% of the population could be disturbed by piling at DBS West and in the offshore export cable corridor and as conclusions should be based on the highest predicted impact values [[RR-039](#), F36].

- C.9.4 NE also stated that the grey seal feature of the Humber Estuary Ramsar site could become a concern, if impacts on the Humber Estuary SAC could not be ruled out [[REP3-059](#)]. NE did not initially raise any concerns regarding the WNNC and agreed at DL3 that an AEol could be excluded [[REP3-057](#), HRA.1.7]. However, following

updates to the RIAA Part 3 [\[REP5-009\]](#) at DL5, NE [\[REP7-152\]](#) was also unable to rule out AEol for the harbour seal qualifying feature.

- C.9.5 NE [\[RR-039\]](#), F33] advised that additional mitigation would be required and was concerned that the applicants' approach to the SIPs would not allow sufficient time for mitigation methods such as noise abatement systems (NAS) to be procured prior to construction. Whilst the applicants argued that change request 1 (which would remove piling along the offshore export cable corridor from all construction scenarios) would reduce the level of disturbance of the grey seal SAC populations [\[REP3-027\]](#), MM1.12] [\[AS-144\]](#), NE consistently advised [\[RR-039\]](#), NE14] [\[REP3-054\]](#) [\[REP3-058\]](#) [\[REP3-059\]](#) [\[REP4-123\]](#) [\[REP5-057\]](#) [\[REP5-061\]](#) the applicants to commit to using noise reduction technology such as NAS in the In Principle SIP and oMMMP.
- C.9.6 NE also highlighted concerns [\[RR-039\]](#), F16, F29] that the applicants had scoped out permanent threshold shift (PTS) from the in-combination assessments. Whilst the applicants provided an assessment in revision 3 of the RIAA Part 3 [\[REP5-009\]](#), NE disagreed with the conclusions and that mitigation had been appropriately secured.
- C.9.7 The applicants [\[AS-048\]](#), table 2.7.1] [\[AS-084\]](#) confirmed that DML conditions would require the undertaker to submit a detailed SIP to the MMO for approval post-consent, prior to piling activities taking place within the SNS SAC which would ensure no AEol of the SNS SAC. They explained they were considering the use of NAS, but that its use would be dependent on the final project design and determined post-consent. They considered [\[REP4-088\]](#), table 2-18] their in-combination assessment to be highly precautionary as it was unlikely all 10 OWF in the assessment would be piling at the same time due to vessel availability, programme changes and unplanned delays. They subsequently presented predicted impact ranges using a 10 decibel (dB) noise reduction in 'Illustrative Underwater Noise Reduction Technical Note' [\[REP4-094\]](#), updated in [\[REP7-125\]](#), which included example types of noise reduction methods. NE agreed [\[REP5-057\]](#) [\[REP5-061\]](#) [\[REP6-071\]](#) that an AEol of all sites could likely be ruled out if the applicants committed to achieving this reduction in underwater noise (with the exact systems and/ or technologies to be determined post-consent).
- C.9.8 In respect of the in-combination assessment, the applicants reviewed the Dogger Bank D OWF PEIR and RIAA. They considered [\[REP7-133\]](#) that their in-combination assessment for disturbance was highly precautionary, that the addition of another project would not be representative of a realistic scenario, and that quantitative information from the DBD PEIR would not add value. They also noted that the Dogger Bank D array areas would be located 39km from the SNS SAC and would not have direct impacts on the SAC.
- C.9.9 At DL7, the applicants amended condition 15(g) in dDMLs 1 and 2; and condition 13(g) in dDML 3 [then [\[REP7-011\]](#) to secure the use of primary and/ or secondary mitigation measures. The MMO [\[REP8-048\]](#) welcomed the changes to the conditions and confirmed it had no further comments. NE confirmed [\[REP8-051\]](#) [\[REP9-031\]](#), F11] it was satisfied that the updated condition sufficiently secured the application of additional primary and or secondary mitigation (if required) to support the assessment conclusions and that, together with the updated 'Illustrative Underwater Noise Reduction Technical Note' [\[REP7-125\]](#), had resolved the concerns. This included NE's concerns around scoping out PTS [\[REP9-031\]](#), F16].

NE therefore agreed with the applicants' conclusions as presented in RIAA Part 3 [REP5-009] that an AEol could be ruled out from underwater noise and vibration for harbour porpoise of the SNS SAC, grey seal of the BNNC SAC, the Humber Estuary SAC and the Humber Estuary Ramsar site, and harbour seal of the WNNC SAC [REP8-051] [REP9-018] [REP9-031, F17, F18, F19, F23].

SNS SAC – INDIRECT EFFECTS FROM PERMANENT SPAWNING HABITAT LOSS FOR PREY SPECIES

- C.9.10 The SNS SAC overlaps with the proposed array areas and offshore export cable corridor [APP-049]. NE [RR-039, F37] [REP5-056] [REP5-061] [REP6-077, NE12] was not satisfied an AEol alone or in combination could be excluded for harbour porpoise of the SNS SAC due to a lack of consideration of indirect effects on prey species from permanent spawning habitat loss. The issues raised during examination mirrored those for seabirds of the FFC SPA (see below), with NE [REP5-056] noting several studies evidencing the importance of sandeels and clupeids for harbour porpoise.
- C.9.11 The applicants [AS-048, table 2.6.1] noted that impacts on prey were considered in the Round 4 Plan Level HRA (RIAA Appendix I Marine Mammal Array Assessment Part 2; The Crown Estate, 2022), which concluded that any impact on marine mammal features would be negligible at any meaningful population scale and would not make an appreciable difference to any in-combination impact.
- C.9.12 The applicants maintained that indirect effects due to changes to prey had been adequately addressed [REP3-027, MM.1.0] [REP6-052, table 2-17] [REP7-129]. They submitted 'Effects on Prey Species Technical Note' [REP4-093, updated in REP6-049] concluding that due to the wide foraging ranges of marine mammals and the small footprint of effect on prey, there would be no AEol of the SNS SAC. They further noted [REP6-052, table 2-17] [REP7-129] that other prey species in the Dogger Bank SAC were also important for harbour porpoise and that there is already a documented shift in harbour porpoise distribution, likely due to changes in prey availability.

EXA'S CONSIDERATIONS IN RELATION TO FINDINGS FOR MARINE MAMMALS

- C.9.13 The ExA notes that amendments were made to the oMMMP [REP7-117], In Principle SIP [REP7-119] for the SNS SAC and oPEMP [REP2-041] during the examination and that these would all be certified documents under Schedule 19 of the dDCO [REP9-003]. The ExA is satisfied that these, along with the amendments to the DML conditions, would adequately mitigate underwater noise impacts on marine mammals.
- C.9.14 At DL7, NE confirmed that it did not consider the risk to harbour porpoise from indirect impacts on prey species alone was sufficient to drive an AEol conclusion [REP7-152, Q32]. NE noted that should an AEol be concluded for the SNS SAC harbour porpoise overall, it would have considered that indirect impacts on prey species would likely be having a contributing effect [REP7-152, Q32] [REP9-018] [REP9-031, NE12, F20].
- C.9.15 The BNNC SAC is in unfavourable, recovering condition, whilst the WNNC SAC is in favourable – unfavourable recovering condition. The SNS SAC and the Humber Estuary SAC are both in favourable condition [REP3-027, appendix E]. The ExA is

content that the proposed development would not result in further deterioration of either sites' condition.

- C.9.16 The ExA notes NE's confirmation that AEol can be excluded for all marine mammal SAC features for which it is responsible. Whilst BNNC SAC is jointly managed by NE and NatureScot, NatureScot did not engage with the examination and therefore the ExA has relied upon the advice from NE. Providing that the proposed mitigation measures are adhered to, the ExA is content that AEol from the proposed development can be excluded, both alone and in combination with other plans or projects, on all marine mammal SAC features for all LSE pathways identified in table C6 of this appendix.

C.10 FINDINGS IN RELATION TO AEol – Marine Ornithology

- C.10.1 The applicants identified LSEs for 22 SPAs within the UK NSN as a result of disturbance and/ or displacement effects, indirect impacts through effects on habitats and/ or prey species, collision risk and barrier effects (see table C7 of this appendix). The applicants' description of the sites and assessment of effects at the application stage was presented in the RIAA Part 3 [\[APP-048\]](#). It concluded no AEol for all sites and features other than kittiwake and guillemot of the FFC SPA.
- C.10.2 Of the sites for which the applicants concluded no AEol, NE is responsible for the Coquet Islands SPA, Farne Islands SPA and Greater Wash SPA. It confirmed its agreement of no AEol of Coquet Islands SPA in [\[REP3-057\]](#), HRA.1.7]. NE identified the latter 2 sites as being potentially affected by the application [\[RR-039\]](#), table 5.1].
- C.10.3 The remaining sites for which the applicants concluded no AEol are located within Scotland. As noted previously, the ExA sought the views of NatureScot on the applicants' assessment for these sites [\[PD-014\]](#), HRA.1.4] [\[PD-022\]](#), HRA.2.3], however, NatureScot did not engage in the examination.
- C.10.4 The ExA's account of the examination of matters relating to the sites of contention is set out in the following sections.

SITES WITH GANNET AS QUALIFYING FEATURES

- C.10.5 The following sites with gannet as a qualifying feature were screened into the applicants' assessment [\[APP-048\]](#) due to collision risk, with the applicants concluding no AEol:
- Fair Isles SPA
 - FFC SPA
 - Forth Islands SPA
 - Hermaness, Saxa Vord and Valla Field SPA
 - Noss SPA
- C.10.6 NE [\[RR-049\]](#), G16] advised that gannet collision was assessed using an avoidance rate of 99.3%, along with a macro-avoidance correction factor between 65-85%. The applicants revised its assessment accordingly in revision 3 of the RIAA Part 4 [\[AS-085\]](#). They also presented the collision risk modelling without the application of the macro-avoidance correction factor. Whilst NE confirmed this matter to be resolved [\[REP1-067\]](#), the RSPB disagreed with NE's advice [\[RR-049\]](#) [\[REP1-087\]](#) [\[REP4-071\]](#) [\[AS-183\]](#) [\[REP9-016\]](#). It stated that it did not take account of seasonal

variation in macro-avoidance and assumed that gannet would have the same reactive flight response as gulls, despite having lower flight manoeuvrability. It also highlighted the potential for habituation to the presence of turbines which results in lower macro-avoidance and an elevated risk of collision. The positions of the RSPB, NE and JNCC on macro-avoidance are detailed in section 5.6 of this Recommendation.

EXA'S CONSIDERATIONS

- C.10.7 The ExA agrees with the 70% macro avoidance rate for gannet advised by NE and the JNCC. This has been used by the applicants in the assessment and therefore consider the applicants' assessment to be adequate. This is also concluded on with respect to the EIA assessment in section 5.6 of this Recommendation.

FARNE ISLANDS SPA

- C.10.8 The Farne Islands SPA is located 210km from the proposed array areas [\[APP-049\]](#). Based on population modelling and trends at the site, the applicants ruled out AEol for guillemot from the proposed development alone or in combination with other plans or projects [\[REP6-008\]](#), section 9.8.2.2.5.1].
- C.10.9 NE did not raise any concerns regarding impacts from the proposed development alone. However, at DL8 the RSPB [\[AS-183\]](#) stated it was unable to reach a conclusion regarding the impacts of displacement mortality on guillemots of the Farne Islands SPA from the proposed development alone (or in combination), although it did not provide specific reasoning.
- C.10.10 In respect of in-combination impacts, NE stated in its RR that due to the substantial impacts of the Berwick Bank OWF, it had already advised regulators it could not rule out an in-combination AEol on guillemot at the Farne Islands SPA [\[RR-039\]](#), G65].
- C.10.11 The applicants' final version of the RIAA Part 4 (revision 5) provided an in-combination displacement matrix [\[REP6-008\]](#), table 9-46]. At the applicants' preferred rates of 50% displacement and 1% mortality, the annual mortality would be 155 birds. The applicants maintained there would be no AEol of the Farne Islands SPA through in-combination effects, stating that more than half of the total impact estimated to the Farne Islands SPA population is attributable to one project (Berwick Bank; 55%), while the proposed development contributes at most 5%. Nevertheless, the applicants added the proposed development alone impacts on the Farne Islands SPA to that for the FFC SPA, on a 'without prejudice' basis, in the Guillemot [and Razorbill] Compensation Plan (revision 6) [\[REP6-012\]](#).
- C.10.12 NE [\[REP8-053\]](#) applied its preferred rates of 70% displacement and 2% mortality and calculated an in-combination impact (excluding compensated projects) as 435 adult birds. NE noted that the PVAs run by the applicants indicated that the population could decline from current levels at this impact rate.
- C.10.13 NE advised that the Farne Islands SPA has a conservation objective for guillemot to maintain the size of the breeding population at a level which is above 37,875 breeding pairs, whilst avoiding deterioration from its current level. It noted the applicants had used the 2019 count (32,021 breeding pairs) but that since then, the population size has declined to an estimated 21,446 breeding pairs in 2024, partly attributed to impacts of HPAI (SMP 2025, Tremlett et al 2024). It confirmed that the proposed development would contribute to in-combination effects and along with

uncertainty over long term impacts of HPAI and climate change, it considered the predicted level of in-combination impacts are likely to negatively affect the conservation objectives for guillemot. It therefore could not rule out AEol on the Farne Islands SPA due to in-combination displacement impacts on guillemot.

- C.10.14 The RSPB [REP5-065, OR.2.23] [AS-183] similarly considered there to be an AEol for guillemot from in-combination displacement impacts, advising that after a period of 30 years, the population size of the SPA is expected to be between 30.14 and 91.94% of what it would have been in the absence of the development. However, the RSPB [AS-183] reiterated its position it held since the start of examination in [RR-049] and [REP1-087] that due to methodological concerns, it could not reach conclusions as to the significance of in-combination collision impacts on kittiwake of the Farne Islands SPA.

EXA'S CONSIDERATIONS

- C.10.15 The Farne Islands SPA is in unfavourable, recovering condition [REP3-027, appendix E]. In respect of impacts from the proposed development alone, NE [REP8-053] agreed with the applicants that there would be no AEol of guillemot from the Farne Islands SPA. However, the RSPB was unable to exclude AEol. In the absence of substantiated evidence from the RSPB, the ExA is content to rely on the ANCB's advice.
- C.10.16 With regards to in-combination effects, NE [REP5-058] confirmed that the SoS has previously determined an in-combination effect for guillemot in the Rampion 2 decision. The ExA acknowledges that impacts from the proposed development would form a small percentage of the overall in-combination impact. However, the ExA considers that any further impact could contribute further mortalities and to the deterioration of the breeding population and is therefore unable to exclude AEol from in-combination displacement.
- C.10.17 As noted below for the FFC SPA, the ExA considers displacement rates of 70% and mortality rates of 2% to be appropriate for auks and therefore considers the in-combination impact to be 435 adult birds.
- C.10.18 The ExA is content that AEol can be excluded for all other qualifying features of the Farne Islands SPA (as identified in table C7 of this appendix) as a result of the proposed development alone or in combination with other plans or projects.

FORTH ISLANDS SPA

- C.10.19 The Forth Islands SPA is located in Scotland, 289km from the proposed array areas [APP-049]. NatureScot did not participate in the examination, however, the RSPB [RR-049] [REP1-087] noted the applicants had not assessed impacts on gannets from Forth Islands SPA on the basis that 100% of birds present would originate from the FFC SPA during the breeding season. However, it highlighted studies tagging gannets from the Forth Islands SPA in the footprint of the application site.
- C.10.20 The applicants [REP2-057, table 2-14] acknowledged the potential for some overlap in foraging ranges between adjacent colonies. They concluded that the annual impacts on the FFC SPA and Forth Islands SPA were 21 and 4 individuals respectively and that a small adjustment to the relative contributions between the 2 SPAs would make no material difference to the conclusions reached. The applicants

considered they had undertaken a precautionary approach by assuming 100% of breeding birds are from the smaller colony at the FFC SPA.

- C.10.21 At DL5, the RSPB [[REP5-065](#), OR.2.30] had noted that the applicants' annual impact (4 individuals) is based outside the breeding season and it considered there would be birds from Forth Islands SPA present in the DBS array area during the breeding season. It could not exclude AEol in absence of mortalities and PVAs with breeding birds apportioned to the Forth Islands SPA, and without the macro-avoidance correction. The applicants [[REP6-051](#), table 2-14] responded to explain they had followed NE's advice with respect to collision mortality as it is appropriate for a project in English waters and with respect to apportioning all breeding gannets to the FFC SPA.
- C.10.22 The RSPB maintained its position throughout the examination that it was unable to reach a conclusion as to the significance of impacts on the gannet component of the Forth Islands SPA [[REP1-087](#)] [[AS-183](#)] [[REP9-016](#)].

EXA'S CONSIDERATIONS

- C.10.23 The gannet qualifying feature of the Forth Islands SPA is in favourable, maintained condition [[REP3-027](#), appendix E]. The ExA does not have the advice of NatureScot as the ANCB for the Forth Islands SPA. However, the ExA is content with the applicants' methodological approach and notes that the annual impact of 4 gannets would be below the 1% threshold for detectability.
- C.10.24 The ExA is content that AEol can be excluded for all qualifying features of the Forth Islands SPA (see tables in section C.11 of this appendix) as a result of the proposed development alone or in combination.

FFC SPA

- C.10.25 The FFC SPA has a small overlap with the offshore export cable corridor and is located 100km from the proposed array areas [[APP-049](#)]. The applicants' description of the site and assessment of integrity for the FFC SPA was presented at the application stage in section 9.5 of RIAA Part 4 [[APP-048](#)]. The LSE pathways screened in are summarised in table C7 of this appendix.
- C.10.26 The applicants concluded that the proposed development would result in AEol on the FFC SPA as follows:
- guillemot (breeding) – disturbance and displacement (in combination)
 - kittiwake (breeding) – collision risk (in combination)
- C.10.27 In respect of kittiwake, the applicants were of the view that the in-combination collision impacts would not result in AEol. However, they acknowledged previous decisions on OWFs by the SoS and the Crown Estate's Round 4 Plan Level HRA for the Fourth Offshore Wind Seabed Leasing Round which concluded there would be an AEol due to the potential increase in mortality of the FFC SPA breeding kittiwakes resulting from the operation of the ODOWF and the DBS OWF. As such, the applicants agreed AEol could not be excluded [[APP-048](#), section 9.5.2.2].
- C.10.28 The applicants concluded that the proposed development (alone or in combination with other plans or projects) would not adversely affect the integrity of all other qualifying features. Nevertheless, the applicants acknowledged that the SoS may

be unable to reach the conclusion of no AEol in respect of disturbance and displacement of razorbill of the FFC SPA (alone and in combination) and therefore included this feature in the derogation case on a 'without prejudice' basis [APP-048, paragraph 276].

EFFECTIVENESS OF PROPOSED MITIGATION

- C.10.29 NE [RR-039, G7, G28 and G63] [AS-159, page 35] [AS-161] noted that large numbers of seabirds had been recorded in the baseline surveys and the potential for connectivity with the FFC SPA in particular. It advised that further consideration be given to potential mitigation measures to reduce impacts. This included array area reductions, changes to the design envelope and layout of arrays, or increasing hub height of turbines. It advised that seabird density hotspot modelling be undertaken to help inform such mitigation.
- C.10.30 The applicants [PDB-006] [REP3-027, OR.1.44] [REP3-028, table 2-13] [REP4-087, table 2-10] considered they had demonstrated adherence to the mitigation hierarchy. They noted that bird distribution data had been considered as part of the boundary refinement exercise and that the number of turbines was reduced during the pre-application stage. They responded that mitigation relating to air gaps had been applied in accordance with the Round 4 Plan Level Habitats Regulation Assessment (The Crown Estate 2022) (meaning the clearance of the blades above the water is set at a minimum 34m above mean sea level (MSL)). They submitted an Ornithological Mitigation Option Report [AS-118, revised in REP4-081] which concluded that increasing the minimum air gap would risk the proposed development being potentially commercially unviable. Further details were provided in [REP5-036, OR.2.4]. The mitigation issues related to the air gaps and hotspot modelling are reported and concluded on in section 5.6 of this Recommendation.
- C.10.31 A third concern related to whether the applicants were correct to consider the location of the proposed development as embedded mitigation due to its connectivity with the FFC SPA as derived by certain foraging ranges. The applicants [REP8-042] explained that lease boundaries are fixed, therefore, there was very limited scope for further amendment. They stated that site selection was a key embedded mitigation measure, with arrays being located at least 100km from the nearest nesting colonies and therefore, connectivity with the FFC SPA was low [AS-057] [REP4-033] [REP4-086]. However, NE [REP3-057, OR.1.39] [REP5-060] [REP8-053] did not consider that the location of the proposed development, within a key foraging area in the Dogger Bank SAC, would meaningfully reduce impacts on the FFC SPA features. It advised that the mean maximum foraging range plus one standard deviation (SD) should be used to establish connectivity for guillemot and razorbill at the FFC SPA, as opposed to the applicants' preferred global mean foraging range. This would result in connectivity of the proposed development with razorbill and guillemot, and as such, NE did not consider site selection to be an effective measure for the FFC SPA seabird features.
- C.10.32 With regards to density hotspot modelling, NE [REP5-058] [REP5-060] [REP8-053] advised it could demonstrate consistent areas of high usage. It noted that the proposed development is located in the Dogger Bank SAC, an area important for sandeel and likely to attract seabirds breeding at the FFC SPA and that tracking data of kittiwake breeding at the FFC SPA showed overlap with the proposed offshore development area. It advised that if density hotspot modelling demonstrated consistent areas of high usage, the potential for array reductions

should be investigated. Furthermore, it considered the applicants' refusal to do so contradicted their statement that they have done everything feasible to mitigate impacts on offshore ornithology.

- C.10.33 The applicants [\[REP8-042\]](#) explained that some hotspot modelling was applied during project design, but they generally considered density hotspot modelling to be an unreliable basis upon which to conduct boundary changes or micro-siting due to variability in seabird distribution over time. They considered [\[REP6-052\]](#), table 2-25] that further reductions in the developable area within the lease boundaries would risk making the proposed development economically unviable. They submitted 'Offshore Ornithology Year 1 and 2 Combined Spatial Plots' [\[REP7-137\]](#), revised in [\[REP8-040\]](#) with details of the aerial survey data collated during pre-application to help avoid potential areas of high abundance for ornithological receptors. They considered [\[REP9-021\]](#) that modelling this exercise is not useful within tightly defined boundaries as there was little space to 'play with' and due the variability of data from month to month or year to year.
- C.10.34 NE [\[REP8-051\]](#) [\[REP9-029\]](#) considered the document to be insufficient to address its concerns with respect to density hotspot modelling. It noted that the document identified apparent areas of consistent and regular high densities (particularly for kittiwake and guillemot), which it considered indicated scope for exploring options to further reduce ornithological impacts. NE considered there to be merit in further exploration and noted that it had requested this information in pre-application and in its RR [\[RR-039\]](#).
- C.10.35 The ExA [\[PD-028\]](#) therefore suggested a condition in the DMLs requiring post-consent seabird surveys with a report to explain how the results influenced the array, size or layout to mitigate impacts. NE [\[REP7-151\]](#) queried how this would operate in practice, noting that the SoS would need to assess alternative solutions with lesser impacts before allowing a derogation under the Habitats Regulations. It sought clarity on how any resultant level of impact would be secured and whether it would be more appropriate in the DCO than the DMLs. The applicants [\[REP7-130\]](#) did not consider NE was requesting additional surveys. They stated that they have sought to mitigate potential impacts through refinement of the array areas and increasing the air gap. They stated that reductions to collision risk would only occur by reducing the turbines and capacity of the proposed development. They also explained that hotspot modelling would only be relevant to collision risk as displacement is based upon the full boundary plus a buffer, so minor layout changes would not be relevant to these effects.
- C.10.36 Ultimately, the applicants [\[REP8-042\]](#) considered they had exhausted all mitigation measures that are feasible and would not adversely impact the projects' viability.

ExA's considerations

- C.10.37 The ExA has concluded on the mitigation issues related to the air gap and hotspot modelling in section 5.6 of this Recommendation.
- C.10.38 With regards to the air gap, the ExA is satisfied that the applicants have provided a sufficiently robust explanation for a minimum air gap of 34m above MSL which is secured in Schedule 2, Part 1, requirement 2(d) and Schedule 10, Part 2, condition (1)(d) of DML1 and Schedule 11, Part 2, condition (1)(d) of DML2 of the dDCO

[[REP9-003](#)]. The ExA considers that adherence to the mitigation hierarchy has been demonstrated in relation to the minimum air gap.

C.10.39 With regards to whether further analysis of hotspot modelling could inform array reductions or modifications to array layouts, the ExA is satisfied that the applicants have adhered to the mitigation hierarchy to reduce the array areas as far as reasonably possible. See section 5.6 of this Recommendation for the full reasoning.

C.10.40 The ExA considers that the density hotspot modelling undertaken by the applicants and the consideration of the results in determining the location of the array areas is sufficient. The ExA considers that further analysis of hotspot modelling would have negligible returns given the limited area in which to further refine the layout. The ExA concludes that the mitigation proposed through the design of the array areas is sufficient to adhere to the mitigation hierarchy for the purpose of the Habitats Regulations.

C.10.41 With regards to whether the location of the proposed development in relation to the FFC SPA, the ExA considers the location fixed by the lease process run by The Crown Estate, (which was subject to its own HRA and strategic environmental assessment) and therefore the distance from the FFC SPA was outside the control of the applicants.

ASSESSMENT OF EFFECTS ON THE SEABIRD ASSEMBLAGE

C.10.42 The ExA queried why the RIAA Part 4 had only assessed impacts on the Atlantic puffin component of the FFC SPA seabird assemblage [[PD-016](#), OR.1.11]. The applicants [[REP3-027](#), OR.1.11] explained that it was challenging to assess the seabird assemblage in its own right and confirmed that of the species not listed as a named feature, puffin had been assessed as if it were a named feature. Fulmar, cormorant, shag and herring gull were screened out of the assessment due to low sensitivity to displacement and collision impacts, alongside low connectivity with the FFC SPA and low numbers recorded within the survey area. The applicants [[REP6-051](#), tables 2-10 and 2-14] considered the determination of AEol on the seabird assemblage feature to be a technical point as there was broad agreement over the individual species impacts and no meaningful way to assess the seabird assemblage other than as the sum of its constituent parts.

C.10.43 The RSPB explained [[REP5-065](#), OR.2.24] that NE's supplementary advice had a target for abundance of the seabird assemblage feature. It considered that adverse effects on individual species of the SPA would contribute collectively to undermining the achievement of the abundance target and therefore the FFC SPA's conservation objectives.

ExA's considerations

C.10.44 The ExA is satisfied the applicants have adequately assessed impacts on the seabird assemblage through the assessment of impacts on individual qualifying features that are component species of the assemblage and puffin (as a component of the species assemblage).

INDIRECT EFFECTS ON PREY SPECIES

C.10.45 NE's RR stated [[RR-039](#), G66] it did not agree AEol could be excluded due to a lack of consideration of indirect effects on prey species from permanent spawning

habitat loss. NE confirmed [\[REP5-062\]](#), HRA.2.6(a)) its concerns related predominantly to the FFC SPA, highlighting connectivity with birds foraging from the FFC SPA and the proposed development array areas [\[REP3-057\]](#), HRA.1.3).

- C.10.46 Throughout examination, the applicants maintained [\[AS-048\]](#), table 2.7.1) [\[PDB-006\]](#) [\[REP3-028\]](#), table 2-12) [\[REP4-093\]](#), updated in [\[REP6-049\]](#) [\[REP6-052\]](#), table 2-17) [\[REP7-129\]](#) that impacts on prey species had been assessed in the ES and HRA Report. The applicants [\[REP3-028\]](#), table 2-12) did not contest that the Dogger Bank is a foraging area for mobile species but highlighted that it is not the only foraging area for these species. Their submissions regarding sandeel habitat loss is reported under the Dogger Bank SAC section of this appendix, above. The Effects on Prey Species Technical Note at DL4 [\[REP4-093\]](#), updated in [\[REP6-049\]](#) also concluded that the Dogger Bank SAC was not particularly important for herring. The note cited evidence that seabird populations would be very little affected by any impacts on their prey and stated that population fluctuations are typical of forage fish species.
- C.10.47 The applicants also noted that impacts on prey were considered in The Crown Estate Round 4 Plan Level HRA (RIAA appendix H – Ornithology Array Assessment Part 2; The Crown Estate, 2022), which concluded that any impact on ornithology features would be negligible and not make an appreciable difference to any in-combination impact [\[PDB-006\]](#) [\[REP4-093\]](#), updated in [\[REP6-049\]](#) [\[REP7-129\]](#), Q47).
- C.10.48 NE [\[REP3-057\]](#), HRA.1.3) [\[REP5-056\]](#) considered the applicants' arguments oversimplified the case and noted that during the breeding season, seabirds are central-place foragers to areas within foraging range, and their distribution is also strongly affected by the availability of prey. It noted the Dogger Bank SAC is important for sandeel and likely to attract seabirds breeding at the FFC SPA. It explained that sandeel are relatively sedentary with limited mobility and are strongly associated with discrete areas of particular sediment types. It considered that areas within the Dogger Bank with a high abundance of sandeels are therefore likely to represent a consistent source of food for foraging seabirds and that whilst seabirds could forage elsewhere, they are choosing to forage in this location. NE advised on information that, in its view, should be taken into consideration when predicting the localised impacts on prey species.
- C.10.49 NE [\[REP7-152\]](#), Q52) [\[AS-184\]](#) maintained that the applicants had not provided an adequate assessment to quantify predicted impacts on predator species as a result of impacts on localised prey populations. However, it acknowledged that any such assessment would carry a high degree of uncertainty and that as a result the likely scale of potential impact would remain poorly understood. Accordingly, NE did not consider the indirect impacts could be quantified. It concluded [\[REP7-152\]](#), Q46) [\[AS-184\]](#) [\[REP9-031\]](#), NE12, G52) that impacts on prey species pathway would not result in an AEoI of seabirds as a pathway in its own right, but that it could intensify the effects on features for of the FFC SPA where it could not rule out an AEoI (kittiwake, guillemot and razorbill). It considered the impact pathway to be a source of under-precaution in the assessment.
- C.10.50 The applicants [\[REP6-052\]](#), table 2-17) [\[REP7-129\]](#) [\[REP9-021\]](#) considered that any direct effects on the prey themselves (such as disturbance, noise impacts) had been adequately assessed. They acknowledged that seabirds forage in the array areas but considered prey resource is widespread throughout their foraging range. They noted that hotspot modelling suggests locations outwith the array areas are of greater importance for kittiwake, guillemot and razorbill. They considered it to be

double counting to assume that displacement leads to mortality (due to reduced potential for feeding) and state that indirect effects contribute to AEol (as displacement mortality is assumed to result from a reduction in access to prey). They did not consider that prey effects ‘intensify the effect’ for kittiwake, given the minimal footprint of infrastructure [REP9-021].

ExA’s considerations

C.10.51 The ExA agrees with NE that it is not possible to quantify indirect impacts from effects on prey species to features of the FFC SPA. The ExA acknowledges the assessment provided by the applicants. It is satisfied that direct impacts on prey species, including on their spawning habitat, have been sufficiently assessed and that any impacts on their populations would not result in significantly reduced prey availability to qualifying features of the FFC SPA. The ExA is satisfied that there would be sufficient prey resource within the qualifying features, foraging ranges. The ExA is also content with the applicants’ explanation [REP9-021] that, where qualifying features are subject to displacement effects, resultant mortality is assumed to result from a reduction in access to prey.

C.10.52 The ExA therefore concludes that indirect effects on prey species do not contribute to an AEol of the FFC SPA for any qualifying feature and are therefore not considered further by the ExA.

CONSIDERATION OF POPULATION GROWTH RATES AND HPAI

C.10.53 NE [RR-039, G62] [REP5-060] noted that the applicants had cited recent population growth at the FFC SPA as a reason for concluding no AEol was likely on gannet, kittiwake and razorbill from in-combination impacts. It explained that the percentage reduction in growth rate calculated from the PVA results is based on an assumption that the population in question would continue to grow as it has done in recent decades. It did not consider it appropriate to assume the same growth rate for the next 30 years as the populations would likely experience density-dependent mechanisms over the lifetime of the proposed development, and there were uncertainties about the long-term population impacts of HPAI and a wide range of other environmental pressures, including climate change. It noted that the applicants had acknowledged HPAI and climate change but had not considered them in their interpretation of the PVA results. It therefore advised the applicants to consider realistic assessments of current and future population trends, considering all relevant evidence, when interpreting the results of updated PVAs.

C.10.54 The RSPB [RR-049] [REP1-087] [REP4-071] [REP9-016] also maintained concerns throughout the examination about the impacts of HPAI and advised that a high level of precaution had not been adequately considered by the applicants. It highlighted [AS-183] an AA carried out for the West of Orkney OWF, where the Scottish Ministers noted that the life history of seabirds (slow maturing, low reproduction) means that colonies impacted by pressures such as HPAI may be more sensitive to additional mortality from offshore wind development, exacerbating declines or preventing recovery.

C.10.55 The applicants gave further consideration to population trends and the impacts of HPAI in revision 3 of the RIAA Part 4 [AS-085]. In their submissions [PDA-013] [PDB-006] [REP2-057, table 2.14] [REP3-027, OR.1.9] [REP3-028, table 2-13] [REP4-086] [REP5-036, OR.2.29] the applicants noted that NE’s advice to consider density dependence contradicts its standard advice. They highlighted the variability

in species' responses to HPAI and observed that, while there were some exceptions, the overall impact of HPAI had been less severe than initially feared. They argued that the effects were largely temporary, influencing population growth rates rather than causing lasting declines. Furthermore, the applicants stated that evidence of any physiological changes caused by HPAI was limited and they considered RSPB's comments to be mostly unfounded and largely speculative. The applicants noted that populations decline varied geographically and suggested that any wind farm mortality would be predicted to decline either in the same proportion as population declines, or potentially to a greater extent. Ultimately, the applicants concluded that HPAI had not rendered seabird populations less robust or more vulnerable to wind farm impacts and that there was no clear or practical method for incorporating HPAI effects in a quantitative manner.

- C.10.56 NE [\[AS-159, G49\]](#) [\[REP5-060\]](#) [\[REP8-053\]](#) acknowledged that the long-term impacts of HPAI were not fully understood as there had not been time to fully assess the long-term impacts of the most recent outbreak on seabird populations. However, it disagreed that the impacts of HPAI on seabird populations had not been significant and noted that the outbreak continued globally, therefore, there was considerable uncertainty regarding the likely population sizes and growth rates in the future.
- C.10.57 NE further confirmed [\[REP5-060\]](#) that density dependence did not need to be incorporated into PVAs but maintained that realistic future seabird population trends (including HPAI and climate change) needed to be considered in the interpretation of the significance of the results of PVAs. NE advised the applicants to take a similar approach to Sheringham Shoal and Dudgeon Extension Projects (SEP and DEP), which considered a range of potential future growth rates in order to allow decision-makers to consider the likelihood of SPA conservation objectives being met for a range of potential future scenarios. Whilst it noted that this matter being assessed would not materially impact its assessment conclusions [\[REP5-061\]](#), it considered there was a need to have regard for the potential long-term impacts of HPAI on seabird populations when drawing conclusions and undertaking integrity judgements.
- C.10.58 The applicants [\[REP6-052, tables 2-21, 2-23 and 2-27\]](#) [\[REP7-129, Q44\]](#) considered that the comparisons suggested by NE would be entirely subjective and of limited value and queried why NE could not provide this interpretation themselves. They considered it would be more appropriate to include density dependence in the models to provide a clear set of predictions. They noted that without the inclusion of density-dependent regulation, the PVAs presented the worst possible interpretation of how mortality may affect a population. The applicants [\[REP6-051, table 2-14\]](#) also cited an independent study which strongly recommended density dependence be included in the PVA. They noted that density independent PVAs would always result in reduced population growth rates and population sizes and considered the counterfactual of population size to be an unreliable guide to the likely effect. They stated that animal populations are subject to intrinsic regulation moderating excessive growth and mitigating against losses.
- C.10.59 At the close of examination, NE maintained that potential future changes to seabird population trends had not been considered by the applicants [\[REP9-031, G49\]](#).

ExA's considerations

- C.10.60 The ExA has considered the various positions of IPs and the applicants in relation to the assessment of HPAI on population growth rates and the need for density dependence in the PVAs. The ExA notes that the applicants have undertaken the PVA without inclusion of density dependence in accordance with NE's advice. The ExA is disappointed the applicants have not considered a range of potential future growth rates in order to allow decision-makers to consider the likelihood of SPA conservation objectives being met for a range of potential future scenarios. However, the ExA notes that NE stated this matter being assessed would not materially impact its own assessment conclusions. The ExA considers HPAI to be a source of uncertainty in the assessment.

GANNET

- C.10.61 Further to revisions made to the RIAA Part 4 during the examination, NE [\[REP5-053\]](#) [\[REP5-062\]](#), OR.2.26] [\[REP7-152\]](#), Q42 and Q45] [\[REP8-053\]](#) agreed that an AEol for the FFC SPA gannet could be ruled out as a result of the proposed development alone or in combination.
- C.10.62 However, the RSPB [\[RR-049\]](#) [\[REP1-087\]](#) [\[AS-183\]](#) [RP9-016] maintained throughout the examination that it could not rule out AEol on gannet due to combined collision and displacement mortality [\[AS-183\]](#) from the proposed development alone or in combination. This was due to the applicants' application of a macro-avoidance correction factor discussed above.

ExA's considerations

- C.10.63 As detailed above, the ExA is content with the applicants' approach to accounting for macro-avoidance. As such, the ExA sees no reason to disagree with the conclusion of the applicants and NE that there would be no AEol of gannet from the FFC SPA from the proposed development alone.

KITTIWAKE

Proposed development alone

- C.10.64 Whilst the applicants concluded there would be no AEol on kittiwake of the FFC SPA from the proposed development alone [\[APP-048\]](#), NE's RR advised that the proposed development was the highest impacting project on the FFC SPA kittiwake to date and would likely result in an AEol alone [\[RR-039\]](#), H5].
- C.10.65 The applicants' final assessment of effects [\[REP6-008\]](#), sections 9.6.2.2.3.1.3 and 9.6.2.2.5.2] [\[REP9-021\]](#) applied a 54% adult proportion figure to estimate a mortality of 98 individuals for the proposed development alone, which would result in an increase in background mortality of 0.8%. They stated that this is less than the 1% threshold below which NE agrees impacts are sufficiently small that no further assessment would be required (and hence no AEol). They considered that even if a more precautionary adult proportion of 70% was applied, this would still result in a mortality increase of less than 1% and a conclusion of no AEol.
- C.10.66 Applying NE's approach, the applicants calculated the mean annual impact of the proposed development on kittiwake at the FFC SPA as 191 birds (95% upper confidence limit (UCL) 377) (assuming all the birds recorded in the wind farms during the breeding season are breeding adults).

- C.10.67 NE noted [\[REP8-053\]](#) that the applicants' PVA showed that, after 30 years, the population growth rate would be reduced by 0.25% per annum and the population size by 7.58%. NE advised that the FFC SPA has a conservation objective for kittiwake to restore the size of the breeding population to a level which is above 83,700 breeding pairs, whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent. The most recent count in 2022 indicated a population size of 44,574 pairs, which was a 2% decrease compared to the previous count in 2017 of 45,504 breeding pairs. NE considered that indirect impacts on sandeel would be likely to intensify the direct impacts and that the potential effects of HPAI (see above) and future predicted impacts of climate change would add further uncertainty to the potential long-term status of kittiwake at the FFC SPA. NE therefore considered that the level of impact predicted for the proposed development is likely to negatively affect this conservation objective and could not rule out AEol as a result of collision risk to kittiwake from the proposed development alone.
- C.10.68 The RSPB [\[AS-183\]](#) similarly disagreed with the applicant's conclusion, advising that after a period of 30 years, the population size of the SPA is expected to be 92.4% of what it would have been in the absence of the development. It considered there to be an AEol due to the impact of collision mortality on the kittiwake population of the FFC SPA.
- C.10.69 The applicants responded in [\[REP9-021\]](#) noting that even when considering NE's advised apportioning approach, the 0.25% decrease in the population growth rate would result in a small decrease from the annual average growth rate of 2.1%. It did not agree that there would be an AEol for the proposed development alone, even if NE's approach was applied. Furthermore, they disputed that prey effects intensify collision risk given the minimal footprint of infrastructure (even if seabed disturbance is considered a permanent footprint excluding sandeel).

ExA's considerations

- C.10.70 The ExA has considered the various positions of the applicants and IPs. Given the proximity of the proposed development to the FFC SPA, the ExA considers it appropriate to apply NE's preferred rates of apportionment of impact (100%) to the FFC SPA, and therefore, an annual mortality of 191 adult birds and a 0.25% population growth rate reduction. The ExA acknowledges NE's advice that the proposed development would have the largest impact predicted from any OWF to date.
- C.10.71 The ExA notes that the most recent colony count (2022) is nearly half of the conservation objective of 83,700 breeding pairs. It is clear that a negative growth rate would be counter to the kittiwake restore conservation objective.
- C.10.72 The ExA notes the applicants' assertion that there would be no AEol of the FFC SPA even under NE's worst-case scenario on the basis that there would be an average growth rate of 2.1%. However, NE has advised a 2% decrease occurred between 2017 and 2022. It is not evident to the ExA where the applicants obtained their growth rate from, particularly as they identified the FFC SPA kittiwake colony to be in unfavourable, declining condition [\[REP3-027\]](#), appendix E].
- C.10.73 The ExA considers that a 0.25% reduction in population growth rate from the proposed development would further the current decline in breeding pairs that has

been highlighted by NE. As such, the ExA considers that the additional mortality from the proposed development alone could risk undermining the restore conservation objective for kittiwake. The ExA is therefore unable to exclude an AEol from collision mortality from the proposed development alone.

In combination

- C.10.74 For kittiwake, the applicants were of the view that in-combination collision impacts would not result in AEol [APP-048, updated in REP4-16, section 9.6.2.2] [REP6-052, table 2-7]. However, they acknowledged previous decisions on OWFs by the SoS and the Crown Estate's Round 4 Plan Level HRA for the Fourth Offshore Wind Seabed Leasing Round which concluded there would be an AEol due to the potential increase in mortality of the FFC SPA breeding kittiwakes resulting from the operation of the ODOWF and the DBS OWF. As such, the applicants reached the conclusion that AEol could not be excluded. The applicants' final version of the RIAA (revision 5) [REP6-008, table 9-23] calculated total in-combination impacts on FFC kittiwake as 461 adult birds, if compensated projects are excluded, and 591 adult birds, if compensated projects are included. The PVAs for both scenarios indicated that the population could decline from current levels.
- C.10.75 NE agreed with this conclusion [RR-039, G65] [REP8-053]. It advised that its position since Hornsea Project 3 had been that in-combination collision mortality across consented plans and projects had already exceeded levels which are considered to be of an AEol of kittiwake from the FFC SPA, and that any additional mortality arising from these proposals would only reinforce this conclusion.
- C.10.76 The RSPB also agreed there would be an AEol on kittiwake from in-combination effects [AS-183]. It advised that after a period of 30 years, the population size of the SPA is expected to be 78.31% of what it would have been in the absence of the development as a result of in-combination collision effects.

ExA's considerations

- C.10.77 Taking into account all application and examination submissions, the ExA has no reason to disagree with the applicants' conclusion of an AEol of the FFC SPA kittiwake from in-combination collision mortality.

GUILLEMOT

Proposed development alone

- C.10.78 Further to revisions made to the RIAA Part 4 during the examination, NE [REP5-053] [REP5-062, OR.2.26] [REP7-152, Q42 and Q45] [REP8-053] confirmed it was satisfied with the assessment for the proposed development alone. It agreed AEol can be ruled out as a result of the proposed development alone for guillemot (displacement).
- C.10.79 In contrast, the RSPB disagreed with regards to guillemot [AS-183] [REP9-016]. It advised that after a period of 30 years, the population size of the SPA is expected to be between 58.8% and 96.3% of what it would have been in the absence of the development. It considered there to be an AEol due to the impact of displacement and barrier effects from the proposed development alone.

ExA's considerations

- C.10.80 For guillemot, NE [\[REP8-053\]](#) confirmed that the applicants' PVA showed that after 30 years, there would be a reduction in population growth rate per annum of 0.34% and a reduction in populations size of 10% as a result of the proposed development (applying 70% displacement and 2% mortality rates). It confirmed that the conservation objective is to maintain the size of the breeding population to a level which is above 41,607 breeding pairs, whilst avoiding deterioration from its current level. The most recent count indicated a population size of 74,989 breeding pairs with an annual population growth of 3.8% between 1986 and 2017. This growth rate is above the 3.6% quoted by the applicants' RIAA [\[REP6-008\]](#). The ExA considers neither population growth rate can be guaranteed, particularly given the unknown implications of HPAI. However, the ExA is confident that the reduction in the annual growth rate of 0.34% as a result of the proposed development alone would not lead to a negative annual growth rate which would affect the ability of the maintain conservation objective to be met. The ExA does not consider the RSPB has given sufficient evidence to refute this position. The ExA is content to rely on the advice of NE, as the ANCB for the FFC SPA, and concludes that an AEol of guillemot from the FFC SPA can be ruled out from the proposed development alone.

In combination

- C.10.81 The applicants' conclusion of AEol on guillemot (breeding) due to in combination disturbance and displacement was not disputed during the examination. The final version of the RIAA Part 4 (revision 5) [\[REP6-008\]](#), table 9-25] calculated total in-combination impacts as 162.8 annual guillemot mortalities (50% displacement and 1% mortality).
- C.10.82 Since its RR [\[RR-039\]](#), G65], NE considered that in-combination effects on guillemot across consented plans and projects had already exceeded levels which were considered to result in an AEol and that any additional mortality from the proposed development would only reinforce this conclusion. Applying its preferred rates of 70% displacement and 2% mortality to all projects (except for Hornsea Project 4, for which 70% displacement and 5% mortality was used), NE calculated the total in-combination impact as 1,079 adult birds excluding compensated projects and 2,219 adult birds including compensated projects. Running the PVA for this figure, NE concluded that the population would decline under both scenarios. It advised that the proposed development would contribute significant numbers to in-combination impacts, equivalent to those of Hornsea Project 4. With additional uncertainty from HPAI outbreaks and predicted impacts of climate change, NE agreed with the applicants that AEol due to displacement in combination with other plans and projects could not be excluded.
- C.10.83 The RSPB also agreed there would be an AEol on guillemot from in-combination effects [\[REP5-065\]](#) [\[AS-183\]](#), advising that after a period of 30 years, the population size of the SPA would be expected to be between 15.98% and 88.03% of what it would have been in the absence of the development.

ExA's considerations

- C.10.84 Taking into account all application and examination submissions, the ExA has no reason to disagree with the applicants' conclusion of AEol on the FFC SPA guillemot from in-combination disturbance and displacement impacts. However, there are substantial differences in the applicants' and NE's predicted annual

guillemot mortalities resulting from differing methodological approaches. As noted in section C.4 of this appendix, the applicants considered NE's advised approach for auks to be over precautionary.

- C.10.85 The ExA is aware that from the point at which RRs were made, before the start of the examination, NE advised the applicants to use its recommended mortality and displacement rates to assess impacts. The ExA considers that there are several paragraphs in NPS EN-3 which are particularly relevant to this issue. These are NPS EN-3 paragraphs 2.8.144 and 2.8.315.
- C.10.86 The ExA acknowledges the choice of mortality and displacement rates have implications for the compensation quantum and also link to the precaution issue raised by the applicants and discussed in section C.4 of this appendix.
- C.10.87 The ExA considers that NE's advice regarding the appropriate rates of 70% displacement and 2% mortality should be used for the analysis and to draw conclusions, as these are the advised rates from the SNCB and the ExA has no reason to consider they are not acceptable. As such, the ExA considers the annual in-combination guillemot mortality to be 1,079 excluding compensated projects and 2,219 including compensated projects [taken from [REP8-053](#)].

RAZORBILL

- C.10.88 At the application stage, the applicants concluded no AEoI of razorbill of the FFC SPA from disturbance and displacement (alone and in combination). They maintained these conclusions at the close of examination (RIAA Part 4 (revision 5) [\[REP6-008\]](#)). Further to revisions made to the RIAA Part 4 during the examination, NE [\[REP5-053\]](#) [\[REP5-062\]](#), OR.2.26] [\[REP7-152\]](#), Q42 and Q45] [\[REP8-053\]](#) confirmed it was satisfied with the assessment for the proposed development alone. It agreed AEoI could be ruled out as a result of the proposed development.
- C.10.89 The applicants' final RIAA Part 4 (revision 5) [\[REP6-008\]](#), section 9.6.2.5.5] concluded the following in-combination mortalities:
- at 50% displacement and 1% mortality:
 - including compensated projects – 123 annual mortalities; 0.23% reduction in population growth rate; 6.9% reduction in population size compared to baseline
 - excluding compensated projects – 105 annual mortalities; 0.2% reduction in population growth rate; 6.0% reduction in population size compared to baseline
 - at 70% displacement and 2% mortality:
 - including compensated projects – 343 annual mortalities; 0.64% reduction in population growth rate; 18% reduction in population size compared to baseline
 - excluding compensated projects – 293 annual mortalities; 0.55% reduction in population growth rate; 15.8% reduction in population size compared to baseline
- C.10.90 The applicants concluded no AEoI based on the results of population modelling and the additive precautionary assumptions included in the estimated impacts [\[REP6-008\]](#), section 9.6.2.5.5.2] [\[REP9-021\]](#). They identified an annual growth rate of 8%

since 2000, and applying the maximum reduction in population growth rate of 0.64%, concluded the growth rate would only be reduced to 7.36%. They considered the population would continue to grow at a healthy rate even if the worst case in-combination mortality occurred.

- C.10.91 NE [\[REP8-053\]](#) noted that, to date, no projects had been required to compensate for FFC SPA razorbill. It based its conclusion on the totals presented including all projects and applying its preferred rates of 70% displacement and 2% mortality to all projects except for Hornsea Project 4 (for which 70% displacement and 5% mortality was used). It calculated the total in-combination impact as 411 adult birds. Running its own PVA for this figure, NE concluded that the annual population growth rate would be reduced by 0.8% and population size after 30 years would be reduced by 21.2%.
- C.10.92 NE noted the conservation objective for razorbill is to maintain the size of the breeding population to a level which is above 10,570 breeding pairs, whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent (30,673 pairs). It acknowledged an average annual growth rate of 6% but considered this trend cannot be assumed to continue for the next 30 years. With additional uncertainty from HPAI outbreaks and predicted impacts of climate change, NE advised the predicted level of mortality means the population could decline from current levels should the current population growth rate not be sustained. It therefore could not rule out AEoI due to displacement in combination with other plans and projects and confirmed it had reached this conclusion on Hornsea Project 4, SEP and DEP, Rampion 2, Five Estuaries and ODOWF).
- C.10.93 The RSPB considered there to be an in-combination AEoI on razorbill [\[REP5-065\]](#) [\[AS-183\]](#), advising that after a period of 30 years, the population size of the SPA is expected to be between 36.55% and 93.15% of what it would have been in the absence of the development.

ExA's considerations

- C.10.94 The ExA is content that all parties agree an AEoI on razorbill of the FFC SPA can be excluded as a result of the proposed development alone and agrees with this conclusion.
- C.10.95 The ExA is aware of previous SoS decisions to rule out AEoI for razorbill in combination with other plans and projects for both SEP and DEP and Hornsea Project 4. As no projects to date have compensated for razorbill, the ExA has based its conclusions on the inclusion of all projects. As noted above, the ExA considers displacement rates of 70% and mortality rates of 2% to be appropriate for auks, with a 5% mortality rate applied for Hornsea Project 4. It therefore agrees with NE that the annual in-combination mortality would be 411 adult birds.
- C.10.96 The applicants and NE have identified different average annual growth rates (8% and 6%, respectively). Applying NE's figures, a reduction in growth rate of 0.8% would reduce the average annual growth rate to a minimum of 5.2%. The ExA notes that there has been a consistently increasing growth rate at the razorbill colony, which is currently in favourable condition [\[REP3-027\]](#), Appendix E]. Whilst the ExA considers that any trend cannot be assumed to continue for the next 30 years, particularly given the implications of HPAI, NE has not provided persuasive evidence that the growth rate is likely to decline to levels below which the most

recent colony count cannot be maintained, even with the additional pressure of the proposed development. As such, the ExA does not consider that the level of predicted disturbance/ displacement mortality would undermine the conservation objectives. The ExA therefore concludes that an AEol on razorbill from in-combination displacement and disturbance impacts can be excluded.

SEABIRD ASSEMBLAGE

- C.10.97 At the application stage, the applicants concluded an AEol of the seabird assemblage of the FFC SPA could be excluded for the proposed development alone or in combination [APP-048]. They maintained these conclusions at the close of examination (RIAA Part 4 (revision 5) [REP6-008]).
- C.10.98 Further to revisions made to the RIAA Part 4 during the examination, NE [REP5-053] [REP5-062, OR.2.26] [REP7-152, Q42 and Q45] [REP8-053] advised that impacts on puffin from the proposed development alone would not affect either the diversity or abundance of the breeding seabird assemblage feature of the FFC SPA and that there would be no AEol on the assemblage. Furthermore, it agreed [REP8-053] that in-combination displacement effects on the Atlantic puffin FFC SPA population would not be sufficient to trigger an adverse effect on the seabird assemblage abundance attribute. However, due to the predicted impacts on the more numerous qualifying species comprising the assemblage, particularly kittiwake and guillemot, NE could not conclude that the overall abundance of the assemblage would be maintained and as such could not rule out a conclusion of AEol of the FFC SPA due to impacts on the seabird assemblage feature.
- C.10.99 The RSPB [RR-049] [REP1-087] [AS-183] maintained throughout examination that it could not rule out AEol on the seabird assemblage due to combined collision and displacement mortality in combination with other plans or projects.

ExA's considerations

- C.10.100 As detailed in the preceding sections of this appendix, the ExA is unable to exclude AEol on kittiwake and guillemot of the FFC SPA from the proposed development alone and in combination with other plans or projects. These are both component species of the assemblage feature. As a result, the ExA is unable to exclude an AEol on the FFC SPA seabird assemblage as a result of the proposed development alone or in combination with other plans or projects.

GREATER WASH SPA

- C.10.101 The offshore export cable corridor would cross the Greater Wash SPA prior to making landfall. NE [RR-039, G64] [AS-159, G50] [REP4-129, G50/ G64] advised the applicants to consider avoidance or restriction of cable installation works within 2km of the Greater Wash SPA during the over-wintering period (1 November to 31 March inclusive) to avoid adverse effects on red-throated diver.
- C.10.102 The applicants [PDB-006] [AS-085] [REP4-087, table 2-10] confirmed they had included embedded mitigation for red-throated diver and adhered to NE's 'Best Practice Protocol for Minimising Disturbance' including the use of existing shipping lanes (which was incorporated into revision 2 of the oPEMP [REP2-041]). They noted [REP3-027, OR.1.54] [REP3-028, table 2-13] [REP4-088, figures B-1 and B-2] the overlap of the offshore export cable corridor within the Greater Wash SPA represents approximately 0.3% of the total area of the SPA, in regions of the SPA

with low densities of red-throated diver recorded. They considered a seasonal restriction to be over-precautionary and noted no such restriction was placed on Dogger Bank A and B (formerly Creyke Beck) which also overlapped with the Greater Wash SPA.

- C.10.103 NE [\[REP3-058\]](#) also advised that the change of location of the planned horizontal directional drilling (HDD) exit pits as part of change request 1 (from the intertidal area to the subtidal area) could change the likelihood of impacts on red-throated diver of the Greater Wash SPA. The applicants provided figures showing the density of red-throated diver in relation to the indicative location of where the subtidal exit pits may be constructed [\[REP4-087\]](#), figures B-1 and B-2]. They noted there were no modelled red-throated divers in the cable landfall zone of the Greater Wash SPA and confirmed that both subtidal and intertidal exit pits had been assessed in the ES and RIAA [\[REP4-086\]](#) [\[REP4-088\]](#), table 2-18]. The applicants further explained that installation vessels for the subtidal exit pits and cable pull works would remain effectively stationary while works were undertaken. NE welcomed the clarification in [\[REP4-088\]](#).
- C.10.104 The applicants responded to NE's request for in-combination assessments of red-throated diver from disturbance and displacement from vessel movements, during construction, and operation and maintenance in revision 3 of the RIAA Part 4 [\[AS-085\]](#). This concluded that there would be no in-combination AEol. NE [\[AS-159\]](#), G37] confirmed it did not fully agree with the applicants' approach but that due to low predicted impacts, any changes to the approach would not materially change its advice.
- C.10.105 NE [\[REP5-053\]](#) [\[REP5-062\]](#), OR.2.21] [\[REP5-061\]](#), G50, G64] [\[REP8-053\]](#) subsequently confirmed a seasonal restriction was not necessary. It agreed with the applicants that with mitigation in place, displacement impacts on red-throated diver during construction, operation and maintenance from the proposed development would not adversely affect the integrity of the Greater Wash SPA, and there would be no measurable contribution to in-combination effects on red-throated diver at the Greater Wash SPA.

EXA'S CONSIDERATIONS

- C.10.106 Providing that the proposed mitigation measures in the PEMP are adhered to, the ExA concludes that AEol from the proposed development can be excluded, both alone and in combination with other plans or projects, for all qualifying features of the Greater Wash SPA as a result of disturbance/ displacement and barrier effects.

OTHER MARINE ORNITHOLOGICAL SITES

- C.10.107 The applicants identified LSEs for 18 SPAs located in Scotland (see tables in section C.11 of this appendix). These sites were not specifically discussed in the examination. However, the RSPB [\[REP5-065\]](#) [\[AS-183\]](#) stated that it was unable to reach conclusions as to the significance of in-combination impacts on those sites (or on the Coquet Islands SPA located in England). This was due to the application of a macro-avoidance correction factor to gannet densities and the use of a 'de minimis' approach to small scale impacts (see section C.4 of this appendix).

EXA'S CONSIDERATIONS

- C.10.108 The ExA does not have the advice of NatureScot as the ANCB for the SPAs located in Scotland but notes NE has agreed no AEol of Coquet Islands SPA [[REP3-057](#), HRA.1.7]. The ExA agrees with the applicants [[REP6-051](#), table 2-14] that whilst there is a theoretical risk of extremely small impacts on the breeding colonies located several hundred kilometres distance from the proposed development under highly precautionary assumptions, an AEol can be excluded.

C.11 FINDINGS IN RELATION TO AEol – Summary

- C.11.1 The ExA concurs with the applicants' conclusion that the proposed development would result in AEol on the following European sites and features, either alone or in combination with other projects or plans:
- Dogger Bank SAC
 - sandbanks which are slightly covered by sea water all the time due to physical change (to another seabed type) and abrasion (alone and in combination)
 - FFC SPA
 - guillemot (breeding) – disturbance and displacement (in combination)
 - kittiwake (breeding) – collision risk (in combination)
- C.11.2 Based on the information submitted into the examination, the ExA is also of the view that an AEol from the proposed development alone cannot be excluded beyond reasonable scientific doubt for:
- FFC SPA
 - kittiwake – collision risk (alone)
 - seabird assemblage – collision, disturbance and displacement (alone and in combination)
 - Farne Islands SPA
 - guillemot – due to in-combination disturbance and displacement
- C.11.3 The ExA is satisfied that an AEol for all qualifying features of all other European sites can be excluded from the proposed development alone or in combination with other plans or projects.
- C.11.4 The ExA's conclusions for all sites and features for which an LSE was identified are summarised in tables C3 to C7 of this appendix.

Table C3: Terrestrial ecology and ornithology – summary of all European sites screened in, and the ANCB and ExA's conclusions in relation to AEol at the end of examination

European site	Qualifying feature screened in	LSE pathway	NE's conclusion	ExA conclusion
Humber Estuary SPA and Ramsar site	Breeding bird species:	Impacts on functionally linked land including:	Advised that they could become a concern if impacts on the Humber Estuary SAC cannot be ruled out [REP6-072] [REP8-051]	No AEol alone or in combination
	Great bittern	Permanent and temporary loss of habitats (C, O, D)		
	Common shelduck			
	Hen harrier	Temporary habitat fragmentation and species isolation (C, O, D)		
	Pied avocet			
	European golden plover	Impacts on protected species or on their resting or breeding sites (C, O, D)		
	Red knot			
	Dunlin	Disturbance of bird populations (C, O, D)		
	Ruff			
	Black-tailed godwit	Spread of non-native invasive species (C, O, D)		
	Bar-tailed godwit			
	Common redshank	Air quality impacts on supporting habitats (C)	No AEol alone or in combination [REP7-152] , Q25]	
	Non-breeding bird species:			
	Eurasian marsh harrier			
	Little tern			
	Natterjack toad (Ramsar site only)			

Table C4: Annex I habitats (offshore, intertidal and terrestrial) – summary of all European sites screened in, and the ANCB and ExA's conclusions in relation to AEol at the end of examination

European site	Qualifying feature screened in	LSE pathway*	NE's position	ExA conclusion
Dogger Bank SAC	Sandbanks which are slightly covered by sea water all the time	Physical change (to another seabed type) (C, O, D)	Agrees with applicants' conclusion of AEol alone [RR-039] [REP6-073]	AEol alone
		Physical change (to another sediment type) (C, O, D)		
		Abrasion/ disturbance of the substrate on the surface of the seabed (C, O, D)	AEol alone [REP7-152] , Q59] [REP8-052]	AEol alone
		Habitat structure changes – removal of substratum (extraction) (C)		
		Penetration and/ or disturbance of the substratum below the surface of the seabed, including abrasion (C, O, D)		
		Changes in suspended solids (water clarity) (C, O, D)	AEol alone [REP7-152] , Q59] [REP8-052]	Does not contribute to AEol
		Smothering and siltation rate changes (heavy) (C, O, D)		
		Smothering and siltation rate changes (light) (C, O, D)		
		Indirect effects (impacts on sandeel leading to impacts on the characteristic community and ecological function of the Dogger Bank SAC)	Consider will contribute to AEol [REP7-152] , Q22]	Does not contribute to AEol
		Introduction or spread of INIS (C, O, D)	Consider will contribute to AEol [REP7-152] , Q59]	Does not contribute to AEol

		Electromagnetic changes (O) Hydrocarbon and PAH contamination (C, O, D) Synthetic compound contaminant (including pesticides, antifoulants, pharmaceuticals) (O) Transition elements and organometal (for example TBT) contamination (C, O, D)	No AEol alone or in combination [REP7-152] , Q59]	No AEol alone or in combination
Flamborough Head SAC	Reefs Submerged or partially submerged sea caves	Smothering and siltation rate changes (heavy and light) (C, O, D)	No AEol alone or in combination [REP5-053] [REP5-062]	No AEol alone or in combination
Humber Estuary SAC	Coastal lagoons	Smothering and siltation rate changes (heavy and light) (C, O, D)	No AEol alone or in combination [REP5-053] [REP8-051]	No AEol alone or in combination
		Introduction of other substances (solid, liquid or gas) (C)	No AEol alone or in combination [REP1-066] [REP7-152]	No AEol alone or in combination
	Mudflats and sandflats not covered by seawater at low tide	Smothering and siltation rate changes (heavy and light) (C, O, D)	AEol alone [REP8-051] [REP8-052] [REP9-031] , B23]	No AEol alone or in combination
	Sandbanks which are slightly covered by seawater all the time Estuaries <i>Salicornia</i> and other annuals colonising mud and sand Atlantic salt meadows (<i>Glauco Puccinellietalia maritimae</i>)	Introduction of other substances (solid, liquid or gas) (C)	No AEol alone or in combination [REP1-066] [REP7-152]	No AEol alone or in combination

Table C5: Annex II Migratory Fish (offshore, intertidal and onshore) – summary of all European sites screened in, and the ANCB and ExA’s conclusions in relation to AEol at the end of examination

European site	Qualifying feature screened in	LSE pathway (C, O and M and D unless otherwise stated)	NE’s conclusion	ExA conclusion
River Derwent SAC	River lamprey (present as a qualifying feature, but not a primary reason for site selection)	Underwater noise and vibration impacts due to UXO clearance (C)	No AEol alone or in combination [REP3-057 , HRA.1.7]	No AEol alone or in combination
	Sea lamprey			
Humber Estuary SAC and Ramsar site	River lamprey	Underwater noise and vibration impacts due to UXO clearance (C)	No AEol alone or in combination [REP5-053]	No AEol alone or in combination
	Sea lamprey	Indirect impacts through effects on preferred prey availability (C, O, D)		

Table C6: Annex II marine mammals (offshore) – summary of all European sites screened in, and the ANCB and ExA’s conclusions in relation to AEol at the end of examination

European site	Qualifying feature screened in	LSE pathway	Relevant ANCB conclusion	ExA conclusion
SNS SAC	Harbour porpoise	Physical or auditory injury resulting from underwater noise (C, O, D) Behavioural impacts resulting from underwater noise (C, O, D) Disturbance to porpoise foraging at sea (C, O, D) Disturbance from vessels due to presence and underwater noise (C, O, D) Barrier effects from underwater noise (C, O, D)	NE – No AEol alone or in combination [REP8-051] [REP8-056]	No AEol alone or in combination

		Vessel interaction (increase in risk of collision) (C, O, D) Barrier effects due to the physical presence of offshore infrastructure (O)		
		Changes to prey availability (C, O, D) Indirect effects (spawning habitat loss for prey species during operation) (O)	NE – No AEoI alone or in combination [REP7-154] [REP8-051] [REP8-056]	No AEoI alone or in combination
Humber Estuary SAC and Ramsar site	Grey seal	Behavioural impacts resulting from underwater noise (C, O, D) Physical or auditory injury resulting from underwater noise (C, O, D) (in-combination) Disturbance from vessels due to presence and underwater noise (C, O, D) Barrier effects from underwater noise (C, O, D) Vessel interaction (increase in risk of collision) (C, O, D) Disturbance to seals foraging at sea (C, O, D) Barrier effects due to the physical presence of offshore infrastructure (O) Changes to prey availability (C, O, D)	NE – No AEoI alone or in combination [REP8-051] [REP8-056]	No AEoI alone or in combination
BNNC SAC	Grey seal	Behavioural impacts resulting from underwater noise (C, O, D) Physical or auditory injury resulting from underwater noise (C, O, D) (in-combination) Disturbance from vessels due to presence and underwater noise (C, O, D) Barrier effects from underwater noise (C, O, D)	NE – No AEoI alone or in combination [REP8-051] [REP8-056] NatureScot has not participated in the examination	No AEoI alone or in combination

		Vessel interaction (increase in risk of collision) (C, O, D) Disturbance to seals foraging at sea (C, O, D) Barrier effects due to the physical presence of offshore infrastructure (O) Changes to prey availability (C, O, D)		
WNNC SAC	Harbour seal	Physical or auditory injury resulting from underwater noise (C, O, D) Behavioural impacts resulting from underwater noise (C, O, D) Disturbance from vessels due to presence and underwater noise (C, O, D) Barrier effects from underwater noise (C, O, D) Vessel interaction (increase in risk of collision) (C, O, D) Disturbance to seals foraging at sea (C, O, D) Barrier effects due to the physical presence of offshore infrastructure (O) Changes to prey availability (C, O, D)	NE – No AEol alone or in combination [REP8-051] [REP8-056].	No AEol alone or in combination
Moray Firth SAC	Bottlenose dolphin	Physical or auditory injury resulting from underwater noise (C, O, D) Behavioural impacts resulting from underwater noise (C, O, D) Barrier effects from underwater noise (C, O, D) Vessel interaction (increase in risk of collision) (C, O, D) Changes to prey availability (C, O, D)	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination

Table C7: Offshore ornithology – summary of all European sites screened in, and the ANCB and ExA’s conclusions in relation to AEol at the end of examination

European site	Qualifying feature screened in	LSE pathway*	Relevant ANCB conclusion	ExA conclusion
FFC SPA	Gannet, breeding	Disturbance/ displacement (C, O)	NE – No AEol alone or in combination [REP8-053]	No AEol alone or in combination
		Collision risk (O)		
		Barrier effects (O)		
		Indirect impacts through effects on habitats and/ or prey species (C, O)		
	Kittiwake, breeding	Collision risk (O)	NE – AEol alone [REP8-053]	AEol alone
		Indirect impacts through effects on habitats and/ or prey species (C, O)	NE – could intensify AEol [REP7-152]	Will not intensify AEol
		In-combination effects	NE agreed with applicants’ conclusion of AEol for in combination collision risk [REP8-053].	AEol in combination
	Guillemot, breeding	Disturbance/ displacement (C, O)	NE – No AEol [REP8-053]	No AEol alone
		Barrier effects (O)		
		Indirect impacts through effects on habitats and/ or prey species (C, O)		
		In-combination effects	NE agreed with applicants’ conclusion of AEol for in combination	AEol in combination

			displacement [REP8-053] .	
	Razorbill, breeding	Disturbance/ displacement (C, O) Barrier effects (O)	NE – No AEol alone or in-combination [REP8-053]	No AEol alone
		Indirect impacts through effects on habitats and/ or prey species (C, O)	NE – could intensify AEol [REP7-152]	Will not intensify AEol
		In-combination effects	NE – AEol for in combination displacement [REP8-053]	No AEol in combination
	Seabird assemblage, breeding	Disturbance/ displacement (C, O) Barrier effects (O) Collision mortality (O)	NE – No AEol alone or in combination [REP8-053]	AEol alone
		Indirect impacts through effects on habitats and/ or prey species (C, O)	NE – could intensify AEol [REP7-152]	Will not intensify AEol
		In-combination effects	NE – AEol for in combination displacement/ collision mortality [REP8-053]	AEol for in combination displacement/ collision mortality
Greater Wash SPA	red-throated diver, non-breeding	Disturbance/ displacement (C, O) Barrier effects (O)	NE – No AEol alone or in combination [REP8-053]	No AEol alone or in combination
	Common scoter, non-breeding	In-combination effects	NE – No AEol alone or in combination [REP3-057] , OR.1.53] [REP5-053]	No AEol alone or in combination

Coquet Island SPA	Puffin (assemblage feature)	Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects	NE – No AEol alone or in combination [REP3-057 , HRA.1.7]	No AEol alone or in combination
Farne Islands SPA	Guillemot, breeding	Disturbance/ displacement (C, O) Barrier effects (O)	NE – No AEol alone or in combination [REP8-053]	No AEol alone
		In-combination effects	NE – AEol from in combination disturbance and displacement [REP8-053]	AEol in combination
	Atlantic puffin, breeding (assemblage feature)	Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects	NE – No AEol alone or in combination [REP5-053]	No AEol alone or in combination
	Kittiwake, breeding (assemblage feature)	Collision risk (O) In-combination effects	NE – No AEol alone or in combination [REP5-053]	No AEol alone or in combination
St Abbs Head to Fast Castle SPA	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Razorbill, breeding	Disturbance/ displacement (C, O)		
	Guillemot, breeding	Barrier effects (O) In-combination effects		
Forth Islands SPA	Gannet, breeding	Disturbance/ displacement (C, O) Collision risk (O) Barrier effects (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination

	Kittiwake, breeding	Collision risk (O) In-combination effects		
	Guillemot, breeding (assemblage feature)	Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects		
	Razorbill, breeding (assemblage feature)			
	Puffin, breeding			
Buchan Ness to Collieston Coast SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects		
Calf of Eday SPA**	Kittiwake (assemblage feature)	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot (assemblage feature)	Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects		
Copinsay SPA**	Kittiwake, breeding (assemblage feature)	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding (assemblage feature)	Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects		

East Caithness Cliffs SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O)		
	Razorbill, breeding	Barrier effects (O) In-combination effects		
Fair Isle SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O)		
	Razorbill, breeding	Barrier effects (O) In-combination effects		
	Puffin, breeding			
	Gannet, breeding	Collision risk (O) Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects		
Foula SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O)		
	Razorbill, breeding	Barrier effects (O) In-combination effects		
	Puffin, breeding			
Fowlsheugh SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O)		
	Razorbill, breeding	Barrier effects (O) In-combination effects		

Hermaness, Saxa Vord and Valla Field SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Gannet, breeding	Collision risk (O) Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects		
	Guillemot, breeding	Disturbance/ displacement (C, O)		
	Puffin, breeding	Barrier effects (O) In-combination effects		
Hoy SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O)		
	Puffin, breeding	Barrier effects (O) In-combination effects		
Marwick Head SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects		
North Caithness Cliffs SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O)		
	Razorbill, breeding	Barrier effects (O)		
	Puffin, breeding	In-combination effects		

Noss SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Gannet, breeding	Collision risk (O) Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects		
	Guillemot, breeding	Disturbance/ displacement (C, O)		
	Puffin, breeding	Barrier effects (O) In-combination effects		
Rousay SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects		
Sumburgh Head SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O) Barrier effects (O) In-combination effects		
Troup, Pennan and Lion's Heads SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O)		
	Razorbill, breeding	Barrier effects (O) In-combination effects		

West Westray SPA**	Kittiwake, breeding	Collision risk (O) In-combination effects	Unknown – NatureScot has not participated in the examination	No AEol alone or in combination
	Guillemot, breeding	Disturbance/ displacement (C, O)		
	Razorbill, breeding	Barrier effects (O) In-combination effects		

- C.11.5 * In respect of decommissioning, the RIAA Part 4 [\[REP6-008\]](#), table 9-10] stated that “It is anticipated that for the worst-case scenario, the impacts will be no greater than those identified for the construction phase”. Decommissioning effects were not, however, explicitly assessed for each European site and qualifying feature.
- C.11.6 ** Note that the sites denoted with 2 asterisks’ above (**) were screened out in table 4-10 of the HRA Screening Report [APP-049], however, the RIAA Part 1 [REP5-007] confirmed that the sites had been subsequently screened in. Impacts on these sites during the non-breeding season were assessed in the RIAA Part 4 [REP6-008].

C.12 ENGAGING WITH THE HRA DEROGATIONS

- C.12.1 If the competent authority cannot conclude the absence of an AEol, such that no reasonable scientific doubt remains, then under the Habitats Regulations the project can proceed only if there are no alternative solutions and there IROPI why the project must be carried out. Suitable compensatory measures must also be secured to ensure the overall coherence of the UK NSN.
- C.12.2 The applicants submitted a derogation case relating to the kittiwake and guillemot features of the FFC SPA and the sandbank feature of the Dogger Bank SAC. An overview was provided in document 6.2 Habitats Regulations Derogation Provision of Evidence [[APP-051](#)], revised in [REP7-018](#) which related to both sites.
- C.12.3 The applicants' HRA Report concluded no AEol on the razorbill qualifying feature of the FFC SPA from the proposed development alone, or in combination with other projects. However, its derogations case for guillemot of the FFC SPA was coupled with a 'without prejudice' derogations case for razorbill of the FFC SPA. As detailed above, the ExA considers an in-combination displacement of razorbill from the FFC SPA can be excluded and therefore concludes that derogations for this qualifying feature are not required. Nevertheless, it has provided information regarding derogations for this feature, should the SoS be unable to exclude an AEol.
- C.12.4 As a result of the disagreement over AEol of the guillemot qualifying feature of the Farne Islands SPA, the ExA requested a 'without prejudice' derogations case from the applicants [[PD-014](#), OR.2.20]. NE [[REP5-062](#), OR.2.19] explained that it did not anticipate an additional derogations case was required. It advised that it could be managed through adjusting the quanta of the existing auk compensation proposals. As detailed above, the ExA considers an AEol cannot be ruled out from in-combination displacement of guillemot from Farne Islands SPA and the ExA is content with this approach.
- C.12.5 The ExA similarly asked the applicants to provide a 'without prejudice' derogations case for the seabird assemblage of the FFC SPA [[PD-022](#), OR.2.26]. Whilst NE considered there to be an AEol on the seabird assemblage, it confirmed [[REP7-152](#), Q51] [[REP8-053](#)] that compensation for the seabird assemblage would be sufficiently accounted for via the species-specific proposals. The ExA is content with this approach.
- C.12.6 Matters pertaining to the HRA derogations discussed during the examination are detailed in the following sections.

C.13 CONSIDERATION OF ALTERNATIVES

- C.13.1 The wider examination of alternatives to the proposed development in terms of the NPSs is reported in section 3.2 of this Recommendation. This section addresses the examination of the alternative solutions test under the requirements of the Habitats Regulations.
- C.13.2 Relevant guidance states that alternatives must be financially, legally, and technically feasible. They must be capable of achieving the objectives of the proposed development and demonstrate a lesser adverse effect or avoid AEol on the European site in question. This guidance is referred to in the applicants' HRA Derogations Case (provision of evidence) [[REP7-018](#)].

- C.13.3 The ExA has considered the alternatives solutions test in line with the requirements of the Habitats Regulations with reference to this guidance and the examination submissions.
- C.13.4 The applicants provided their ‘no alternative solutions’ case in section 4 of the Derogation Provision of Evidence [[APP-051](#), revised in [REP7-018](#)] which:
- defined the aims and objectives of the proposed development
 - included discussion of the ‘do nothing scenario’
 - included information on alternative solutions (including alternative locations, alternative scale, alternative designs and methods, alternative timing), their feasibility and ability to meet the objectives of the proposed development
 - concluded that there are no feasible alternatives to the proposed development (and therefore did not undertake a comparison of the alternatives in relation to their potential effects on the European site(s) and feature(s))
- C.13.5 No specific concerns were raised by IPs in relation to the applicants’ consideration of alternative solutions presented in [[APP-051](#), revised in [REP7-018](#)].
- C.13.6 On this basis, the ExA is satisfied that no alternative locations or sites exist for the proposed development that would present a feasible alternative solution.
- C.13.7 The ExA has concluded that an imperative need for the proposed development has been established and that the ‘do nothing’ option is not a feasible alternative. In HRA terms the ‘do nothing’ option would fail to meet the objectives of the proposed development and is not considered an alternative solution.
- C.13.8 NE [[REP6-073](#)] specifically advised that by proposing to build out cable protection to the maximum compensated for, when there are alternative options to reduce impacts, the applicants risked undermining their derogations case. Although not stated by NE, the ExA considers the same logic would apply in respect of seabirds. Nevertheless, as detailed in section C.7 of this appendix, the ExA is content that no further mitigation is possible.
- C.13.9 Taking into account this information, the ExA is satisfied that no alternative design parameters are known to be implementable that would present a feasible alternative solution.
- C.13.10 Alternatives must be financially, legally, and technically feasible to constitute an alternative solution. The ExA considers that the alternatives assessed would not constitute an alternative solution to the objectives of the proposed development. The ExA is satisfied that no alternative solutions exist which would deliver appreciable benefits in terms of adverse effects on the European sites.

C.14 IMPERATIVE REASONS OF OVERRIDING PUBLIC INTEREST (IROPI)

- C.14.1 The need for the proposed development is discussed in section 3.2 of this Recommendation. This section addresses the examination of the IROPI test under the requirements of the Habitats Regulations.
- C.14.2 The applicants provided their IROPI case in section 5 of the Derogation Provision of Evidence [[APP-051](#), updated in [REP7-018](#)]. It confirmed that the proposed development would not affect any priority habitats or species (as identified in the

Habitats Regulations). Therefore, the IROPI can include consideration of social and economic reasons.

- C.14.3 The applicants' IROPI case concluded that there is a demonstrable overriding public interest in the proposed development and the policy objectives it will serve, which outweighs the risk of AEoI of the kittiwake, guillemot (and potentially razorbill) features of the FFC SPA and the sandbanks feature of the Dogger Bank SAC. The Farne Islands SPA was not specifically mentioned in [\[REP7-018\]](#) section 5].
- C.14.4 No specific concerns were raised by any IPs in relation to the applicants' IROPI case. NE [\[REP7-152\]](#) confirmed that its remit does not extend beyond advising on the ecological merits of proposals, thus excluding it from making comment on IROPI submissions.
- C.14.5 As identified above, the case for development consent is addressed in section 7 of this Recommendation which concludes that there is an imperative need for the proposed development. Taking into account the information surrounding the need for the proposed development, the public interests presented, and that the interests are overriding when measured against the adverse effects on the affected features of the FFC SPA and the Dogger Bank SAC, the ExA concludes that IROPI for the proposed development has been established. Whilst the Farne Islands SPA was not specifically mentioned in section 5 of the Derogation Provision of Evidence [\[APP-051\]](#), updated in [\[REP7-018\]](#), the ExA is content that the same conclusion applies.

C.15 COMPENSATORY MEASURES

DOGGER BANK SAC

- C.15.1 The Project Level Dogger Bank Compensation Plan [\[REP7-020\]](#) proposed a new protected site designation or extension to compensate for adverse impacts on the Dogger Bank SAC.

THEORETICAL MERIT, TECHNICAL FEASIBILITY AND EFFECTIVENESS

- C.15.2 The Project Level Dogger Bank Compensation Plan [\[REP7-020\]](#) confirmed that a Written Ministerial Statement (WMS) on compensation requirements for offshore wind projects had been issued by Defra in January 2025 (with accompanying guidance). The plan confirmed that Defra had committed to the delivery of sufficient designations or extensions to provide strategic compensation for likely benthic environmental impacts resulting from offshore wind developments.
- C.15.3 NE [\[RR-039\]](#), appendix D, table 1] agreed with the theoretical merit, technical feasibility and suitability of new site designation or extension of the existing Dogger Bank SAC. It considered the measure to have the greatest likelihood from an ecological perspective of maintaining the coherence of the UK NSN.
- C.15.4 TWT [\[RR-057\]](#) [\[REP1-088\]](#) also considered site extension to be the only measure that would ensure recovery of the Dogger Bank SAC would not be hindered.

ExA's considerations

- C.15.5 The ExA is content that a new site designation or extension is appropriate and feasible and would ensure coherence of the UK NSN is preserved. Furthermore, the ExA is content that the measure would be additional to normal practice and therefore passes the additionality test.

MECHANISM FOR DELIVERY AND IMPLEMENTATION

- C.15.6 The delivery of compensatory measures for sandbanks would be secured through Schedule 18, Part 1 of the dDCO, [\[REP9-003\]](#).
- C.15.7 The Project Level Dogger Bank Compensation Plan [\[REP7-020\]](#) explained that a site designation or extension would be a strategic measure. It noted that a MRF is anticipated to be launched in late 2025 to provide an optional mechanism for developers to fund strategic compensation.
- C.15.8 NE [\[RR-039\]](#), appendix D] confirmed that a new site designation or site extension should be provided on a strategic basis and that delivery discussions had commenced between Defra, JNCC and NE. It noted that monitoring would fall under the responsibility of NE or JNCC, but it expected the costs to be borne by developers requiring compensation through the MRF.
- C.15.9 TWT [\[REP1-088\]](#) agreed that Defra should lead any site extension designations.
- C.15.10 The Project Level Dogger Bank Compensation Plan [\[REP7-020\]](#) noted that Defra would submit a full implementation and monitoring plan to the SoS via the applicants. However, it confirmed that a compensation implementation and monitoring plan (CIMP) had also been produced by the applicants [\[APP-061\]](#), should it be required in addition. NE [\[RR-039\]](#), D12] queried whether a Dogger Bank CIMP would be required in addition to the Round 4 Plan Level CIMP, advising [\[REP4-129\]](#) that it be undertaken through the MRF process. The applicants [\[AS-048\]](#), table 2.5.1] explained that they had submitted a project level plan in line with their understanding of NE's expectations for the DCO applications. They considered that some form of project level implementation plan would be required. The CIMP was identified as a certified document in the dDCO [\[REP9-003\]](#).

ExA's considerations

- C.15.11 The ExA considers the WMS provides confidence that site designation or extension can be delivered strategically. It states that a MRF is due to be launched in late 2025. The ExA therefore is optimistic that this will be available during the SoS's decision phase.

LOCATION

- C.15.12 The Project Level Dogger Bank Compensation Plan [\[APP-059\]](#) explained that the identification of candidate sites would be overseen by Defra and that further information would be provided post-consent and detailed in the Dogger Bank CIMP (if required). Nevertheless, the applicants submitted information on a possible site extension to the north of the Dogger Bank SAC in annex C – Extension of the Dogger Bank SAC for HRA Derogation Compensation – Rationale and Evidence Base [\[APP-062\]](#).
- C.15.13 NE [\[RR-039\]](#), appendix D] considered there to be:
- “areas of seabed not currently protected which if protected and appropriately managed, could provide similar ecological function to those Annex I features which are likely to be subject to lasting loss/ change and/ or disturbance”.
- C.15.14 It confirmed that the powers to designate sit with Defra and that the location was still under consideration by Defra, NE and JNCC. It did not consider it necessary or appropriate to discuss the merits of a particular location. TWT [\[REP1-088\]](#) [\[REP3-](#)

[069](#)] echoed this advice. It was also acknowledged by the applicants [[AS-048](#), table 2.5.1], who explained that they had sought to expedite delivery of compensation since the initial stage of the Round 4 Plan Level HRA process and would continue to input to the Defra process if requested.

ExA's considerations

- C.15.15 The ExA is content that the site location would be for Defra to determine as part of the strategic compensation.

SCALE OF COMPENSATION

- C.15.16 The applicants' Project Level Dogger Bank Compensation Plan [[REP7-020](#)] explained that it would be Defra's responsibility to calculate the combined impact for multiple projects and determine the area for which strategic compensatory measures would be delivered. It noted that this calculation may include the application of a compensation ratio or multiplier to the predicted impact and that the Round 4 Dogger Bank Strategic Compensation Plan [[APP-060](#)] considered ratios close to 1:1 to be appropriate where confidence in delivery is high. The applicants [[AS-048](#), table 2.5.1] considered there is a high degree of confidence for the strategic measure and considered a 1:1 ratio to be appropriate. They did not agree the ratio should be wholly determined by the Defra process without input from the DCO consenting process.
- C.15.17 NE [[RR-039](#), appendix D, tables 1 and 4] confirmed that compensation multipliers were not agreed or signed up to by the SNCBs and would be agreed by Defra. TWT [[REP1-088](#)] echoed this advice and confirmed [[REP1-088](#)] [[REP3-069](#)] [[REP5-068](#)] that its concerns were on the quantum, rather than the means of delivery, of a protected site expansion. However, it noted that the responsibility for determining the size of the extension ultimately falls with Defra.
- C.15.18 Lincolnshire Wildlife Trust [[RR-028](#)] did not believe that compensation would be sufficient to address the adverse impact on site integrity, however, provided no further details.
- C.15.19 As noted in section C.7 of this appendix, further to disagreements regarding the impacts contributing to AEoI, the applicants presented 4 'without prejudice' scenarios of habitat loss at DL7 (revision 5 of the RIAA Part 2 [[REP7-016](#), table 6-7], revision 4 of the Project Level Dogger Bank Compensation Plan [[REP7-021](#), table 5-1] and revision 4 of Habitats Regulations Derogation Provision of Evidence [[REP7-018](#), section 4.3.4]). They explained [[REP8-042](#)] that the difference between outcomes of what contributes to AEoI is the requirement to compensate for approximately 2km² for habitat loss only or over 35km² if disturbance and halo effects are included. They noted [[REP4-086](#)] that this order of magnitude difference has financial implications for the proposed development and that consideration would need to be given to other sea users who could be affected by new designations [[REP5-037](#), table 2-19].

ExA's considerations

- C.15.20 As detailed in section C.7 of this appendix, the ExA concludes an AEoI should be based on scenario 4 and that this is the impact value upon which the compensation quantum should be based.

- C.15.21 Whilst the ExA considers there to be a high degree of confidence in delivery, the ExA considers it is for Defra to determine the appropriate compensation multipliers and ultimate quantum of compensation.

TIMING

- C.15.22 NE [\[RR-039\]](#), appendix D, tables 1 and 4] [\[REP1-067\]](#), D3] acknowledged that there would likely be time lags between an impact occurring and compensation achieving the desired outcomes. As such, it requested the applicants' contribution to compensation ensures an overall environmental net positive outcome for the impacted feature over the lifetime of the proposed development.

- C.15.23 The applicants updated the Dogger Bank SAC Project Level Compensation Plan (revision 2) [\[REP2-012\]](#) to confirm that the WMS (Defra, 2025):

“affirms that the Department of Energy Security and Net Zero (DESNZ) Secretary of State and the MMO may consider circumstances where the adverse effect can occur ahead of compensation being in place, though this would need to be considered in the context of other factors that are yet to be defined”. The applicants understand that where permitted, a greater amount of compensation is likely to be needed to make up for any time delay and developers will be required to pay into the MRF before any adverse effect can occur”.

- C.15.24 The matter was not discussed further.

ExA's considerations

- C.15.25 The ExA notes the potential for a delay in compensation measures being implemented before impact occurring, but agrees with NE [\[REP9-031\]](#), D3] that timing of the measure is a matter for Defra to determine as part of the strategic compensation.

EXA'S FINAL CONSIDERATIONS

- C.15.26 The applicants' key documents to be certified in the recommended draft DCO are:

- Document 6.2.3 Project Level Dogger Bank Compensation Plan (revision 4) [\[REP7-020\]](#)
- Document 6.2.3.2 Outline Dogger Bank CIMP [\[APP-061\]](#)

- C.15.27 The Project Level Dogger Bank Compensation Plan [\[REP7-020\]](#) was revised during the examination to reflect the updates to the impact numbers discussed during the examination (see section C.7 of this appendix).

- C.15.28 The ExA acknowledges NE's point [\[REP9-031\]](#) that it is not clear if a Dogger Bank CIMP would be required in addition to that specifically for the Round 4 Plan and therefore the ExA suggests that this is clarified as part of the MRF process.

- C.15.29 In its final risk and issues log [\[REP9-031\]](#), Tab D], NE confirmed matters to be resolved with the exception of the scale of impact and thus compensation quantum. The ExA is satisfied that, with its recommendation of scenario 4, the proposed compensation package for the Dogger Bank SAC can be relied upon, and that its delivery is adequately secured through Schedule 18 of the recommended draft DCO.

MARINE ORNITHOLOGY INTRODUCTION

- C.15.30 The applicants' species specific proposed compensatory measures for kittiwake and guillemot are detailed in subsequent sections of this appendix. Information has also been provided for razorbill, should the SoS be unable to exclude an AEoI of razorbill from the FFC SPA. Matters discussed during the examination that were common to determining the quantum of compensation measures for all species are detailed below.

METHODS FOR DETERMINING THE LEVEL OF REQUIRED COMPENSATION: HORNSEA PROJECTS 3 OR 4

- C.15.31 NE [\[REP1-065\]](#) described 2 methods for determining the level of compensation required as:
- Hornsea Project 3 Part 2 method ('new colony approach') (H_{3pt2})
 - Hornsea Project 4 method (H₄)
- C.15.32 For kittiwake, the applicants' Project Level Kittiwake Compensation Plan [\[APP-052\]](#), updated in [\[REP9-007\]](#), section 5] presented both methods, but advocated the H₄ method which had been accepted by the SoS: it considered the H_{3pt2} method unsuitable due to its complexity and potential for double-counting of the effects of mortality. NE [\[RR-039\]](#), annex H] [\[REP1-065\]](#) [\[AS-160\]](#) [\[REP4-124\]](#) [\[REP8-054\]](#) considered the H_{3pt2} approach to be the most ecologically realistic as it includes consideration of the number of adults that need to be produced for a colony to be able to sustain itself, as opposed to drawing birds out of the existing population to do so. The RSPB agreed with NE [\[AS-173\]](#). However, the applicants noted the H_{3pt2} method is not publicly available so cannot be easily replicated or quality assured [\[PDB-006\]](#) [\[AS-158\]](#) [\[REP3-027\]](#), OR.1.15] [\[REP3-030\]](#) [\[REP4-020\]](#).
- C.15.33 At DL7, NE [\[REP7-155\]](#) submitted a report that it had commissioned from the British Trust for Ornithology (BTO) (on behalf of the Collaboration in Offshore Wind Strategic Compensation), to review existing methods used to calculate the scale of artificial nesting structures (ANS) for kittiwakes, and to consider possible alternatives. NE confirmed [\[REP7-153\]](#) [\[REP8-054\]](#) that it was considering the recommendations of the report and that in the meantime its advice to apply H_{3pt2} method for kittiwake remained. It advised the applicants to consider the findings and recommendations of the report in their compensation documents.
- C.15.34 For guillemot and razorbill, the applicants applied the H₄ method in the Guillemot and Razorbill Compensation Plan [\[APP-056\]](#), sections 4.5.1.5 and 4.5.2.5]. NE [\[REP3-057\]](#), OR.1.1.12] [\[REP8-054\]](#) agreed with the use of the H₄ method (provided that it is based on the 95% upper confidence limit impact values and an appropriate compensation ratio is applied to address the uncertainty of success).

ExA's considerations

- C.15.35 The ExA has considered the representations from all IPs regarding the methods for determining the level of required compensation.
- C.15.36 For kittiwake, the ExA advises the use of the H_{3pt2} approach in line with the SNCBs advice, which the RSPB supports.

- C.15.37 For guillemot, the ExA advises the use of the H₄ method provided that it is based on the 95% upper confidence limit impact values and an appropriate compensation ratio is applied to address the uncertainty of success.
- C.15.38 However, the ExA recommends the SoS seeks an update from NE regarding its recommendations further to the BTO report on methodology to help inform the AA decision.

PRESENTATION OF CONFIDENCE INTERVALS

- C.15.39 NE [\[RR-039, G58\]](#) [\[AS-160, appendix H2\]](#) [\[REP1-065\]](#) [\[REP3-057, annex A\]](#) [\[REP4-124\]](#) [\[REP8-054\]](#) explained that surveys are spatially restricted and only cover a small proportion of the project area. It therefore consistently advised that seabird compensatory measures be scaled against the 95% upper confidence limit predicted impact value, rather than the central impact value, to take into account a lack of precision in baseline abundance estimates. It stated that this would give confidence that the compensatory measures can provide sufficient benefit, should impacts exceed those of the central prediction. It acknowledged that this could result in large compensation quanta for some species and that a pragmatic interpretation of calculations may be needed. The RSPB [\[REP4-113\]](#) agreed with NE's recommendation.
- C.15.40 However, the applicants [\[AS-158\]](#) [\[REP3-030\]](#) considered the mean to be the most appropriate to use as it is the most likely value for bird abundance. They explained that using the upper 95% confidence interval (UCI) effectively doubled the mortality compared to the mean value and that all compensation documents should retain the range of outputs so the SoS can make an informed judgement. They did not agree that their advocated H₄ method should be based on the upper 95% confidence interval estimates combined with compensation ratios of greater than 1. They considered that combining sources of precaution in this manner is disproportionate and results in highly inflated compensation requirements [\[REP3-030\]](#) [\[REP4-087, table 2-10\]](#). The applicants highlighted that providing compensation measure scaled to the value derived from the upper 95% confidence interval would represent a considerable cost increase [\[REP3-057\]](#).
- C.15.41 The applicants identified the approaches used by various OWFs in [\[REP3-027, OR.1.14\]](#), stating that the majority of projects presently in examination phase supported calculated compensation requirements using the mean. However, they subsequently presented both the mean and the upper 95% confidence limits in their revised documents.
- C.15.42 NE [\[REP4-124\]](#) [\[REP8-054\]](#) did agree that HRAs had generally set the compensation target or objective for compensation to achieve with respect to the central mean impact value and therefore advised on success criteria at these rates.

ExA's considerations

- C.15.43 The ExA agrees with the applicants that to apply both the H_{3pt2} approach and use the upper 95% confidence interval would be over precautionary for kittiwake. The ExA acknowledges that the central impact value is generally used to set the target for ornithological compensation under the Habitat Regulations. The ExA considers this to be the most appropriate and proportionate value to use in this circumstance when coupled with the use of the H_{3pt2} approach. For guillemot, the ExA advises the use of the H₄ method provided it is based on the 95% upper confidence limit impact

values, and an appropriate compensation ratio is applied to address the uncertainty of success

PRECAUTION

- C.15.44 The level of precaution applied to determine the compensation quantum was intrinsically linked to the discussions of precaution in the assessment phase (see above). The applicants [REP3-030] considered that applying precaution at multiple stages of the process leads to disproportionate requirements for compensation and that precaution should only be applied once. In respect of the displacement assessment, they set out the assumptions they considered to be robust, and which provide an element of precaution [REP3-030, section 1.3.3]. They disputed the advice NE provided in [REP4-124] stating that the compensation calculations are a separate element of the HRA process to the impact assessment and that uncertainties in the likelihood of success of measures must be considered. The applicants' [REP5-037, table 2-23] considered this to be a further example of compounding levels of precaution.

ExA's considerations

- C.15.45 The ExA considers there is a need to apply a level of precaution to account for the uncertainty involved with modelling of this type. The ExA agrees with the applicants that to apply both the H_{3pt2} approach and use the upper 95% confidence interval would be over precautionary. The ExA considers the most appropriate combination for this proposed development is to use the H_{3pt2} approach coupled with the central impact value for kittiwakes and the H4 approach coupled with the 95% upper confidence interval for guillemot.

FFC SPA – KITTIWAKE

- C.15.46 The Project Level Kittiwake Compensation Plan [REP9-007] proposed the following primary compensatory measures for kittiwake from the FFC SPA:
- A financial contribution towards the management of fisheries to increase prey availability, to be delivered via the Strategic Compensation Fund operated by Defra.
 - Up to 2 offshore ANS.
- C.15.47 The applicants further proposed the use of their existing onshore ANS at Gateshead as a potential supporting or adaptive management measure [REP9-007, section 6.4]. This could be relied upon to deliver a proportion of the kittiwake compensation required for example, to offset any deficit linked to the primary compensation measure (the offshore ANS).
- C.15.48 As part of their lease conditions, the applicants (along with ODOWF) must adhere to The Crown Estate's Round 4 Kittiwake Strategic Compensation Plan (KSCP) which was submitted as [APP-053].

THEORETICAL MERIT, TECHNICAL FEASIBILITY AND EFFECTIVENESS

Financial contribution towards fisheries management

- C.15.49 The proposed financial contribution towards the management of fisheries to increase prey availability was identified as the applicant's preferred compensation measure in the final Project Level Kittiwake Compensation Plan (revision 7) [REP9-

[007](#), section 6]. However, this also noted there is uncertainty as to whether this strategic option would be available.

- C.15.50 NE [\[RR-039\]](#), Appendix G] considered that strategic fisheries management is unlikely to be a suitable compensation measure.

Offshore ANS (oANS)

- C.15.51 The applicants highlighted [\[REP4-087\]](#), table 2-12] that the development of oANS is considered to be the most ecologically appropriate compensatory measure for offsetting impacts on kittiwake in English waters as outlined by Defra (Defra's letter to the Offshore Wind Industry Council (OWIC), 2024). The Project Level Kittiwake Compensation Plan (revision 7) [\[REP9-007\]](#) confirmed the measure to be included in the library of strategic compensatory measures (LoSCM). The applicants stated [\[REP4-088\]](#), table 2-14] they would use best available evidence to maximise the chances of colonisation through site selection and design.
- C.15.52 NE [\[RR-039\]](#), annex H] [\[REP8-054\]](#) agreed an oANS had merit and whilst challenging offshore, was technically feasible. It considered an oANS would be suitable as a sole compensatory measure if designed, located and scaled appropriately. It considered an oANS had the potential to increase the number of recruits in the wider kittiwake population, although it advised the benefit to the FFC SPA and the NSN would be indirect and likely to be unquantifiable. It considered that the accrual of any material benefit to the NSN was uncertain and should be carefully considered in conjunction with uncertainty around method effectiveness and project impacts when appraising the proposed scale of the compensatory measures.
- C.15.53 The RSPB [\[RR-049\]](#) [\[REP1-087\]](#) [\[REP3-066\]](#) stated that ANSs (onshore or offshore) are yet to be proven as effective compensation measures and that onshore ANSs have been implemented without sufficient evidence of a nest-limited kittiwake recruit pool. It noted low or no colonisation levels of existing ANSs. The RSPB's preference of the proposed options was for an oANS.
- C.15.54 Furthermore, the RSPB [\[AS-128\]](#) [\[PDB-012\]](#) [\[REP1-087\]](#) noted the potential for risks associated with the supply chain, construction logistics and implications for meeting implementation commitments ahead of first turbine operation. It highlighted Hornsea Project 4 OWF's recent change from an oANS to an onshore ANS. The applicants [\[REP3-027\]](#), OR.1.24] confirmed that an assessment of risk and contingencies was ongoing but stated an oANS would open up a larger and different supply chain to turbine and foundation structures. They explained [\[REP6-051\]](#), table 2-14] that they had undertaken early concept design to help offset the likelihood of material being difficult to procure.
- C.15.55 TWT [\[REP3-069\]](#) did not support ANS as a compensation measure for impacts on kittiwake.

Onshore ANS

- C.15.56 NE [\[REP3-055\]](#) highlighted the importance of adaptive management measures to ensure that compensation requirements could be delivered should primary measures fail. It confirmed [\[RR-039\]](#), annex H] [\[REP8-054\]](#) it was not opposed to an onshore ANS as potential adaptive management should the oANS fail, however, considered the extent of benefit it could provide would be limited [\[REP3-055\]](#).

- C.15.57 The applicants [\[REP9-007\]](#) confirmed that the onshore ANS was installed at Gateshead in 2023 ahead of publication of the Round 4 KSCP [\[APP-053\]](#). This was constructed in good faith with the understanding that it could provide compensation and avoid the accrual of mortality debt in advance of any impacts associated operation. It noted that the land on which it was located has been leased for 60 years. The applicants stated it was showing positive signs of colony establishment [\[PDB-006\]](#).
- C.15.58 The applicants confirmed [\[REP5-036, OR.2.16\]](#) [\[REP9-007\]](#) that whilst they are in discussion with other projects regarding sharing the onshore structure, they currently wholly own the structure which provides nesting spaces for over 240 pairs of birds with planning permission in place to double the nesting capacity through the addition of barn doors.

ExA's considerations

- C.15.59 The ExA acknowledges the applicants' preference for a strategic contribution towards fisheries management. However, the ExA notes that fisheries management is not currently identified in Defra's LoSCM and therefore would not be supported by the MRF. As such, the ExA is unable to place any confidence in such a measure. Should it become available as an option during the decision phase, the SoS may wish to consider it further. As this option was not discussed during the examination, it is not considered further in this appendix.
- C.15.60 The ExA acknowledges that the benefit to the FFC SPA and the UK NSN from the oANS would be indirect and likely to be unquantifiable. However, the ExA considers an oANS to be an appropriate measure for kittiwake, noting it is the preferred measure in the KSCP [\[APP-053\]](#). It is content that the measure would be additional to normal practice and therefore pass the additionality test.
- C.15.61 The ExA acknowledges RSPB's concerns regarding the supply chain for materials for an oANS but does not consider the supply chain risks to be any greater than supply chain risks for the proposed development as a whole.
- C.15.62 With regards to the onshore ANS, the ExA notes this is already implemented at Gateshead and therefore its technical feasibility and delivery is absolute.

MECHANISM FOR DELIVERY AND IMPLEMENTATION

- C.15.63 The delivery of compensatory measures for kittiwake would be secured through Schedule 18, Part 2 of the dDCO [\[REP9-003\]](#). This requires a final kittiwake CIMP to be submitted to the SoS for approval in consultation with the relevant SNCB and the MMO. The CIMP would be based on the Outline Kittiwake CIMP [\[REP4-022\]](#) and the Project Level Kittiwake Compensation Plan [\[REP9-007\]](#) and would provide final details of location, capacity, design, and monitoring. It would be agreed by the Kittiwake Steering Group post-consent.
- C.15.64 The Project Level Kittiwake Compensation Plan [\[REP9-007\]](#) confirmed that a collaborative approach with ODOWF would be undertaken with each project developing a single oANS. The applicants submitted a letter of intent to demonstrate its commitment to collaborative discussions with ODOWF [\[APP-055\]](#). The Plan confirmed a memorandum of understanding (MoU) between the applicants and ODOWF had been agreed setting out the terms for collaboration, and each party's commitment to sharing nesting spaces and compensation benefits attached to each

occupied space to provide reciprocal resilience. The Plan also detailed the possibility of a contribution to the MRF, should this become available.

- C.15.65 The dDCO [REP9-003] also retained the option for a payment into a strategic compensation fund. The Project Level Kittiwake Compensation Plan [REP9-007] stated that final guidance is due to be published in autumn 2025 alongside relevant statutory instruments. NE [REP8-054] acknowledged uncertainty around the implementation of the KSCP [APP-053] and therefore welcomed the provision of a project-led measure by the applicants.

ExA's considerations

- C.15.66 The ExA is satisfied that the applicants have secured the option for a MRF contribution for kittiwake in the dDCO [REP9-003, Schedule 18, Part 2]. As noted by the applicants [REP4-086] [REP4-087, table 2-13] and NE [REP6-076] [REP8-054], government guidance 'Strategic Compensation Measures for Offshore Wind Activities: Marine Recovery Fund interim guidance (January 2025)' states that strategic measures secured through the MRF cannot be relied on for consent at this time and must be provided alongside project-led measures.
- C.15.67 The ExA is satisfied that delivery of a single project-led oANS is secured through the dDCO [REP9-003, Schedule 18, Part 2] and welcomes the proposed collaborative approach to provide resilience. However, the MoU holds no legal standing, therefore, such an approach cannot be guaranteed. As such, the ExA feels that it must base its conclusion on the delivery of a single project-led oANS which can be secured through the dDCO, alongside the nesting spaces available in the Gateshead onshore ANS, which has already been implemented.
- C.15.68 The ExA considers the CIMP to be adequate at this stage, recognising that its content it would be updated through the steering group process.

LOCATION

- C.15.69 The Project Level Kittiwake Compensation Plan [REP9-007, section 6.3.4] confirmed that of the 5 possible locations for the oANS, site 6a was the preferred candidate site for delivery which it hoped would allay NE's site selection concerns [RR-039, annex H] [REP5-062, OR.2.15] [REP5-059]. The applicants explained [REP6-052, table 2-23] that they had considered the location of key foraging areas for the FFC SPA kittiwake to maximise the chances of success for the ANS colony, as well as reduce competition with the existing population, noting that site 6a is in excess of 60km from the FFC SPA kittiwake colony.
- C.15.70 The Project Level Kittiwake Compensation Plan [REP9-007] confirmed that a marine licence application had been submitted for site 6a on 8 July 2025, that a concept design had been produced and an invitation to tender issued for the engineering certification, fabrication, construction, loadout, transportation and installation, testing and commissioning of the ANS.
- C.15.71 The ExA asked the applicants [PD-025 Q54] how their proposals met aspects of the MRF interim guidance, published 29 January 2025 which stated that, where possible, applicants should ensure that larger and fewer oANS are placed in optimal sites and that enhanced monitoring to test the efficacy of oANS should be put in place. The applicants responded [REP7-129] that they plan to deliver a single oANS at a scale sufficient to offset impacts related to kittiwake and situated in an ecologically and logistically viable location to maximise chances of success. They

explained the location of the oANS had been chosen to optimise the success of the measure, by selecting areas which were located in waters identified by the Round 4 Kittiwake Strategic Compensation Plan [APP-053] of having good ecological potential for kittiwakes, in locations where installation was technically feasible and the consent constraints were minimal. The applicants confirmed their monitoring plans outlined in the outline CIMP [REP4-022] included the use of a state of the art remote monitoring camera system, combined with a strategically planned in-person survey programme to support the collection of high-resolution data and allow for the identification of any remedial work that may be required in the future.

- C.15.72 In its end of examination position paper on offshore ornithology compensation measures [REP8-054], NE confirmed it was generally satisfied the location was appropriate, although noted there was the possibility of competition at this site with foraging kittiwake breeding at the FFC SPA.

ExA's considerations

- C.15.73 The ExA is satisfied that site 6a is an appropriate location for the oANS, although has no certainty in its delivery at present. The ExA is content that the proposal adequately meets the MRF interim guidance, published 29 January 2025. The SoS may wish to seek an update on the progress of the marine licence application.
- C.15.74 The ExA notes the onshore ANS has already been implemented at Gateshead.

SCALE OF COMPENSATION

Ratios

- C.15.75 Section 5.3 of the Project Level Kittiwake Compensation Plan [REP9-007] noted that in determining the level of compensation, ratios would be applied. It proposed a 2:1 ratio which the applicants [REP6-052, table 2-23] considered to be suitably cautious as its compensation case was advanced and comprehensive. However, NE stated it was unable to advise on an appropriate ratio until specific details of location, number of nesting spaces and design were provided [REP3-057] [REP5-059] [REP5-061]. It further advised [REP8-054] that a 1:1 ratio would only be appropriate where there is high confidence in the likelihood of success and considered this not the case given that seabird compensation is still in its infancy.
- C.15.76 Similarly, the RSPB stated it could not advise on ratios until further details were provided [AS-173, OR.1.15].
- C.15.77 Table 5-1 of the Project Level Kittiwake Compensation Plan [REP9-007] provided compensation requirements calculated using both the H_{3pt2} and H₄, approaches, for ratios of 2:1 and 3:1.

Modelling approaches

- C.15.78 During the examination, NE [REP3-055, annex 1] sought further information on the applicants' modelling approaches. The applicants provided further detail in revision 2 of the Case for Reduction in Kittiwake Breeding Seasons for ANS Installation [REP4-083], which provided estimates for how quickly the ANS population would grow.
- C.15.79 The applicants [REP6-052, table 2-23] accepted there is potential for productivity rates to be lower but considered there to be uncertainty as to whether any rates applied would reflect reality. They highlighted comparable locations that have a rate

of 1.0 or higher and did not propose to present variations on the rates they presented in [\[REP4-083\]](#).

- C.15.80 NE [\[REP5-062, OR.2.17\]](#) [\[REP5-059\]](#) responded that the population modelling had not applied either the H_{3pt2} or H_4 method for calculating the number of breeding pairs of kittiwake required to compensation for impacts, nor had they applied any compensation ratios. The applicants [\[REP6-052, table 2-23\]](#) [\[REP6-051, table 2-10\]](#) responded to explain that growth rate information and compensation quanta methodology are separate concepts, with the latter determining the size of the ANS by determining the number of nest spaces required based on mortality (it does not provide any calculations for how the colonising population grows). NE did not make any further submissions on this point.

Delayed colonisation

- C.15.81 NE [\[REP3-055, annex 1\]](#) [\[REP5-059\]](#) advised that the impacts of delayed colonisation had not been considered by the applicants. The applicants [\[REP6-052, table 2-23\]](#) considered the population would grow at the same rate whenever colonisation occurs: therefore, the 'pay back' point could be delayed. They considered there to be little value in presenting such scenarios.

Sufficiency of a single structure

- C.15.82 NE [\[RR-039, annex H\]](#) [\[AS-126\]](#) [\[REP1-065\]](#) [\[REP5-059\]](#) [\[REP5-061\]](#) considered that, in the event of ODOWF not progressing, a single oANS would likely be insufficient to meet the needs of the proposed development alone. Whilst the applicants had stated [\[REP3-027, OR.1.22\]](#) that the oANS would be modular and scalable until the point of fabrication, NE noted [\[REP8-054\]](#) that the applicants had not submitted any designs into the examination to allow NE to comment on the number of nesting spaces it could provide. It also queried the upper limit of the applicants' current design base and maintained to the end of examination that a single structure would not provide sufficient compensation for the scale of the predicted impacts of the proposed development.
- C.15.83 NE further confirmed [\[REP8-054\]](#) that the ODOWF predicted requirement was 542 breeding pairs at 2:1 ratio or 813 breeding pairs at 3:1 ratio. It agreed that an ODOWF-led structure could supply a significant proportion of the proposed development's kittiwake compensation requirements and would provide resilience against one structure not performing as expected. It considered the full compensation requirements of the proposed development likely to be partly dependent on the success of the collaborative approach.
- C.15.84 The Project Level Kittiwake Compensation Plan [\[REP9-007\]](#) stated that the applicants would provide sufficient quantum of compensation for kittiwake in the single ANS they would develop. They confirmed [\[REP8-042\]](#) [\[REP9-021\]](#) they had progressed their design plans and were confident the design of their project-led oANS could accommodate 3,022 breeding pairs (the number of breeding pairs required based on the H_4 approach, a compensation ratio of 3:1 using the mean impact value and apportionment of 100% adults if required). They did not consider there to be sufficient evidence for the additional levels of precaution added at each stage by NE and stated that there would be major financial and programme implications for scaling compensation to the upper 95% confidence interval or at ratios greater than 2:1. It also acknowledged that scaling to the number of nesting spaces advised by NE with the H_{3pt2} method would not be possible without severely impacting both the ANS and wider delivery programme and budget. They further

noted that scaling was not introduced in the pre-application or pre-examination stage, nor for previous applications.

- C.15.85 The applicants [REP8-042] were confident that the package of measures (project led offshore ANS, shared reciprocal nesting space on ODOWF ANS, the applicants onshore ANS at Gateshead and adaptive management measures (see below)) would offset potential risk associated with delivering any measure in isolation.

Proposed compensation figures

- C.15.86 NE [REP8-054] noted that the mean annual impact at 100% apportionment was 191 birds according to NE's advised approach. Given the uncertainties with the proposed measures and the potential for indirect impacts on prey to intensify impacts on kittiwake, it advised a 2:1 ratio. It advised sufficient space should be provided for 4,172 breeding pairs (based on the H_{3pt2} approach and the 95% UCL). It advised there would be good justification to use a 3:1 ratio should the lead-in time be reduced. This would result in space required for 6,258 breeding pairs.
- C.15.87 The applicants [REP8-042] considered NE's position (at a 3:1 ratio) would require up to 12,516 birds, which was neither proportionate, nor reasonable. Advocating a 2:1 ratio, the applicants calculated a mean impact value of 104 (assuming 53% apportionment) and applying the H_4 method calculated that 556 kittiwake pairs would be required per annum to offset the impact.

Success criteria

- C.15.88 NE [REP3-055, annex 1] queried whether compensation was achievable over the lifetime of the proposed development, whilst the RSPB [REP1-087] advised that the compensation measures be secured for the lifetime of the development plus the time it would take the affected seabird population to recover from the impacts. At DL4, the applicants stated the full compensation would be achieved between 13 and 50 years [REP4-083]. NE [REP3-055, annex 1] noted that this contradicts the proposed development's lifespan of 30 years and raised doubt on the ability of the proposed development to compensate for its predicted impacts even within 50 years [REP5-062, OR.2.17] [REP5-059].
- C.15.89 The applicants [REP6-051, table 2-10] [REP7-129, Q55] [REP8-042] explained that the colony growth projections illustrated that even at low colonisation and productivity rates, the oANS would adequately compensate for the lifetime collision mortality, except in the most precautionary scenarios. They acknowledged [REP4-088, table 2-14] that in the extreme worst cases (using the 95% upper confidence interval and most precautionary growth rates) the mortality would never be offset. However, they considered that the success criteria should be based on the mean annual mortality. They confirmed that success criteria would be in line with categories outlined in section 12 of the Round 4 KSCP [APP-053] and would be defined in detail post-consent in the Kittiwake CIMP.
- C.15.90 The applicants [REP6-052, table 2-23] explained that the oANS design would follow best practice and that monitoring and adaptive management would track the functioning of the compensation and find solutions if it was found not to work as predicted by the applicants. The Outline Kittiwake CIMP [REP4-022, section 4.4.3] was revised to identify potential adaptive management measures that would be considered following the appraisal of annual monitoring data and to confirm that the applicants would:

“consider extending their monitoring and maintenance commitments for the oANS to a later date until compensation requirements are delivered as adaptive management”.

- C.15.91 The applicants [REP6-051, tables 2-10 and 2-14] also confirmed that the dDCO [REP9-003] secures that the oANS cannot be decommissioned without written approval of the SoS, in consultation with the relevant SNCB (whether or not that extends beyond the operational lifetime of the proposed development). They did not agree with the RSPB’s position in [REP5-065, OR.2.17] [REP9-016] that a condition requiring maintenance of the oANS beyond the proposed development operational lifetime would meet necessary legal tests, as it is feasible that compensation could be achieved by that date. NE [REP8-054] welcomed the applicants’ commitments and considered them to be appropriately secured, however, it advised further detail on adaptive management measures in future versions of the kittiwake CIMP.
- C.15.92 In its end of examination position paper on offshore ornithology compensation measures [REP8-054], NE advised the key success criteria would likely be the delivery of a sufficient number of breeding pairs with sufficiently high productivity to provide enough fledglings to ultimately result in 191 additional adult kittiwakes entering the breeding pool per annum. It considered this to be a challenging requirement, particularly given the potential scenario of a single ANS.

ExA’s considerations

- C.15.93 There is a significant disparity between the applicants’ and NE’s calculated compensation quantum resulting from different methodological approaches (556 and 4,172 breeding pairs, respectively). As detailed in section C.10 of this appendix, the ExA considers 100% apportioning should be applied. Furthermore, it agrees with the use of the H_{3pt2} method, and that compensation should not be scaled to the 95% UCL but the central impact value. The ExA agrees that a 2:1 ratio is appropriate, given that a location has been determined and the level of design work undertaken by the applicants to date. Nevertheless, it welcomes the provision of compensation requirements calculated with alternative ratios in the Project Level Kittiwake Compensation Plan [REP9-007], should the SoS be minded to apply these.
- C.15.94 Taking the above into account, the ExA considers that sufficient space should be provided for 2112 breeding pairs [REP9-007, table 5-1].
- C.15.95 As noted previously, the ExA is basing its conclusion on the delivery of a single project-led oANS which can be secured through the recommended draft DCO, alongside the nesting spaces available in the Gateshead onshore ANS.
- C.15.96 The applicants are confident that their single project-led oANS would accommodate sufficient breeding pairs, based on its methodological approach. The ExA acknowledges that the applicants’ single project-led oANS would accommodate 2250 nesting spaces which would be sufficient for the number of breeding pairs recommended by the ExA. However, it would not be sufficient if the SoS were to decide a higher ratio (3:1) or the 95% upper confidence interval were appropriate. The ExA is aware that together with the ODOFW oANS there would be sufficient nesting spaces for these scenarios but there would be no guarantee ODOFW would be consented or be constructed.
- C.15.97 The ExA notes that the Gateshead onshore ANS has space for 240 pairs, with permission to double this. Whilst permission has been obtained, implementation is

not guaranteed. The ExA also notes the applicants are in discussion with other projects to share nesting space, which could reduce the potential capacity for this measure.

- C.15.98 The ExA is satisfied that sufficient controls exist to control the time period for which the ANS must be maintained, whether or not that extends beyond the operational lifetime of the development.
- C.15.99 As noted by NE [\[REP8-054\]](#), there is a lack of detail in the Outline Kittiwake CIMP [\[REP4-022\]](#) regarding monitoring of the success of the oANS. However, the ExA is satisfied that such detail can be provided in subsequent iterations of the CIMP, along with further details of adaptive management techniques that could be deployed along with their likely effectiveness.

TIMING

- C.15.100 The applicant's Project Level Kittiwake Compensation Plan [\[APP-052\]](#), section 6.3.6] initially stated that in order to allow sufficient time for the recruitment of juveniles to the adult population, a project-led oANS would be installed a minimum of 3 breeding seasons prior to first turbine operation. It noted that they were prioritising the delivery of at least one oANS of the collaborative structures to be implemented no less than 4 breeding seasons prior to operation. It also considered that should there be a delay to the implementation and delivery of an oANS, any compensation deficit (mortality debt) accrued would be small enough to be paid off over the lifespan of the proposed development, or that the scale of compensation could be increased, or alternative measures could be relied on to offset any deficit accumulated.
- C.15.101 Both NE [\[RR-039\]](#), annex H] [\[REP3-055\]](#) [\[REP8-054\]](#) and the RSPB [\[RR-049\]](#) [\[REP3-066\]](#) advised that an oANS should be implemented to allow for 4 full breeding seasons before operation of the turbines. NE consistently advised that kittiwake do not breed until they are over 4 years old and therefore breeding recruits would not enter the biogeographic population until that point.
- C.15.102 However, during the examination, the applicants proposed to reduce the time period for delivery to 2 years in advance of operation, noting that this had been proposed for other OWFs [\[AS-158\]](#) [\[REP2-010\]](#) [\[REP2-057\]](#), table 2-14]. They submitted the Case for Reduction in Kittiwake Breeding Seasons Prior to Artificial Nesting Structure Installation [\[REP2-059\]](#), revised in [\[REP4-083\]](#) to provide the rationale for this reduction. This concluded that 4 breeding seasons compared to 2 over the course the proposed development's lifespan (and beyond) would be insignificant and would not materially impact the ability of the ANS to deliver the compensation requirement but would delay delivery of compensation by 2 years.
- C.15.103 NE [\[REP3-055\]](#) considered that insufficient evidence had been provided to demonstrate that such a change would not result in significant additional impacts. It highlighted the potential for mortality debt to occur from a failure to have compensation measures in place sufficiently before the projects are operational or if the oANS takes a significant period of time to become colonised.
- C.15.104 The applicants [\[REP4-086\]](#) [\[REP4-087\]](#), table 2-12] [\[REP6-052\]](#), table 2-23] [\[REP8-042\]](#) explained that it would be extremely difficult to deliver the structure ahead of quarter 4 (Q4) 2027 and that care was required during the design. They stated that delivering an oANS 4 years in advance of first possible operation would require installation in Q1 2025, prior to any consent being granted. They considered 4

breeding seasons becomes less relevant when considering the quantum of mortalities on this project and the fact that the oANS would take over 13 to 37 years to deliver full compensation under current projections. They maintained [\[REP7-131, table 2-26\]](#) that the delivery of the oANS 2 years in advance of operation, as opposed to 3 or 4 years, would not impact the ability of this measure to deliver the required compensation requirement over the lifespan of the structure.

- C.15.105 NE [\[REP5-062, OR.2.17\]](#) [\[REP5-059\]](#) did not agree that uncertainties regarding the ability of the proposed measures to sufficiently compensate for the impacts of the proposed development were an appropriate reason for reducing the lead-in times to installation: rather it supported the need for installation of the oANS as soon as possible in advance of operation. It acknowledged [\[REP8-054\]](#) that reductions in lead in time had been deemed acceptable for other projects, but this does not automatically set precedent: any reduction should be a last resort and only agreed with robust evidence to support confidence in success of the measure. It identified slow rates of colonisation at recently installed structures.
- C.15.106 NE [\[REP6-076\]](#) acknowledged the potential logistical constraints identified by the applicants, however, considered these arguments were matters for consideration of the decision maker. It reiterated the importance of compensation being in place and functioning at the point of impact or the need to address delayed implementation through design of the measure.
- C.15.107 With regards to the onshore ANS at Gateshead, the applicants noted this was installed in 2023, a full 7 breeding seasons ahead of first possible operation for the proposed development [\[REP9-007\]](#). The applicants considered it has the capacity to offset accrual of mortality debt ahead of oANS installation.

ExA's considerations

- C.15.108 The ExA agrees with NE [\[REP8-054\]](#) that the applicants' argument for a reduction in lead in time primarily centres around logistical constraints related to consenting and supply chain risks.
- C.15.109 Noting the slow rates of colonisation shown at recently installed ANSs, and the applicants' modelling suggesting full compensation may not be delivered with the lifetime of the proposed development, the ExA agrees with NE [\[REP8-054\]](#) that a prompt installation would be preferable. The ExA considers that a delay in delivery of the oANS and the resultant need for a greater amount of compensation to address mortality debt could only exacerbate the concerns regarding the ability of a single oANS to deliver the required compensation. However, the ExA does note that the onshore ANS is already constructed and therefore could go some way to offsetting mortality debt.
- C.15.110 The ExA is content that Schedule 18, Part 2 condition 7 in the dDCO secures that the kittiwake oANS would not be decommissioned without written approval of the SoS in consultation with the relevant SNCB and considers that approval for decommissioning would not be granted prior to compensation being delivered and therefore, could extend beyond the lifetime of the proposed development.

EXA'S FINAL CONSIDERATIONS

- C.15.111 The applicants' key documents to be certified in the dDCO were revised during the examination to reflect the updated impact assessment values and proposed compensation measures. These included presentation of the required quantum of compensation using both the applicants' and NE's preferred approaches. The most up to date versions were:
- Document 6.2.1 Appendix 1 – Project Level Kittiwake Compensation Plan (revision 6) [\[REP9-007\]](#).
 - Document 6.2.1.2 Outline Kittiwake CIMP (revision 2) [\[REP4-022\]](#).
- C.15.112 In its end of examination position paper on offshore ornithology compensation measures [\[REP8-054\]](#), NE stated it could not advise the proposed measures for kittiwake can deliver the required compensatory benefits or can be adequately secured.
- C.15.113 The ExA is satisfied that the certified documents listed above provide sufficient detail at this stage and are secured in the recommended draft DCO. The ExA is reassured that the SNCB would have sufficient control over the content of subsequent iterations of the Kittiwake CIMP (as secured in Schedule 18 Part 2 condition 3 and 4) which would be updated going forward by the steering group.
- C.15.114 The ExA has considered all representations from the applicants and IPs related to kittiwake compensation submitted into the examination. The ExA considers the delivery of compensatory measures for kittiwake would be adequately secured through Schedule 18, Part 2 of the recommended draft DCO.
- C.15.115 In summary, the ExA concludes that despite the logistical and supply chain challenges, an oANS in the location suggested would be the most ecologically appropriate compensatory measure for offsetting impacts on kittiwake in English waters and that it has a reasonable chance of success. The ExA considers the proposed oANS would be sufficient for the number of breeding pairs recommended by the ExA and options exist to provide further spaces if the SoS decides a greater number would be required. The ExA is satisfied that sufficient controls exist to control the time period for which the ANS must be maintained, whether or not that extends beyond the operational lifetime of the development.

FFC SPA AND FARNE ISLANDS SPA – GUILLEMOT AND RAZORBILL

- C.15.116 The Guillemot [and Razorbill] Compensation Plan (revision 6) [\[REP6-012\]](#) proposed predator eradication and control as the primary compensation measure for guillemot (and razorbill) of the FFC SPA and the Farne Islands SPA. Potential adaptive management measures included the provision for nesting locations on the kittiwake oANS and signing up fishers to deliver bycatch reduction measures.

THEORETICAL MERIT, TECHNICAL FEASIBILITY AND EFFECTIVENESS

Predator eradication

- C.15.117 The Guillemot [and Razorbill] Compensation Plan [\[REP6-012\]](#) explained that the SoS for Defra approved predator eradication as a compensatory measure for inclusion in the LoSCM. The applicants [\[REP2-057\]](#), table 2-14] considered that this demonstrated that the UK Government has confidence in this compensation measure.

- C.15.118 NE [\[RR-039\]](#), annex H] [\[REP8-054\]](#) considered the applicants' original proposals [\[APP-056\]](#) to be poorly developed with very little detail in the original Outline Guillemot [and Razorbill] CIMP [\[APP-057\]](#). Nevertheless, it advised that removing predators such as brown rat could allow for colonisation of new areas or reduce predation pressure on existing colonies and thus increase both breeding populations and productivity of seabirds. It confirmed that proven techniques exist for rat eradication and ongoing biosecurity measures can maintain rat free status. However, it noted that eradication programs were challenging, can be prone to delays and unforeseen circumstances. Furthermore, it stated that evidence of its effectiveness for guillemot and razorbill was limited.
- C.15.119 The RSPB [\[RR-049\]](#) [\[AS-128\]](#) [\[REP1-087\]](#) considered there to be considerable uncertainty as to predator eradication as a compensation measure for guillemots and razorbill. It advised that there needed to be evidence of INIS predation and their resultant detrimental effect, evidence the measure could be implemented and maintained and evidence that the seabird species would respond positively to the measure.
- C.15.120 The RSPB [\[AS-128\]](#) [\[REP1-087\]](#) highlighted that the use of second generation anti-coagulant rodenticides (SGAR) in open areas would become illegal as of 1 January 2025 which could affect predator eradication measures. The applicants [\[REP2-057\]](#), table 2-14] acknowledged the concern. They explained that they would carry out a diligent rodenticide selection process. Should approval be required, they would apply best practice and precedent (including that followed successfully for the derogation to use rodenticide on the Rathlin Island rat eradication project by the RSPB and its consultants) and work alongside the preferred supplier(s), the Campaign for Responsible Rodenticide use and the Health and Safety Executive to seek approval (a Critical Situation Permit) to use the preferred product(s).

Nesting locations of the ANS(s)

- C.15.121 With regards to the oANS, NE [\[REP8-054\]](#) stated there is a lack of evidence demonstrating its likely effectiveness for guillemot and razorbill, but agreed it had potential as adaptive management and would welcome the applicants including scope for it in their kittiwake ANS designs.

Bycatch reduction

- C.15.122 With regards to the potential adaptive measures, the applicants [\[REP3-027\]](#), OR.1.32] considered sufficient capacity exists in the fishing fleet for bycatch reduction technology (such as looming eye buoys). However, NE [\[RR-039\]](#), annex H] [\[REP3-057\]](#), OR.1.32] [\[REP8-054\]](#) considered there to be insufficient evidence on the efficacy of bycatch reduction techniques to determine the number of vessels that would be required. It agreed with the applicants [\[AS-089\]](#) that the measure being implemented would be reliant on further evidence becoming available. The RSPB [\[REP1-087\]](#) highlighted a lack of evidence about whether these measures would be ecologically effective for guillemot or razorbill.

ExA's considerations

- C.15.123 The ExA is content that, in principle, predator eradication would be an appropriate and feasible measure for guillemot (and razorbill, should the SoS be unable to exclude an AEoI of razorbill from the FFC SPA) and would be additional to normal practice.

- C.15.124 The ExA acknowledges that there are no further relevant measures proposed in the Defra LoSCM. Doubts remain as to the efficacy of ANS provision and bycatch reduction for guillemot and razorbill. Noting the concerns above that a single project-led oANS may be insufficient to compensate for impacts on kittiwake, the ExA has doubts that it could also be used for guillemot and razorbill. Nevertheless, the ExA welcomes the inclusion of potential adaptive measures, should evidence of their effectiveness become available.

MECHANISM FOR DELIVERY AND IMPLEMENTATION

- C.15.125 The delivery of compensatory measures for guillemot (and razorbill) would be secured through Schedule 18, Part 3 of the dDCO [REP9-003]. This requires a final guillemot [and razorbill] CIMP to be produced based on the strategy in the Guillemot [and Razorbill] Compensation Plan [REP6-012] and submitted to the SoS for approval: the measures must be implemented prior to operation of the turbines.
- C.15.126 The Guillemot [and Razorbill] Compensation Plan [REP6-012] identified 2 options for delivery: (i) project led or (ii) strategically through the MRF should it become available.

Project-led

- C.15.127 The applicants [REP3-028, table 2-14] noted that CIMPs are typically developed post-consent in collaboration with steering groups. However, they provided details of implementation and monitoring of a project-led option in the Outline Guillemot [and Razorbill] CIMP [REP4-026]: this confirmed that delivery would be secured through legal agreement between the applicants and landowners. Schedule 18, Part 3 of the dDCO [REP9-003] was updated to reflect the existence of the outline CIMP.
- C.15.128 NE advised [REP8-054] that seabird monitoring should continue beyond the lifetime of the proposed development given that projections of colony growth rates suggest it could take longer than the lifetime of the proposed development to provide sufficient compensation.

Strategic option

- C.15.129 Schedule 18, Part 3 of the dDCO [REP9-003] secured the option for the applicant to make a payment to Defra to the MRF. The Guillemot [and Razorbill] Compensation Plan [REP6-012] anticipated that a strategic approach would be available in late 2025, either via the MRF in line with the guidance, or via an interim fund established by OWIC.
- C.15.130 The ExA asked the applicants [PD-025 Q56] how their auk compensation proposal [REP5-011] fulfil the strategic compensation measures for offshore wind activities: Marine Recovery Fund interim guidance, published 29 January 2025. The applicants confirmed [REP7-129, Q56] that they had collaborated with various parties including Defra and NE regarding development of the strategic compensation, which is evidenced by the jointly agreed statement provided by the Defra-led task and finish group which includes DESNZ, NE, TWT, the RSPB, The Crown Estate and OWIC regarding progress of the strategic measure proposed at the Isles of Scilly (see below for more information regarding location).

ExA's considerations

- C.15.131 The ExA is satisfied that the applicants have secured the option for a MRF contribution for guillemot of the FFC SPA and the Farne Islands SPA (and razorbill, should the SoS be unable to exclude an AEol of razorbill from the FFC SPA) in the dDCO [\[REP9-003\]](#), Schedule 18, Part 3]. It concerns the ExA that a delivery mechanism for strategic compensation has not yet been established. However, the ExA acknowledges that delivery of strategic compensation is outside the control of the applicants.
- C.15.132 The ExA acknowledges that government guidance confirmed that strategic measures secured through the MRF cannot be relied on for consent at this time and must be provided alongside project-led measures. The final version of the Guillemot [and Razorbill] Compensation Plan (revision 6) [\[REP6-012\]](#) confirmed that a project-led option would be progressed (potentially in collaboration with another developer) to deliver all or most of the compensation required, or as an interim measure until a strategic route is available.
- C.15.133 The ExA acknowledges the applicants' contention that they have fulfilled paragraphs 22 and 25 from the strategic compensation measures for offshore wind activities: Marine Recovery Fund interim guidance, published 29 January 2025 through their collaboration with various parties.
- C.15.134 The ExA is satisfied that the mechanism for the potential delivery of project-led compensation for guillemot [and razorbill], should a suitable compensation site be identified in the future, is secured in the recommended draft DCO in Schedule 18, Part 3.

LOCATION

Project-led option – Middle Mouse

- C.15.135 At the close of examination, a single project-led compensation site location remained at Middle Mouse (revision 6 of the Guillemot [and Razorbill] Compensation Plan [\[REP6-012\]](#)). Throughout examination, NE [\[REP6-076\]](#) [\[REP8-054\]](#) voiced concerns regarding the lack of evidence for rat presence on Middle Mouse and considered it likely too small to compensate for the impacts of the proposed development alone.
- C.15.136 TWT [\[REP3-069\]](#) did not consider Middle Mouse as being suitable for compensation through predator eradication due to its proximity to the mainland.
- C.15.137 The RSPB [\[REP5-066\]](#) stated that robust evidence was required to demonstrate rat presence during the breeding season and that it affects the breeding guillemot and razorbill populations at Middle Mouse.
- C.15.138 The applicants [\[REP3-027\]](#), OR.1.30] [\[REP4-024\]](#) explained that initial surveys to determine the presence of rats at Middle Mouse were inconclusive. Further surveys were proposed (scheduled for after close of examination to avoid seabird breeding season) to gather evidence on impacts that predators are having on razorbill and guillemot. However, the applicants provided an estimate of the amount of nest spaces that could be 'freed up' by the eradication of rats, excluding currently unoccupied areas which are unlikely to be subject to pressures from rodents (e.g. sheer cliffs) in revision 2 of the 'Guillemot [and Razorbill] Compensation Site Shortlist Refinement Report' [\[REP3-019\]](#).

- C.15.139 The applicants [REP6-012] explained that Middle Mouse would remain under consideration as a potential option to deliver all or most of the compensation required or as an interim measure until such time as the MRF or strategic route became available for the Isles of Scilly or, if required, as adaptive management. The applicants confirmed [REP6-012] [REP8-042] that they were continuing to investigate site options with surveys being undertaken at several locations and in Scotland which are in private ownership and where there is landowner support for an eradication scheme.

Strategic option – Isles of Scilly

- C.15.140 At the close of examination, revision 3 of the Guillemot [and Razorbill] Compensation Plan [REP4-024] identified the Isles of Scilly as a strategically led option which would require a strategic or collaborative approach with the Duchy of Cornwall, the Isles of Scilly Wildlife Trust, and potentially other OWF developers. It considered the Isles of Scilly to be the most suitable site for predator eradication.
- C.15.141 NE [RR-039, annex H] [AS-126] acknowledged a history of rat presence and past eradication efforts on the Isles of Scilly and at DL4, NE [REP4-129] advised that given the scale of potential impacts, the applicants' auk compensation would be dependent on the strategic delivery on the Isles of Scilly.
- C.15.142 TWTs on behalf of the Isles of Scilly Wildlife Trust and other partners in the Isles of Scilly Seabird Recovery Project, [RR-057] [AS-047] [REP1-088] [REP3-069] confirmed that the landowners and managers would only allow predator eradication on the Isles of Scilly to be undertaken on a strategic basis and funded by the MRF, once established. It could not accept payment direct from applicants. The RSPB [RR-049] [AS-128] [REP1-087] agreed that predator eradication on the Isles of Scilly should be considered as a strategic compensation measure.
- C.15.143 The applicants [REP3-027, OR.1.30] [REP3-028, table 2-14] highlighted a joint statement by Defra, DESNZ, NE, TWTs, RSPB, The Crown Estate and the OWIC confirming a strategic approach at the Isles of Scilly would be delivered in Spring 2027. The applicants provided an update on OWIC's programme of works in [REP5-037, table 2-24], which they considered provided confidence that a suitable strategic compensation option would become available.

Estimation of site potential

- C.15.144 The applicants submitted the 'Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment' [REP4-097] at DL4, detailing the survey data and rat-free nesting space projections.
- C.15.145 NE [REP4-125] [REP4-126] [REP5-059] [REP5-062, OR.2.14] [REP6-076] had concerns with the methods used to estimate the area of suitable habitat and the number of breeding pairs that could be accommodated in revision 2 of the 'Guillemot [and Razorbill] Compensation Site Shortlist Refinement Report' [REP3-019], particularly for razorbill. It advised the applicants to consider the 3-dimensional nature of the areas being assessed, taking into account sloping areas which could preclude nesting [REP5-059] [REP6-076]. Furthermore, it noted [REP4-125] [REP6-076] that the identification of habitat for razorbill was based on guillemot nesting habitat requirements which are significantly different to those of razorbill.
- C.15.146 The applicants [REP6-052, table 2-22] explained that surveys were undertaken at a time when they were refining the shortlist and considering each location only for a

project-led option: therefore, the level of detail suggested by NE would have been onerous. The applicants considered they had taken a relatively conservative approach to quantifying available habitat.

- C.15.147 The applicants understood [\[REP7-131\]](#), table 2-26] that habitat assessment fieldwork was being repeated on behalf of the Isles of Scilly Sea Bird Recovery Project in June 2025, with a full habitat assessment report and viability assessment due to be provided in October 2025. They noted [\[REP5-036\]](#), OR.2.9] that work to quantify the benefits of rat eradication on the Isles of Scilly to seabirds was progressing by the Isles of Scilly Sea Bird Recovery Project and the Defra task and finish group. On that basis that the Isles of Scilly could not be taken forward as a project-led option, the applicants confirmed they would not undertake any further work at the site [\[REP7-131\]](#), table 2-26].
- C.15.148 NE [\[REP4-129\]](#) advised caution regarding the estimates of the compensation potential of the site until the results of the Isles of Scilly task and finish group were available [\[REP5-062\]](#), OR.2.13]. It considered [\[REP4-125\]](#) the potential nesting densities used for guillemot (46 pairs per m²) may be unrealistically high (echoed by the RSPB in [\[AS-183\]](#)) and noted that the calculated space available is not a guarantee that it would be fully utilised. The applicants [\[REP5-036\]](#), OR.2.9] [\[REP5-037\]](#), table 2-24] [\[REP6-052\]](#), table 2-22] stated that feasibility studies had recorded high densities of guillemots at multiple locations (including 48 pairs per m² of guillemots at Middle Mouse). They did not consider nesting densities of over 40 pairs per m² to be unrealistic, however, presented lower densities of 20 pairs per m² in the Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment [\[REP4-097\]](#). They noted the Hornsea Project 4 Guillemot CIMP was approved by NE based upon predicted nesting density of 27 pairs per m².
- C.15.149 The applicants [\[REP5-037\]](#), table 2-24] [\[REP5-039\]](#), OR.2.9] explained that during surveys at all locations, guillemot and razorbill were observed in mixed colonies and therefore, they considered it inappropriate for the habitat assessment to arbitrarily distinguish between guillemot and razorbill habitat. NE [\[REP6-076\]](#) disagreed, stating that nesting habitat preferences and nesting densities within mixed colonies differ between the 2 species.
- C.15.150 Furthermore, NE [\[REP4-125\]](#) considered that the applicants' figures for estimated compensation potential may require unfeasible colony growth rates (specifically, 17% over 30 years for the Isles of Scilly) and had not considered factors such as likely recruitment and productivity rates, the quantity and quality of available prey, and the current levels of suppression by rats. It noted that following predator eradication on Lundy, the annual growth rate was approximately 9%. The applicants [\[REP5-037\]](#), table 2-24] subsequently agreed the Lundy growth to be appropriate, although noted that any timeframe provided by any party is a plausible estimate and unlikely to be accurate.
- C.15.151 The applicants [\[REP9-021\]](#) concluded that the Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment [\[REP4-097\]](#) shows the likely quantum of compensation available at the Isles of Scilly (between 24,000 and 56,000 unoccupied additional nesting spaces) which should give confidence that compensation can be delivered.

Connectivity of site options

- C.15.152 NE [\[RR-039\]](#), annex H] [\[PDB-011\]](#) noted that any benefits from the compensatory measures are likely to be felt at the wider biogeographic level rather than the impacted site.
- C.15.153 A connectivity assessment for guillemot and razorbill was provided by the applicants in revision 3 of the Guillemot and Razorbill Compensation Plan [\[AS-089\]](#). This acknowledged that connectivity with auks at the FFC SPA is unlikely from Middle Mouse or the Isle of Scilly due to the distances involved but considered there to be potential for some connectivity with the UK NSN. The applicants subsequently considered that increases in the Middle Mouse guillemot and razorbill populations could contribute to the Skomer, Skokholm and the Seas of Pembrokeshire SPA, as it is within the natal dispersal range [\[REP5-011\]](#).
- C.15.154 NE [\[REP8-054\]](#) advised that guillemot and razorbill form part of the Isles of Scilly SPA seabird assemblage and contribute to its abundance and diversity. Therefore, any additional breeding guillemot and razorbill would directly benefit the UK NSN and fall under the protective provisions of the Habitats Regulations.

ExA's considerations

- C.15.155 The ExA notes that by the close of examination, a site for a project-led measure had not been confirmed and that a strategic option on the Isles of Scilly was speculative.
- C.15.156 At the close of the examination, the applicants confirmed they were continuing to investigate project-led options, as required by the MRF interim guidance (DESNZ, 2025). The applicants [\[REP8-042\]](#) noted that the emergence of the MRF has directly led to the landowners choosing not to work directly with developers to undertake predator eradication as they consider the MRF a more suitable and palatable route. The ExA acknowledges that a project-led option has therefore proven challenging for the applicants. The ExA recommends the SoS seeks an update from the applicants as to the progress on these options. The ExA considers that any further site selection should take into account NE's advice on estimating site potential, including the use of realistic growth rates and agreed nesting densities.
- C.15.157 The ExA considers there is high potential for compensation on the Isles of Scilly, however, it agrees with the RSPB [\[AS-183\]](#) that any decision regarding use of the Isles of Scilly for strategic compensation should be informed by the full report of the Isles of Scilly Seabird Recovery Project habitat assessment survey (due in autumn 2025), and any subsequent work on population projections based on that report. Whilst the applicants envisaged that a strategic approach for auk compensation on the Isles of Scilly would be available in late 2027 [\[REP8-042\]](#) [\[REP6-012\]](#), this is currently speculative and not secured in the dDCO.

SCALE OF COMPENSATION

- C.15.158 The Guillemot [and Razorbill] Compensation Plan [\[REP6-012\]](#), section 5.3.1] noted that the scale of compensation is dictated by the number of nesting pairs predicted to be required to produce the necessary number of recruiting adults into the population.

Ratios

- C.15.159 The applicants [\[REP9-021\]](#) considered there to be a high confidence in the measure for auks as it has been accepted in the LoSCM. They therefore proposed a compensation ratio of 1:1.
- C.15.160 NE [\[RR-039\]](#), annex H) [\[REP1-065\]](#) [\[AS-160\]](#) considered it unlikely it would advise a compensation ratio of 1:1 as appropriate. It considered [\[REP4-124\]](#) that greater uncertainty existed regarding the likely success of auk compensation measures than for kittiwake and that the applicants' suggestion of a 1:1 ratio failed to take into consideration the uncertainties associated with the potential success of the proposed measures. The RSPB echoed this advice [\[AS-173\]](#), OR.1.15].
- C.15.161 In its end of examination position paper on offshore ornithology compensation measures [\[REP8-054\]](#), NE advised a minimum ratio of 2:1 for auks, given the uncertainties with the response of guillemot and razorbill to the proposed measures and the potential for indirect impacts on prey to intensify impacts. NE also invited the SoS to consider whether a ratio of 3:1 was warranted given the likely implementation timetable - see below for more information on timing.

Proposed compensation figures

- C.15.162 The applicants [\[AS-158\]](#) considered that all compensation documents should retain the range of displacement and mortality rates so the SoS could make an informed judgement. However, they considered quantum should be determined by the use of mean values based on 50% displacement and 1% mortality rates [\[REP3-030\]](#) [\[REP3-027\]](#), OR.1.30] [\[REP7-131\]](#), table 2-26].
- C.15.163 The applicants presented predicted impacts in the RIAA Part 4 for its own and NE's preferred methodologies [\[REP6-008\]](#), table 9-25]. The Guillemot [and Razorbill] Compensation Plan (revision 6) [\[REP6-012\]](#), tables 4-3, 4-4 and 5-1] presented both methodologies, plus compensation ratios of 1:1, 2:1 and 3:1. Applying 50% displacement and 1% mortality rates, 100% apportionment and a 1:1 ratio, the applicants calculated the following mean annual displacement mortality and compensation requirements:
- C.15.164 Guillemot:
- FFC SPA:
 - mean annual displacement mortality of 122.9 adults
 - compensation requirement of 719 breeding pairs
 - Farne Islands SPA:
 - mean annual displacement mortality of 4.6 adults
 - compensation requirement of 20 breeding pairs
- C.15.165 Razorbill (FFC SPA):
- mean annual displacement mortality of 50.2 adults
 - compensation requirement of 195 breeding pairs
- C.15.166 The applicants [\[REP9-021\]](#) concluded that the Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment [\[REP4-097\]](#) shows the likely quantum of compensation available at the Isles of Scilly (between 24,000 and 56,000) which should give confidence that compensation can be delivered.

- C.15.167 NE confirmed [\[REP4-124\]](#) that it would generally advise 70% displacement and 2% mortality rates for calculating compensatory requirements for auks. It agreed with the applicants' calculations in the Guillemot [and Razorbill] Compensation Plan (revision 5) [\[REP6-012\]](#), tables 4-3, 4-4 and 5-1] of the mean annual impact of the proposed development applying these rates. These would be as follows:
- guillemot: 456 birds (95% UCL 878) at the FFC SPA and 13 birds (95% UCL 18.3) at the Farne Islands SPA = 469 birds total (95% UCL 896.3)
 - razorbill: 140 birds (95% UCL 430)
- C.15.168 However, applying the 95% UCL and a 2:1 ratio, it advised the following compensation requirements:
- guillemot – 7,924 breeding pairs
 - razorbill – 3,337 breeding pairs
- C.15.169 The applicants considered [\[REP8-042\]](#) [\[REP9-021\]](#) that overcompensation would not only have financial implications for the proposed development and the potential for failure to meet success criteria, but it would also use up capacity for compensation for future projects.
- Success criteria**
- C.15.170 The applicants [\[PDB-006\]](#) confirmed that success criteria of predator eradication would be defined in detail post-consent in the Guillemot [and Razorbill] CIMP. Metrics would include colony counts, productivity monitoring and monitoring of predator presence and biosecurity.
- C.15.171 The applicants [\[REP5-037\]](#), table 2-24] [\[REP7-131\]](#), table 2-26] advised that its compensation requirement of 719 pairs of guillemot (50% displacement, 1% mortality, mean impact value, applying the Lundy growth rate) could be achieved at the Isles of Scilly in 11 years (at a 2:1 ratio) and 20 years (at a 3:1 ratio). However, to meet the SNCB's preferred value of 7,762 pairs (70% displacement, 2% mortality, 95% upper confidence interval, 2:1 ratio) this could take up to 37 years. In the absence of a comparable growth rate for razorbill, the applicants [\[REP7-131\]](#), table 2-26] confirmed that they did not intend to provide similar estimates for razorbill.
- C.15.172 NE [\[REP4-124\]](#) [\[REP8-054\]](#) advised that success criteria be assessed against the mean impact value. In its end of examination position paper on offshore ornithology compensation measures [\[REP8-054\]](#), NE advised the key success criteria would likely be the delivery of a sufficient number of breeding pairs with sufficiently high productivity to provide enough fledglings to produce 469 adult guillemot and 140 adult razorbill per annum.
- C.15.173 The final SoCG between the applicants and the RSPB at the close of the examination [\[REP9-016\]](#) included an outstanding concern from the RSPB that the DCO should be amended to provide a safeguard in order to provide security for the long-term success of any predator eradication compensation measure.
- C.15.174 NE welcomed the inclusion of predator and seabird monitoring, productivity monitoring and colony counts in the Outline Guillemot [and Razorbill] CIMP [\[REP4-026\]](#) and advised that increased productivity and increased abundance of both guillemot and razorbill will be essential measures of success. It advised that subsequent versions of the CIMP should provide further detail on monitoring,

reporting of monitoring results, and potential triggers for deployment of adaptive management measures.

ExA's considerations

- C.15.175 As detailed above in this appendix, the ExA considers it appropriate to apply rates of 70% displacement and 2% mortality to impact values. The ExA acknowledges the applicants' concerns in [\[REP8-042\]](#) that this almost triples mortality, however, it considers this level of precaution to be appropriate. The ExA considers a 2:1 ratio to be appropriate as although predator eradication is included in the LoSCM, which demonstrates government confidence in the measure, an appropriate site is yet to be identified. The ExA also considers 100% apportionment to the FFC SPA to be appropriate along with the upper 95% confidence interval as per the SNCB's advice to accompany the H4 method.
- C.15.176 Taking the above into account and applying a 2:1 ratio at the upper 95% confidence interval with 100% apportionment, the ExA considers that sufficient space should be provided for 7762 breeding pairs to compensate for the impacts on guillemot from the FFC [\[REP6-012\]](#), table 4-4] and 162 to compensate for the impacts on guillemot from the Farne Islands [\[REP6-012\]](#), table 5-1], which is 7924 breeding pairs of guillemot in total.
- C.15.177 Should the SoS be unable to exclude AEoI on razorbill, the ExA considers that sufficient space should be provided for 3337 breeding pairs of this qualifying feature [\[REP6-012\]](#), table 4-4].
- C.15.178 The ExA notes NE's concerns [\[REP8-054\]](#) [\[REP9-016\]](#) that some uncertainty remains regarding the ability of predator eradication to deliver benefits to guillemot and razorbill populations at the scale required. The ExA therefore considers the adaptive measures to be of importance, although their potential benefits have not been quantified at this stage.
- C.15.179 The ExA is satisfied that success criteria can be developed, agreed and monitored through the Guillemot [and Razorbill] CIMP, should one be required, or through the strategic delivery of predator eradication.

TIMING

- C.15.180 The applicants initially proposed to begin predator eradication 2 years prior to installation of the first turbine [\[PDB-006\]](#) [\[REP5-011\]](#). They [\[REP6-052\]](#), table 2-26] considered it would take 2 years in advance of turbine installation to declare an area predator-free (assuming successful eradication). They noted that Hornsea Project 4, as the first consented OWF to propose predator eradication as compensation for guillemot, was consented based on the implementation of predator eradication 2 years prior to impact.
- C.15.181 However, the applicants acknowledged [\[REP4-024\]](#) [\[REP5-011\]](#) that predator eradication 2 years prior to installation of the first turbine may not be possible on the Isles of Scilly and there would be a need to overcompensate to account for any delay. They noted [\[REP5-061\]](#), table 2-10] that the timing of delivery of compensation on the Isles of Scilly would be beyond their control, as the measure would be delivered strategically. However, the applicants noted [\[REP6-012\]](#) [\[REP7-129\]](#), Q58] that the Isles of Scilly would provide additional capacity to allow for over compensation in the event of delayed implementation. However, they noted that this would reduce the compensation available for other projects to utilise in the future.

They considered that any over-compensation required would be provided by Defra and that the cost of this would already have been factored into any agreed payment.

C.15.182 NE [\[RR-039\]](#), annex H] [\[REP8-054\]](#) consistently advised that eradication might take longer than 2 years, and that compensation would not be delivered until the required number of chicks were being produced and had reached age of first breeding. It did not consider implementation before impact to be analogous to delivering compensation before impact. NE [\[REP5-062\]](#), OR.2.14] [\[REP8-042\]](#) explained that at present it is unclear to what extent predator eradication could address the build-up of mortality debt accrued should the proposed development be operational without effective compensation in place.

C.15.183 The applicants [\[REP7-129\]](#), Q58] considered that a delay in delivery of commencement of the compensation measure would simply delay the delivery of compensation by the equivalent number of years. They noted that NE did not consider there to be connectivity between the FFC SPA auks, the Isles of Scilly or Middle Mouse and therefore considered that accrual of mortality debt would not have a material effect on the population of the compensation scheme. The applicants [\[REP8-042\]](#) also considered NE's advice does not take into account that compensation requirements have been inflated due to the precaution embedded into NE's advice.

C.15.184 In its end of examination position on offshore ornithology compensation measures, NE [\[REP8-054\]](#) advised that for every year that the proposed development is operational without compensation in place, the full compensation target for each species would need to be added to the total compensation requirements. It considered it unclear to what extent the measure could account for the build-up of mortality debt.

ExA's considerations

C.15.185 The ExA considers that a degree of overcompensation would be appropriate in light of any delay in delivery of compensation. The ExA has no reason to consider NE's advice is not reasonable and therefore recommends that for every year that the proposed development is operational without compensation in place, the full compensation target for each species would need to be added to the total compensation requirements.

EXA'S FINAL CONSIDERATIONS

C.15.186 The applicants' key documents to be certified in the DCO were revised during the examination to reflect the updated impact assessment values and proposed compensation measures. These included presentation of the required quantum of compensation using both the applicants and NE's preferred approaches. The most up to date versions were:

- Document 6.2.2 Appendix 2 Guillemot [and Razorbill] Compensation Plan (revision 5) [\[REP6-012\]](#)
- Document 6.2.2.1 Annex A – Outline Guillemot [and Razorbill] CIMP (revision 2) [\[REP4-026\]](#)

C.15.187 The ExA is satisfied that these documents sufficiently capture the proposed compensation measures for guillemot of both the FFC SPA and the Farne Islands SPA and are appropriately secured in Schedule 18 of the recommended draft DCO.

- C.15.188 The ExA considers an AEol on razorbill can be excluded and has removed the without prejudice drafting for razorbill in the ExA's recommended draft DCO (appendix F) of this Recommendation.
- C.15.189 In its end of examination position paper on offshore ornithology compensation measures [\[REP8-054\]](#), NE stated it could not advise the proposed measures for guillemot and razorbill could deliver the required compensatory benefits or could be adequately secured.
- C.15.190 The ExA has considered all representations from the applicants and IPs related to guillemot and razorbill compensation submitted into the examination. The ExA acknowledges that the applicants' primary compensatory measure was for predator eradication and control for rats which is included in the LoSCM which demonstrates government confidence in the measure.
- C.15.191 The ExA acknowledges that government guidance confirmed that strategic measures secured through the MRF cannot be relied on for consent at this time and must be provided alongside project-led measures. The ExA is aware that only 2 of the original potential sites identified by the applicants remained with the possibility to provide the required compensation. It concerns the ExA that neither a delivery mechanism for strategic compensation nor a project-led option has been established and therefore does not consider that feasible, deliverable project-led mitigation has been secured for guillemot (or razorbill).
- C.15.192 In considering its recommendation, the ExA concludes that the only remaining option proposed by the applicants at the close of examination for project-led compensation for auks was unproven. The applicants' alternative strategic approach through the MRF would seem to have potential, but as the MRF had not been established before the end of the examination, the ExA is unable to rely on it to deliver the necessary compensation.

C.16 HRA CONCLUSIONS

- C.16.1 The proposed development is not directly connected with, or necessary to, the management of a European site, and therefore the implications of the project with respect to adverse effects on potentially affected sites must be assessed by the SoS.
- C.16.2 The applicants identified an LSE for 32 sites as a result of the proposed development alone or in combination with other plans or projects (see section C.4 above).
- C.16.3 The ExA's findings are that, subject to the mitigation measures to be secured in the dDCO, AEol can be excluded for all sites, except:
- Dogger Bank SAC
 - sandbanks which are slightly covered by sea water all the time due to physical change (to another seabed type) (alone and in combination) and abrasion (alone and in combination)
 - FFC SPA
 - guillemot (breeding) – disturbance and displacement (in combination)
 - kittiwake (breeding) – collision risk alone or in combination

- seabird assemblage – collision, disturbance and displacement (alone or in combination)
 - Farne Islands SPA
 - guillemot – due to in combination disturbance and displacement
- C.16.4 The applicants submitted an assessment of alternative solutions, a case for IROPI, and proposed compensation measures. The ExA is satisfied that there are no alternative solutions and that the proposed development has met the test for IROPI.
- C.16.5 The ExA is satisfied that, based on its recommended impact scenario, the proposed compensation package for the Dogger Bank SAC can be relied upon, and that its delivery is adequately secured through Schedule 18 of the recommended draft DCO.
- C.16.6 The ExA is satisfied that the compensation package for kittiwake as proposed is feasible and appropriate and is adequately secured in the recommended draft DCO but that the compensation package for guillemot set out in the recommended draft DCO cannot currently be relied upon.

APPENDIX D: MARINE CONSERVATION ZONE ASSESSMENT

D.1. Introduction

D.1.1. The applicants undertook a Stage 1 Marine Conservation Zone (MCZ) assessment [\[REP7-111\]](#) for 2 MCZs:

- the Holderness Inshore MCZ
- the Holderness Offshore MCZ

D.2. Holderness Inshore MCZ

CONSERVATION OBJECTIVES

D.2.1. The Holderness Inshore MCZ is located 0.1km to the south of the offshore export cable corridor, although the construction buffer zone overlaps by approximately 400 metres (m) [\[REP7-038\]](#).

D.2.2. The broadscale marine habitat designated features of the Holderness Inshore MCZ are:

- intertidal sand and muddy sand
- moderate energy circalittoral rock
- high energy circalittoral rock
- subtidal coarse sediment
- subtidal mixed sediments
- subtidal sand
- subtidal mud

D.2.3. There is one designated geological feature of the Holderness Inshore MCZ which is Spurn Head (subtidal).

D.2.4. The objective for the MCZ is to maintain the designated features in favourable condition which means that:

- Its extent is stable or increasing.
- Its structure and functions, its quality, and the composition of its characteristic biological communities (including diversity and abundance of species forming part or inhabiting the habitat) are sufficient to ensure that its condition remains healthy and does not deteriorate.

ASSESSMENT OF EFFECTS

D.2.5. The applicants stated [\[REP7-111\]](#) that any temporary deterioration in condition was to be disregarded if the habitat was sufficiently healthy and resilient to enable its recovery. Any alteration to a feature brought about entirely by natural processes was to be disregarded when determining whether a protected feature is in favourable condition.

D.2.6. The applicants presented potential effects during construction, operation and decommissioning on the Holderness Inshore MCZ.

D.2.7. Potential effects during construction were:

- temporary physical disturbance or temporary habitat loss during export cable installation
- increased suspended sediment concentrations (SSC) during export cable installation

- potential introduction of invasive species

D.2.8. Potential effects during operation were:

- temporary physical disturbance and temporary habitat loss during export cable maintenance
- increased SSC during export cable maintenance
- changes to bedload sediment transport

D.2.9. Potential effects during decommissioning were:

- temporary disturbance or habitat loss
- increased SSC
- potential introduction of invasive species

D.2.10. Potential cumulative effects were considered for:

- increased SSC
- changes to bedload sediment transport
- potential introduction of invasive species

D.2.11. The applicants' conclusion from the Stage 1 Holderness Inshore MCZ assessment [\[REP7-111\]](#) was that none of the above potential effects would hinder the conservation objective of maintaining the protected features of the Holderness Inshore MCZ in a favourable condition or restoring them to favourable condition. Based on the outcome of this Stage 1 Assessment, the applicants concluded that no further stages of the MCZ assessment were required.

EXAMINATION

D.2.12. Natural England (NE) agreed [\[RR-039\]](#) that all relevant sites and features had been screened in for the assessment but raised concerns [\[RR-039\]](#) that the placement of cable protection in the nearshore could cause permanent disruption to nearshore and longshore sediment transport on the Holderness Coast, and impact features of the Holderness Inshore MCZ in addition to the Humber Estuary Special Area of Conservation (SAC) and Smithic Bank. The consideration of the Humber Estuary SAC can be found at appendix C (HRA) of this Recommendation and consideration of Smithic Bank is presented in section 5.9 (Marine and Coastal Processes) of this Recommendation.

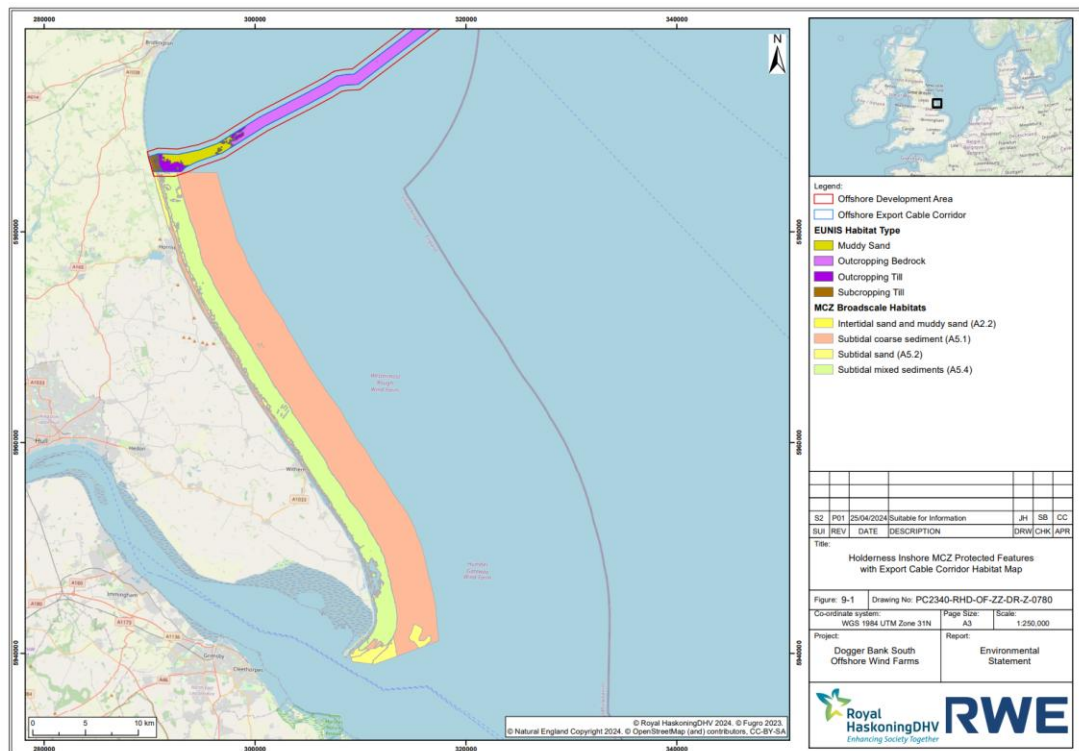


Figure D1: Location of Holderness Inshore MCZ in relation to the offshore export cable corridor

Source: Stage 1 Marine Conservation Zone Assessment [[REP7-111](#)]

D.2.13.

In response to NE's feedback on the applicants' initial Stage 1 MCZ Assessment [[APP-240](#)], the applicants carried out an assessment of the potential impacts of nearshore cable protection on nearshore sediment transport processes and coastal morphology at deadline (DL) 5 [[REP5-040](#)], submitted a revised Stage 1 Marine Conservation Zone Assessment (Revision 2) into examination at DL7 [[REP7-111](#)] and responded in the Applicants' Response to Deadline 6 Documents [[REP7-131](#)].

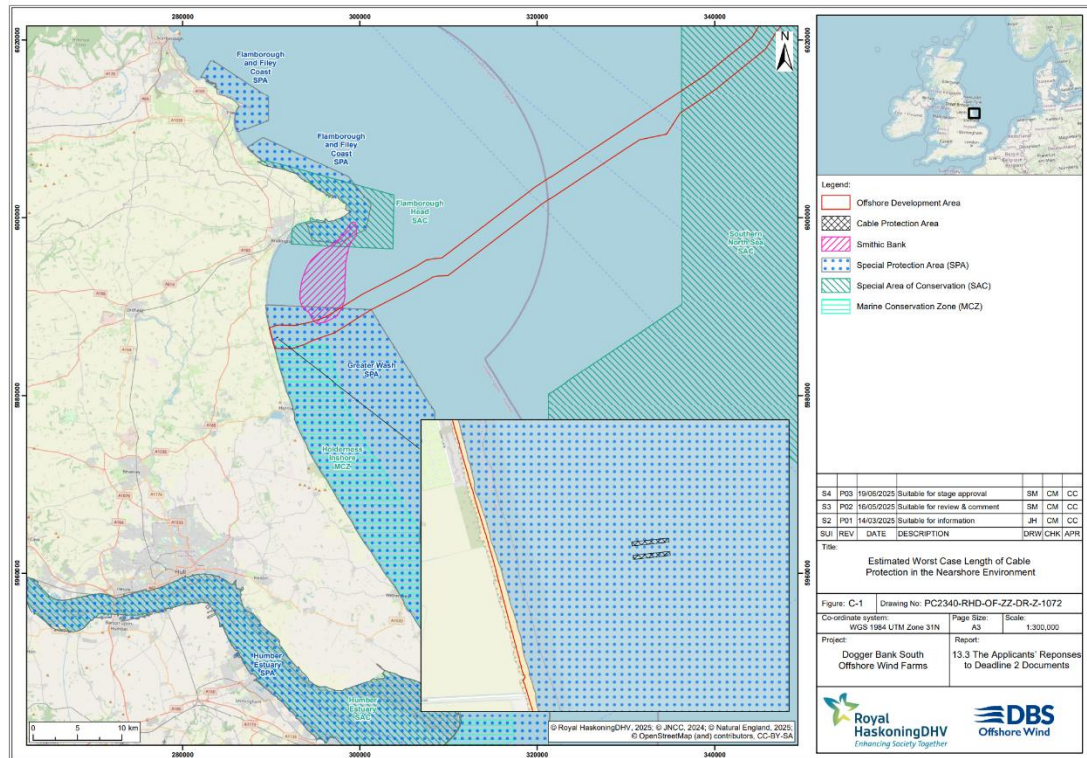


Figure D2: Estimated worst-case length of cable protection in the nearshore environment

Source: Applicants' Response to DL6 Documents [REP7-131] Appendix B

- D.2.14. The original assessment [APP-240] identified intertidal sand and muddy sand as the broadscale marine habitat feature that could potentially be affected by abrasion or disturbance of the substrate on the surface of the seabed by anchoring of vessels within the offshore export cable corridor construction buffer zone. Following submission of the original revision, the applicants noted [REP7-111] that commitment C088 of the Commitments Register [REP9-009] would prevent anchoring activities taking place within the Holderness Inshore MCZ boundary. As such, there would no longer be a pathway for direct effects from temporary physical disturbance or temporary habitat loss during export cable installation maintenance or decommissioning.
- D.2.15. Increased SSC effects on the Holderness Inshore MCZ were identified to be relevant to physical and biological attributes. The assessment [REP7-111] identified that increased SSC had the potential to affect benthic ecology receptors and designated features of the Holderness Inshore MCZ by blocking feeding apparatus as well as by smothering sessile species through deposition of sediment. The assessment stated that NE's advice on operations was that the designated features of the Holderness Inshore MCZ had low sensitivity to the pressures associated with temporary increases in SSC. The applicants concluded [REP7-111] that changes to the sedimentation rate would be within the natural range and that no impact was anticipated. The applicants determined the resilience for all biotopes to be high to medium with recovery in under 2 years or less than 10 years respectively. However, the applicants contended that, based on their location relative to construction activities, impacts on these features would be unlikely as there would be no overlap. As a result, the applicants concluded that the biological communities that may be affected by temporary increases in SSC and subsequent deposition would either not be impacted or would recover fully within 2 years.

- D.2.16. The assessment stated that the presence of offshore export cable protection within the nearshore environment could result in changes to bedload sediment transport in the region, affecting the Spurn Head geological feature of the site. The applicants noted there was potential that burial of the export cables would not be achievable within the nearshore, subtidal part of the offshore export cable corridor from the mean low water spring (MLWS) tide mark to water depths less than 10m due to the presence of chalk bedrock in the shallow subsurface. The assessment concluded [\[REP7-111\]](#) that, as the worst case for nearshore cable protection measures would be in a zone of active sediment transport, there was potential for localised interruptions to bedload sediment transport during the operational phase.
- D.2.17. The applicants stated in the Stage 1 MCZ assessment [\[REP7-111\]](#) that they had committed to using cable protection with a maximum height of 0.5m above the seabed in water depths of less than 10m. The applicants stated in response to the ExA's second written questions (ExQ2) [\[REP5-036\]](#) that they had secured this through conditions 15(1)(c)(i)(bb), 13(1)(c)(i)(bb), and 11(1)(c)(i)(bb), of Deemed Marine Licences (DML) 1 and 2, DMLs 3 and 4, and DML 5 and DML6 respectively, namely that cable protection would not change the charted water depth by more than 5%, unless otherwise agreed with the Maritime and Coastguard Agency (MCA) and Trinity House. Given this commitment, unless otherwise agreed with the MCA and Trinity House, the maximum height of cable protection measures would be 0.5m at the 10m depth contour, with this maximum height reducing as the water depth decreases.
- D.2.18. During examination, the ExA [\[PD-028\]](#) proposed an amendment to the conditions, that if any cable protection that exceeds 5% of navigable depth was required, this should also be agreed with the Marine Management Organisation (MMO) in consultation with the statutory nature conservation body (SNCB). NE welcomed this [\[REP9-031\]](#). The MMO also welcomed the ExA's recommendation but suggested further amendments to reference the 10m depth contour [\[REP7-148\]](#). NE stated [\[REP7-151\]](#) that it was supportive of the MMO's proposed amendments. The applicants were, however, of the view that the ExA's (and the MMO's) recommended amendments to the draft Development Consent Order (dDCO) were unnecessary [\[REP7-130\]](#), [\[REP8-043\]](#) and did not incorporate them into their final dDCO [\[REP9-003\]](#). This matter is discussed further in section 5.9 (Marine and Coastal Processes) of this Recommendation.
- D.2.19. The applicants also stated in the Stage 1 MCZ assessment [\[REP7-111\]](#) that the wave modelling results supported the conceptual assessment which predicted that sediment would first accumulate on one side or both sides of an obstacle on the northern side in the nearshore where net sediment transport is from north to south. With continued build-up, it would then form a 'ramp' over which sediment transport would eventually occur by bedload processes, thereby bypassing the protection. The gross patterns of bedload transport across the export cables would therefore not be affected significantly.
- D.2.20. Overall, the applicants' conclusion from the Stage 1 MCZ assessment for the Holderness Inshore MCZ [\[REP7-111\]](#) was that the conservation objective of maintaining the protected features of the Holderness Inshore MCZ in favourable condition, or restoring it to favourable condition, would not be hindered by the construction, operation and decommissioning phases of the proposed development, or cumulatively with any other plan, project or activity and that no further stages of MCZ assessment would be required.

- D.2.21. The ExA asked the applicants what alternatives had been considered to avoid effects on the Holderness Inshore MCZ at ExQ2 [\[PDA-022\]](#). The applicants' response [\[REP5-036\]](#) was that the route selection for the offshore export cable corridor and all potential alternative routes considered through the pre-application process had been presented in section 4.11 of Environmental Statement (ES) Chapter 4 (Site Selection and Assessment of Alternatives) [\[REP7-028\]](#). The applicants also stated that the avoidance of direct impacts on sites designated for nature conservation as far as possible, including MCZs, was one of the core underlying principles that underpinned the applicants' decision making regarding the development of the routing of the offshore export cable corridor. The applicants explained [\[REP5-036\]](#) that the final routing options presented in the ES were consulted on with stakeholders in September 2023, noting that the final proposed route would avoid Smithic Bank and the Holderness Inshore MCZ.
- D.2.22. The MMO advised [\[REP3-045\]](#) at DL3 in response to the ExA's first written questions (ExQ1) that it deferred to NE regarding the conclusion on the Stage 1 MCZ Assessment. The MMO highlighted that there would be a possibility in the future that approval of the proposed development could cause issues in relation to the MMO being able to exercise its functions to further the conservation objectives of the Holderness Inshore MCZ but that it would continue to consider this. The MMO did not comment on this further during examination. At DL5 [\[REP5-049\]](#) the MMO again stated it deferred to the relevant SNCB regarding the potential impact of increased SSC on the conservation objectives of the Holderness Inshore MCZ.
- D.2.23. NE advised at DL4 [\[REP4-129\]](#) that, if significant indirect impacts from cable installation on designated features of the MCZs could not be excluded during examination, then a without prejudice Measures of Equivalent Environmental Benefit (MEEB) proposal or commitments to invest in strategic compensation should be progressed and submitted into the examination. The ExA followed this up at ExQ2 [\[PD-022\]](#). The applicants responded [\[REP5-036\]](#) stating that the biotopes in the Holderness Inshore MCZ were not sensitive to the potential levels of sediment re-suspension and deposition that may result from the proposed development.
- D.2.24. The applicants stated that with regards to the reference from NE [\[REP5-036\]](#) to the Sheringham Shoal and Dudgeon Extension Projects (SEP and DEP) offshore wind farm (OWF), a without prejudice MEEB proposal was proposed from the outset for the Cromer Shoal Chalk Beds MCZ, due to its export cable routing directly through the site and there being a clear potential for direct impacts on the site. This was said to contrast with the proposed development, for which the offshore export cable corridor would not route directly through the Holderness Inshore MCZ, a change in route that was made during the pre-application phase at the request of NE [\[REP7-028\]](#) with any potential effects being limited to indirect effects only. As such, the applicants did not agree that a comparison to the SEP and DEP MEEB proposal was appropriate.
- D.2.25. The applicants also highlighted that MEEB proposals for the Holderness Inshore MCZ were not required for the Hornsea Project Four OWF or the Dogger Bank A and B OWFs. This was despite their offshore export cable corridors being located in the vicinity of the offshore export cable corridor for this proposed development and being subject to the identical DCO conditions regarding nearshore cable protection (in the case of Dogger Bank A and B OWF) or less stringent DCO conditions (in the case of Hornsea Project Four OWF).
- D.2.26. The applicants submitted an updated assessment on sediment transport modelling in relation to nearshore cable protection [\[REP5-040\]](#) into the examination at DL5 to

support its conclusions and to address comments raised by interested parties (IP) during examination. The applicants modelled a worst-case scenario of nearshore cable protection consisting of two parallel hump-like structures 50m apart, of the same length of 140m, width 15m and height 0.5m. The applicants stated this reflected a highly precautionary scenario. The results of the sediment transport modelling are shown in table 1 below.

D.2.27. The applicants stated these calculations assumed there would be no bypassing of sediment around or over the structures which the applicants contended was highly conservative, as the structures would not occupy the full water column so sediment would bypass them. The applicants concluded that the largest volume of 'blocked' sediment was on the north side of cable protection structures. The volume of sediment 'blocked' on the southern side was smaller. This quantity of 'blocked' sediment, on average equated to less than 4.2% of the total annual net sediment transport for the active wave transport zone. When compared with the natural inter-annual variability in net longshore transport rates across the 44-year model simulation, the applicants contended this demonstrated the effect of the cable protection structures was insignificant on the annual net longshore sediment transport rates, compared with the natural inter-annual variability due to metocean and hydrodynamic forcing properties.

Area	Volume of Sediment 'Blocked' (m ³ /year) (140m Cable)		Annual Sediment Transport Budget (m ³ /year)		Percentage (%)		Percentage (%) Including Model Uncertainty	
	Average	Max	Average	Max	Average	Max	Average	Max
North Side (Southward Transport)	25,048	53,214	635,618	1,077,924	3.9%	4.9%	2.9% - 4.9%	3.7% - 6.1%
South Side (Northward Transport)	3,774	11,046	127,198	269,451	3.0%	4.1%	2.3% - 3.7%	3.1% - 5.1%
Net	21,274	42,168	507,690	808,474	4.2%	5.2%	3.2% - 5.2%	3.9% - 6.5%

Figure D3: Annual average and annual maximum volume of sediment (m³) 'blocked' by the cable protection structures, compared with the annual sediment budget

Source: Assessment of Coastal Processes at the Dogger Bank South Landfall, table 5-3 [\[REP5-040\]](#)

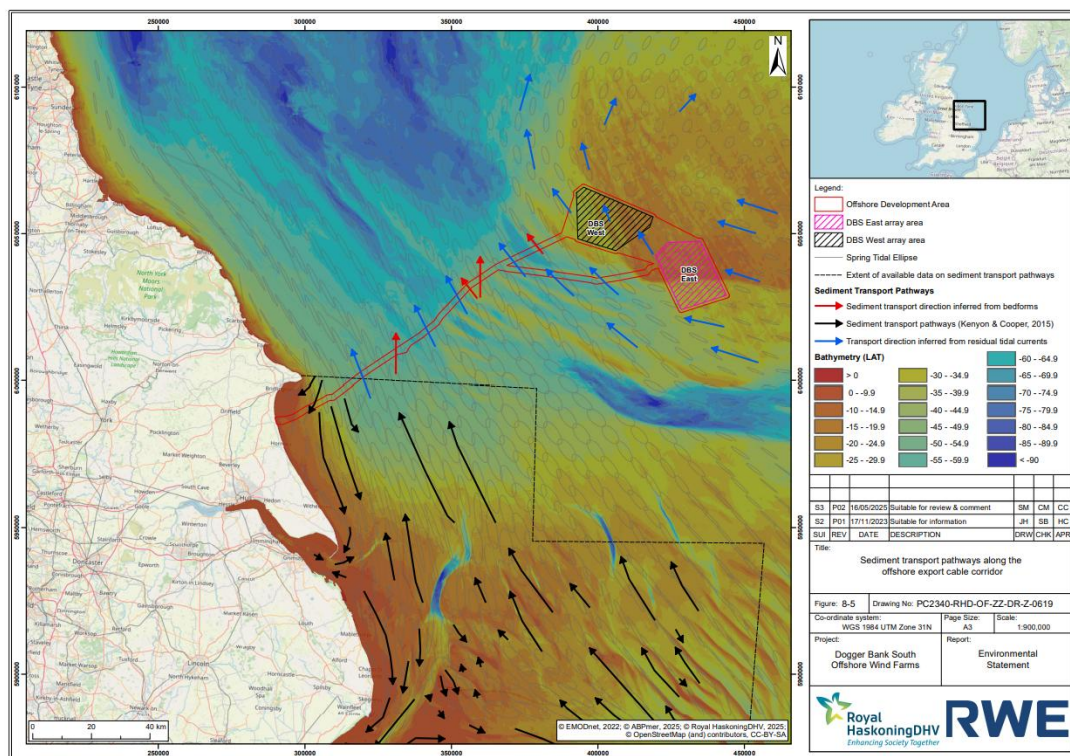


Figure D4: Sediment transport pathways

Source: Assessment of Coastal Processes at the Dogger Bank South Landfall, figure 8-5
[\[REP5-040\]](#)

- D.2.28. The applicants noted [\[REP5-040\]](#), that sediment transport modelling at the landfall confirmed the net longshore sediment transport pathway was from north to south and, considering there was no active wave transport in water depths greater than 6m relative to ordnance datum (OD), the sediment transport pathways further offshore were dominated by tidal currents which were relatively low due to the sheltering effect of Flamborough Head.
- D.2.29. As the applicants had committed to using cable protection with maximum height of 0.5m above the seabed in water depths of less than 10m which would not block the full water column, further modelling was undertaken to demonstrate how this might impact the volumes of sediment transport. The applicants contended that cable protection would occupy between 17% and 14% of the water column at LAT meaning over 80% of the water column would be 'open' allowing sediment to bypass the structure. At MHWS, the structures would occupy less than 6% of the water column. Therefore, interruptions to sediment transport would be less than was modelled and the changes would likely be in the order of 1% when compared to baseline conditions, where the value of 1% was determined assuming a 25% blockage effect of the water column.
- D.2.30. The applicants contended that the wave modelling results supported the conceptual assessment which predicted that sediment would build-up and 'ramp over' bypassing the protection. The applicants concluded that the gross patterns of bedload transport across the export cables would therefore not be affected significantly, and, over the operational lifetime, there would be potential for localised scour on the southern side of the cable protection measures in the nearshore where wave heights could be potentially higher. The underlying geology in the nearshore is glacial till overlying chalk bedrock and these would be relatively resistant to erosion

when compared with sandy seabed sediments so the potential for scour would be relatively low.

- D.2.31. The geological feature of designation is Spurn Head, which is located 53km away from the export cable corridor of the proposed development. The applicants contended that Spurn Head would have some tolerance to changes in bedload sediment transport as it already adjusts to a highly variable sediment budget driven by ongoing and episodic coastal erosion and the prevailing wave regime. The applicants concluded that the Spurn Head geological feature of the Holderness Inshore MCZ would be able to recover relatively quickly in less than 1 year from any changes in bedload sediment transport.
- D.2.32. The applicants' conclusion was that if cable protection did present an obstruction to bedload transport, the gross patterns of bedload transport across the export cable would not be affected significantly. There would be potential for the cable protection measures to affect net sediment transport direction in the nearshore which would potentially affect the geological feature of the Holderness Inshore MCZ (Spurn Head). However, considering the low magnitude of impact inshore of the closure depth and the negligible sensitivity of Smithic Bank as a receptor, the significance of effect would be negligible and therefore not significant. The applicants therefore did not propose additional mitigation.
- D.2.33. NE welcomed the updated assessment [\[REP6-071\]](#) but remained unable to rule out the possibility of a reduction in sediment transport that might cause a breach at Spurn Head, if cable protection was to be placed within the 10m depth contour. NE therefore maintained its advice that the conservation objectives for the Holderness Inshore MCZ being hindered could not be ruled out. The reasons NE gave were:
- Further evidence was needed to support the applicants' predictions that sediment would bypass the structure having formed a ramp after a duration on one month.
 - Uncertainty over how large the scour on the southern side of the cable protection could be and what disruption this could have to sediment processes and whether these effects might extend into the MCZ.
 - Lack of clarity over the implications for sediment transport or coastal processes in the area of seabed that may lower by up to 6m over the lifetime of the project due to increased coastal erosion due to climate change at the high emissions scenario.
 - Lack of consideration of most of the sediment transport occurring at the bottom of the water column in the predictions that approximately 1% of the annual sediment transport budget could be interrupted.
- D.2.34. NE also stated [\[REP6-072\]](#) that should the Secretary of State (SoS) be minded to consent the works without further restrictions on cable protection placement, it advised conditions were included in the draft Deemed Marine Licenses (dDML) to require rigorous monitoring and remedial action, should impacts be detected. NE noted that a sufficiently binding condition to undertake physical remediation to address the sediment blockage and also repair any breach at Spurn Point would be sufficient to address the risk of an adverse effect on effect on integrity of the Humber Estuary SAC and significant impacts to the Holderness Inshore MCZ.
- D.2.35. The applicants responded at DL7 [\[REP7-131\]](#) saying they had continually communicated the risks associated with not being able to bury the cable in water depths of less than 10m which would require mitigation in the form of cable protection measures. They also stated they had undertaken additional numerical

modelling, at a level beyond which has ever been required for other schemes making landfall along the Holderness coast, to provide the evidence base to support the conclusions of the ES. The applicants stated that NE had not, at any point in this examination or before, provided evidence to support its assumptions and requirements and therefore cannot 'beyond scientific doubt' justify their advice. Therefore, the applicants stated they agreed to disagree on this matter.

- D.2.36. NE noted the applicants' responses at DL7 [\[REP7-131\]](#), but its position remained unchanged at Appendix B8 [\[REP8-052\]](#), in which it advised that there remained uncertainty regarding potential impacts to the adjacent coastline, and therefore it maintained the view that hinderance of the conservation objectives of the Holderness Inshore MCZ could not be excluded. NE also added that, contrary to the applicants' assertions, modelling of nearshore sediment processes where impacts to designated sites were predicted had been provided for North Falls, Five Estuaries and Outer Dowsing OWFs.
- D.2.37. The MMO [\[REP8-048\]](#) was confident that the applicants' estimate of the scale of impacts was reasonable in that the structures would only affect physical processes in the immediate vicinity. The MMO noted that changes of a few percent could affect systems which are at or near points of inflexion, but it did not expect this to be the case at this site since the wave climate was very strongly biased toward a dominant direction. The MMO drew attention to the applicants' commitment to define the pre-construction baseline for sediment transport regimes within the In Principle Monitoring Plan (IPMP) [\[REP7-116\]](#), which would consolidate all available survey, modelling and observational evidence, including undertaking monitoring of nearshore cable protection measures in water depths of less than 10m. The MMO stated it was content with this approach and believed this would be resolved post consent.
- D.2.38. The Statement of Common Ground (SoCG) between NE and the applicants at DL9 [\[REP9-018\]](#), in relation to the Holderness Inshore MCZ assessment, retained unresolved matters and NE advised that it was not possible to ascertain beyond reasonable scientific doubt that the proposed development would not hinder the conservation objectives of the MCZ.
- D.2.39. The applicants' final position stated that that there was no potential for significant indirect impacts on the Holderness Inshore MCZ and that a without prejudice MEEB proposal was not required.

EXA'S CONSIDERATIONS AND CONCLUSIONS

- D.2.40. The ExA has thoroughly considered the applicants' MCZ assessment [\[REP7-111\]](#) and the latest assessment on sediment transport modelling in relation to nearshore cable protection [\[REP5-040\]](#).
- D.2.41. The ExA notes that the applicants' response [\[REP5-036\]](#) to ExQ2 [\[PDA-022\]](#), which asked the applicants what alternatives had been considered to avoid effects on the Holderness Inshore MCZ in the first instance, stated the final proposed routes were chosen to avoid routing through the Smithic Bank sandbank and the Holderness Inshore MCZ. The ExA is aware that the inability for the applicants to commit to burial of the full length of the offshore export cable corridor in the vicinity of the Holderness Inshore MCZ only came to light when the location of the corridor was chosen and consulted on. As a result of this, NE stated [\[RR-039\]](#) it could not rule out risks to the Holderness Inshore MCZ if cable protection was to be placed within the 10m depth contour. The ExA acknowledges this level of detail was not known at

the time of consultation on the offshore export cable corridor location in September 2023.

- D.2.42. The ExA is reassured by the applicants' commitment C088 [\[REP9-009\]](#) which would prevent anchoring activities taking place within the Holderness Inshore MCZ boundary and, as such, mitigate against any direct pathway from temporary physical disturbance or temporary habitat loss during export cable installation maintenance or decommissioning.
- D.2.43. The ExA concludes that there would be no significant effects to the broadscale marine habitat designated features of the Holderness Inshore MCZ. This is because the modelling indicated a build-up of sediment around the cable protection for approximately 1 month, reducing sediment transport southward along the Holderness Inshore MCZ towards Spurn Head during that time, rather than an increase in suspended sediment which was the concern scoped into the MCZ assessment.
- D.2.44. Having considered NE's outstanding concerns [\[REP6-071\]](#) regarding the applicants' sediment transport modelling [\[REP5-040\]](#), the ExA is satisfied that they are not relevant to potential impacts on the designated marine habitat features, as presented in Table D1.

Table D1: NE's outstanding concerns [\[REP6-071\]](#) and ExA's response regarding sediment transport modelling

NE's outstanding concerns	ExA's response
Uncertainty that sediment would bypass the structure having formed a ramp after a duration on one month.	The ExA considers that, as the effects would reduce the overall sediment transport and suspended sediment concentrations, the length of time taken for the ramp to form is not relevant for the potential impact to designated marine habitat features.
Uncertainty over how large the scour on the southern side of the cable protection could be and what disruption this could have to sediment processes and whether these effects might extend into the MCZ.	The ExA notes the applicants stated [REP5-040, REP7-131] , that as the underlying geology in the nearshore is glacial till overlying chalk bedrock which is relatively resistant to erosion when compared with sandy seabed sediments, the potential for scour would be relatively low. The ExA also notes the applicants argued the extent of the scour would be comparable in size to the cable protection measures, could potentially interrupt sediment transport budget by no more than 1% and the scour extent would be small and localised. The ExA agrees with the applicants that as the bedrock is relatively resistant to erosion, the potential for increased suspended sediment in the water column would be low and the potential for scour to extend into the MCZ area would be low. Therefore, although there would be a degree of uncertainty surrounding the

	size of the scour on the southern side, this would have a negligible effect on the designated marine habitat features.
Lack of clarity over the implications for sediment transport or coastal processes in the area of seabed that may lower by up to 6m over the lifetime of the project due to increased coastal erosion due to climate change at the high emissions scenario (RCP8.5).	The ExA notes this process would not be related to the presence of the cable protection itself, but a wider natural coastal erosion process related to climate change, where the overall effect under the high emissions scenario could cause the seabed to lower, thus resulting in any cable protection taking up an even lower proportion of the water column. The ExA also notes underlying geology in the nearshore is glacial till overlying chalk bedrock and this is relatively resistant to erosion when compared with sandy seabed sediments. The ExA considers any uncertainty surrounding this related to the cable protection measures would have a negligible effect on the designated marine habitat features.
Lack of consideration of most of the sediment transport occurring at the bottom of the water column in the predictions that approximately 1% of the annual sediment transport budget could be interrupted.	The ExA considers this was accounted for in the applicants' model as the model assumes 100% blockage with no bypass.

- D.2.45. Overall, the ExA is satisfied that any changes made to the modelling in the future based on NE's feedback would not significantly change the broad results of an overall decrease in sediment transport. In any case, the ExA notes that the applicants' conclusions on the broadscale designated marine habitat features of the Holderness Inshore MCZ were not a significant point of disagreement between the parties.
- D.2.46. The ExA notes that the objective for the Holderness Inshore MCZ is to maintain the designated features in favourable condition which means that, within the MCZ, the extent of the features would remain stable or increase and the structure and functions, quality and composition of their characteristic biological communities would be sufficient to ensure that their condition remains healthy and would not deteriorate. The ExA is satisfied that a decrease in suspended sediment in the water column and decrease in sediment transport associated with the operation of the proposed development during operation, would not hinder conservation objectives of the marine habitat designated features of the Holderness Inshore MCZ.
- D.2.47. The ExA notes that the only designated feature of the Holderness Inshore MCZ that was of concern to NE in the later stage of the examination was the geological feature of Spurn Head.
- D.2.48. It is the ExA's view that the applicants have provided sufficient evidence to support their conclusions in the MCZ Assessment that the principal source of sediment supply to the Humber Estuary and Spurn Point would not be from the seabed, but from wave erosion of the Holderness Cliffs extending some distance northwards from Spurn Point. In addition, the ExA notes that most of the longshore sediment

transport from wave erosion would occur close to the shoreline, within 250m of the cliff line and that the magnitude of wave driven transport would decrease with distance offshore within the closure depth. The ExA also accepts that the applicants have committed to a long trenchless landfall technique and would not install any cable protection measures within the 350m of MLWS.

- D.2.49. The ExA is reassured by the applicants' conclusions in their assessment of sediment transport modelling regarding nearshore cable protection [\[REP5-040\]](#) which demonstrated a less than 1% reduction in the annual net sediment transport budget. The ExA agrees that this reduction would be negligible and accepts the applicants' additional evidence, in response to NE's concerns, to demonstrate that most of the sediment occurring at the bottom of the water column had been considered, with the applicants' model assuming 100% blockage with no bypass. In addition, the ExA acknowledges that the coastline is already adjusting to a highly variable sediment budget driven by continued coastal erosion.
- D.2.50. Therefore, the ExA accepts that, based on the applicants' models and evidence as part of the assessments undertaken, no cable protection would be located within the zone of greatest longshore sediment potential. The ExA agrees with the applicants' conclusions that there would be no material change to sediment supply to Spurn Point and the Humber Estuary. Whilst NE has provided some explanation as to its views and ongoing concerns regarding sediment transport along the coastline towards the Humber Estuary and Spurn Point, the ExA does not consider that sufficient evidence as to its detailed concerns, or why NE would not accept the applicants' findings and conclusions, has been provided.
- D.2.51. Notwithstanding the ExA's conclusions, the ExA would draw the SoS to NE's suggestion to include an additional condition to undertake physical remediation to address the sediment blockage and also repair any breach at Spurn Point.
- D.2.52. Whilst the applicants consider the effects to be negligible, the ExA supports the applicants' commitment to cable bundling, which is explained in the Cable Statement [\[REP6-043\]](#) and included as commitment C188 in the Commitments Register [\[REP9-009\]](#). The final Cable Statement is secured through the conditions in the 6 DMLs as part of the recommended draft DCO. The MMO, in consultation with the Trinity House, the MCA and the relevant SNCB and United Kingdom Hydrographic Office (UKHO) as appropriate would be responsible for discharging the conditions. In addition, the applicants have committed to restricting the height of any remedial cable protection within the 10m depth contour to a maximum of 0.5m secured directly through the conditions in the DMLs.
- D.2.53. The applicants have also included proposed post-construction monitoring as part of the IPMP [\[REP7-115\]](#) which would require monitoring of nearshore cable protection along with any associated sediment accretion and scour. Whilst the ExA notes NE's concerns regarding the lack of adaptive management, the ExA considers that the IPMP has appropriately considered the requirement for adaptive management, if required. In this regard, the IPMP explains that proposed monitoring would conclude as to whether the results would show whether an impact would be within the worst-case scenario assessed in the ES. Where an impact would be greater than previously assessed, the monitoring report would include solutions and additional monitoring which would need to be submitted to the MMO and SNCBs for further discussions. If NE considers the wording not to be appropriate as currently stated in the IPMP, the ExA is mindful that the MMO and NE have sufficient control over the final wording of the IPMP which would need to be discharged as part of the DMLs.

- D.2.54. The ExA is therefore satisfied that the degree of anticipated change in sediment transport during the operation of the proposed development would not hinder conservation objectives of the geological designated features of Spurn Head.
- D.2.55. The ExA is aware that the MMO highlighted [\[REP3-045\]](#) that there would be a possibility in the future that approval of the proposed development could cause issues in relation to the MMO being able to exercise its functions to further the conservation objectives of the Holderness Inshore MCZ (in response to ExQ1 MCZ.1.3), but said it would respond further on this point later in the examination. The MMO's final comment on the modelling at DL8 highlighted the applicants' commitment to define the pre-construction baseline for sediment transport regimes within the IPMP [\[REP7-116\]](#), which would consolidate all available survey, modelling and observational evidence, including undertaking monitoring of nearshore cable protection measures in water depths of less than 10m and that the MMO stated it was content with this approach and believed this would be resolved post consent. Given the MMO's final comments and the ExA's conclusions on this matter, the ExA finds no justification as to why the MMO would not be able to exercise its functions to further the conservation objectives of the Holderness Inshore MCZ if the proposed development was constructed and operated.

D.3. Holderness Offshore MCZ

CONSERVATION OBJECTIVES

- D.3.1. The Holderness Offshore MCZ is located approximately 11km offshore from the Holderness coast and 0.7km from the offshore export cable corridor [\[REP7-038\]](#).
- D.3.2. The broadscale marine habitat designated features of the Holderness Offshore MCZ are:
- subtidal coarse sediment
 - subtidal sand
 - subtidal mixed sediments
- D.3.3. There is one designated species feature of conservation importance of the Holderness Offshore MCZ which is the ocean quahog.
- D.3.4. There is one designated geological feature of the of the Holderness Offshore MCZ which is North Sea glacial tunnel valleys.
- D.3.5. The conservation objectives for the Holderness Offshore MCZ are:
- so far as already in favourable condition, remain in such condition
 - so far as not already in favourable condition, be brought into such condition, and remain in such condition
- D.3.6. For subtidal coarse sediment, subtidal sand and subtidal mixed sediments this means that, within the MCZ:
- Its extent is stable or increasing.
 - Its structure and functions, its quality, and the composition of its characteristic biological communities (including diversity and abundance of species forming part or inhabiting the habitat) are sufficient to ensure that its condition remains healthy and not deteriorating.

- D.3.7. With respect to ocean quahog within the MCZ, this means that the quality and quantity of its habitat and the composition of its population in terms of number, age and sex ratio are such as to ensure that the population is maintained in numbers which enable it to thrive.
- D.3.8. With respect to the North Sea glacial tunnel valleys within the MCZ, this means that:
- Its extent, component elements and integrity are maintained.
 - Its structure and functioning are unimpaired.
 - Its surface remains sufficiently unobscured for the purposes of determining whether the conditions detailed in the above bullets are satisfied.

ASSESSMENT OF EFFECTS

- D.3.9. The applicants presented potential effects during construction, operation and decommissioning on the Holderness Offshore MCZ.
- D.3.10. Potential effects during construction were:
- increased SSC during export cable installation
 - potential introduction of invasive species
- D.3.11. Potential effects during operation were:
- increased SSC during export cable maintenance
 - potential introduction of invasive species
- D.3.12. Potential effects during decommissioning were:
- increased SSC
 - potential introduction of invasive species
- D.3.13. Potential cumulative effects were considered for:
- increased SSC
 - changes to bedload sediment transport
 - potential introduction of invasive species
- D.3.14. The applicants' conclusion from the Stage 1 MCZ assessment [[REP7-111](#)] was that none of the above potential effects would hinder the conservation objective of maintaining the protected features of the Holderness Offshore MCZ in a favourable condition or restoring them to favourable condition. Based on the outcome of this Stage 1 Assessment, the applicants concluded that no further stages of the MCZ assessment were required.

EXAMINATION

- D.3.15. The Holderness Offshore MCZ was not raised initially by any IPs as a matter of concern and in response to ExQ1, question MCZ.1.2, NE stated [[REP3-057](#)] that it was satisfied that there were no significant risks that would hinder the conservation objectives of the Holderness Offshore MCZ.
- D.3.16. The location of the Holderness Offshore MCZ is shown in Figure D5:

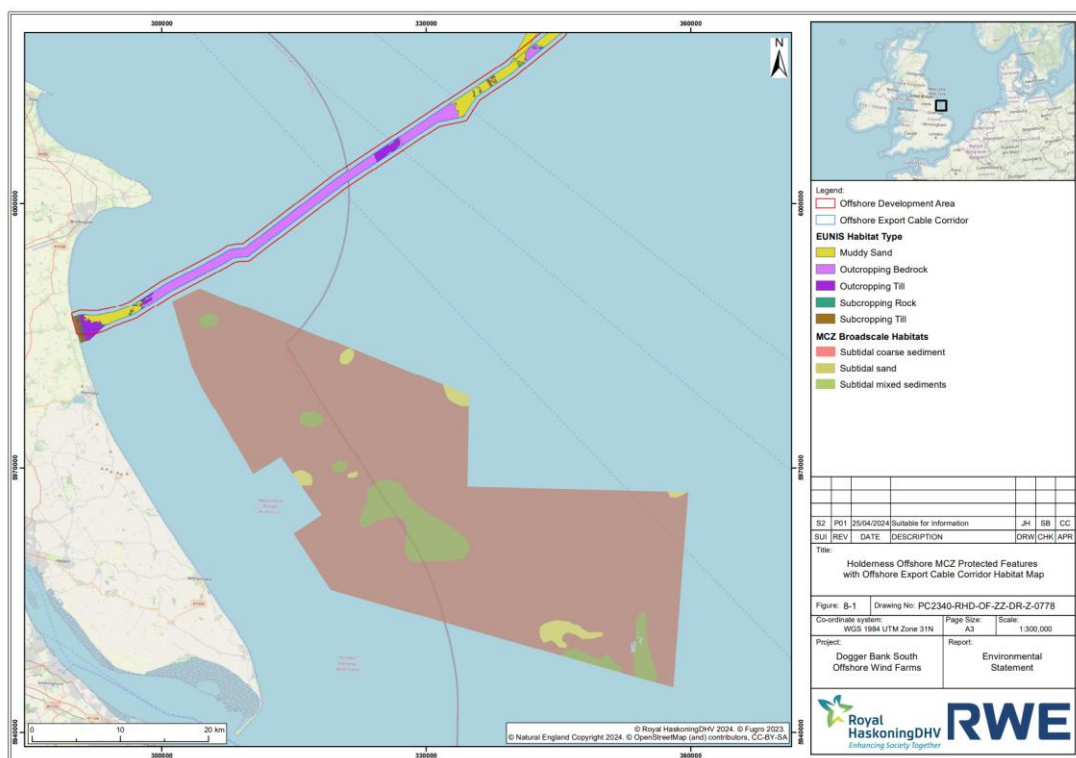


Figure D5: Location of Holderness Offshore MCZ in relation to the offshore export cable corridor

Source: Stage 1 Marine Conservation Zone Assessment [[REP7-111](#)]

- D.3.17. However, at DL5 [[REP5-053](#)] and DL8 [[REP8-051](#)] NE noted that outstanding concerns with recoverability of the seabed remained. Whilst NE was satisfied with the predictions in the applicants' assessment that sediment deposition from trenching and levelling for the offshore export cable corridor was predicted to be localised and the seabed recoverable, this would be dependent on the appropriate mitigation being secured.
- D.3.18. The appropriateness of NE's suggested mitigation measures was extensively discussed during examination as explained in section 5.9 (Marine and Coastal Processes) of this Recommendation. At the end of examination, the applicants had agreed to most of the suggested mitigation measures. However, disagreement remained between the applicants and NE on the proposed mitigation measures to include the use of a fall pipe or down pipe for disposal of dredged material and the depositing of dredged material updrift of areas of dredging activity.
- D.3.19. The applicants stated [[REP5-036](#), [REP6-052](#), [REP7-154](#)] that a commitment to depositing sediment updrift of areas of dredging activity was not accepted as it would incur potentially avoidable environmental impacts due to a potential time lag between dredging and disposal. The applicants considered that dredged sediment would likely move into the previously dredged area through natural processes, and this could require further dredging. NE argued at DL6 [[REP6-072](#)] that this had not been raised by any other projects as a concern and considered that the applicants should apply best endeavours to ensure the preparatory and installation works would align.
- D.3.20. The applicants stated [[AS-155](#)] that the preferred method of dredging would be to carry out seabed preparation using a trailing suction hopper dredger (TSHD) with the use of a bottom deposition, which would allow sediment to be released from the

underside of the vessel. The applicants claimed at DL3 [REP3-028] and in response to questions at issue specific hearing (ISH) 5 [REP4-086] that they were not aware of a TSHD that possessed a fall pipe or down pipe that would meet the requirements of the proposed development and therefore, did not consider this to be a suitable option. NE disagreed with the applicants and noted at DL4 [REP4-126] and in response to ExQ2 [REP5-062] that Five Estuaries and Outer Dowsing OWF had committed to using a down pipe or discharge pipe and that if this was not available for the proposed development, alternative appropriate solutions should be investigated. The applicants continued to disagree with NE [REP5-036, REP7-131] and expressed their understanding that no such commitment was made by Outer Dowsing OWF. The applicants reiterated previous concerns that the recommended system was not available to their engineering team and that they would not be able to commit to delivering mitigation that was not believed to be technically feasible creating a risk to the proposed development. NE considered [REP5-062] that whilst the details of the commitment could be agreed post-consent, an understanding of the principle should be secured during examination.

EXA'S CONSIDERATIONS AND CONCLUSIONS

- D.3.21. The ExA notes NE's initial advice was that it was satisfied that there were no significant risks that would hinder the conservation objectives of the Holderness Offshore MCZ [REP3-057]. However, the ExA is also mindful of the concerns that NE raised later during examination. These suggested that the applicants' assessment conclusions would only be valid if appropriate mitigation was adopted.
- D.3.22. The ExA understands that NE's concerns regarding the Holderness Offshore MCZ related to temporary construction effects only. The ExA notes that NE did not raise any specific concerns about impacts on any of the designated features of the Holderness Offshore MCZ during the examination.
- D.3.23. Nevertheless, the ExA notes that the applicants included some of the mitigation measures requested by NE during examination, and that these were acknowledged in the Cable Statement [REP6-043], which is secured through the DMLs in the recommended draft DCO. These measures included the disposal of dredged sediment on like sediment within the array area and offshore export cable corridor.
- D.3.24. Despite seeking clarification, at the end of the examination, the ExA remained unclear about NE's final and conclusive advice about whether the remaining mitigation measures that it had suggested (the use of a fall pipe or down pipe for the disposal of dredged material and the deposition of dredged material updrift of areas of dredging activity) would be necessary to prevent the proposed development from hindering the conservation objectives of the Holderness Offshore MCZ.
- D.3.25. The ExA is aware that conservation objectives for the Holderness Offshore MCZ state that designated features should remain or be brought into a favourable condition.
- D.3.26. The conservation objectives for subtidal coarse sediment, subtidal sand and subtidal mixed sediments mean that, within the MCZ, their extent should remain stable or increasing and their structure, functions, quality and the composition of their characteristic biological communities are sufficient to ensure that their condition remains healthy and not deteriorating. The ExA is satisfied that any minor effects to the MCZ from the remaining unmitigated impacts of the construction would not hinder the conservation objectives for subtidal coarse sediment, subtidal sand and subtidal mixed sediments.

- D.3.27. With respect to ocean quahog within the MCZ, the conservation objective means that the quality and quantity of its habitat and the composition of its population in terms of number, age and sex ratio are such as to ensure that the population is maintained in numbers which enable it to thrive. The ExA is satisfied that any minor effects to the MCZ from the remaining unmitigated impacts of the construction would not hinder the conservation objectives for the ocean quahog.
- D.3.28. With respect to the North Sea glacial tunnel valleys, the conservation objective means that the extent, component elements and integrity should be maintained, the structure and functioning should be unimpaired, and the surface should remain sufficiently unobscured for the purposes of determining whether the conditions above are satisfied. The ExA is satisfied that any minor effects to the MCZ from the remaining unmitigated impacts of the construction would not hinder the conservation objectives for the North Sea glacial tunnel valleys.
- D.3.29. On that basis, the ExA concludes that whilst there is the potential for some minor limited risks during construction on the Holderness Offshore MCZ, these are not considered to be significant and consequently, would not hinder the conservation objectives of the Holderness Offshore MCZ.

D.4. The ExA's final conclusions on the applicants' MCZ assessments

- D.4.1. The ExA concludes that the construction, operation and decommissioning of the proposed development would not hinder the conservation objectives of the marine habitat designated features of the Holderness Inshore MCZ or the Holderness Offshore MCZ.

APPENDIX E: LAND RIGHTS OBJECTIONS CONSIDERED IN WRITTEN AND ORAL PROCESSES

APPENDIX E: LAND RIGHTS OBJECTIONS CONSIDERED IN WRITTEN AND ORAL PROCESSES

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
187052 152819	Albanwise Ltd – Risby Estate [RR-001] and Albanwise Synergy Ltd [RR-002]	Heads of Terms (HoT) for the converter station land agreement signed. HoT for the cable easement agreement unresolved.	The BoR [REP8-010] shows Albanwise Ltd – Risby Estate and Albanwise Synergy Ltd (hereinafter referred to as Albanwise) as holding an interest in 88 plots. The applicants are seeking to acquire the freehold of 11 plots, acquire rights in 40 plots and TP of 37 plots. Most of these plots are located within the onshore substation zone (OSZ) and would be required to deliver the cable corridor (Work Nos. 14A/B, 31A/B and 32B), permanent access road (Work No. 21A/B), convertor substation(s) (Work Nos. 24A/B, 25A, 26A/B), landscaping (Work Nos. 27A/B, 29A/B), access and drainage works (Work No. 22A/B) and a number of temporary construction compounds and accesses (Work Nos. 16A/B, 17A/B, 18A/B, 19A/B, 20A/B, 23A/B, 30A/B). Albanwise [RR-001] and [RR-002] advised that the Schedule of Progress for Voluntary Land Interest Agreements [APP-032], which stated that an in-principal agreement had been reached to acquire the freehold of certain plots, was incorrect as all negotiations had been on a leasehold basis. As a result of this and the issues set out below, they objected to the proposed development due to the potential impact on business operations and the land that they hold. Albanwise's concerns in relation to compulsory acquisition (CA) and temporary possession (TP) can be summarised as follows: - Whether the amount of land being sought would be needed for the cable routes, convertor station(s) as well as the ancillary and temporarily occupied land. In particular, they were concerned that the maximum amount of land was being sought despite the fact that a number of the potential development scenarios would require less land. - The splitting of the onward cable route (Work No. 32B) as this would increase the impact and diminishes the prospects of further utilisation. - The proposed land acquisition would result in awkward shapes and sever previously contiguous areas of farmland which would disrupt farming in both the construction and operation phases. - They disagreed with the agricultural land classification (ALC) grading and therefore the presumption of productivity for the area of land intended for development.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			The applicants responded at procedural deadline A (PDA) [PDA-013, 8.1], advising that: ▪ Negotiations for a voluntary long leasehold agreement on reasonable commercial terms were on-going. ▪ The onshore export cable corridor and OSZ had been carefully developed having regard to design constraints and as a result they represented the optimum design. ▪ The onshore convertor station was sized to accommodate the proposed development's electrical transmission system, albeit it did represent a realistic worst-case scenario. ▪ Work No. 32B would require two, 12 metre (m) easements within a 75m corridor as the cables would need to split to accommodate the existing INEOS ethylene pipeline in accordance with health and safety guidance as there would be insufficient space to safely route both cable corridors between the A1079 and the INEOS pipeline. ▪ They proposed to reduce the amount of land temporarily unsuitable for agriculture by consulting with landowners, maintaining access to severed land and timing works and reinstatement appropriately. Any reasonable loss of business would be a matter of compensation. ▪ Soil scientists had undertaken an ALC survey of the OSZ in January 2024. This confirmed that the area was grade 3b and therefore not best and most versatile (BMV). A survey of the onshore export cable corridor was completed in spring and summer 2024 [PDA-015]. The matter was discussed at compulsory acquisition hearing 1 (CAH1) [EV3-002] where the applicants provided an update on negotiations to acquire the land voluntarily. At deadline (DL)1, Albanwise [REP1-068] and [REP1-069] confirmed that discussions on reaching a voluntary agreement were ongoing. At CAH2 [EV7-001], the applicants confirmed that the change request had altered the rights required but not the extent of land required and that HoT had been circulated and discussions were still ongoing. In response to the ExA's Rule 17 letter [PD-026], Albanwise [REP6-080] confirmed that following intermittent discussions with the applicants, HoT had not yet been finalised. Albanwise were seeking a meeting to discuss and finalise matters. They reiterated their willingness to reach a voluntary agreement, but in their view a number of matters were still to be resolved before this could be done. They confirmed that their previous comments on the negative impacts of this scheme remained and expressed concern that the applicants were not actively engaged in concluding the voluntary agreement.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			In their closing statement [REP8-058], Albanwise confirmed that HoT for the converter station land agreement had been signed, but the HoT for the cable easement agreement remain unresolved, with discussions due to continue. This was confirmed in the applicants' closing statement [REP8-042]. Despite the completion of the HoT for the converter station land, in their closing statement [REP8-058], Albanwise identified their outstanding issues to be: ▪ The form, scope and changing nature of land rights being sought and the form of agreements being negotiated. ▪ The scale and configuration of land take, including excessive land occupation and the blighting of land beyond that contained within the proposed agreement. ▪ The impact on the long-term livelihoods of agricultural tenants due to short term construction operations. ▪ The impact on farming operations including soil quality, drainage, crop yields, and environmental land management schemes. ▪ The cumulative impact of this and other NSIPs on their estate and the lack of coordination between developers. ▪ The very slow pace of negotiations and the lack of binding legal agreements to secure the protections and mitigations discussed. In their closing submissions [REP8-042], the applicants considered that a satisfactory position could be reached and highlighted the main issues they considered could be resolved to be: ▪ The form of agreement that would grant the applicants access to the referenced land parcels. ▪ The technical details regarding the installation, potential impact on efficient use of the land and the impact on farming operations. The final Land Rights Tracker (LRT) [REP8-033] advised that the parties were having productive discussions and were close to signing HoT for the option agreement but that a couple of key commercial terms remained unresolved. ExA's conclusion

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			The ExA recommends that the Secretary of State (SoS) may wish to seek an update as to whether the agreements have now been completed. However, should the voluntary agreements remain unsigned, the ExA is satisfied that the amount of land requested would be required to construct, operate and maintain the proposed development and that where sought, the permanent acquisition of land or rights in land is necessary. The ExA therefore considers that any private harm to the objectors would be outweighed by the public benefits that the proposed development would deliver. Consequently, the ExA recommends the grant of CA sought in relation to the plots in which Albanwise has an interest.
188070 188164 188325 187224	Michael Glover LLP on behalf of Los Trustees [RR-032] and Riplingham Estates [RR-033]	HoT unresolved	The BoR [REP8-010] shows that Los Trustees (LT) [RR-032] and Riplingham Estates (RE) [RR-033] (together referred to as LTRE) hold interests in 3 plots of land. The applicants are seeking the acquisition of rights in 2 plots (14-006 for Los Trustees and 17-011 for RE) and the TP of 1 plot (14-003 for LT). The acquisition of rights would be required for the onshore cable corridor (Work No.14A/B) and TP would be needed for temporary construction accesses and temporary improvements to the public highway to allow two-way construction vehicle access (Work Nos. 17A/B and 19A/B). LT [RR-032] were concerned that the applicants were seeking to acquire rights in their land at rates which did not reflect urban fringe land values and were more reflective of open countryside agricultural land values. LT considered that taking such an approach, whilst seeking to agree a voluntary agreement, indicated that the applicants would be likely to abuse the rights that they may be given through the DCO. RE [RR-033] advised that they considered that the applicants were attempting to seek a voluntary agreement on a basis that was significantly at odds with the basis of the compulsory purchase code. They felt that such conduct was not indicative of a reasonable organisation which should be awarded CA powers through the DCO process. In response, the applicants advised [PDA-013, 8.4 and 8.5] that they continued to seek voluntary agreements on reasonable commercial terms, that discussions had been productive and that they hoped that an agreement would be reached. The day before CAH1, the ExA received a document [AS-153] submitted on behalf of LTRE which expanded on the concerns raised in their RRs. It reiterated concerns regarding the approach the

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			applicants were taking (paragraph 2), along with raising issues around land values (paragraphs 10 to 18). It also advised that LTRE had concerns regarding a proposed development clause that had been included in the voluntary agreements to address LTRE's concerns regarding the potential interference with development potential (paragraph 7). As drafted it placed the cost, if required, of diverting the cables onto LTRE which they considered to be uneconomic. The matter was discussed at CAH1 [EV3-002] but due to the late submission from LTRE [AS-153] the applicants advised that they had not been able to consider the submission in detail. Consequently, the ExA requested [EV3-003, action point 12] the applicants respond in writing. At DL1 [AS-155], the applicants advised that they were still in the process of reviewing the document, but they were aiming to meet with LTRE to discuss the document with a view to reaching a commercial agreement before the close of the examination. At DL1, the representative for LTRE submitted [REP1-084] a follow up to [AS-153] which emphasised that their concerns were about the conduct of the applicants and not compensation per se (paragraph 3) and that they considered that the applicants were showing contempt for the CA process (paragraph 7). To evidence this, their submission included copies of correspondence between RE and the applicants and a copy of a letter [REP1-083] from Gladman Developments Ltd regarding plot 17-011 indicating they would be interested in the land, subject to terms and conditions, as a potential housing site. The applicants responded at DL2 [REP2-058, 2.8]. They accepted that both sites may have development potential and as a result had included a development clause within the legally binding option and deed of grant which would allow for the loss of development value to be recovered once planning permission had been granted for an alternative use. The applicants advised that a similar clause had been used with several affected persons (APs) who had signed HoT and that they had been consistent in the way that they had sought voluntary agreements with the commercial offer being based on a £/square metre basis unrelated to land value but reflective of the rights sought, which was similar to the approach taken by other DCO projects. The applicants confirmed [REP2-058] that there was an in principal disagreement as to how and when compensation should be qualified. The applicants considered that the APs were seeking enhanced land value to be paid on completion of the option and deed of grant in the speculative hope that the

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			sites might be successfully promoted for an alternative use of an unqualified value. Whereas the applicants were seeking a mechanism for the actual loss to be recovered if the sites were to secure planning permission for an alternative use in the future. In response to the letter from Gladman Developments Ltd [REP1-083], the applicants [REP2-058, 2.8] advised that the APs land was not allocated for residential purposes in the development plan for the period 2012-2019 and remained unallocated in the emerging Local Plan for the period 2020-2039. In addition, the applicants highlighted that East Riding of Yorkshire Council (ERYC) currently claimed a housing land supply of 9.3 years. As a result, the applicants considered there was no 'window of opportunity' to submit a speculative planning application. Furthermore, the Proposed Submission Local Plan Update Option Assessment 2022 [REP1-083, annex G] explained that the site was not selected for allocation on the grounds that it would represent significant intrusion into open countryside, it was not well related to existing form of the settlement and other more suitable sites had been identified. As a result, the applicants considered that the fairest means of enabling the APs to realise future hope value would be by entering into a voluntary option and deed of grant with the proposed development clause, which would enable the APs to recover actual development loss for any areas sterilised by the onshore cable corridor. The matter was discussed again at CAH2 [EV7-001] where the applicants and the representative for LTRE advised that negotiations were on-going, but that progress had been limited and the concerns regarding the calculation of land value and the applicants' conduct remained. In addition, LTRE advised there was no allowance for severance as the proposed development would prevent future access and service being laid over an easement strip [EV7-004, 00:38:24:14- 00:38:32:00]. Due to the detailed nature of the comments made, the representative for LTRE was asked to submit them in writing [EV7-002, action point 2]. The applicants then chose to respond to them in writing [EV7-002, action point 3]. At DL4 [REP4-119], the representative for LTRE advised that since CAH2 there had been further correspondence and a meeting, but only limited progress had been made. They reiterated their previous concerns regarding land value and the applicants' conduct. In addition, they advised that they considered that a landowner should not have to pursue the matter at length in order to get fair treatment (paragraphs 4 and 5). Nevertheless, (paragraph 10) they did acknowledge that the issues could probably be served by a workable development clause.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			As discussions and correspondence had been on a 'without prejudice' basis they could not provide detailed comments. However, they advised [REP4-119] that LTRE would not pay or agree to the following: ▪ removal of the cables in the event of the land securing planning permission ▪ the appraisal of the drafting of the development clause by their solicitors ▪ a development clause that would allow the avoidance of removing of the cable or addressing compensation in the event they could not be removed ▪ a clause that would allow an easement holder to significantly delay development proposals In the interim they advised [REP4-119 paragraph 11] that a promotion agreement with Gladman was being advanced and provided an example of an unallocated local site that had been promoted by Gladman that had secured a residential planning permission on appeal. At DL4, the applicants [REP4-079] set out that there were key outstanding issues to be resolved with the AP relating to future development and that discussions were on-going on the drafting of a development clause. The applicants confirmed that they would be prepared to cover the AP's reasonable legal costs and they hoped to agree HoT prior to the close of the examination. In response to the ExA's Rule 17 letter [PD-026], LRTE confirmed [REP6-084] that matters were still under discussion, with LRTE suggesting a development clause as a potential way to resolve the issue. In doing so, LRTE considered that Vinegar Hill Farm to have far greater potential than other parcels, owing to its relationship to the settlement boundary. LRTE were seeking a meeting to discuss the HoT. At DL8, the LRT [REP8-033] advised that whilst negotiations had been on-going, a voluntary agreement had not been secured by the close of the examination. In their closing submissions [REP8-063] LRTE confirmed that they would welcome settlement via a voluntary agreement, but this must recognise the location of the land and its overall development potential and that if market value was not offered, then a development clause would be a suitable approach to resolve the matter. They were of the view that the applicants had shown no real attempt to reach reasonable terms on a voluntary agreement.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			In response [REP8-043], the applicants confirmed that they were aware of and understood LRTE's position on future development value and accepted this. As such, they were prepared to agree a development clause to address the matter. ExA's conclusion The ExA recommends that the SoS may wish to seek an update as to whether the agreements have now been completed. Should the voluntary agreements remain unsigned, the ExA is satisfied that the applicants have tried to acquire the land voluntarily however due to an in-principal disagreement between the parties as to how and when any loss of future development value should be compensated, a voluntary agreement was not possible during the time available. The ExA notes the comments made by the APs' representatives regarding the appropriate levels of compensation. However, as set out by the ExA in CAH1 the quantum of compensation is not a matter for the ExA to consider. If the amount of compensation cannot be agreed, then the APs can refer the matter to the Upper Tribunal (Lands Chamber) for resolution. Finally, the ExA considers on the basis of what it has read and heard that there is no evidence that, if granted consent to acquire land, the applicants would abuse those rights. The ExA is satisfied that the amount of land requested would be required to construct, operate and maintain the proposed development and that, where sought, the permanent acquisition of rights in the land is necessary. The ExA therefore considers that any private harm to the objectors would be outweighed by the public benefits that the proposed development would deliver. Consequently, the ExA recommends the grant of CA and TP sought in relation to the plots in which LTRE has an interest.
188660 188661 206690	Uyllotts (Rural) Ltd on behalf of J L White and Son and Butt Farm	HoT unresolved	At CAH1 [EV3-002], the applicants confirmed that [RR-054] related to the plots where Oliver and Pamela White and the executors of the estate of the late Andrew White hold an interest. These plots form part of Butt Farm which in turn forms part of the proposed OSZ. The BoR [REP8-010] shows that the applicants are seeking to CA or TP 11 plots in which the objectors hold a land interest. They are seeking to acquire the freehold in 2 plots and acquire rights in 6 plots and TP the remaining 3 plots. Albanwise also hold an interest in the same plots and as set out earlier in this section have also objected to the CA and TP of this land.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
	Caravan, Camping and Glamping Site [RR-054]		The land would be required to deliver the OSZ (Work Nos. 14A/B, 18A/B, 20A/B, 21A/B, 22A/B, 23A/B, 24A/B, 26A/B, 27A/B, 28A/B, 29A/B, 30A/B and 31A/B). The APs [RR-054] were concerned about the likely disturbance that construction and operation of the convertor station would have on their camping and caravanning business as well as the land lost to the project. The potential effects on the camping and caravanning business are considered in section 4.8 of the Recommendation and are therefore not repeated here. The land which the applicants are seeking to acquire the freehold of would total approximately 15.68 hectares (ha) which represents 27.11% of the land held by the objectors. It consists of mainly arable and grass fields as well as part of a caravan and camping site. The objectors were concerned that the loss of over a quarter of the farming land and between 10 to 40 pitches at the caravan and camping site would adversely affect the viability of their business. Furthermore, the objectors considered that the proposed access road to the convertor station would sever approximately 23ha from the main part of Butt Farm and, depending on the final design, could leave areas which would be impractical to farm with modern machinery. The objectors advised that negotiations were on-going. The applicants responded to these concerns at PDA [PDA-013, 8.3]. They advised that the site for the onshore convertor stations had been selected after a comprehensive iterative site selection process. The applicants acknowledged that the permanent footprint of the OSZ would occupy part of the area utilised for the caravan and campsite. The applicants continued to seek a voluntary agreement on reasonable commercial terms that were consistent with compensation packages agreed recently with ERYC for the Jocks Lodge improvement scheme and were hopeful that an agreement of compensation for an occupier's consent would be reached. Finally, the applicants advised that any reasonable loss of business was a matter of compensation which was being considered on the basis of the evidence provided. In relation to the potential severance, whilst the applicants acknowledged the objectors' concerns [PDA-013, 8.3, RR-054:6], the main access road would be required for the operational life of the proposed development. Furthermore, the applicants advocated that the significance of effect in relation to the loss of agricultural land during operation could not be reduced as the land would be unavailable for use in the medium to long-term. However, by consulting with landowners and occupiers, maintaining access to severed land, appropriate timings of works and reinstatement of land

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			to pre-consultation conditions as soon as reasonably practicable, the applicants were seeking to reduce the amount of land temporarily unusable for agriculture. The matter was discussed at CAH1 [EV3-002] where the applicants provided an update on negotiations to acquire the land voluntarily. The AP did not attend the hearing, so the ExA asked, as an action point, for them to comment on the applicants' response at PDA in relation to their original objection [EV3-003, action point 14]. No response was received. The matter was due to be discussed at CAH2 [EV7-001] however the AP did not attend. The ExA noted that the representatives for the AP were due to attend issue specific hearing (ISH) 4 [EV9-001], the applicants agreed that the update could be requested at that hearing [EV7-002, action point 6]. At ISH4, the applicants advised that they had met with the APs representatives to discuss the potential impact on the camping and caravan park and the holding as a whole. Initial talks had been positive, and negotiations were ongoing to agree a correct valuation approach to consider the impact on the camping and caravan park. At a subsequent meeting there were further discussions on the options regarding the approach to valuation. Negotiations were ongoing and the applicants remained hopeful that a voluntary agreement could be reached prior to the close of the examination. The APs' representative [EV9-012, 01:40:24:22 to 01:42:36:15] provided a further update advising that they were waiting a response from the applicants, but that there was an understanding between them and the applicants as to how they could potentially proceed, negotiations were ongoing with an aspiration that they would be concluded before the close of the examination. At DL4, the LRT [REP4-079] advised that a commercial offer had been made for the surrender of the land. However, the principal terms were still under negotiation as both parties sought to agree a position on the potential impact on the APs' camping and caravan business. The applicants advised that there was a willingness by both parties to reach a settlement voluntarily, however it was unlikely that agreement would be reached prior to the close of the examination. In response to ExQ2 [PD-022], the AP provided further details [AS-181], along with a plan to show the areas of land they considered would be impractical to farm or sterilised permanently. In response [REP6-052], the applicants referred back to their response to Action Point 16 [REP6-056]. The applicants agreed that the matter could be dealt with via compensation. However, they were unable to commit to relocating the access road, due to a need to connect to the existing A1079 at a

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			specific point for road safety issues. Furthermore, due to the need for access to be used by abnormal indivisible loads, the access needed to be as straight as possible. The applicants also identified the constraint of the Butt Farm gun battery. As such, the applicants believed that the optimum solution had been achieved, which balanced all the relevant considerations [REP6-052]. No further submissions were received from the AP. The final LRT [REP8-033] showed the matter to be still under negotiation and that meetings had taken place between the parties and that whilst the view of the applicants was that it was likely that HoT would be agreed, this was unlikely to be by the end of the examination. ExA's conclusion The ExA recommends that the SoS may wish to seek an update as to whether the agreements have now been completed. However, should the voluntary agreement remain unsigned, the ExA is satisfied on the basis of what it has read and heard that the amount of land requested would be required to construct, operate and maintain the proposed development and that where sought the permanent acquisition of land or rights in land is necessary. The ExA therefore considers that any private harm to the objectors would be outweighed by the public benefits that the proposed development would deliver. Consequently, the ExA recommends the grant of CA sought in relation to the plots in which JL White and Son and Butt Farm camping, caravanning and glamping site have an interest.
187116	East Yorkshire Concrete Products Ltd and Mr Alexander Douglas Robinson [REP1-073]	HoT unresolved	The BoR [REP8-010] shows East Yorkshire Concrete Products Ltd (EYCP) as having an interest in 11 plots which the applicants are seeking to acquire. Mr Robinson is shown as having a Category 2 interest in 2 plots. The applicants are requesting the acquisition of rights in 5 of the plots and the TP of the remaining 7 plots. The land would be required for the onshore cable corridor (Work Nos. 15A/B and 14 A/B) and temporary accesses and construction compounds (Work Nos. 15A/B, 16A/B, 17A/B, 18A/B and 19A/B). Following previous experience of land matters in relation to the Dogger Bank Creyke Beck Offshore Wind Farm Order 2015, the objectors set out [REP1-073] the following concerns: ▪ cable depth and future movement of the cables and infrastructure ▪ damage to soil quality and health and poor reinstatement of land to its former agricultural condition

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			▪ impact on business ▪ length of occupation of the onshore cable corridor and management of the corridor during occupation and works ▪ provision of adequate legal agreements (unilateral undertaking and Deed of Grant) to protect landowners' interests, including addressing the concerns expressed in the bullet points above The applicants responded at DL2 [REP2-057, 2.4] advising that they had been in regular contact with the agents acting on behalf of the APs and had provided all relevant technical details regarding the installation of the onshore cable. The potential effects of the proposed development on soil quality and business are considered in section 4.4 of the Recommendation. With regards to occupation of the onshore cable corridor, the applicants advised [REP2-057, 2.4, REP1-073:16] that the reinstatement of topsoil in a suitable condition to be returned to the landowner for agricultural use would be undertaken within 2 years from the start of construction between jointing bays. However, the applicants conceded that there might be occasions where an extension to the two-year period might be required if, for example, restoration took place during the wrong season. If this was the case, then the applicants would discuss the matter with ERYC and the relevant landowner. The applicants advised [REP2-057, 2.4, REP1-073:16] that they had assumed that 50% of temporary haul roads between jointing bays and temporary construction compounds along the onshore cable corridor would remain in place for up to 4 or 6 years depending on the final construction scenario. Furthermore, the applicants indicated that they proposed to use all reasonable endeavours to provide APs with access across or over the onshore cable corridor to any severed areas. This was secured through the Outline Code of Construction Practice (oCoCP) [REP7-105]. In addition, the applicants stated that the option and deed of grant also offered the APs further assurances on reinstatement and a commitment to provide suitable access for the farm machinery to allow the APs to continue to farm any inaccessible area in an economic manner [REP2-057, 2.4, REP1-073:17]. With regards to the concerns about the drafting of unilateral undertakings and deeds of grant, the applicants advised [REP2-057] and [REP1-073] that Part 5 of the draft DCO [REP1-004] contained all the detail relevant to CA. Furthermore, they had offered the APs a legally binding option and deed of Grant that would replace the need for a unilateral undertaking which had been accepted by over 80% of the other APs.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			The matter was discussed at CAH2 [EV7-001] where the applicants and the representative for the APs advised that negotiations had currently stalled. The applicants advised that [EV7-004, 00:50:51:07] because the APs considered the commercial position was unfavourable, they were unwilling to engage any further on a voluntary agreement. The applicants indicated that they would try to continue with negotiations but felt that it would be unlikely that the negotiations would be concluded before the end of the examination. The representatives for the APs [EV7-004, 00:51:27:02] advised that they had achieved a satisfactory voluntary agreement with Hornsea 4 and a unilateral undertaking for Dogger Bank A and B which contained certain safeguards that were important to the APs in terms of the interference with the enjoyment of their land. The APs were seeking similar terms for the proposed development but to date the applicants had not agreed to these. At DL4, the representatives for the APs [REP4-107] expanded in detail on the concerns raised at DL1 and at CAH2 and also introduced a number of specific concerns regarding the amount of land being sought in relation to a number of the plots including: ▪ A lack of justification for the amount of land sought for TP of plots 04-017, 04-018 and 04-019 or an explanation as to why the boundaries of these plots could not be amended to create less interference for the landowner. ▪ Plot 04-017 would sever a small area of the field and irrespective of whether access would be provided into the severed parcel it would not be economic for the landowner to farm this land whilst the plot was occupied by the applicants. ▪ The boundaries of plot 04-019 would create unworkable field boundaries which would be difficult to farm with modern machinery. ▪ Despite an early request the applicants had not provided a justification on why plot 04-024 could not be moved eastwards to run along the field boundary to reduce the impact on the landowner, which would avoid severing part of the field and sterilising a greater area of the field once the cables were installed. In relation to CA [REP4-107], the APs reiterated the concerns regarding differences between the terms offered by the applicants and those agreed with other offshore wind farm projects. In particular, they were concerned that there was no commitment to maintain the cables at a minimum depth. In

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			addition, concerns were raised that if CA rights were granted through the DCO then the applicants had advised that they would abandon the voluntary agreement process and seek to progress the proposed development with no regard for the impact on landowners. The AP advised [REP4-107] that the applicants had not confirmed how the works corridor would be reinstated. The inclusion of 'as soon as reasonably practicable' in the draft option and deed of grant was considered by the APs to be vague and was not a firm commitment to an acceptable time frame or longstop date. The APs' representatives advised that the use of similar wording in the voluntary agreements for Dogger Bank A and B had enabled the undertakers to delay reinstatement and hand back of land. The APs representative was therefore seeking to include a reference to a 'completion notice' which the applicants had refused to consider. The APs' representatives advised [REP4-107] that for the proposed development they were seeking a longstop date of reinstatement within 12 months and prior to the next cropping season following cable instillation. As drafted, the option and deed of grant provided no appeal mechanism for landowners to challenge the timeframes for hand back and reinstatement. The APs' representative advised [REP4-107] that based on similar works for Dogger Bank A and B, reinstatement of the land in the works corridor and hand back to owners was easily achievable within 12 months if the project was planned and implemented properly. The APs' representative considered that retaining 50% of the haul roads was excessive and unnecessary and retaining haul roads for up to 6 years whilst financially convenient for the project was considered an unnecessary burden on landowners and occupiers. The APs' representatives advised that they were also seeking to include a number of safeguards which were in the voluntary agreements for Dogger Bank A and B. These related to: ▪ the ability to claim consequential losses ▪ provision of an indemnity against any issues associated with the use of the cables, negligence by the developer or breach of covenant against costs, fees, charges involved in pursuing a breach ▪ including a decommissioning provision to enable landowners to request that the cables and associated apparatus were removed ▪ a limitation of the use of the cables to the proposed development ▪ confirmation that professional fees would not be subject to an aggregation clause

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			▪ a limitation on the landowners' and occupiers' liability to ensure that they could secure insurance to protect them against any liability or risk arising from the proposed development In addition, the APs representatives also asked for: ▪ a schedule of condition be taken prior to entry ▪ a commitment regarding crop loss in relation to the disruption caused by survey work, trial pits and trenching ▪ protection against fees for abortive professional fees if a voluntary agreement is not achieved ▪ compensation for landowners and occupiers time for involvement in the negotiations and examination ▪ confirmation that the easements in the deed of grant for the respective cables would be contiguous Finally, the APs' representatives advised that they remained committed to entering into a voluntary agreement, but that the applicants' approach to the issues raised and the application of compensation penalties because voluntary agreements had not been executed was frustrating the process. At DL4, the LRT [REP4-079] advised that HoT negotiations were ongoing and that the applicants had continued to engage with the landowners' appointed agent but that the landowners were unwilling, at that time, to enter into a voluntary agreement. They would continue to negotiate but considered it unlikely that they would be concluded by the close of examination. The applicants provided a detailed response at DL5 [REP5-037] and to the ExA's Rule 17 [PD-026] questions [REP6-057] in relation to the extent of the parcels of land. The applicants confirmed: ▪ Plot 04-19 was required to create a satellite temporary construction compound (TCC). The construction works required a series of main and satellite TCCs that would operate as support bases for the onshore construction works along the onshore export cable corridor, housing portable offices, welfare facilities, concrete or cement bound sand batching plant, localised stores, as well as acting as staging posts for localised secure storage for equipment and component deliveries. Each satellite TCC (up to approximately 15 in total) would be approximately 75m x 75m with direct access into the construction easement. ▪ Plot 04-017 was required for TP to provide continuation of off haul road access rights to utilise an existing gap in the hedge in plot 04-11 to the east of Dunnington Lane.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			Plot 04-24 was not able to route to the eastern boundary for it to link to plots 04-21 to 04-023 to the north in a straight alignment and importantly enabling an area of off haul road to pass through an existing gap in the hedge in plot 05-002 to the south. Overall, the applicants submitted that the onshore export cable corridor design had been carefully developed considering design constraints such as engineering, ecology and heritage, as well as proximity to residential property and designated landscapes, as set out in Chapter 4 Site Selection and Assessment of Alternatives (Revision 2) [AS-017]. As such, the applicants' view was that the approach, on balance, achieved the optimum design, and, taking a holistic approach, the onshore export cable corridor had been expediently routed to avoid unviable cable bends around each field boundary. In relation to temporary severance of land during construction, the applicants referred to the voluntary option and deed of grant, which would require the grantee to use reasonable endeavours to provide the grantor with access across or over the option area to any severed areas, where reasonably practicable, which were created as a direct result of the proposed works or otherwise agree appropriate compensation with the grantor. The applicants confirmed that this was in the Commitments Register (Revision 2) [REP2-025] and the oCoCP (Revision 4) [REP4-040], secured by Requirement 19 of the dDCO. In relation to indicative cable design depth, the applicants confirmed this to be 1.6m but there was some flexibility in this figure typically ranging from 1.3m to 1.7m from surface level to top of cable duct to allow for natural variation in topsoil thickness. Where this could not be achieved, the minimum depth below agricultural land would be 1.1m between the restored surface and the uppermost part of the proposed cable duct and 0.9m between the restored surface and the protective tile. The design and minimum depth of 1.1m, where constrained for agricultural land had been designed to allow agricultural operations to continue above the cable ducts. The applicants updated the Design and Access Statement (DAS) at DL7 and the OCoCP [REP7-105] to reflect this. The applicants considered that they were unable to commit to maintaining the depth of the cables for the duration of the proposed development. This was on the basis that, once construction was completed, they would not have control of the surface of the land and what agricultural activities a landowner may undertake which could increase or decrease the level of topsoil.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			In addition, the applicants confirmed that the cables had been designed to remain at the depth they were installed throughout operation but confirmed that the buoyancy effects of the ducts would be considered alongside a variety of load cases and ground conditions during detailed design. Given that the majority of the onshore export cable corridor was located within agricultural land, the applicants submitted that it would not be in their interests to adopt a design which allowed the cables to be exposed to the surface or potential damage from agricultural equipment. The APs' made further submissions during the course of the examination [REP6-082] and [REP7-145]. In their closing statement [REP8-061], the APs identified that the main outstanding issues related to: ▪ land drainage issues ▪ cable depth ▪ reinstatement of land ▪ consequential losses ▪ decommissioning and removal of cables ▪ use of the cables ▪ indemnities ▪ professional fees and landowners' time ▪ schedule of conditions ▪ temporary possession of land ▪ applicants' approach to voluntary agreements At DL8, the LRT [REP8-033] advised that whilst negotiations had been on-going a voluntary agreement had not been secured by the close of the examination. ExA's conclusion The ExA recommends that the SoS may wish to seek an update as to whether the agreements have now been completed. The ExA notes the position of the AP in relation to the adequacy of the discussions which have taken place. However, with the account provided in the LRT, and the individual interaction evidenced

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			through the course of the examination, the ExA is satisfied that the applicants have provided evidence of ongoing dialogue between the parties to reach a negotiated agreement. Based on the information presented in the LRT, the ExA considers that progress has been made in seeking to agree HoT through negotiation with the AP, although by the end of the examination these were still outstanding. The ExA must take into account the concerns raised by all APs and is satisfied that the issues have been thoroughly examined. Based on the conclusions drawn in other sections in this Recommendation, the ExA can conclude that the adverse effects identified by the APs would be necessary to deliver the proposed development and would be mitigated to any reasonable extent. On matters relating to land take, the ExA considers that, at this stage of the overall development process, the applicants' approach to the easement width is reasonable and proportionate and at the detailed design stage would be subject to the provisions of article 20 of the recommended draft DCO (appendix F) so that land take would be limited to accord with s122(2) of Planning Act 2008 (PA2008). The ExA finds that the applicants have sought to balance the various competing interests in relation to the cable corridor and that it represents the optimum design. In relation to severance, the ExA notes the concerns of the APs, but in this respect, considers that there are sufficient measures included within the dDCO to ensure that any effects are kept to a minimum or would be adequately compensated. In accordance with s106(1)(c) of the PA2008, matters of compensation, fees and indemnities are not for consideration by the ExA. As such, a view on that matter is not offered here. In conclusion, should the voluntary agreement remain unsigned, the ExA is satisfied on the basis of what it has read and heard that the amount of land requested would be required to construct, operate and maintain the proposed development and that where sought the permanent acquisition of land or rights in land is necessary. The ExA therefore considers that any private harm to the objectors would be outweighed by the public benefits that the proposed development would deliver. Consequently, the ExA recommends the grant of CA and TP sought in relation to the plots in which EYCP and Mr Robinson have an interest.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
210065 188134	Mr M W Mewburn and Mr J Mewburn [REP4-107]	HoT not agreed	At DL4 [REP4-107], the representatives for EYCP raised a concern in relation to CA on behalf of Messrs M W and J Mewburn. According to the BoR [REP8-010], the Mewburns have an interest in 9 plots. The applicants are seeking to acquire rights in 4 plots and to TP the other 5 plots. The AP expressed concerns [REP4-107] in relation to 3 of the plots (plots 06-018, 06-021 and 06-025) where the applicants were seeking to permanently acquire rights. The landowners of these plots were minerals operators and part of these plots were located within a minerals safeguarding area (MSA). The AP's representative had raised this issue with the applicants during initial discussions. The AP's representative [REP4-107] advised that the terms of the proposed voluntary agreement would make it impossible to work the minerals below, between and potentially either side of the proposed onshore cables. As a result, the landowners considered that the voluntary agreement should include compensation for any mineral resources sterilised because of the proposed development. The landowner's representative advised, even though compensating for the sterilisation of mineral resource is a normal head of claim for compensation, the applicants had declined this request. As a result, this was preventing progression of the voluntary agreement. At DL4, the LRT [REP4-079] advised that for Mr M W Mewburn HoT negotiations were ongoing and that the applicants would continue to engage with the AP's agent. The applicants stated that they remained hopeful that negotiations for HoT would be concluded by the end of the examination. For Mr J Mewburn, the LRT [REP4-079] stated that HoT negotiations had not commenced as the applicants had not received any documentation from Mr J Mewburn to confirm that he had a genuine interest in the land. However, the applicants considered that it would be unlikely that any voluntary agreement would be reached before the end of the examination. In their response, [REP5-037], the applicants submitted that they did not believe there to be a realistic prospect for the landowner to extract mineral resource from plots 06-018, 06-021 and 06-025 due to the marginal areas allocated as a MSA and an area of search respectively on the periphery of the landholding and proximity to the public highway. To address the matter, the applicants proposed a development clause be included in any agreement which would enable the landowner to recover compensation, if they were to secure planning consent for its extraction in the future.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			By the close of the examination, the AP [REP8-061] confirmed that discussions had taken place with regards to a proposed minerals clause, which they confirmed had addressed some of their issues. Substantive remaining issues were: ▪ The applicants were seeking to limit the period over which the clause applies to 10 years, after which the minerals would be sterilised. The AP was requesting that the period should reflect the operational life of the proposed development. ▪ The mineral clause set an unnecessarily high bar for the landowner to achieve before it could be implemented, such as requiring securing a certificate of alternative development prior to serving a development notice and to provide copies of planning applications at least 3 months before submission, whilst also accepting that the applicants could object to the planning application. At DL8, the LRT [REP8-033] advised that whilst negotiations had been on-going a voluntary agreement had not been secured by the close of the examination. ExA's conclusion The ExA recommends that the SoS may wish to seek an update as to whether the agreements have now been completed. The ExA acknowledges that, due to the location of these plots within a MSA, there would be the potential for sterilisation of some sand and gravel resources. However, this would be very limited when considered in the context of the resource that is available within the ERYC's overall area. The potential effects of the proposed development on the MSA is considered in section 4.4 of the Recommendation. Therefore, should voluntary negotiations not be completed, the ExA is satisfied on the basis of what it has read and heard that the amount of land requested would be required to construct, operate and maintain the proposed development and that where sought the permanent acquisition of land or rights in land is necessary. The ExA therefore considers that any private harm to the objectors would be outweighed by the public benefits that the proposed development would deliver. Furthermore, any concerns regarding the levels of compensation are not a matter for consideration by the ExA.

Land Rights Tracker Reference	Name of land interest	Position at end of examination	ExA's consideration and conclusions
			Consequently, the ExA recommends the grant of CA and TP sought in relation to the plots in which Mr M W Mewburn and Mr J Mewburn have an interest.

APPENDIX F: RECOMMENDED DEVELOPMENT CONSENT ORDER

202[] No. ****

INFRASTRUCTURE PLANNING

The Dogger Bank South East and West Offshore Wind Farms Order 202[●]

Made - - - - - ***

Coming into force ***

CONTENTS

PART 1

Preliminary

1. Citation and commencement
2. Interpretation

PART 2

Principal powers

3. Development consent granted by Order
4. Maintenance of the authorised project
5. Benefit of the Order
6. Disapplication and modification of legislative provisions
7. Defence to proceedings in respect of statutory nuisance

PART 3

Streets

8. Street works
9. Application of the 1991 Act
10. Temporary closure of streets
11. Closure and diversion of public rights of way
12. Power to alter layout, etc. of streets
13. Access to works
14. Agreements with street authorities
15. Use of private roads

PART 4

Supplemental powers

16. Discharge of water

- 17. Protective work to buildings
- 18. Authority to survey and investigate land onshore
- 19. Article not used

PART 5

Powers of acquisition

- 20. Compulsory acquisition of land
- 21. Time limit for exercise of authority to acquire land compulsorily
- 22. Compulsory acquisition of rights
- 23. Private rights over land
- 24. Application of the 1981 Act
- 25. Statutory authority to override easements and other rights
- 26. Acquisition of subsoil or airspace only
- 27. Compulsory acquisition of land: minerals
- 28. Modification of Part 1 of the 1965 Act
- 29. Rights under or over streets
- 30. Temporary use of land for carrying out the authorised project
- 31. Temporary use of land for maintaining the authorised project
- 32. Statutory undertakers
- 33. Recovery of costs of new connections

PART 6

Operations

- 34. Operation of generating station
- 35. Deemed marine licences under the 2009 Act

PART 7

Miscellaneous and general

- 36. Application of landlord and tenant law
- 37. Operational land for purposes of the 1990 Act
- 38. Felling or lopping of trees and removal of hedgerows
- 39. Trees subject to tree preservation orders
- 40. Saving provisions for Trinity House
- 41. Crown rights
- 42. Certification of plans and documents, etc.
- 43. Abatement of works abandoned or decayed
- 44. Funding
- 45. Protective provisions
- 46. Service of notices
- 47. Arbitration
- 48. Requirements, appeals, etc.
- 49. Compensation
- 50. Inconsistent planning permissions
- 51. No double recovery
- 52. Modification of the Air Navigation Order 2016

- SCHEDULE 1 — Authorised project
 - PART 1 — Authorised development
 - PART 2 — Ancillary works
- SCHEDULE 2
 - PART 1 — Requirements
 - PART 2 — Approval of matters specified in requirements
- SCHEDULE 3 — Streets subject to street works
 - PART 1 — Streets subject to permanent street works
 - PART 2 — Streets subject to temporary street works
- SCHEDULE 4 — Streets to be temporarily closed or restricted
- SCHEDULE 5 — Closure and diversion of public rights of way
 - PART 1 — Public Rights of Way to be temporarily closed or restricted
 - PART 2 — Public Rights of Way to be permanently diverted
- SCHEDULE 6 — Access to works
- SCHEDULE 7 — Land in which only new rights, etc. may be acquired
- SCHEDULE 8 — Modification of compensation and compulsory purchase enactments for creation of new rights and imposition of restrictive covenants
- SCHEDULE 9 — Land of which only temporary possession may be taken
- SCHEDULE 10 — Deemed Marine Licence 1: DBS East Project Offshore Generation – Work Nos. 1A, 4A and 7A
 - PART 1 — Licensed marine activities
 - PART 2 — Conditions
- SCHEDULE 11 — Deemed Marine Licence 2: DBS West Project Offshore Generation – Work No. 1B, 4B and 7B
 - PART 1 — Licensed marine activities
 - PART 2 — Conditions
- SCHEDULE 12 — Deemed Marine Licence 3: DBS East Project Offshore Transmission – Work Nos. 2A, 3A, 7A and 8A
 - PART 1 — Licensed marine activities
 - PART 2 — Conditions
- SCHEDULE 13 — Deemed Marine Licence 4: DBS West Project Offshore Transmission – Work Nos. 2B, 3B, 7B and 8B
 - PART 1 — Licensed marine activities
 - PART 2 — Conditions
- SCHEDULE 14 — Deemed Marine Licence 5: DBS East Project Offshore Transmission – Work Nos. 5A, and 7A
 - PART 1 — Licensed marine activities
 - PART 2 — Conditions
- SCHEDULE 14A — Deemed Marine Licence 6: DBS West Project Offshore Transmission – Work Nos. 5B and 7B
 - PART 1 — Licensed marine activities
 - PART 2 — Conditions
- SCHEDULE 15 — Protective provisions
 - PART 1 — Protection of electricity, gas, water and sewerage undertakers
 - PART 2 — Protection for operators of electronic communications code networks
 - PART 3 — For the protection of the Environment Agency
 - PART 4 — For the protection of the drainage authorities
 - PART 5 — For the protection of Network Rail Infrastructure Limited

- PART 6 — For the protection of National Gas Transmission Plc as gas undertaker
- PART 7 — For the protection of National Grid Electricity Transmission Plc as electricity undertaker
- SCHEDULE 16 — Arbitration Rules
- SCHEDULE 17 — Hedgerows
 - PART 1 — Removal of Hedgerows
 - PART 2 — Removal of important hedgerows
- SCHEDULE 18 — Compensation Measures
 - PART 1 — Dogger Bank Special Area of Conservation: Delivery of measures to compensate for sandbank loss
 - PART 2 — Flamborough and Filey Coast Special Protection Area: Kittiwake Compensation Measures
 - PART 3 — Flamborough and Filey Coast Special Protection Area and Farne Islands Special Protection Area: Guillemot Compensation Measures
- SCHEDULE 19 — Documents to be certified
 - PART 1 — DOCUMENTS FORMING THE ENVIRONMENTAL STATEMENT TO BE CERTIFIED
 - PART 2 — OTHER DOCUMENTS TO BE CERTIFIED

An application has been made to the Secretary of State under section 37 of the Planning Act 2008^(a)(the “2008 Act”) and in accordance with the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009^(b) for an order granting development consent.

The application was examined by an examining authority of 5 members (“the examining authority”) appointed by the Secretary of State pursuant to section 61^(c) and 65^(d) of Part 6 of the 2008 Act, and the examination was carried out in accordance with Chapter 4 of that Act and with the Infrastructure Planning (Examination Procedure) Rules 2010^(e).

The examining authority, having examined the application with the documents that accompanied the application, and considered the representations made and not withdrawn has made a report and recommendation to the Secretary of State under section 74(2)^(f) of the 2008 Act.

The Secretary of State has considered [representations made and not withdrawn] and the report and recommendation of the examining authority, has taken into account the environmental information in accordance with regulation 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017^(g) and has had regard to the documents and matters referred to in section 104(2)^(h) of the 2008 Act.

(a) 2008 c.29. Section 37 was amended by Chapter 6 of Part 6 of, and Schedule 13 to, the Localism Act 2011 (c.20).
 (b) S.I. 2009/2264.
 (c) Section 61 was amended by section 128(2) and Schedule 13, paragraph 18 to the Localism Act 2011 (c.20) and by section 26 of the Infrastructure Act 2015 (c.7).
 (d) Section 65 was amended by Schedule 13, paragraph 22(2) and Schedule 25, paragraph 1 to the Localism Act 2011 (c.20) and by section 27(1) of the Infrastructure Act 2015 (c.7).
 (e) S.I. 2010/2013, amended by S.I. 2012/635
 (f) Section 74 was amended by sections 128(2) and 237 and by Schedule 13, paragraph 29 and Schedule 25, paragraph 1, to the Localism Act 2011.
 (g) S.I. 2017/572.
 (h) Section 104 was amended by section 58(5) of the Marine and Coastal Access Act 2009 (c.23) and by section 128(2) and Schedule 13, paragraphs 1 and 49(1) to (6) of the Localism Act 2011.

The Secretary of State is satisfied that open space land within the Order land, when burdened with the new rights or the imposition of a restrictive covenant as authorised for compulsory acquisition under the terms of this Order, will be no less advantageous than it was before such acquisition to the persons in whom it is vested, other persons, if any, entitled to rights of common or other rights, and the public, and that, accordingly, section 132(3)(a) of the 2008 Act applies.]

The Secretary of State, having decided the application, has determined to make an order granting development consent for the development described in the application [with modifications which in the opinion of the Secretary of State do not make any substantial changes to the proposals comprised in the application].

Accordingly, the Secretary of State, in exercise of the powers in sections [114, 115, 120(b), 122, 123, 140 and 149A] of the 2008 Act, makes the following Order:

PART 1

Preliminary

Citation and commencement

1. This Order may be cited as the Dogger Bank South East and West Offshore Wind Farms Order 202[•] and comes into force on [•].

Interpretation

2.—(1) Except for Schedules 10 to 14, which are subject to the definitions in those Schedules, in this Order—

“the 1961 Act” means the Land Compensation Act 1961(c);

“the 1965 Act” means the Compulsory Purchase Act 1965(d);

“the 1980 Act” means the Highways Act 1980(e);

“the 1981 Act” means the Compulsory Purchase (Vesting Declarations) Act 1981(f);

“the 1989 Act” means the Electricity Act 1989(g);

“the 1990 Act” means the Town and Country Planning Act 1990(h);

“the 1991 Act” means the New Roads and Street Works Act 1991(i);

“the 2003 Act” means the Communications Act 2003(j);

“the 2004 Act” means the Energy Act 2004(k);

“the 2008 Act” means the Planning Act 2008(l);

“the 2009 Act” means the Marine and Coastal Access Act 2009(m);

(a) Section 132 was amended by section 24(3) of the Growth and Infrastructure Act 2013 (c.27).

(b) Sections 114, 115 and 120 were amended by sections 128(2) and 140 and Schedule 13, paragraphs 1, 55(1), (2) and 60(1) and (3) of the Localism Act 2011. Relevant amendments were made to section 115 by section 160(1) to (6) of the Housing and Planning Act 2016 (c.22).

(c) 1961 c. 33.

(d) 1965 c. 56.

(e) 1980 c. 66.

(f) 1981 c. 66.

(g) 1989 c. 29.

(h) 1990 c. 8.

(i) 1991 c. 22. Section 48(3A) was inserted by section 124 of the Local Transport Act 2008 (c. 26), Sections 79(4), 80(4), and 83(4) were amended by section 40 of, and Schedule 1 to, the Traffic Management Act 2004 (c. 18).

(j) 2003 c.21

(k) 2004 c. 20. Section 105 was amended by section 69 of the Energy Act 2003 (c. 32).

(l) 2008 c. 29.

(m) 2009 c. 23.

“the 2016 Regulations” means the Environmental Permitting (England and Wales) Regulations 2016^(a);

“the 2017 Regulations” means the Conservation of Habitats and Species Regulations 2017^(b);

“access to works plan” means the plan or plans certified by the Secretary of State as the access to works plan or plans for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“address” includes any number or address used for the purposes of electronic transmission;

“ancillary works” means the ancillary works described in Part 2 (ancillary works) of Schedule 1 (authorised project) and any other works authorised by this Order that are not development within the meaning of section 32 (meaning of “development”) of the 2008 Act;

“array cable” means a cable linking the wind turbine generators to each other and to the offshore converter platforms;

“authorised development” means the development and associated development described in Part 1 (authorised development) of Schedule 1 (authorised project) and any other development authorised by this Order that is development within the meaning of section 32 (meaning of “development”) of the 2008 Act;

“authorised project” means the authorised development and ancillary works authorised by this Order;

“bank holiday” means a bank holiday in England and Wales under section 1 of the Banking and Financial Dealings Act 1971;

“book of reference” means the document certified as the book of reference by the Secretary of State for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“building” includes any structure or erection or any part of a building, structure or erection;

“buoy” means any floating device used for navigational purposes or measurement purposes including LiDAR buoys, wave buoys and guard buoys;

“cable” means any onshore or offshore cable and includes direct-lay cables and cables laid in cable ducts and further includes fibre optic and other communications cables either within the cable or laid alongside;

“cable crossing” means a crossing of existing subsea cables or pipelines or other existing infrastructure by a cable or, where cables run together in parallel, a set of cables authorised by this Order together with cable protection;

“cable ducts” means conduits for the installation of cables;

“cable protection” means measures to protect cables from physical damage and exposure due to loss of seabed sediment including, but not limited to, rock placement, concrete mattresses with or without frond devices, protective aprons or coverings, bagged solutions filled with sand, rock, grout or other materials, and protective shells;

“cable statement” means the document certified by the Secretary of State as the cable statement for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“carriageway” has the same meaning as in section 329 (further provision as to interpretation) of the 1980 Act;

“commence” means either—

- (a) In relation to works seaward of MHWS, the first carrying out of any licensed marine activities authorised by the deemed marine licences, save for pre-construction surveys and monitoring approved under the deemed marine licences; or

(a) S.I. 2016/1154.

(b) S.I. 2017/1012.

(b) in respect of any other works, the first carrying out of any material operation (as defined in section 155 (when development begins) of the 2008 Act) forming part of the authorised project except for pre-commencement works; and

and the words “commence” and “commencement” must be construed accordingly;

“commercial operation” means in relation to any part of the authorised project, the exporting, transmission or conversion, on a commercial basis, of electricity;

“commissioning” means the process of assuring that all systems and components of the authorised project are tested to verify that they function and are operable in accordance with the design objectives, specifications and operational requirements of the undertaker;

“commitments register” means the document certified by the Secretary of State as the commitments register for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“DBS East” means the Dogger Bank South East Offshore Wind Farm;

“DBS East Project” means the DBS East Project offshore works and the DBS East Project onshore works;

“DBS East Project offshore works” means Work Nos. 1A to 9A and any other authorised development and ancillary works associated with those works;

“DBS East Project onshore works” means Work Nos. 10A to 34A and any other authorised development and ancillary works associated with those works;

“DBS East works” means Work Nos. 1A to 34A;

“DBSEL” means RWE Renewables UK Dogger Bank South (East) Limited, company number 13656240, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“DBS West” means the Dogger Bank South West Offshore Wind Farm;

“DBS West Project” means the DBS West Project offshore works and the DBS West Project onshore works;

“DBS West Project offshore works” means Work Nos. 1B to 9B and any other authorised development and ancillary works associated with those works;

“DBS West Project onshore works” means Work Nos. 10B to 34B and any other authorised development and ancillary works associated with those works;

“DBS West works” means Work Nos 1B to 34B;

“DBSWL” means RWE Renewables UK Dogger Bank South (West) Limited, company number 13656525, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“Deemed Marine Licence 1” means the deemed marine licence in Schedule 10 (Deemed Marine Licence 1: – DBS East Project Offshore Generation Work Nos. 1A, 4A and 7A);

“Deemed Marine Licence 2” means the deemed marine licence in Schedule 11 (Deemed Marine Licence 2: – DBS West Project Offshore Generation Work Nos. 1B, 4B and 7B);

“Deemed Marine Licence 3” means the deemed marine licence in Schedule 12 (Deemed Marine Licence 3: DBS East Project Offshore Transmission– Work Nos. 2A, 3A, 7A and 8A);

“Deemed Marine Licence 4” means the deemed marine licence in Schedule 13 (Deemed Marine Licence 4: – DBS West Project Offshore Transmission Work Nos. 2B, 3B, 7B and 8B);

“Deemed Marine Licence 5” means the deemed marine licence in Schedule 14 (Deemed Marine Licence 5: DBS East Project Offshore Transmission Work Nos. 5A and 7A);

“Deemed Marine Licence 6” means the deemed marine licence in Schedule 14A (Deemed Marine Licence 6: DBS West Project Offshore Transmission Work Nos. 5B and 7B);

“deemed marine licences” means the deemed marine licences set out in Schedules 10 (Deemed Marine Licence 1: DBS East Project Offshore Generation – Work Nos. 1A, 4A and 7A), 11 (Deemed Marine Licence 2: DBS West Project Offshore Generation – Work No. 1B,

4B and 7B), 12 (Deemed Marine Licence 3: DBS East Project Offshore Transmission – Work Nos. 2A, 3A, 7A and 8A), 13 (Deemed Marine Licence 4: DBS West Project Offshore Transmission – Work Nos. 2B, 3B, 7B and 8B), 14 (Deemed Marine Licence 5: DBS East Project Offshore Transmission – Work Nos. 5A and 7A), and 14A (Deemed Marine Licence 6: DBS West Project Offshore Transmission – Work Nos. 5B and 7B);

“Defence Infrastructure Organisation Safeguarding” means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, St George’s House, DIO Head Office, DMS Whittington, Lichfield, Staffordshire WS14 9PY and any successor body to its functions;

“design and access statement” means the document certified by the Secretary of State as the design and access statement for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Dogger Bank SAC” means the site designated as the Dogger Bank Special Area of Conservation;

“drainage authority” means in relation to an ordinary watercourse, the drainage board concerned within the meaning of section 23 (prohibition on obstructions etc. in watercourses) of the Land Drainage Act 1991();

“Environment Agency” means the Environment Agency, Horizon House, Deanery Road, Bristol, BS1 5AH and any successor in name or function;

“environmental statement” means the documents certified by the Secretary of State as the environmental statement for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“guillemot and razorbill compensation plan” means the document certified by the Secretary of State as the guillemot and razorbill compensation plan for the purposes of this Order under Article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“haul road” means the track along the onshore export cable corridor used by traffic to facilitate access to the onshore export cable route for construction;

“highway” has the same meaning as in section 328 (meaning of “highway”) of the 1980 Act;

“highway authority” has the same meaning as in the 1980 Act;

“horizontal directional drilling” refers to a trenchless technique for installing cables and cable ducts involving drilling in an arc between two points;

“HVAC” means high voltage alternating current;

“HVDC” means high voltage direct current;

“in principle monitoring plan” means the document certified by the Secretary of State as the in principle monitoring plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation” means the document certified by the Secretary of State as the in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation for the purposes of this Order under Article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“inter-platform cable” means a cable linking the offshore converter platforms;

“intrusive” means an activity that requires or is facilitated by breaking the surface of the ground or seabed (but does not include the installation of fence or signage posts);

“jacket foundation” means a lattice type structure constructed of steel which is fixed to the seabed at 3 or more points with steel pin piles and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms;

“jointing bay” means an underground structure located at regular intervals along the cable route to join sections of cable and facilitate installation of the cable into the buried cable ducts;

“kittiwake compensation plan” means the document certified by the Secretary of State as the kittiwake compensation plan for the purposes of this Order under Article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“land plans” means the plans certified by the Secretary of State as the land plans for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“LAT” means lowest astronomical tide;

“lead local flood authority” has the same meaning as in section 6(7) (other definitions) of the Flood and Water Management Act 2010(a);

“link box” means an underground metal box placed within a concrete pit where the metal sheaths between adjacent export cable sections are connected and earthed, installed within a ground level manhole to allow access to the link box for regular maintenance or fault-finding purposes;

“maintain” includes inspect, upkeep, repair, adjust, alter, and further includes remove, reconstruct and replace (including replenishment of cable protection), but does not include the removal, reconstruction or replacement of foundations associated with the authorised project, to the extent assessed in the environmental statement; and any derivation of “maintain” must be construed accordingly;

“MCA” means the Maritime and Coastguard Agency, UK Technical Services Navigation, Spring Place, 105 Commercial Road, Southampton, SO15 1EG;

“mean sea level” means the average level of the sea surface over a period of time, taking account of all tidal effects and surge events;

“MHWS” or “mean high water springs” means the average throughout the year of two successive high waters during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides);

“MLWS” or “mean low water springs” means the lowest level that spring tides reach on average over a period of time;

“MMO” means the Marine Management Organisation;

“monopile foundation” means a steel pile driven or drilled into the seabed and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms and equipment;

“National Highways” means National Highways Limited (company number 09346363) whose registered office is at Bridge House, 1 Walnut Tree Close, Guildford, Surrey, GU1 4LZ or any such successor or replacement body that may from time to time be primarily responsible for the functions, duties and responsibilities currently exercised by that statutory body;

“offshore accommodation platform” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and open with modular equipment or fully clad and may include a helicopter platform, containing accommodation, storage, workshop auxiliary equipment and facilities for operating, maintaining and controlling the offshore converters or wind turbine generators, including but not limited to navigation, aviation and safety marking and lighting, systems for vessel access and retrieval, cranes, potable water supply, black water separation, stores, fuels and spares, communications systems and control hub facilities

“offshore converter platform” means an offshore converter platform with equipment to convert the HVAC power generated at the wind turbine generators into HVDC power, being a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and open with modular equipment or fully clad and may include a helicopter platform, containing electrical equipment required to switch, transform, convert electricity generated at the wind turbine generators to a higher voltage and provide reactive power compensation, including but not limited to high voltage power transformers, high voltage switchgear and

(a) 2010 c. 29.

busbars, substation auxiliary systems and low voltage distribution, instrumentation, metering equipment and control systems, standby generators, shunt reactors, auxiliary and uninterruptible power supply systems, facilities to support operations and maintenance;

“offshore order limits and grid coordinates plan” means the plans certified by the Secretary of State as the offshore order limits and grid coordinates plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“offshore works” means Work Nos. 1A to 9A and 1B to 9B and any other authorised development and ancillary works associated with those works;

“onshore HVDC converter station” means a compound comprising an onshore HVDC converter station containing electrical equipment required to switch, transform, convert electricity and provide reactive power compensation, with external landscaping and means of access;

“onshore order limits and grid coordinates plan” means the plans certified by the Secretary of State as the onshore order limits and grid coordinates plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“onshore works” means Work Nos. 10A to 34A and 10B to 34B and any other authorised development and ancillary works associated with those works;

“Order land” means the land shown on the land plans which is within the limits of land to be acquired or used and described in the book of reference;

“Order limits” means the limits shown on the works plans within which the authorised project may be carried out, whose offshore grid coordinates are set out in Part 1 of Schedule 1 (authorised project) of this Order;

“outline code of construction practice” means the document certified by the Secretary of State as the outline code of construction practice for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline construction traffic management plan” means the document certified by the Secretary of State as the outline construction traffic management plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline drainage strategy” means the document certified by the Secretary of State as the outline drainage strategy for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline ecological management plan” means the document certified by the Secretary of State as the outline ecological management plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline fisheries liaison and co-existence plan” means the document certified by the Secretary of State as the outline fisheries liaison and co-existence plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline landscape management plan” means the document certified by the Secretary of State as the outline landscape management plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline marine mammal mitigation protocol” means the document certified by the Secretary of State as the outline marine mammal mitigation protocol for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline offshore operations and maintenance plan” means the document certified by the Secretary of State as the outline offshore operations and maintenance plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline onshore written scheme of investigation” means the document certified by the Secretary of State as the outline onshore written scheme of investigation for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline project environmental management plan” means the document certified by the Secretary of State as the outline project environmental management plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline public rights of way management plan” means Appendix C of the document certified by the Secretary of State as the outline code of construction practice for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline scour protection plan” means the document certified by the Secretary of State as the outline scour protection plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline skills and employment strategy” means the document certified by the Secretary of State as the outline skills and employment strategy for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline vessel traffic monitoring plan” means the document certified by the Secretary of State as the outline vessel traffic monitoring plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline written scheme of investigation (offshore)” means the document certified by the Secretary of State as the outline written scheme of investigation (offshore) for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“owner”, in relation to land, has the same meaning as in section 7 (interpretation) of the Acquisition of Land Act 1981(a);

“pre-commencement works” means site clearance, demolition, early planting of landscaping works, archaeological investigations, environmental surveys, ecological mitigation, investigations for the purpose of assessing ground conditions, remedial work in respect of any contamination or other adverse ground conditions, the diversion and laying of services, the erection of any temporary screening and means of enclosure, site security works, creation of temporary hardstanding, erection of welfare facilities, creation of site accesses, the temporary display of site notices or advertisements and any drainage works required as a result of any other pre-commencement work;

“pre-existing ducts” means the ducts to be installed at landfall forming part of Work Nos 3A, 3B, 8A and 8B.

“public communications provider” has the same meaning as in section 151(1) (interpretation of chapter 1) of the 2003 Act;

“public holiday” means a public holiday in England and Wales established by common law;

“public rights of way plan” means the plans certified by the Secretary of State as the public rights of way plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

(a) 1981 c. 67.

“relevant highway authority” means the highway authority for the area in which the land to which the relevant provision of this Order applies is situated, being East Riding of Yorkshire Council or any successor to it as highway authority for the land in question;

“relevant planning authority” means East Riding of Yorkshire Council, or any successor to it as planning authority for the land in question;

“requirement” means a requirement set out in Part 1 of Schedule 2, and a reference to a numbered requirement is a reference to the requirement set out in the paragraph of the same number of that Schedule;

“scour protection” means measures to prevent loss of seabed sediment around any structure placed in or on the seabed including by the use of bagged solutions, filled with grout or other materials, protective aprons, concrete mattresses with or without frond devices, and rock and gravel placement;

“special category land plan” means the plan certified by the Secretary of State as the special category land plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“statutory historic body” means Historic England, 4th Floor, Cannon Bridge House, 25 Dowgate Hill, London EC4R 2YA or its successor in function;

“statutory nature conservation body” means a statutory nature conservation body, being the appropriate nature conservation body as defined in Regulation 5 of the Conservation of Habitats and Species Regulations 2017(a) or its equivalent in the Conservation of Offshore Marine Habitats and Species Regulations 2017(b);

“statutory undertaker” means any person falling within section 127(8) (statutory undertakers’ land) of the 2008 Act and a public communications provider as defined in section 151 (interpretation of chapter 1) of the 2003 Act;

“street” means a street within the meaning of section 48 (streets, street works and undertakers) of the 1991 Act, together with land on the verge of a street or between two carriageways, and includes part of a street;

“street authority”, in relation to a street, has the same meaning as in section 49 (the street authority and other relevant authorities) of the 1991 Act;

“streets plan” means the plans certified by the Secretary of State as the streets plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“temporary construction compound” means a temporary construction area associated with the onshore works including (as required) but not limited to hardstanding, temporary fencing, lighting, ground preparation, site offices and workshop facilities, general storage, storage of plant, storage of spoil, cable drums, ducting and other construction materials; welfare facilities; car parking; waste management, lay-down areas; banded generators; fuel storage or any other means of enclosure or areas required for construction purposes;

“transition joint bay” means an underground structure that houses the joints between the offshore export cables and the onshore export cables;

“transition piece” means a metal structure attached to the top of a foundation where the base of a wind turbine generator is connected and includes additional equipment such as J-tubes, corrosion protection systems, boat access systems, access platforms, craneage, electrical transmission equipment and associated equipment;

“tree preservation order and hedgerow plan” means the plan certified by the Secretary of State as the tree preservation order and hedgerow plan for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

(a) S.I. 2017/1012

(b) S.I. 2017/1013

“trenchless crossing compound” means a construction site associated with trenchless crossing works including hard standing, lay down and storage areas for construction materials and equipment, areas for spoil, areas for vehicular parking, bunded storage areas, areas comprising water and bentonite tanks, pumps and pipes, welfare facilities including offices and canteen and washroom facilities, wheel washing facilities, workshop facilities and temporary fencing or other means of enclosure and areas for other facilities required for construction purposes;

“Trinity House” means the Corporation of Trinity House of Deptford Strond, Tower Hill, London EC3N 4DH;

“undertaker” means, subject to article 5 (*benefit of Order*),—

- (a) for the purposes of constructing, maintaining, operating and decommissioning the DBS East works and any related ancillary works, DBSEL;
- (b) for the purposes of constructing, maintaining, operating and decommissioning the DBS West works and any related ancillary works, DBSWL; and
- (c) in any other case, DBSEL and DBSWL;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“watercourse” includes all rivers, streams, ditches, drains, canals, cuts, culverts, dykes, sluices, sewers and passages through which water flows except a public sewer or drain;

“wind turbine generator” means a structure comprising a tower, a rotor with three blades connected at the hub, a nacelle and ancillary electrical and other equipment which may include J-tubes, transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter transfer facilities and other associated equipment, fixed to a foundation or transition piece;

“working day” means a day which is not a weekend, bank holiday or public holiday in England;

“works plans” means the works plans (offshore) and the works plans (onshore);

“works plans (offshore)” means the plans certified by the Secretary of State as the works plans (offshore) for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified); and

“works plans (onshore)” means the plans certified by the Secretary of State as the works plans (onshore) for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified).

(2) References in this Order to rights over land include references to rights to do or to place and maintain, anything in, on or under land or in the air space above its surface and references in this Order to the imposition of restrictive covenants are references to the creation of rights over the land which interfere with the interests or rights of another and are for the benefit of land which is acquired under this Order or which is an interest otherwise comprised in the Order land.

(3) All distances, directions and lengths referred to in this Order are approximate, save in respect of the parameters referred to in—

- (a) requirements 2 to 6 in Part 1 of Schedule 2 (requirements);
- (b) conditions 1 to 5 in Part 2 of Schedule 10 (conditions);
- (c) conditions 1 to 5 in Part 2 of Schedule 11 (conditions);
- (d) conditions 1 to 3 in Part 2 of Schedule 12 (conditions);
- (e) conditions 1 to 3 in Part 2 of Schedule 13 (conditions);
- (f) condition 1 in Part 2 of Schedule 14 (conditions);
- (g) condition 1 in Part 2 of Schedule 14A (conditions).

(4) References in this Order to a numbered work are references to a work so numbered in Part 1 (authorised development) of Schedule 1 (authorised project).

(5) Unless otherwise stated, references in this Order to points identified by letters are references to the points so lettered on the works plans.

(6) References in this Order to coordinates are references to coordinates on the World Geodetic System 1984 datum.

(7) In this Order “includes” must be construed without limitation unless the contrary intention appears.

(8) Any reference to any statute, order, regulation or similar instrument in this Order must be construed as a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any re-enactment.

PART 2

Principal powers

Development consent granted by Order

3. Subject to the provisions of this Order including the requirements—

- (a) DBSEL is granted development consent for the DBS East works and related ancillary works to be carried out within the Order limits; and
- (b) DBSWL is granted development consent for the DBS West works and related ancillary works to be carried out within the Order limits.

Maintenance of the authorised project

4.—(1) The undertaker may at any time maintain the authorised project except to the extent that this Order or any agreement made under this Order provides otherwise.

(2) Paragraph (1) does not relieve the undertaker of any requirement to obtain any further licence under Part 4 (marine licensing) of the 2009 Act for licensable activities not covered by the deemed marine licences.

Benefit of the Order

5.—(1) Subject to this article, the provisions of this Order have effect solely for the benefit of the undertaker.

(2) Subject to paragraphs (6), (7) and (8) the undertaker may with the written consent of the Secretary of State—

- (a) transfer to another person (“the transferee”) any or all of the benefit of the provisions of this Order (excluding the deemed marine licences referred to in paragraph (3) below) and such related statutory rights as may be agreed between the undertaker and the transferee; and
- (b) grant to another person (“the lessee”) for a period agreed between the undertaker and the lessee any or all of the benefit of the provisions of the Order (excluding the deemed marine licences referred to in paragraph (3) below) and such related statutory rights as may be so agreed.

Except where paragraph (8) applies, in which case no consent of the Secretary of State is required.

(3) Subject to paragraph (6), the undertaker may with the written consent of the Secretary of State and where an agreement has been made in accordance with paragraph (2)(a), transfer to the transferee the whole of any deemed marine licences and such related statutory rights as may be agreed between the undertaker and the transferee, except where paragraph (8) applies, in which case no consent of the Secretary of State is required.

(4) Where an agreement has been made in accordance with paragraph (2) or (3) references in this Order to the undertaker, except in paragraphs (5), (7) and (13), shall include references to the transferee or lessee.

(5) The undertaker must consult the Secretary of State before making an application for consent under this article by giving notice in writing of the proposed application.

(6) The Secretary of State must consult the MMO before giving consent to the transfer of the benefit of the whole of any deemed marine licences under paragraph (3).

(7) Where the undertaker has transferred any benefit under paragraph (2) or (3), or for the duration of any period during which the undertaker has granted any benefit, under paragraph (2)—

- (a) the benefit transferred or granted (“the transferred benefit”) shall include any rights that are conferred, and any obligations that are imposed, by virtue of the provisions to which the benefit relates;
- (b) the transferred benefit shall reside exclusively with the transferee or, as the case may be, the lessee and the transferred benefit shall not be enforceable against the undertaker save in the case of a deemed marine licence transferred or granted in respect of any breach of an obligation by the undertaker which occurs prior to such transfer or grant or which occurs as a result of any activity carried out by the undertaker on behalf of the transferee; and
- (c) the exercise by a person of any benefits or rights conferred in accordance with any transfer under paragraph (2) or (3) or grant under paragraph (2) is subject to the same restrictions, liabilities and obligations as would apply under this Order if those benefits or rights were exercised by the undertaker.

(8) The consent of the Secretary of State is required for the exercise of powers under paragraph (2) or (3) except where—

- (a) the transferee or lessee is the holder of a licence under section 6 (licences authorising supply, etc.) of the 1989 Act;
- (b) the transferee or lessee is a company whose shares are entirely owned by the undertaker or is a subsidiary to the undertaker;
- (c) the transferee or lessee is Northern Powergrid (Yorkshire) PLC (company number 04112320, whose registered office is at Lloyds Court, 78 Grey Street, Newcastle Upon Tyne, NE1 6AF) for the purpose of undertaking Work No. 22A or 22B; or
- (d) the time limits for claims for compensation in respect of the acquisition of land or effects upon land under this Order have elapsed and—
 - (i) no such claims have been made;
 - (ii) any such claim has been made and has been compromised or withdrawn;
 - (iii) compensation has been paid in final settlement of any such claim;
 - (iv) payment of compensation into court has taken place in lieu of settlement of any such claim; or
 - (v) it has been determined by a tribunal or court of competent jurisdiction in respect of any such claim that no compensation shall be payable.

(9) Prior to any transfer or grant under this article taking effect the undertaker must give notice in writing to the Secretary of State, and if such transfer or grant relates to the exercise of powers in their area, to the MMO and the relevant planning authority.

(10) A notice required under paragraphs (5) and (9) must—

- (a) state—
 - (i) the name and contact details of the person to whom the benefit of the provisions will be transferred or granted;
 - (ii) subject to paragraph (11), the date on which the transfer will take effect;
 - (iii) the provisions to be transferred or granted;

- (iv) the restrictions, liabilities and obligations that, in accordance with paragraph (7)(c), will apply to the person exercising the powers transferred or granted; and
- (v) where paragraph (8) does not apply, confirmation of the availability and adequacy of funds for compensation associated with the compulsory acquisition of the Order land;
- (b) be accompanied by—
 - (i) where relevant, a plan showing the works or areas to which the transfer or grant relates; and
 - (ii) a copy of the document effecting the transfer or grant signed by the undertaker and the person to whom the benefit of the powers will be transferred or granted.

(11) The date specified under paragraph (10)(a)(ii) in respect of a notice served in respect of paragraph (9) must not be earlier than the expiry of fourteen days from the date of the receipt of the notice.

(12) The notice given under paragraph (9) must be signed by the undertaker and the person to whom the benefit of the powers will be transferred or granted as specified in that notice.

(13) The provisions of articles 8 (street works), 10 (temporary closure of streets), 20 (compulsory acquisition of land), 22 (compulsory acquisition of rights), 30 (temporary use of land for carrying out the authorised project) and 31 (temporary use of land for maintaining the authorised project) shall have effect only for the benefit of the undertaker and a person who is a transferee or lessee who is also—

- (a) in respect of Work Nos. 10A to 34A and 10B to 34B, a person who holds a licence under the 1989 Act; or
- (b) in respect of functions under article 8 relating to streets, a street authority.

(14) Section 72(7) and (8) (variation, suspension, revocation and transfer) of the 2009 Act do not apply to a transfer of grant of the whole of the benefit of the provisions of any deemed marine licences to another person by the undertaker pursuant to an agreement under paragraph (3) of this article save that the MMO may amend any deemed marine licence granted under Schedule 10 (Deemed Marine Licence 1: DBS East Project Offshore Generation – Work Nos. 1A, 4A and 7A), Schedule 11 (Deemed Marine Licence 2: DBS West Project Offshore Generation – Work No. 1B, 4B and 7B), Schedule 12 (Deemed Marine Licence 3: DBS East Project Offshore Transmission – Work Nos. 2A, 3A, 5A, 7A and 8A), schedule 13 (Deemed Marine Licence 4: DBS West Project Offshore Transmission – Work Nos. 2B, 3B, 5B, 7B and 8B), Schedule 14 (Deemed Marine Licence 5: DBS East Project Offshore Transmission – Work Nos. 5A and 7A), and Schedule 14A (Deemed Marine Licence 6: DBS West Project Offshore Transmission – Work Nos. 5B and 7B) of the Order to correct the name of the undertaker to the name of a transferee or lessee under this article 5 (*Benefit of the Order*).

Disapplication and modification of legislative provisions

6.—(1) The following provisions do not apply in relation to the construction of works or the carrying out of any operation for the purpose of, or in connection with, the construction or maintenance of the authorised project or any part of the authorised project—

- (a) the 2016 Regulations, to the extent that they require a permit for anything that would have required consent made under section 109 (structures in, over or under a main river) of the Water Resources Act 1991^(a) immediately before the repeal of that section or for any activities defined under the Environmental Permitting (England and Wales) Regulations 2016 as flood risk activities;
- (b) Section 23 (prohibition of obstructions etc. in watercourses)^(b) of the Land Drainage Act 1991;

^(a) 1991 c. 59. Section 109 has been repealed.

^(b) 1991 c. 59.

- (c) the provisions of any byelaws made under, or having effect as if made under, paragraph 5, 6 or 6A of Schedule 25 (byelaw-making powers of the Appropriate Agency) to the Water Resources Act 1991 that require consent or approval for the carrying out of the works;
- (d) the provisions of any byelaws made under, or having effect as if made under, section 66 (powers to make byelaws) of the Land Drainage Act 1991 that require consent or approval for the carrying out of the works; and
- (e) the provisions of the Neighbourhood Planning Act 2017(a) in so far as they relate to the temporary possession of land under this Order.

(2) For the purpose of carrying out development authorised by this Order only, regulation 6(1) (permitted work)(b) of the Hedgerows Regulations 1997 (permitted work) is deemed to be amended by inserting the following sub-paragraph after sub-paragraph (1)(j)—

“or

- (k) for carrying out development which has been authorised by an order granting development consent pursuant to section 114 of the Planning Act 2008;”.

Defence to proceedings in respect of statutory nuisance

7.—(1) Where proceedings are brought under section 82(1) (summary proceedings by persons aggrieved by statutory nuisances)(c) of the Environmental Protection Act 1990 in relation to a nuisance falling within paragraphs (d), (fb), (g) and (ga) of section 79(1)(d) of that Act (statutory nuisances and inspections therefor) no order may be made, and no fine may be imposed, under section 82(2) of that Act if—

- (a) the defendant shows that the nuisance—
 - (i) relates to premises used by the undertaker for the purposes of or in connection with the construction or maintenance of the authorised project and is attributable to the carrying out of the authorised project in accordance with a notice served under section 60 (control of noise on construction sites), or a consent given under section 61 (prior consent for work on construction sites), of the Control of Pollution Act 1974(e); or
 - (ii) is a consequence of the construction or maintenance of the authorised project and cannot reasonably be avoided;
- (b) the defendant shows that the nuisance—
 - (i) relates to premises used by the undertaker for the purposes of or in connection with the use of the authorised project and is attributable to the use of the authorised project being used in compliance with requirement 21 (control of noise during operational phase); or
 - (ii) is a consequence of the use or operation of the authorised project and cannot reasonably be avoided.

(2) For the purposes of paragraph (1) above, compliance with the controls and measures relating to noise, vibration, dust or artificial light approved pursuant to the requirements in Schedule 2 of this Order will be sufficient, but not necessary, to show that an alleged nuisance could not reasonably be avoided.

(3) Section 61(9) of the Control of Pollution Act 1974 does not apply where the consent relates to the use of premises by the undertaker for the purposes of or in connection with the construction or maintenance of the authorised project.

(a) 2017 c. 20.

(b) S.I. 1997/1160. Regulation 6 was amended by paragraph 35 of Schedule 1 to S.I. 2015/377.

(c) 1990 c. 43. Section 82 was amended by sections 101 and 102 of the Clean Neighbourhoods and Environment Act 2005 (c.16).

(d) Section 79 was amended by paragraph 89 of Schedule 22 to Environment Act 1995 c. 25.

(e) 1974 c. 40. Section 61 was amended by Schedule 7 to the Building Act 1984 (c. 55), paragraph 15 of Schedule 15 to the Environmental Protection Act 1990 (c.43) and Schedule 24 to the Environment Act 1995.

PART 3

Streets

Street works

8.—(1) The undertaker may, for the purposes of the authorised project, enter on so much of any of the streets specified in Schedule 3 (streets subject to street works) as is within the Order limits and may—

- (a) break up or open the street or any sewer, drain or tunnel under it;
- (b) tunnel or bore under the street;
- (c) remove or use all earth and materials in on or under the street;
- (d) place and keep apparatus under the street;
- (e) maintain apparatus under the street or change its position; and
- (f) execute any works required for or incidental to any works referred to in sub-paragraphs (a) - (e).

(2) The authority given by paragraph (1) is a statutory right for the purposes of sections 48(3) (streets, street works and undertakers) and 51(1) (prohibition of unauthorised street works) of the 1991 Act.

(3) In this article “apparatus” has the same meaning as in Part 3 (street works in England and Wales) of the 1991 Act.

Application of the 1991 Act

9.—(1) The provisions of the 1991 Act mentioned in paragraph (2) that apply in relation to the carrying out of street works under that Act and any regulations made, or code of practice issued or approved, under those provisions apply (with all necessary modifications) in relation to—

- (a) the carrying out of works under article 8 (*street works*); and
- (b) the temporary closure, restriction, alteration or diversion of a street by the undertaker under article 10 (*temporary closure of streets*);

whether or not the carrying out of the works or the stopping up, alteration or diversion constitutes street works within the meaning of that Act.

(2) The provisions of the 1991 Act^(a) are—

- (a) subject to paragraph (3), section 55 (notice of starting date of works);
- (b) section 57 (notice of emergency works);
- (c) section 60 (general duty of undertakers to co-operate);
- (d) section 68 (facilities to be afforded to street authority);
- (e) section 69 (works likely to affect other apparatus in the street);
- (f) section 76 (liability for cost of temporary traffic regulation);
- (g) section 77 (liability for cost of use of alternative route); and
- (h) all provisions of that Act that apply for the purposes of the provisions referred to in sub-paragraphs (a) to (g).

(3) Section 55 (notice of starting date of works) of the 1991 Act as applied by paragraph (2) has effect as if references in section 57 of that Act to emergency works included a reference to a stopping up, alteration or diversion (as the case may be) required in a case of emergency.

(4) The following provisions of the 1991 Act do not apply in relation to any works executed under the powers conferred by this Order—

(a) Sections 55, 57, 60, 68 and 69 were amended by the Traffic Management Act 2004 (c.18).

- (a) section 56A (power to give directions as to placing of apparatus);
- (b) section 58 (restriction on works following substantial road works);
- (c) section 58A (restriction on works following substantial street works);
- (d) section 61 (protected streets); and
- (e) schedule 3A (restriction on works following substantial street works).

Temporary closure of streets

10.—(1) The undertaker, during and for the purposes of carrying out the authorised project, may temporarily close, restrict, alter or divert any street and may for any reasonable time—

- (a) divert the traffic or a class of traffic from the street; and
- (b) subject to paragraph (3), prevent persons from passing along the street.

(2) Without limiting paragraph (1), the undertaker may for the purpose of carrying out the authorised development use any street temporarily closed or restricted under the powers conferred by this article as a temporary working site.

(3) The undertaker must provide reasonable access for pedestrians going to or from premises abutting a street affected by the temporary closure, restriction, alteration or diversion of a street under this article if there would otherwise be no such access.

(4) Without limiting paragraph (1), the undertaker may temporarily close, restrict, alter or divert the streets specified in Schedule 4 (*streets to be temporarily closed or restricted*) to the extent specified by reference to the letters and numbers shown on the streets plan.

(5) The undertaker must not temporarily close, restrict, alter or divert or use as a temporary working site—

- (a) any street referred to in paragraph (4) without first consulting the street authority; and
- (b) any other street without the consent of the street authority, which may attach reasonable conditions to the consent.

(6) Any person who suffers loss by the suspension of any private right of way under this article is entitled to compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(7) If a street authority fails to notify the undertaker of its decision within 28 days of receiving an application for consent under paragraph (5)(b) that street authority is deemed to have granted consent.

Closure and diversion of public rights of way

11.—(1) Subject to paragraphs (2), (3), (4) and (5), the undertaker may in connection with the carrying out of the authorised project temporarily restrict, prevent use of or close each of the public rights of way specified in column (2) of Part 1 (*public rights of way to be temporarily closed*) of Schedule 5 (*closure and diversion of public rights of way*) to the extent specified in column (3), by reference to the letters shown on the public rights of way plan

(2) The rights of way specified in Part 1 (*public rights of way to be temporarily closed*) of Schedule 5 (*closure and diversion of public rights of way*) may not be temporarily closed under this article unless a diversion for the closed section of that right of way is first provided by the undertaker to the standard defined in the public rights of way management plan to be approved in accordance with the requirements set out in Schedule 2 (*requirements*) to the reasonable satisfaction of the relevant highway authority.

(3) The relevant diversion route provided under paragraph (2) will be subsequently maintained by the undertaker until the re-opening of the relevant right of way specified in paragraph (1).

(4) Any person who suffers loss by the suspension of any private right of way under this article is entitled to compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(5) If a highway authority which receives an application for confirmation that an alternative public right of way is satisfactory under paragraph (2) fails to notify the undertaker of its decision before the end of the period of 56 days beginning with the date on which the application was received by that highway authority, it is deemed to have granted consent.

(6) Subject to paragraphs (7) and (8), the undertaker may in connection with the carrying out of the authorised project close each of the public rights of way specified in column (2) of Part 2 (*public rights of way to be permanently diverted*) of Schedule 5 (*closure and diversion of public rights of way*) to the extent specified in column (3), by reference to the letters shown on the public rights of way plan.

(7) No public rights of way may be closed under this article until a temporary alternative route for the passage of such traffic as could have used the public right of way has been provided and subsequently maintained by the undertaker until a permanent alternative has been provided and open to public use, which temporary alternative route must be provided to the reasonable satisfaction of the relevant highway authority, between the points specified in column (4) of Part 2 of Schedule 5.

(8) No later than 3 months from the completion of the authorised project, the undertaker must provide a permanent alternative route for any route permanently stopped up under this article, which permanent alternative route must be provided between the points specified in column (4) of Part 2 of Schedule 5 to the reasonable satisfaction of the relevant highway authority.

Power to alter layout, etc. of streets

12.—(1) The undertaker may for the purposes of carrying out the authorised project permanently alter the layout of, or carry out any works in, a street specified in column (2) of Part 1 (streets subject to permanent street works) and may temporarily alter the layout of, or carry out any works in, a street specified in column (2) of Part 2 (*streets subject to temporary street works*) of Schedule 3 (*streets subject to street works*).

(2) Without limitation on the specific powers conferred by paragraph (1), but subject to paragraph (4), the undertaker may, for the purposes of constructing, operating and maintaining the authorised project, permanently or temporarily alter the layout of any street (and carry out works ancillary to such alterations) whether or not within the Order limits and the layout of any street having a junction with such a street and, without limiting the scope of this paragraph, the undertaker may—

- (a) increase the width of the carriageway of the street by reducing the width of any footpath, footway, cycle track, central reservation or verge within the street;
- (b) alter the level or increase the width of any such street, footpath, footway, cycle track, central reservation or verge;
- (c) reduce the width of the carriageway of the street;
- (d) execute any works to widen or alter the alignment of pavements;
- (e) make and maintain crossovers and passing places;
- (f) execute any works of surfacing or resurfacing of the highway;
- (g) carry out works for the provision or alteration of parking places, loading bays and cycle tracks;
- (h) execute any works necessary to alter or provide facilities for the management and protection of pedestrians;
- (i) execute any works to provide or improve sight lines required by the highway authority;
- (j) execute and maintain any works to provide hard and soft landscaping;
- (k) carry out re-lining and placement of new temporary markings; and
- (l) remove and replace kerbs and flume ditches for the purposes of creating permanent and temporary accesses.

(3) The undertaker must restore to the reasonable satisfaction of the street authority any street that has been temporarily altered under this article.

(4) The powers conferred by paragraph (2) must not be exercised without the consent of the street authority, which may attach reasonable conditions to any consent, but such consent is not to be unreasonably withheld or delayed.

(5) If a street authority which receives an application for consent under paragraph (4) fails to notify the undertaker of its decision before the end of the period of 28 days beginning with the date on which the application was received by that street authority, it is deemed to have granted consent.

Access to works

13.—(1) The undertaker may, with the approval of the relevant planning authority after consultation with the highway authority in accordance with requirement 15 (highway accesses), for the purposes of the authorised project—

- (a) form, lay out and maintain means of access, or improve or maintain existing means of access, in the locations specified in Schedule 6 (*access to works*); and
- (b) form and lay out such other means of access or improve existing means of access, at such locations within the Order limits as the undertaker reasonably requires for the purposes of the authorised project.

(2) If the relevant planning authority fails to notify the undertaker of its decision within 28 days of receiving an application for approval under paragraphs (1)(a) or (b) that relevant planning authority is deemed to have granted approval.

Agreements with street authorities

14.—(1) A street authority and the undertaker may enter into agreements with respect to—

- (a) any temporary closure, restriction, alteration or diversion of a street authorised by this Order; or
- (b) the carrying out in the street of any of the works referred to in article 8 (*street works*).

(2) Such an agreement may, without prejudice to the generality of paragraph (1)—

- (a) provide for the street authority to carry out any function under this Order that relates to the street in question;
- (b) include an agreement between the undertaker and the street authority specifying a reasonable time for the completion of the works; and
- (c) contain such terms as to payment and otherwise as the parties consider appropriate.

Use of private roads

15.—(1) Subject to paragraphs (2), (3) and (4) the undertaker may use any private road within the Order limits for the passage of persons or vehicles (with or without materials, plant and machinery) for the purposes of, or in connection with, the construction and maintenance of the authorised project.

(2) The undertaker must compensate the person liable for the repair of a road to which paragraph (1) applies for any loss or damage which that person may suffer by reason of the exercise of the power conferred by paragraph (1).

(3) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of such compensation, is to be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(4) The undertaker may only use a private road under paragraph (1) for such time as the power to take temporary possession of the land upon which it is located under either article 30 (*temporary use of land for carrying out the authorised project*) and article 31 (*temporary use of land for maintaining the authorised project*) is capable of being exercised under those articles in relation to that land.

PART 4

Supplemental powers

Discharge of water

16.—(1) Subject to paragraphs (3) and (4) below the undertaker may use any watercourse or any public sewer or drain for the drainage of water in connection with the carrying out or maintenance of the authorised project and for that purpose may inspect, lay down, take up and alter pipes and may, on any land within the Order limits, make openings into, and connections with, the watercourse, public sewer or drain.

(2) Any dispute arising from the making of connections to or the use of a public sewer or drain by the undertaker pursuant to paragraph (1) must be determined as if it were a dispute under section 106 (right to communicate with public sewers)(a) of the Water Industry Act 1991.

(3) The undertaker must not discharge any water into a watercourse, public sewer or drain except with the consent of the person to whom it belongs; and such consent may be given subject to such terms and conditions as that person may reasonably impose, but must not be unreasonably withheld.

(4) The undertaker must not carry out any works to any public sewer or drain pursuant to paragraph (1) except—

- (a) in accordance with plans approved by the person to whom the sewer or drain belongs, but such approval must not be unreasonably withheld; and
- (b) where that person has been given the opportunity to supervise the making of the opening.

(5) The undertaker must take such steps as are reasonably practicable to secure that any water discharged into a watercourse or public sewer or drain pursuant to this article is as free as may be practicable from gravel, soil or other solid substance, oil or matter in suspension.

(6) The undertaker must not, in carrying out or maintaining works pursuant to this article damage or interfere with the bed or banks of any watercourse forming part of a main river as defined under section 113(1) of the Water Resources Act 1991.

(7) Nothing in this article overrides the requirement for an environmental permit under Regulation 12(1)(b) (requirement for an environmental permit) of the 2016 Regulations insofar as the discharge activity comes within the definition contained within the 2016 Regulations.

(8) In this article—

- (a) “public sewer or drain” means a sewer or drain that belongs to the Environment Agency, a relevant drainage authority, a highway authority, a local authority or a sewerage undertaker; and
- (b) other expressions, excluding watercourse, used both in this article and in the Water Resources Act 1991 have the same meaning as in that Act.

(9) If a person who receives an application for consent or approval fails to notify the undertaker of a decision within 28 days of receiving an application for consent under paragraph (3) or approval under paragraph (4)(a) that person is deemed to have granted consent or given approval, as the case may be.

(10) This article is subject to the protective provisions in Part 4 of Schedule 15 (Protective Provisions) where the undertaker discharges water into, or makes any opening into, a watercourse, public sewer or drain belonging to or under the control of a drainage authority.

(a) 1991 c. 56. Section 106 was amended by section 35(8) and 43(2) of and paragraph 1 of Schedule 2 to the Competition and Service (Utilities) Act 1992 (c. 43) and sections 36(2) and 99 of the Water Act 2003 (c. 37).

Protective work to buildings

17.—(1) Subject to the provisions of this article, the undertaker may at its own expense carry out such protective works to any building within the Order limits as the undertaker considers necessary or expedient.

(2) Protective works may be carried out—

- (a) at any time before or during the carrying out in the vicinity of the building of any part of the authorised project; or
- (b) after the completion of that part of the authorised project in the vicinity of the building at any time up to the end of the period of five years beginning with the day on which that part of the authorised project is brought into commercial operation.

(3) For the purpose of determining how the powers under this article are to be exercised the undertaker may enter and survey any building falling within paragraph (1) and any land within its curtilage.

(4) For the purpose of carrying out protective works under this article to a building the undertaker may (subject to paragraphs (5) and (6))—

- (a) enter the building and any land within its curtilage; and
- (b) where the works cannot be carried out reasonably conveniently without entering land that is adjacent to the building but outside its curtilage, enter the adjacent land (but not any building erected on it).

(5) Before exercising—

- (a) a right under paragraph (1) to carry out protective works to a building;
- (b) a right under paragraph (3) to enter a building and land within its curtilage;
- (c) a right under paragraph (4)(a) to enter a building and land within its curtilage; or
- (d) a right under paragraph (4)(b) to enter land;

the undertaker must, except in the case of emergency, serve on the owners and occupiers of the building or land not less than 14 days' notice of its intention to exercise that right and, in a case falling within sub-paragraph (a), (c) or (d), the notice must specify the protective works proposed to be carried out.

(6) Where a notice is served under sub-paragraph (5)(a), (c) or (d), the owner or occupier of the building or land concerned may, by serving a counter-notice within 10 days beginning with the day on which the notice was served, require the question of whether it is necessary or expedient to carry out the protective works or to enter the building or land to be referred to arbitration under article 47 (*arbitration*).

(7) The undertaker must compensate the owners and occupiers of any building or land in relation to which powers under this article have been exercised for any loss or damage arising to them by reason of the exercise of the powers.

(8) Where—

- (a) protective works are carried out under this article to a building; and
- (b) within the period of five years beginning with the day on which the part of the authorised project carried out in the vicinity of the building is brought into commercial operation it appears that the protective works are inadequate to protect the building against damage caused by the carrying out or use of that part of the authorised project;

the undertaker must compensate the owners and occupiers of the building for any loss or damage sustained by them.

(9) Nothing in this article relieves the undertaker of any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act.

(10) Any compensation payable under paragraph (7) or (8) must be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(11) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act^(a) applies to the entry onto land under this article to the same extent as it applies in respect of the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act .

(12) In this article, “protective works”, in relation to a building, means—

- (a) underpinning, strengthening and any other works the purpose of which is to prevent damage that may be caused to the building by the carrying out, maintenance or use of the authorised project; and
- (b) any works, the purpose of which is to remedy any damage that has been caused to the building by the carrying out, maintenance or use of the authorised project.

Authority to survey and investigate land onshore

18.—(1) The undertaker may for the purposes of this Order enter on any land within the Order limits or land which may be affected by the authorised project and—

- (a) survey or investigate the land;
- (b) without limiting sub-paragraph (a), make trial holes and bore holes in such positions on the land as the undertaker thinks fit to investigate the nature of the surface layer, subsoil and groundwater and remove soil and groundwater samples;
- (c) without limiting sub-paragraph (a), carry out ecological or archaeological investigations on the land, including the digging of trenches, test pits, or environmental monitoring; and
- (d) place on, leave on and remove from the land apparatus for use in connection with the survey and investigation of land and the making of trial holes.

(2) No land may be entered or equipment placed or left on or removed from the land under paragraph (1) unless at least 14 days’ notice has been served on every owner and occupier of the land. If the undertaker proposes to do any of the following, the notice must include details of what is proposed—

- (a) searching, boring or excavating;
- (b) leaving apparatus on the land; and
- (c) taking samples.

(3) Any person entering land under this article on behalf of the undertaker—

- (a) must, if so required before or after entering the land, produce written evidence of their authority to do so; and
- (b) may take with them such vehicles and equipment as are necessary to carry out the survey or investigation or to make the trial holes.

(4) No trial holes, trenches or test pits may be made under this article—

- (a) in land forming a railway without the consent of Network Rail^(b);
- (b) in land held by or in right of the Crown without the consent of the Crown;
- (c) in land located within the highway boundary without the consent of the highway authority; or
- (d) in a private street without the consent of the street authority;

but such consent must not be unreasonably withheld or delayed.

(5) After completion of the activities being undertaken pursuant to this article, any apparatus must be removed as soon as practicable, and the land must be restored to its original condition.

(6) The undertaker must compensate the owners and occupiers of the land for any loss or damage arising by reason of the exercise of the powers conferred by this article, such

(a) Section 13 was amended by section 139 of, and paragraph 28(2) of Schedule 13 and paragraph 1 of Schedule 23 to, the Tribunals, Courts and Enforcement Act 2007 (c. 15).

(b) As defined in Part 3 of Schedule 14 (For the Protection of Network Rail Infrastructure Limited).

compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(7) This article applies in relation to the onshore works and Work Nos. 8A, 8B, 9A and 9B only.

(8) If either a highway authority or a street authority which receives an application for consent fails to notify the undertaker of its decision within 28 days of receiving the application for consent—

- (a) under paragraph (4)(c) in the case of a highway authority; or
- (b) under paragraph (4)(d) in the case of a street authority;

that authority is deemed to have granted consent.

(9) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the entry onto land under this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

Article not used

19.—(1) Not used

PART 5

Powers of acquisition

Compulsory acquisition of land

20.—(1) DBSEL, with the consent of DBSWL such consent not to be unreasonably withheld, may acquire compulsorily so much of the Order land as is required for the DBS East works, or to facilitate, or is incidental to, the construction, operation and maintenance of the DBS East works.

(2) DBSWL, with the consent of DBSEL such consent not to be unreasonably withheld, may acquire compulsorily so much of the Order land as is required for the DBS West works, or to facilitate, or is incidental to, the construction, operation and maintenance of the DBS West works.

(3) If the undertaker whose consent is required under paragraph (1) or (2) fails to notify the undertaker requesting consent of its decision within 28 days of receiving an application for consent, the first mentioned undertaker is deemed to have given consent.

(4) This article is subject to—

- (a) article 21 (time limit for exercise of authority to acquire land compulsorily);
- (b) paragraph (3) of article 22 (compulsory acquisition of rights);
- (c) article 26 (acquisition of subsoil or airspace only);
- (d) paragraph (8) of article 30 (temporary use of land for carrying out the authorised project);
- (e) article 41 (*crown rights*); and
- (f) Schedule 15 (protective provisions)

Time limit for exercise of authority to acquire land compulsorily

21.—(1) After the end of the period of 5 years beginning on the day on which this Order is made—

- (a) no notice to treat may be served under Part 1 (compulsory purchase under the Acquisition of Land Act of 1946) of the 1965 Act; and

- (b) no declaration may be executed under section 4(a) (execution of declaration) of the 1981 Act as applied by article 24 (*application of the 1981 Act*).

(2) The authority conferred by article 30 (*temporary use of land for carrying out the authorised project*) ceases at the end of the period referred to in paragraph (1), but nothing in this paragraph prevents the undertaker remaining in possession of land after the end of that period if the land was entered, and possession was taken, before the end of that period.

Compulsory acquisition of rights

22.—(1) Subject to paragraph (3), DBSEL may, with the consent of DBSWL such consent not to be unreasonably withheld, acquire compulsorily such rights or impose such restrictive covenants over the Order land as may be required for any purpose for which that land may be acquired under article 20 (*compulsory acquisition of land*), by creating them as well as by acquiring rights already in existence.

(2) Subject to paragraph (3), DBSWL may, with the consent of DBSEL such consent not to be unreasonably withheld, acquire compulsorily such rights or impose such restrictive covenants over the Order land as may be required for any purpose for which that land may be acquired under article 20 (*compulsory acquisition of land*), by creating them as well as by acquiring rights already in existence.

(3) Subject to the provisions of this paragraph, article 23 (*private rights over land*) and article 32 (*statutory undertakers*), in the case of the Order land specified in column (1) of Schedule 7 (*land in which only new rights, etc. may be acquired*), the powers of compulsory acquisition conferred by this Order are limited to the acquisition by the undertaker referred to in the corresponding entry in column (2) of that Schedule of such new rights and the imposition of restrictive covenants as may be required for the purpose specified in relation to that land in column (2) of that Schedule and as described in the book of reference.

(4) Subject to section 8 (other provisions as to divided land) of and Schedule 2A (counter-notice requiring purchase of land not in notice to treat) to the 1965 Act (as substituted by paragraph 5(8) of Schedule 8 (modification of compensation and compulsory purchase enactments for creation of new rights and imposition of restrictive covenants), where the undertaker acquires a right over the Order land or imposes a restrictive covenant, or acquires an existing right over land or the benefit of a restrictive covenant already in existence under this article, the undertaker is not required to acquire a greater interest in that land.

(5) Schedule 8 (Modification of compensation and compulsory purchase enactments for creation of new rights and imposition of restrictive covenants) of this Order has effect for the purpose of modifying the enactments relating to compensation and the provisions of the 1965 Act in their application in relation to the compulsory acquisition under this Order of a right over land by the creation of a new right or the imposition of a restrictive covenant.

(6) In any case where the acquisition of new rights or the imposition of restrictive covenants under paragraphs (1) or (2) is required for the purposes of diverting, replacing or protecting apparatus of a statutory undertaker, the undertaker may, with the consent of the Secretary of State, transfer the power to acquire such rights to the statutory undertaker in question.

(7) The exercise by a statutory undertaker of any power in accordance with a transfer under paragraph (6) is subject to the same restrictions, liabilities and obligations as would apply under this Order if that power were exercised by the undertaker.

Private rights over land

23.—(1) Subject to the provisions of this article, all private rights over land subject to compulsory acquisition under article 20 (*compulsory acquisition of land*) are extinguished—

- (a) from the date of acquisition of the land by the undertaker, whether compulsorily, by agreement or through the grant of a lease of the land by agreement; or

(a) Amended by sections 184 and 185 of and paragraph 2 of Schedule 18 to the Housing and Planning Act 2016 (c. 22).

- (b) on the date of entry on the land by the undertaker under section 11(1) (powers of entry) of the 1965 Act ;

whichever is the earlier.

(2) Subject to the provisions of this article, all private rights or restrictive covenants over land subject to the compulsory acquisition of rights or the imposition of restrictive covenants under article 22 (*compulsory acquisition of rights*) are extinguished in so far as their continuance would be inconsistent with the exercise of the right or the burden of the restrictive covenant—

- (a) from the date of the acquisition of the right or the imposition of the restrictive covenant by the undertaker, whether compulsorily or by agreement; or
- (b) on the date of entry on the land by the undertaker under section 11(1) (powers of entry) of the 1965 Act in pursuance of the right;

whichever is the earlier.

(3) Subject to the provisions of this article, all private rights or restrictive covenants over land of which the undertaker takes temporary possession under this Order are suspended and unenforceable, in so far as their continuance would be inconsistent with the purpose for which temporary possession is taken, for as long as the undertaker remains in lawful possession of the land.

(4) Any person who suffers loss by the extinguishment or suspension of any private right under this article is entitled to compensation in accordance with the terms of section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(5) This article does not apply in relation to any right to which section 138 (extinguishment of rights, and removal of apparatus, of statutory undertakers etc.) of the 2008 Act or article 32 (*statutory undertakers*) applies.

(6) Paragraphs (1) to (3) have effect subject to—

- (a) any notice given by the undertaker before—
 - (i) the completion of the acquisition of the land or the acquisition of rights or the imposition of restrictive covenants over or affecting the land;
 - (ii) the undertaker's appropriation of the land;
 - (iii) the undertaker's entry onto the land; or
 - (iv) the undertaker's taking temporary possession of the land;that any or all of those paragraphs do not apply to any right specified in the notice; or
- (b) any agreement made at any time between the undertaker and the person in or to whom the right or restrictive covenant in question is vested or belongs or benefits.

(7) If an agreement referred to in paragraph (6)(b)—

- (a) is made with a person in or to whom the right or restrictive covenant is vested or belongs or benefits; and
- (b) is expressed to have effect also for the benefit of those deriving title from or under that person;

the agreement is effective in respect of the persons so deriving title, whether the title was derived before or after the making of the agreement.

(8) References in this article to private rights over land include any trust, incident, easement, liberty, privilege, right or advantage to which the land is subject.

Application of the 1981 Act

24.—(1) The 1981 Act applies as if this Order were a compulsory purchase order.

(2) The 1981 Act, as applied by paragraph (1), has effect with the following modifications.

(3) In section 1 (application of act), for subsection 2, substitute—

“(2) This section applies to any Minister, any local or other public authority or any other body or person authorised to acquire land by means of a compulsory purchase order.”.

(4) In section 5(2) (earliest date for execution of declaration) omit the words from “, and this subsection” to the end.

(5) Section 5A (time limit for general vesting declaration) is omitted.

(6) In section 5B (extension of time limit during challenge) for “section 23 of the Acquisition of Land Act 1981 (application to High Court in respect of compulsory purchase order), the three year period mentioned in section 5A” substitute “section 118 of the Planning Act 2008 (legal challenges relating to applications for orders granting development consent) the seven year period mentioned in article 21 (*time limit for exercise of authority to acquire land compulsorily*) of the Dogger Bank South East and West Offshore Wind Farms Order 202[X]”.

(7) In section 6 (notices after execution of declaration), in subsection (1)(b), for “section 15 of, or paragraph 6 of Schedule 1 to, the Acquisition of Land Act 1981” substitute “section 134 (notice of authorisation of compulsory acquisition) of the Planning Act 2008”.

(8) In section 7 (constructive notice to treat), in subsection (1)(a), omit “(as modified by section 4 of the Acquisition of Land Act 1981)”.

(9) In Schedule A1 (counter-notice requiring purchase of land not in general vesting declaration), for paragraph 1(2) substitute—

“(2) But see article 26 (acquisition of subsoil or airspace only) of the Dogger Bank South East and West Offshore Wind Farms Order 202[X], which excludes the acquisition of subsoil or airspace only from this Schedule.”.

(10) References to the 1965 Act in the 1981 Act must be construed as references to the 1965 Act as applied by section 125 (application of compulsory acquisition provisions) of the 2008 Act (and as modified by article 28 (modification of Part 1 of the 1965 Act)) to the compulsory acquisition of land under this Order.

Statutory authority to override easements and other rights

25.—(1) The carrying out or use of the authorised project and the doing of anything else authorised by this Order is authorised for the purpose specified in section 158(2) (nuisance: statutory authority) of the 2008 Act, despite it involving—

- (a) an interference with an interest or right to which this article applies; or
- (b) a breach of a restriction as to use of land arising by virtue of contract.

(2) The undertaker must pay compensation to any person whose land is injuriously affected by—

- (a) an interference with an interest or right to which this article applies; or
- (b) a breach of a restriction as to use of land arising by virtue of contract, caused by the carrying out or use of the authorised development and the operation of section 158 of the 2008 Act.

(3) The interests and rights to which this article applies are any easement, liberty, privilege, right or advantage annexed to land and adversely affecting other land, including any natural right to support and any restrictions as to the use of land arising by virtue of a contract.

(4) Subsection (2) of section 10 (further provision as to compensation for injurious affection) of the 1965 Act applies to paragraph (2) by virtue of section 152(5) (compensation in case where no right to claim in nuisance) of the 2008 Act.

(5) Any rule or principle applied to the construction of section 10 (further provision as to compensation for injurious affection) of the 1965 Act must be applied to the construction of paragraph (2) with any necessary modifications

Acquisition of subsoil or airspace only

26.—(1) DBSEL may, with the consent of DBSWL such consent not to be unreasonably withheld, acquire compulsorily so much of, or such rights in, the subsoil of or the airspace over the land referred to in paragraph (1) of article 20 (*compulsory acquisition of land*) or article 22 (*compulsory acquisition of rights*) as may be required for any purpose for which that land may be acquired under that provision instead of acquiring the whole of the land.

(2) DBSWL may, with the consent of DBSEL such consent not to be unreasonably withheld, acquire compulsorily so much of, or such rights in, the subsoil of or the airspace over the land referred to in paragraph (2) of article 20 (*compulsory acquisition of land*) or article 22 (*compulsory acquisition of rights*) as may be required for any purpose for which that land may be acquired under that provision instead of acquiring the whole of the land.

(3) Where the undertaker acquires any part of, or rights in, the subsoil of or the airspace over land under paragraph (1) or (2), the undertaker is not required to acquire an interest in any other part of the land.

(4) The following do not apply in connection with the exercise of the power under paragraph (1) or (2) in relation to subsoil or airspace only—

- (a) Schedule 2A (counter-notice requiring purchase of land not in notice to treat) to the 1965 Act;
- (b) Schedule A1 (counter-notice requiring purchase of land not in general vesting declaration) to the 1981 Act; and
- (c) Section 153(4A) (reference of objection to Upper Tribunal: general) of the 1990 Act.

(5) Paragraphs (3) and (4) do not apply where the undertaker acquires a cellar, vault, arch or other construction forming part of a house, building or manufactory or airspace above a house, building or manufactory.

Compulsory acquisition of land: minerals

27. Parts 2 and 3 of Schedule 2 (minerals) to the Acquisition of Land Act 1981(a) are incorporated in this Order, subject to the following modifications—

- (a) paragraph 8(3) is not incorporated;
- (b) for “acquiring authority” substitute “undertaker”;
- (c) for “undertaking” substitute “authorised project”; and
- (d) for “compulsory purchase order” substitute “this Order”.

Modification of Part 1 of the 1965 Act

28.—(1) Part 1 (compulsory purchase under Acquisition of Land Act of 1946) of the 1965 Act, as applied to this Order by section 125 (application of compulsory acquisition provisions) of the 2008 Act, is modified as follows.

(2) In section 4A(1) (extension of time limit during challenge) for “section 23 of the Acquisition of Land Act 1981 (application to High Court in respect of compulsory purchase order), the three year period mentioned in section 4” substitute “section 118 of the Planning Act 2008 (legal challenges relating to applications for orders granting development consent), the seven year period mentioned in article 21 (*time limit for exercise of authority to acquire land compulsorily*) of the Dogger Bank South East and West Offshore Wind Farms Order 202[X]”.

(3) In section 11A (powers of entry: further notice of entry)—

- (a) in subsection (1)(a), after “land” insert “under that provision”; and
- (b) in subsection (2), after “land” insert “under that provision”.

(a) 1981 c.67

(4) In section 22(2) (interests omitted from purchase), for “section 4 of this Act” substitute “article 21 (time limit for exercise of authority to acquire land compulsorily) of the Dogger Bank South East and West Offshore Wind Farms Order 202[X]”.

(5) In Schedule 2A (counter-notice requiring purchase of land not in notice to treat)—

(a) for paragraphs 1(2) and 14(2) substitute—

“(2) But see article 26(4) (acquisition of subsoil or airspace only) of the Dogger Bank South East and West Offshore Wind Farms Order 202[X], which excludes the acquisition of subsoil or airspace only from this Schedule”; and

(b) at the end insert—

“PART 4

INTERPRETATION

30. In this Schedule, references to entering on and taking possession of land do not include doing so under article 17 (protective work to buildings), article 30 (temporary use of land for carrying out the authorised project) or article 31 (temporary use of land for maintaining the authorised project) of the Dogger Bank South East and West Offshore Wind Farms Order 202[X].”.

Rights under or over streets

29.—(1) The undertaker may enter on and appropriate so much of the subsoil of or airspace over any street within the Order limits as may be required for the purposes of the authorised project and may use the subsoil or airspace for those purposes or any other purpose ancillary to the authorised project.

(2) Subject to paragraph (3), the undertaker may exercise any power conferred by paragraph (1) in relation to a street without being required to acquire any part of the street or any easement or right in the street.

(3) Paragraph (2) does not apply in relation to—

(a) any subway or underground building; or

(b) any cellar, vault, arch or other construction in, on or under a street that forms part of a building fronting onto the street.

(4) Subject to paragraph (5), any person who is an owner or occupier of land appropriated under paragraph (1) without the undertaker acquiring any part of that person’s interest in the land, and who suffers loss as a result, is entitled to compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(5) Compensation is not payable under paragraph (4) to any person who is an undertaker to whom section 85 (sharing of cost of necessary measures) of the 1991 Act applies in respect of measures of which the allowable costs are to be borne in accordance with that section.

Temporary use of land for carrying out the authorised project

30.—(1) The undertaker may, in connection with the carrying out of the authorised project—

(a) enter on and take temporary possession of—

(i) the land specified in column (1) of Schedule 9 (*land of which only temporary possession may be taken*) for the purpose specified in relation to that land in column (2) of that Schedule; and

(ii) any other Order land in respect of which no notice of entry has been served under section 11 (powers of entry) of the 1965 Act (other than in connection with the acquisition of rights only) and no declaration has been made under section 4 (execution of declaration) of the 1981 Act;

- (b) remove any buildings, agricultural plant and apparatus, drainage, fences, debris and vegetation from that land;
- (c) construct temporary works (including the provision of means of access), haul roads, security fencing, bridges, structures and buildings on that land;
- (d) use the land for the purposes of a working site with access to the working site in connection with the authorised project;
- (e) construct any works, or use the land, as specified in relation to that land in column (1) of Schedule 9, or any mitigation works;
- (f) construct such works on that land as are mentioned in Part 1 (authorised development) of Schedule 1 (authorised project); and
- (g) carry out mitigation works required pursuant to the requirements in Part 1 of Schedule A2.

(2) Not less than 28 days before entering on and taking temporary possession of land under this article, the undertaker must serve notice of the intended entry on the owners and occupiers of the land.

(3) The undertaker must not remain in possession of the land under this agreement for longer than is reasonably necessary and in any event, without the agreement of the owners of the land, remain in possession of any land under this article—

- (a) in the case of land specified in paragraph (1)(a)(i) after the end of the period of one year beginning with the date of completion of the part of the authorised project specified in relation to that land in column (3) of Schedule 9; or
- (b) in the case of land specified in paragraph (1)(a)(ii) after the end of the period of one year beginning with the date of completion of the part of the authorised project for which temporary possession of the land was taken unless the undertaker has, before the end of that period, served a notice of entry under section 11 (powers of entry) of the 1965 Act or made a declaration under section 4 (execution of declaration) of the 1981 Act in relation to that land.

(4) Unless the undertaker has served notice of entry under section 11 (powers of entry) of the 1965 Act or made a declaration under section 4 (execution of declaration) of the 1981 Act or otherwise acquired the land or rights over land subject to temporary possession, the undertaker must before giving up possession of land of which temporary possession has been taken under this article, remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land; but the undertaker is not required to—

- (a) replace any building, structure, drain or electric line removed under this article;
- (b) remove any drainage works including culverts installed by the undertaker under this article;
- (c) remove any new road surface or other improvements carried out under this article to any street specified in Schedule 3 (streets subject to street works) or any new footpath surface carried out under this article to any footpath or any improvements carried out under this article to any bridge; or
- (d) restore the land on which any works have been carried out under paragraph (1)(g) in so far as the works relate to mitigation works identified in the environmental statement or required pursuant to the requirements in Schedule 2.

(5) The undertaker must pay compensation to the owners and occupiers of land of which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of any power conferred by this article.

(6) Any dispute as to a person's entitlement to compensation under paragraph (5), or as to the amount of the compensation, must be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(7) Nothing in this article affects any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act or under any other

enactment in respect of loss or damage arising from the carrying out of the authorised project, other than loss or damage for which compensation is payable under paragraph (5).

(8) The undertaker may not compulsorily acquire under this Order new rights over or impose restrictive covenants over the land referred to in paragraph (1)(a)(i).

(9) Where the undertaker takes possession of land under this article, the undertaker is not required to acquire the land or any interest in it.

(10) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the temporary use of land pursuant to this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

Temporary use of land for maintaining the authorised project

31.—(1) Subject to paragraph (2), at any time during the maintenance period relating to any part of the authorised project, the undertaker may—

- (a) enter on and take temporary possession of any land within the Order limits if such possession is reasonably required for the purpose of maintaining the authorised project;
- (b) construct such temporary works (including the provision of means of access) and buildings on the land as may be reasonably necessary for that purpose; and
- (c) enter on and take temporary possession of any land within the Order limits required to gain access for the purpose of maintaining the authorised project.

(2) Paragraph (1) does not authorise the undertaker to take temporary possession of—

- (a) any house or garden belonging to a house; or
- (b) any building (other than a house) if it is for the time being occupied.

(3) Not less than 28 days before entering on and taking temporary possession of land under this article the undertaker must serve notice of the intended entry on the owners and occupiers of the land.

(4) The undertaker may only remain in possession of land under this article for so long as may be reasonably necessary to carry out the maintenance of the part of the authorised project for which possession of the land was taken.

(5) Before giving up possession of land of which temporary possession has been taken under this article the undertaker must remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land.

(6) The undertaker must pay compensation to the owners and occupiers of land of which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of the provisions of this article.

(7) Any dispute as to a person's entitlement to compensation under paragraph (6), or as to the amount of the compensation, must be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(8) Nothing in this article affects any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act or under any other enactment in respect of loss or damage arising from the maintenance of the authorised project, other than loss or damage for which compensation is payable under paragraph (6).

(9) Where the undertaker takes possession of land under this article, the undertaker is not required to acquire the land or any interest in it.

(10) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the temporary use of land pursuant to this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

(11) In this article “the maintenance period” means—

- (a) in relation to the maintenance of any tree, hedge or shrub planted as part of an approved landscape management plan the relevant period referred to in requirement 11(2); and
- (b) in relation to any other part of the authorised project, means the period of five years beginning with the date on which that part of the authorised project is brought into commercial operation.

Statutory undertakers

32.—(1) Subject to the provisions of article 45 (*protective provisions*) and schedule 15 (protective provisions), the undertaker may—

- (a) acquire compulsorily, or acquire new rights or impose restrictive covenants over, the land belonging to statutory undertakers shown on the land plans within the Order limits and as described in the book of reference; and
- (b) extinguish or suspend the rights of or the restrictions for the benefit of or remove, relocate or reposition apparatus belonging to, statutory undertakers, over or within the Order limits.

Recovery of costs of new connections

33.—(1) Where any apparatus of a public utility undertaker or of a public communications provider is removed under article 32 (*statutory undertakers*), any person who is the owner or occupier of premises to which a supply was given from that apparatus is entitled to recover from the undertaker compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of effecting a connection between the premises and any other apparatus from which a supply is given.

(2) Paragraph (1) does not apply in the case of the removal of a public sewer, but where such a sewer is removed under article 32, any person who is—

- (a) the owner or occupier of premises the drains of which communicated with that sewer; or
- (b) the owner of a private sewer that communicated with that sewer;

is entitled to recover from the undertaker compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of making the drain or sewer belonging to that person communicate with any other public sewer or with a private sewage disposal plant.

(3) This article does not have effect in relation to apparatus to which Part 3 (street works in England and Wales) of the 1991 Act applies.

(4) In this article “public utility undertaker” has the same meaning as in section 329 (further provision as to interpretation) of the 1980 Act.

PART 6

Operations

Operation of generating station

34.—(1) The undertaker is authorised to operate the generating station comprised in the authorised development.

(2) Paragraph (1) does not relieve the undertaker of any requirement to obtain any permit or licence under any other legislation that may be required from time to time to authorise the operation of an electricity generating station.

Deemed marine licences under the 2009 Act

35.—(1) The following marine licences are deemed to have been granted to DBSEL under Part 4 (marine licensing) of the 2009 Act for the licensed activities specified in Part 1 of each licence and subject to the conditions specified in Part 2 of each licence—

- (a) Deemed Marine Licence 1 (set out in Schedule 10);
- (b) Deemed Marine Licence 3 (set out in Schedule 12); and
- (c) Deemed Marine Licence 5 (set out in Schedule 14).

(2) The following marine licences are deemed to have been granted to DBSWL under Part 4 (marine licensing) of the 2009 Act for the licensed activities specified in Part 1 of each licence and subject to the conditions specified in Part 2 of each licence—

- (a) Deemed Marine Licence 2 (set out in Schedule 11);
- (b) Deemed Marine Licence 4 (set out in Schedule 13); and
- (c) Deemed Marine Licence 6 (set out in Schedule 14A).

PART 7

Miscellaneous and general

Application of landlord and tenant law

36.—(1) This article applies to—

- (a) any agreement for leasing to any person the whole or any part of the authorised project or the right to operate the same; and
- (b) any agreement entered into by the undertaker with any person for the construction, maintenance, use or operation of the authorised project, or any part of it;

so far as the agreement relates to the terms on which any land that is the subject of a lease granted by or under that agreement is to be provided for that person's use.

(2) No enactment or rule of law regulating the rights and obligations of landlords and tenants prejudices the operation of any agreement to which this article applies.

(3) Accordingly, no such enactment or rule of law applies in relation to the rights and obligations of the parties to any lease granted by or under any such agreement so as to—

- (a) exclude or in any respect modify any of the rights and obligations of those parties under the terms of the lease, whether with respect to the termination of the tenancy or any other matter;
- (b) confer or impose on any such party any right or obligation arising out of or connected with anything done or omitted on or in relation to land that is the subject of the lease, in addition to any such right or obligation provided for by the terms of the lease; or
- (c) restrict the enforcement (whether by action for damages or otherwise) by any party to the lease of any obligation of any other party under the lease.

Operational land for purposes of the 1990 Act

37. Development consent granted by this Order is treated as specific planning permission for the purposes of section 264(3)(a) (cases in which land is to be treated as not being operational land) of the 1990 Act.

Felling or lopping of trees and removal of hedgerows

38.—(1) Subject to article 39 (*trees subject to tree preservation orders*) the undertaker may fell or lop, or cut back the roots of, any tree or shrub within or overhanging land within the Order limits or near any part of the authorised project if the undertaker reasonably believes it to be

necessary to do so to prevent the tree or shrub from obstructing or interfering with the construction, maintenance or operation of the authorised project or any apparatus used in connection with the authorised project.

(2) In carrying out any activity authorised by paragraph (1), the undertaker must not do any unnecessary damage to any tree or shrub and must pay compensation to any person for any loss or damage arising from such activity.

(3) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of compensation, must be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(4) The undertaker may, for the purposes of the authorised project—

- (a) subject to paragraph (2) above, remove any hedgerows as are within the Order Limits and specified in Part 1 of Schedule 17 (*Removal of hedgerows*) that may be required to be removed for the purposes of carrying out the authorised project; and
- (b) remove the important hedgerows as are within the Order Limits and specified in Part 2 of Schedule 17 (*Removal of important hedgerows*) that may be required to be removed for the purposes of carrying out the authorised project.

(5) In this article “hedgerow” and “important hedgerow” have the same meaning as in the Hedgerows Regulations 1997(a).

Trees subject to tree preservation orders

39.—(1) Subject to paragraph (2), the undertaker may fell or lop, or cut back the roots of, any tree within or overhanging the Order limits that is subject to a tree preservation order if it reasonably believes it to be necessary to do so to prevent the tree from obstructing or interfering with the construction, maintenance or operation of the authorised project or any apparatus used in connection with the authorised project.

(2) In carrying out any activity authorised by paragraph (1)—

- (a) the undertaker must not do any unnecessary damage to any tree or shrub and must pay compensation to any person for any loss or damage arising from such activity; and
- (b) the duty contained in section 206(1)(b) (replacement of trees) of the 1990 Act does not apply.

(3) The authority given by paragraph (1) constitutes a deemed consent under the relevant tree preservation order.

(4) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of compensation, must be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(5) In this article, “tree preservation order” has the same meaning as in section 198 (power to make tree preservation orders) of the 1990 Act.

Saving provisions for Trinity House

40. Nothing in this Order prejudices or derogates from any of the rights, duties or privileges of Trinity House.

Crown rights

41.—(1) Nothing in this Order affects prejudicially any estate, right, power, privilege, authority or exemption of the Crown and, in particular, nothing in this Order authorises the undertaker or any lessee or licensee to take, use, enter on or in any manner interfere with any land or rights of

(a) S.I. 1997/1160

(b) Section 206(1) was amended by paragraph 11 of Schedule 8 to the Planning Act 2008 (c. 29).

any description (including any portion of the shore or bed of the sea or any river, channel, creek, bay or estuary)—

- (a) belonging to His Majesty in right of the Crown and forming part of The Crown Estate without the consent in writing of the Crown Estate Commissioners;
- (b) belonging to His Majesty in right of the Crown and not forming part of The Crown Estate without the consent in writing of the government department having the management of that land; or
- (c) belonging to a government department or held in trust for His Majesty for the purposes of a government department without the consent in writing of that government department.

(2) Paragraph (1) does not apply to the exercise of any right under this Order for the compulsory acquisition of an interest in any Crown land (as defined in section 227 (“Crown land” and “the appropriate Crown authority”) of the 2008 Act) which is for the time being held otherwise than by or on behalf of the Crown.

(3) A consent under paragraph (1) may be given unconditionally or subject to terms and conditions; and is deemed to have been given in writing where it is sent electronically.

Certification of plans and documents, etc.

42.—(1) The undertaker must, as soon as practicable after this Order is made, submit to the Secretary of State all of the documents listed in Schedule 19 (documents to be certified) for certification that they are true copies of the documents referred to in this Order.

(2) A plan or document so certified is admissible in any proceedings as evidence of the contents of the document of which it is a copy.

Abatement of works abandoned or decayed

43.—(1) Where the DBS East Project offshore works or any part of them are abandoned or allowed to fall into decay the Secretary of State may, following consultation with DBSEL, by notice in writing require DBSEL at its own expense either to repair, make safe and restore one or any of those works, or any relevant part of them, or to remove them and, without prejudice to any notice served under section 105(2) (requirement to prepare decommissioning programmes) of the 2004 Act, restore the site to a safe and proper condition, to such an extent and within such limits as may be specified in the notice.

(2) Where the DBS West Project offshore works or any part of them are abandoned or allowed to fall into decay the Secretary of State may, following consultation with DBSWL, by notice in writing require DBSWL at its own expense either to repair, make safe and restore one or any of those works, or any relevant part of them, or to remove them and, without prejudice to any notice served under section 105(2) (requirement to prepare decommissioning programmes) of the 2004 Act, restore the site to a safe and proper condition, to such an extent and within such limits as may be specified in the notice.

Funding

44.—(1) Except where the provisions of paragraph (8) apply, DBSEL must not exercise the powers conferred by the provisions referred to in paragraph (3) in relation to any land unless a guarantee or alternative form of security in respect of the liabilities of DBSEL to pay compensation under this Order in respect of the exercise of the relevant power in relation to that land is in place.

(2) Except where the provisions of paragraph (9) apply, DBSWL must not exercise the powers conferred by the provisions referred to in paragraph (3) in relation to any land unless a guarantee or alternative form of security in respect of the liabilities of DBSWL to pay compensation under this Order in respect of the exercise of the relevant power in relation to that land is in place.

(3) The provisions are—

- (a) article 20 (compulsory acquisition of land);

- (b) article 22 (compulsory acquisition of rights);
- (c) article 23 (private rights over land);
- (d) article 26 (acquisition of subsoil or airspace only);
- (e) article 29 (rights under or over streets);
- (f) article 30 (temporary use of land for carrying out the authorised project);
- (g) article 31 (temporary use of land for maintaining the authorised project); and
- (h) article 32 (statutory undertakers).

(4) The form of guarantee or security referred to in paragraphs (1) and (2), and the amount guaranteed or secured, must be approved by the Secretary of State, but such approval must not be unreasonably withheld.

(5) The undertaker must provide the Secretary of State with such information as the Secretary of State may reasonably require relating to the interests in the land affected by the exercise of the powers referred to in paragraph (3) for the Secretary of State to be able to determine the adequacy of the proposed guarantee or security including—

- (a) the interests affected; and
- (b) the undertaker's assessment, and the basis of the assessment, of the level of compensation.

(6) A guarantee or other security given in accordance with this article that guarantees or secures the undertaker's payment of compensation in relation to the exercise of the powers referred to in paragraph (3) is to be treated as enforceable against the guarantor or provider of security by any person to whom such compensation is properly payable and must be in such a form as to be capable of enforcement by such a person.

(7) Nothing in this article requires a guarantee or alternative form of security to be in place for more than 15 years after the date on which the relevant power is exercised.

(8) Nothing in this article requires a guarantee or alternative form of security to be put in place by DBSEL where—

- (a) DBSEL provides the Secretary of State with financial information sufficient to demonstrate that it has appropriate funding in place without a guarantee or alternative form of security to meet any liability to pay compensation under this Order in respect of the exercise of the relevant powers in paragraph (1); and
- (b) The Secretary of State provides written confirmation that no such guarantee is required, such written confirmation not to be unreasonably withheld.

(9) Nothing in this article requires a guarantee or alternative form of security to be put in place by DBSWL where—

- (a) DBSWL provides the Secretary of State with financial information sufficient to demonstrate that it has appropriate funding in place without a guarantee or alternative form of security to meet any liability to pay compensation under this Order in respect of the exercise of the relevant powers in paragraph (2); and
- (b) The Secretary of State provides written confirmation that no such guarantee is required, such written confirmation not to be unreasonably withheld.

Protective provisions

45. Schedule 15 (protective provisions) has effect.

Service of notices

46.—(1) A notice or other document required or authorised to be served for the purposes of this Order may be served—

- (a) by post;

- (b) by delivering it to the person on whom it is to be served or to whom it is to be given or supplied; or
- (c) with the consent of the recipient and subject to paragraphs (6) to (8), by electronic transmission.

(2) Where the person on whom a notice or other document to be served for the purposes of this Order is a body corporate, the notice or document is duly served if it is served on the secretary or clerk of that body.

(3) For the purposes of section 7 (references to service by post) of the Interpretation Act 1978(a) as it applies for the purposes of this article, the proper address of any person in relation to the service on that person of a notice or document under paragraph (1) is, if that person has given an address for service, that address and otherwise—

- (a) in the case of the secretary or clerk of that body corporate, the registered or principal office of that body; and
- (b) in any other case, the last known address of that person at that time of service.

(4) Where for the purposes of this Order a notice or other document is required or authorised to be served on a person as having an interest in, or as the occupier of, land and the name or address of that person cannot be ascertained after reasonable enquiry, the notice may be served by—

- (a) addressing it to that person by the description of “owner”, or as the case may be “occupier” of the land (describing it); and
- (b) either leaving it in the hands of the person who is or appears to be resident or employed on the land or leaving it conspicuously affixed to some building or object on or near the land.

(5) Where a notice or other document required to be served or sent for the purposes of this Order is served or sent by electronic transmission the requirement is to be taken to be fulfilled only where—

- (a) the recipient of the notice or other document to be transmitted has given consent to the use of electronic transmission in writing or by electronic transmission;
- (b) the notice or document is capable of being accessed by the recipient;
- (c) the notice or document is legible in all material respects; and
- (d) the notice or document is in a form sufficiently permanent to be used for subsequent reference.

(6) Where the recipient of a notice or other document served or sent by electronic transmission notifies the sender within seven days of receipt that the recipient requires a paper copy of all or any part of that notice or other document the sender must provide such a copy as soon as reasonably practicable.

(7) Any consent to the use of an electronic transmission by a person may be revoked by that person in accordance with paragraph (8).

(8) Where a person is no longer willing to accept the use of electronic transmission for any of the purposes of this Order—

- (a) that person must give notice in writing or by electronic transmission revoking any consent given by that person for that purpose; and
- (b) such revocation takes effect on a date specified by the person in the notice but that date must not be less than seven days after the date on which the notice is given.

(9) This article does not exclude the employment of any method of service not expressly provided for by it.

(a) 1978 c. 30. Section 7 was amended by paragraph 19 of Schedule 10 to the Road Traffic Regulation Act 1984 (c. 27).

Arbitration

47.—(1) Subject to article 40 (*saving provisions for Trinity House*), any difference under any provision of this Order, unless otherwise provided for, must be referred to and settled by arbitration in accordance with the rules in Schedule 16 (*Arbitration rules*) by a single arbitrator to be agreed between the parties or, failing agreement, to be appointed on the application of either party (after giving notice in writing to the other) by the Secretary of State.

(2) For the avoidance of doubt, any matter for which the consent of the Secretary of State or the MMO is required under any provision of this Order shall not be subject to arbitration.

Requirements, appeals, etc.

48.—(1) Where an application is made to, or a request is made of, the relevant planning authority or any other relevant person for any agreement or approval required or contemplated by any of the provisions of this Order, such application must be made in writing and such agreement or approval must, if given, be given in writing and must not be unreasonably withheld or delayed.

(2) Part 2 (*approval of matters specified in requirements*) of Schedule 2 has effect in relation to all agreements or approvals granted, refused or withheld in relation to requirements included in Part 1 (*requirements*) of that Schedule.

(3) Save to the extent that the requirements are already subject to Part 2 of Schedule 2, sub-section (1) of section 78 (right to appeal against planning decisions and failure to take such decisions) of the 1990 Act applies to the development consent granted by this Order and to the requirements except that it is modified so as to read for the purposes of this Order only as follows—

(a) after “local planning authority” insert “or Secretary of State”;

(b) after sub-section (b) insert the following—

“refuse or fails to determine an application for any consent, agreement or approval of that authority required by a requirement imposed on a grant of development consent or contained in a development consent order, or grant it subject to conditions; or”

(c) after sub-section (1), insert the following—

“(1A) Where the appeal under sub-section (1) relates to a decision by the Secretary of State, the appeal will be decided by a Secretary of State who would not be responsible for determining an application for development consent with the subject matter of The Dogger Bank South East and West Offshore Wind Farms Order 202[] if section 103(1) (Secretary of State is to decide applications) of the 2008 Act applied.”

(d) Sections 78 (right to appeal against planning decisions and failure to take such decisions) and 79 (determination of appeals) of the 1990 Act have effect in relation to any appeal under the terms of this article except that the Secretary of State in question is the Secretary of State who would be responsible for determining an application for development consent with the subject matter of this Order if section 103(1) (Secretary of State is to decide applications) applied.

Compensation

49. Schedule 18 (compensation measures) has effect.

Inconsistent planning permissions

50.—(1) Any planning permission which has been initiated prior to the commencement of the authorised project pursuant to this Order may continue to be lawfully implemented thereafter notwithstanding any physical incompatibility with the authorised project or inconsistency with any provision of this Order.

(2) As from the date on which the authorised project is commenced any conditions of a planning permission which relate to land within the Order limits or land adjacent to the Order limits cease

to have effect to the extent they are inconsistent with the authorised project or with anything done or approved under the requirements in Part 1 (requirements) of Schedule 2.

(3) As from the date of this Order where planning permission is granted (whether prior to the date of this Order or after) in respect of land within the Order limits for development not forming part of the authorised project, the carrying out of development pursuant to such planning permission is not to operate to prevent the undertaker from carrying out further works for the development of the authorised project pursuant to the terms of this Order. —

(4) Nothing in this Order restricts the undertaker from seeking or implementing, or the relevant planning authority from granting, planning permission for development within the Order limits.

(5) Any development, or any part of a development within the Order limits which is constructed or used under the authority of a planning permission following the coming into force of this Order is to be disregarded at all times for the purposes of ascertaining whether or not an offence has been committed under the provisions of sections 160 (offences) or 161 (breach of terms of order granting development consent) of the 2008 Act.

(6) In this article “planning permission” means a planning permission granted pursuant to Part 3 (control over development) of the 1990 Act (whether express or otherwise).

No double recovery

51. Compensation is not payable in respect of the same matter both under this Order and under any other enactment, any contract or any rule of law, or under two or more different provisions of this Order.

Modification of the Air Navigation Order 2016

52. Article 223 of the Air Navigation Order 2016^(a) is modified so as to read for the purposes of this Order only as if there were inserted after paragraph (1)(b)—

“(c) or which is situated in waters outside of the territorial sea designated as the Renewable Energy Zone by section 84(4) of the 2004 Act^(b).”

[Signatory text]

Date

Name
Parliamentary Under Secretary of State
Department

SCHEDULE 1

Article 2

Authorised project

PART 1

Authorised development

1. Nationally significant infrastructure projects as defined in sections 14 (nationally significant infrastructure projects: general) and 15 (generating stations) of the 2008 Act located in the North Sea approximately 120 kilometres and 142 kilometres to the north-east of Skipsea on the East Riding of Yorkshire coast, comprising—

(a) S.I. 2016/765

(b) 2024 c.30

DBS East Project

Offshore works

Work No. 1A—

- (a) An offshore wind turbine generating station with a gross electrical output of over 100 megawatts comprising up to 100 wind turbine generators each fixed to the seabed by monopile or jacket foundations;
- (b) a network of HVAC subsea cables connecting the wind turbine generators and Work No.2A within the area shown on the works plans, including cable crossings and cable protection;

and associated development within the meaning of section 115(2) (development for which development consent may be granted) of the 2008 Act comprising—

Work No. 2A—

- (a) Up to one offshore converter platform fixed to the seabed by jacket or monopile foundations within the area shown on the works plans;
- (b) a network of subsea inter-platform cabling within the area shown on the works plans, including cable crossings and cable protection;

Work No. 3A—

- (a) up to two HVDC subsea export cables between Work Nos. 2A and 8A along routes within the area shown on the works plans including cable crossings and cable protection;
- (b) up to two cables for the transmission of fibre optic communications laid between Work Nos. 2A and 8A consisting of cables along routes within the area shown on the works plans including cable crossings and cable protection;
- (c) up to three temporary pits for trenchless cable installation at landfall seaward of MLWS and up to three additional temporary pits (if required) for trenchless cable installation at landfall seaward of MLWS for the DBS West Project within the area shown on the works plans;
- (d) installation of up to three landfall cable ducts (if required) and up to three additional landfall cable ducts (if required) for the DBS West Project within the area shown on the works plans;
- (e) installation of up to three cable duct extensions from below MLWS to any temporary pits created for trenchless installation situated between MHWS and MLWS, up to three additional cable duct extension (if required) for the DBS West Project from MLWS to any temporary pits created for trenchless cable installation situated between MHWS and MLWS;

Work No. 4A—

Up to one accommodation platform fixed to the seabed by jacket or monopile foundations within the area shown on the works plans;

Work No. 5A—

Up to three HVAC subsea export cables linking Work Nos. 2A and 2B providing an electrical connection between Work Nos. 1A and 1B, including cable crossings and cable protection;

Work No. 6A—

Not used;

Work No. 7A—

A temporary work area associated with Work Nos. 1A to 5A for vessels to carry out intrusive activities and non-intrusive activities alongside Work Nos. 1A to 5A;

Intertidal Works – In the County of East Riding of Yorkshire

Work No. 8A—

- (a) Installation of up to two HVDC subsea export cables and up to two cables for the transmission of fibre optic communications within up to three landfall cable ducts (if required) between Work No. 3A and Work No. 12A and up to three landfall cable ducts (if required) for the DBS West Project between Work No. 3B and Work No. 12B;
- (b) trenchless cable installation;
- (c) temporary construction working areas for emergency works;
- (d) and vessel anchoring for emergency works.

Work No. 9A—

To provide means of emergency access along the existing beach between Work No. 10A and Work Nos. 8A and 12A to allow for access in the event of accidents and / or environmental incidents.

Further Associated Development

In connection with such Work Nos. 1A to 9A and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project and which fall within the scope of the work assessed by the environmental statement, including:

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 1A to 8A and the disposal of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works such as sandwave clearance, boulder clearance and pre-lay grapnel runs or ploughs, cable installation preparation such as sandwave clearance, boulder clearance and pre-trenching and excavation of horizontal directional drilling exit pits;
- (d) removal of static fishing equipment;
- (e) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised project;
- (f) disposal of drill arisings in connection with any foundation drilling up to a total of 35,789 cubic metres;
- (g) creation and use of temporary laydown areas, use of cable lay vessel anchors; and
- (h) lighting.

Onshore Works

Work No. 10A—

Creation of temporary construction access from North Turnpike for emergency access to Work No. 9A to allow for access in event of accidents and / or environmental incidents.

Work No. 11A—

Construction of a temporary construction compound and laydown area for emergency works in Work Nos. 8A and 12A; and—

- (a) construction of haul road; and
- (b) temporary construction working areas and laydown areas.

Work No. 12A—

Installation of up to two HVDC onshore export cables and up to two cables for the transmission of fibre optic communications within up to three landfall cable ducts (if required) between Work No. 8A and Work No. 13A and up to three landfall cable ducts (if required) for the DBS West Project between Work No. 8B and Work No. 13B; including trenchless installation technique works.

Work No. 13A—

Installation of up to two HVDC subsea export cables, up to two HVDC onshore export cables, up to one earthing cable and up to two cables for the transmission of fibre optic communications within up to three landfall cable ducts (if required) and up to three landfall cable ducts (if required) for the DBS West Project; and—

- (a) construction of temporary haul roads;
- (b) temporary construction working areas and laydown areas;
- (c) up to two transition joint bays;
- (d) trenchless installation techniques including the creation of entrance and exit pits and trenchless crossing compounds;
- (e) a temporary transition joint bay construction compound for landfall operations;
- (f) a temporary construction compound to support construction of transition joint bays;
- (g) Installation of up to two HVDC onshore export cables, up to one earthing cable and up to two cables for the transmission of fibre optic communications within cable ducts (if required) including installation of cable ducts and additional ducts for the DBS West Project; cable trenching works;
- (h) connection to pre-existing ducts; and
- (i) construction of jointing bays and link boxes.

Work No. 14A—

Installation of up to two HVDC onshore export cables, up to one earthing cable and up to two cables for the transmission of fibre optic communications within cable ducts (if required) between Work No. 13A and Work Nos. 24A including:

- (a) installation of cable ducts and additional cable ducts for the DBS West Project;
- (b) trenchless installation technique works including the creation of entrance and exit pits and trenchless crossing compounds;
- (c) cable trenching works;
- (d) construction of jointing bays and link boxes;
- (e) installation of cables;
- (f) construction of temporary haul roads; and
- (g) temporary construction working areas and laydown areas.

Work No. 15A—

Creation of temporary construction crossing point of public highway including:

- (a) creation and improvement of temporary access to the public highway including creation of new junctions, works to junctions and visibility splays;
- (b) construction of temporary haul roads; and
- (c) temporary construction working areas and laydown areas.

Work No. 16A—

Construction of temporary construction compounds including:

- (a) construction of temporary haul roads; and

- (b) temporary construction working areas and laydown areas.

Work No. 17A—

Creation of temporary construction access off public highway including:

- (a) creation and improvement of temporary access to the public highway including creation of new junctions, works to junctions and visibility splays;
- (b) construction of temporary haul roads; and
- (c) temporary construction working areas and laydown areas.

Work No. 18A—

Creation of construction temporary access, construction of temporary haul roads, temporary construction working areas and laydown areas.

Work No. 19A—

Area of proposed temporary improvement to public highway to allow two-way construction vehicle access to Work No. 17A including:

- (a) temporary widening of junctions and roads;
- (b) temporary increase in length of existing passing places; and
- (c) provision of additional temporary passing places.

Work No. 20A—

Construction of temporary construction compounds including;

- (a) construction of temporary haul roads; and
- (b) temporary construction working areas and laydown areas.

Work No. 21A—

Creation of permanent access off A1079 including:

- (a) creation of permanent access to the public highway including creation of new junction, works to junctions, and visibility splays;
- (b) construction of permanent access road including permanent land re-profiling;
- (c) construction of temporary haul roads; and
- (d) temporary construction working areas and laydown areas.

Work No. 22A—

An access and drainage works area comprising:

- (a) temporary construction working areas and laydown areas;
- (b) temporary access roads and haul roads including temporary land re-profiling;
- (c) permanent access roads including permanent land re-profiling;
- (d) utilities connections;
- (e) diversion of Northern Power Grid 33kV overhead power line;
- (f) temporary and permanent drainage works including connection to existing drainage and creation of new sustainable drainage system including appropriate attenuation (if required);
- (g) permanent landscaping limited to hedgerow and trees along permanent access track; and
- (h) permanent diversion of Walkington Footpath No.4.

Work No. 23A—

Construction of temporary construction compounds including:

- (a) construction of temporary haul roads; and
- (b) temporary construction working areas and laydown areas.

Work No. 24A—

Works area required for temporary and permanent works associated with construction of converter station(s) and associated infrastructure including:

- (a) permanent land re-profiling and creation of platform or foundations for Work Nos. 25A, 26A and 26B;
- (b) security fencing;
- (c) utilities connections;
- (d) temporary and permanent drainage works including to existing drainage, and creation of new sustainable drainage system including appropriate attenuation (if required);
- (e) temporary access roads and haul roads including temporary land re-profiling;
- (f) permanent access roads including permanent land re-profiling;
- (g) temporary construction working areas and laydown areas;
- (h) permanent landscaping for screening of converter station(s);
- (i) construction of temporary construction compounds;
- (j) installation of up to two HVDC onshore export cables, up to one earthing cable and up to two cables for the transmission of fibre optic communications within cable ducts (if required);
- (k) installation of up to twelve buried HVAC onshore export cables, up to four earthing cables and up to eight cables for the transmission of fibre optic communications within cable ducts (if required); and
- (l) cable crossings, cable protection, installation of cable ducts (including additional cable ducts for the DBS West Project), trenchless installation technique pit works including the creation of entrance and exit pits, cable trenching works, connection to pre-existing ducts, installation of cables in ducts or direct-lay and construction of jointing bays and link boxes.

Work No. 25A—

Construction of electrical converter station infrastructure for the DBS East Project, including:

- (a) a compound for electrical works necessary for the onward transmission of electricity (the “converter station compound”) containing (but not limited to) switchgear and electrical equipment including high voltage reactors, converter valves and coolers, power transformers, reactive compensation equipment, filters, cooling equipment, control and welfare buildings, up to ten lightning masts, internal rods, security fencing and other associated equipment, structures and buildings including noise attenuation works; and
- (b) permanent security fencing and security gate.

Work No. 26A—

Construction of electrical converter station infrastructure for the DBS East Project, including:

- (a) a compound for electrical works necessary for the onward transmission of electricity (the “converter station compound”) containing (but not limited to) switchgear and electrical equipment including high voltage reactors, converter valves and coolers, power transformers, reactive compensation equipment, filters, cooling equipment, control and welfare buildings, up to ten lightning masts, internal rods, security fencing and other associated equipment, structures and buildings including noise attenuation works; and
- (b) permanent security fencing and security gate.

Work No. 27A—

Permanent landscaping for screening of converter station(s) and works to facilitate this including:

- (a) construction of temporary haul roads; and
- (b) temporary construction working areas and laydown areas.

Work No. 28A—

Not Used.

Work No. 29A—

Permanent landscaping for screening of converter stations(s) comprising enhancement and management of Ancient Woodland and Local Wildlife Site and works to facilitate these landscaping works including:

- (a) construction of temporary haul roads outside the Ancient Woodland; and
- (b) temporary construction working areas and laydown areas outside the Ancient Woodland.

Work No. 30A—

Creation of access routes from Work No. 24A to Work No. 27A and Work No. 29A for construction and maintenance of permanent landscaping and to allow access across existing utilities including:

- (a) construction of temporary haul roads during construction and for maintenance purposes during operation (if required); and
- (b) temporary working areas and laydown areas to facilitate the protection (if required) of existing utilities located in Works No.30A.

Work No. 31A—

Installation of up to twelve buried HVAC onshore export cables, up to four earthing cables and up to eight cables for the transmission of fibre optic communications within cable ducts (if required) between Work No. 24A and Work No. 34A for the DBS Projects including:

- (a) Installation of cable ducts and additional cable ducts for the DBS West Project;
- (b) trenchless installation technique works including the creation of entrance and exit pits;
- (c) cable trenching works;
- (d) construction of jointing bays and link boxes;
- (e) connection to pre-existing ducts;
- (f) installation of cables in ducts or direct-lay;
- (g) construction of temporary haul roads; and
- (h) temporary construction working areas and laydown areas.

Work No. 33A—

Creation of temporary construction access off A1079 which may be shared with other developments including:

- (a) creation and improvement of access to the public highway including creation of new junction, works to junctions and visibility splays;
- (b) construction of haul roads; and
- (c) temporary construction working areas and laydown areas.

Work No 34A—

Electrical works to connect to the National Grid Substation, including:

- (a) works needed to connect the authorised project to the National Grid substation that National Grid is not required, under its transmission licence, to carry out itself including (but not limited to) cabling, cable sealing ends, circuit breakers, surge arrestors, dis-

connectors, transformers, busbars and busbar clamp measuring equipment, relay marshalling rooms and electrical earthing works;

- (b) creation of access roads to provide operational and maintenance access.

Further Associated Development

In connection with Work Nos. 10A to 34A and to the extent that they do not otherwise form part of any such works, further associated development comprising such other works may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project and which fall within the scope of the work assessed by the environmental statement, including—

- (a) haul roads, ramps, watercourses and other temporary crossings, means of access and other vehicular and / or pedestrian means of access, including creation of new tracks and footpaths, and / or widening, upgrades, alterations and improvements of existing roads, tracks and footpaths;
- (b) bunds, embankments, swales, landscaping, signage, fencing and boundary treatments;
- (c) provision of temporary and permanent ecological and environmental mitigation works;
- (d) spoil storage and associated control measures
- (e) jointing bays, link boxes, cable ducts, cable protection, joint protection, manholes, marker posts, underground cable markers, tiles and tape, and lighting and other works associated with laying cables and / or pulling cables through cable ducts including trenchless techniques beneath utilities, watercourses and roads and launch and receptor pits for trenchless crossings;
- (f) temporary trenchless crossing compounds and working areas and their restoration;
- (g) works for the provision of apparatus including cabling, water and electricity supply works, foul drainage provision, surface water management systems, permanent drainage and temporary drainage during installation of cables and culverting;
- (h) works to alter the position of apparatus, including mains, sewers, drains and cables;
- (i) works to alter the course of, or otherwise interfere with, non-navigable rivers, streams and watercourses;
- (j) habitat creation and enhancement;
- (k) landscaping and other works to investigate, ascertain or mitigate any adverse effects of the construction, maintenance or operation of the authorised project.
- (l) works for the benefit or protection of land affected by the authorised project;
- (m) working sites in connection with the construction of the authorised project, construction of lay down areas and compounds, storage compounds and their restoration;
- (n) works of restoration;
- (o) fencing or other means of enclosure; and
- (p) such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project.

DBS West Project

Offshore works

Work No. 1B—

- (a) An offshore wind turbine generating station with a gross electrical output of over 100 megawatts comprising up to 100 wind turbine generators each fixed to the seabed by monopile or jacket foundations;
- (b) a network of HVAC subsea cables connecting the wind turbine generators and Work No.2B within the area shown on the works plans, including cable crossings and cable protection;

and associated development within the meaning of section 115(2) (development for which development consent may be granted) of the 2008 Act comprising—

Work No. 2B—

- (a) up to one offshore converter platform fixed to the seabed by jacket or monopile foundations within the area shown on the works plans;
- (b) a network of subsea inter-platform cabling within the area shown on the works plans, including cable crossings and cable protection;

Work No. 3B—

- (a) up to two HVDC subsea export cables between Work Nos. 2B and 8B along routes within the area shown on the works plans including cable crossings and cable protection;
- (b) up to two cables for the transmission of fibre optic communications laid between Work Nos. 2B and 8B consisting of cables along routes within the area shown on the works plans including cable crossings and cable protection;
- (c) up to three temporary pits for trenchless cable installation at landfall seaward of MLWS and up to three additional temporary pits (if required) for trenchless cable installation at landfall seaward of MWLS for the DBS East Project within the area shown on the works plans;
- (d) installation of up to three landfall cable ducts (if required) and up to three additional landfall cable ducts (if required) for the DBS East Project within the area shown on the works plans;
- (e) installation of up to three cable duct extensions from below MLWS to any temporary pits created for trenchless installation situated between MHWS and MLWS, up to three additional cable duct extension (if required) for the DBS West Project from MLWS to any temporary pits created for trenchless cable installation situated between MHWS and MLWS;

Work No. 4B—

Up to one accommodation platform fixed to the seabed by jacket or monopile foundations within the area shown on the works plans;

Work No. 5B—

Up to three HVAC subsea export cables linking Work Nos. 2A and 2B providing an electrical connection between Work Nos. 1A and 1B, including cable crossings and cable protection;

Work No. 6B—

Not used;

Work No. 7B—

A temporary work area associated with Work Nos. 1B to 5B for vessels to carry out intrusive activities and non-intrusive activities alongside Work Nos. 1B to 5B;

Intertidal Works - In the County of East Riding of Yorkshire

Work No. 8B—

- (a) Installation of up to two HVDC subsea export cables and up to two cables for the transmission of fibre optic communications within up to three landfall cable ducts (if required) between Work No. 3B and Work No. 12B and up to three landfall cable ducts (if required) for the DBS East Project between Work No. 3A and Work No. 12A;
- (b) trenchless cable installation;
- (c) temporary construction working areas for emergency works; and
- (d) vessel anchoring for emergency works.

Work No. 9B—

To provide means of emergency access along the existing beach between Work No. 10B and Work Nos. 8B and 12B to allow for access in the event of accidents and / or environmental incidents.

Further Associated Development

In connection with such Work Nos. 1B to 9B and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project and which fall within the scope of the work assessed by the environmental statement, including—

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 1B to 8B and the disposal of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works such as sandwave clearance, boulder clearance and pre-lay grapnel runs or ploughs, cable installation preparation such as sandwave clearance, boulder clearance and pre-trenching and excavation of horizontal directional drilling exit pits;
- (d) removal of static fishing equipment;
- (e) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised project;
- (f) disposal of drill arisings in connection with any foundation drilling up to a total of 35,789 cubic metres;
- (g) creation and use of temporary laydown areas, use of cable lay vessel anchors; and
- (h) lighting.

Onshore Works

Work No. 10B—

Creation of temporary construction access from North Turnpike for emergency access to Work No. 9B to allow for access in event of accidents and / or environmental incidents.

Work No. 11B—

Construction of a temporary construction compound and laydown area for emergency works in Work Nos. 8B and 12B; and—

- (a) construction of haul road; and
- (b) temporary construction working areas and laydown areas.

Work No. 12B—

Installation of up to two HVDC onshore export cables and up to two cables for the transmission of fibre optic communications within up to three landfall cable ducts (if required) between Work No. 8B and Work No. 13B and up to three landfall cable ducts (if required) for the DBS East Project between Work No. 8A and Work No. 13A; including trenchless installation technique works.

Work No. 13B—

Installation of up to two HVDC subsea export cables, up to two HVDC onshore export cables, up to one earthing cable and up to two cables for the transmission of fibre optic communications

within up to three landfall cable ducts (if required) and up to three landfall cable ducts (if required) for the DBS East Project; and—

- (a) construction of temporary haul roads;
- (b) temporary construction working areas and laydown areas;
- (c) up to two transition joint bays;
- (d) trenchless installation techniques including the creation of entrance and exit pits and trenchless crossing compounds;
- (e) a temporary transition joint bay construction compound for landfall operations;
- (f) a temporary construction compound to support construction of transition joint;
- (g) Installation of up to two HVDC onshore export cables, up to one earthing cable and up to two cables for the transmission of fibre optic communications within cable ducts (if required) including installation of cable ducts and additional ducts for the DBS East Project; cable trenching works;
- (h) connection to pre-existing ducts; and
- (i) construction of jointing bays and link boxes.

Work No. 14B—

Installation of up to two HVDC onshore export cables, up to one earthing cable and up to two cables for the transmission of fibre optic communications within cable ducts (if required) between Work No. 13B and Work Nos. 24B including:

- (a) installation of cable ducts and additional cable ducts for the DBS East Project;
- (b) trenchless installation technique works including the creation of entrance and exit pits and trenchless crossing compounds;
- (c) cable trenching works;
- (d) construction of jointing bays and link boxes;
- (e) installation of cables;
- (f) construction of temporary haul roads; and
- (g) temporary construction working areas and laydown areas.

Work No. 15B—

Creation of temporary construction crossing point of public highway including:

- (a) creation and improvement of temporary access to the public highway including creation of new junctions, works to junctions and visibility splays;
- (b) construction of temporary haul roads; and
- (c) temporary construction working areas and laydown areas.

Work No. 16B—

Construction of temporary construction compounds including:

- (a) construction of temporary haul roads; and
- (b) temporary construction working areas and laydown areas.

Work No. 17B—

Creation of temporary construction access off public highway including:

- (a) creation and improvement of temporary access to the public highway including creation of new junctions, works to junctions and visibility splays;
- (b) construction of temporary haul roads; and
- (c) temporary construction working areas and laydown areas.

Work No. 18B—

Creation of construction temporary access, construction of temporary haul roads, temporary construction working areas and laydown areas.

Work No. 19B—

Area of proposed temporary improvement to public highway to allow two-way construction vehicle access to Work No. 17B including:

- (a) temporary widening of junctions and roads; and
- (b) temporary increase in length of existing passing places; and
- (c) provision of additional temporary passing places.

Work No. 20B—

Construction of temporary construction compounds including:

- (a) construction of temporary haul roads; and
- (b) temporary construction working areas and laydown areas.

Work No. 21B—

Creation of permanent access off A1079 including:

- (a) creation of permanent access to the public highway including creation of new junction, works to junctions, and visibility plays;
- (b) construction of permanent access road including permanent land re-profiling;
- (c) construction of temporary haul roads; and
- (d) temporary construction working areas and laydown areas.

Work No. 22B—

An access and drainage works area comprising:

- (a) temporary construction working areas and laydown areas;
- (b) temporary access roads and haul roads including temporary land re-profiling;
- (c) permanent access roads including permanent land re-profiling;
- (d) utilities connections;
- (e) diversion of Northern Power Grid 33kV overhead power line;
- (f) temporary and permanent drainage works including connection to existing drainage and creation of new sustainable drainage system including appropriate attenuation (if required);
- (g) permanent landscaping limited to hedgerow and trees along permanent access track; and
- (h) permanent diversion of Walkington Footpath No.4.

Work No. 23B—

Construction of temporary construction compounds including:

- (a) construction of temporary haul roads; and
- (b) temporary construction working areas and laydown areas.

Work No. 24B—

Works area required for temporary and permanent works associated with construction of converter station(s) and associated infrastructure including:

- (a) permanent land re-profiling and creation of platform or foundations for Work Nos. 25A, 26A and 26B;
- (b) security fencing;

- (c) utilities connections;
- (d) temporary and permanent drainage works including to existing drainage and creation of new sustainable drainage system including appropriate attenuation (if required);
- (e) temporary access roads and haul roads including temporary land re-profiling;
- (f) permanent access roads including permanent land re-profiling;
- (g) temporary construction working areas and laydown areas;
- (h) permanent landscaping for screening of converter station(s);
- (i) construction of temporary construction compounds;
- (j) installation of up to two HVDC onshore export cables, up to one earthing cable and up to two cables for the transmission of fibre optic communications within cable ducts (if required);
- (k) installation of up to twelve buried HVAC onshore export cables, up to four earthing cables and up to eight cables for the transmission of fibre optic communications within cable ducts (if required); and
- (l) cable crossings, cable protection, installation of cable ducts (including additional cable ducts for the DBS East Project), trenchless installation technique pit works including the creation of entrance and exit pits, cable trenching works, connection to pre-existing ducts, installation of cables in ducts or direct-lay and construction of jointing bays and link boxes.

Work No. 26B—

Construction of electrical convertor station infrastructure for the DBS West Project, including:

- (a) a compound for electrical works necessary for the onward transmission of electricity (the “converter station compound”) containing (but not limited to) switchgear and electrical equipment including high voltage reactors, converter valves and coolers, power transformers, reactive compensation equipment, filters, cooling equipment, control and welfare buildings, up to ten lightning masts, internal rods, security fencing and other associated equipment, structures and buildings including noise attenuation works; and
- (b) permanent security fencing and security gate.

Work No. 27B—

Permanent landscaping for screening of converter station(s) and works to facilitate this including:

- (a) construction of temporary haul roads; and
- (b) temporary construction working areas and laydown areas.

Work No. 28B—

Not Used.

Work No. 29B—

Permanent landscaping for screening of converter stations(s) comprising enhancement and management of Ancient Woodland and Local Wildlife Site and works to facilitate these landscaping works including:

- (a) construction of temporary haul roads outside the Ancient Woodland; and
- (b) temporary construction working areas and laydown areas outside the Ancient Woodland.

Work No. 30B—

Creation of access routes from Work No. 24B to Work No. 27B and Work No. 29B for construction and maintenance of permanent landscaping and to allow access across existing utilities including:

- (a) construction of temporary haul roads during construction and for maintenance purposes during operation (if required); and

- (b) temporary working areas and laydown areas to facilitate the protection (if required) of existing utilities located in Work No. 30B.

Work No. 31B—

Installation of up to twelve buried HVAC onshore export cables, up to four earthing cables and up to eight cables for the transmission of fibre optic communications within cable ducts (if required) between Work No. 24B and Work No. 34B for the DBS Projects including:

- (a) Installation of cable ducts and additional cable ducts for the DBS East Project;
- (b) trenchless installation technique works including the creation of entrance and exit pits;
- (c) cable trenching works;
- (d) construction of jointing bays and link boxes;
- (e) connection to pre-existing ducts;
- (f) installation of cables in ducts or direct-lay;
- (g) construction of temporary haul roads; and
- (h) temporary construction working areas and laydown areas.

Work No. 32B—

Installation of up to twelve buried HVAC onshore export cables, up to four earthing cables and up to eight cables for the transmission of fibre optic communications within cable ducts (if required) between Work No. 31B and Work No. 31B for the DBS West Project including:

- (a) Installation of cable ducts;
- (b) trenchless installation technique works including the creation of entrance and exit pits;
- (c) cable trenching works;
- (d) construction of jointing bays and link boxes;
- (e) connection to pre-existing ducts;
- (f) installation of cables in ducts or direct-lay;
- (g) construction of temporary haul roads; and
- (h) temporary construction working areas and laydown areas.

Work No. 33B—

Creation of temporary construction access off A1079 which may be shared with other developments including:

- (a) creation and improvement of access to the public highway including creation of new junction, works to junctions and visibility splays;
- (b) construction of haul roads; and
- (c) temporary construction working areas and laydown areas.

Work No 34B—

Electrical works to connect to the National Grid Substation, including:

- (a) works needed to connect the authorised project to the National Grid substation that National Grid is not required, under its transmission licence, to carry out itself including (but not limited to) cabling, cable sealing ends, circuit breakers, surge arrestors, disconnectors, transformers, busbars and busbar clamp measuring equipment, relay marshalling rooms and electrical earthing works;
- (b) creation of access roads to provide operational and maintenance access.

Further Associated Development

In connection with Work Nos. 10B to 34B and to the extent that they do not otherwise form part of any such works, further associated development comprising such other works may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project and which fall within the scope of the work assessed by the environmental statement, including—

- (a) haul roads, ramps, watercourses and other temporary crossings, means of access and other vehicular and / or pedestrian means of access, including creation of new tracks and footpaths, and / or widening, upgrades, alterations and improvements of existing roads, tracks and footpaths;
- (b) bunds, embankments, swales, landscaping, signage, fencing and boundary treatments;
- (c) provision of temporary and permanent ecological and environmental mitigation works;
- (d) spoil storage and associated control measures
- (e) jointing bays, link boxes, cable ducts, cable protection, joint protection, manholes, marker posts, underground cable markers, tiles and tape, and lighting and other works associated with laying cables and / or pulling cables through cable ducts including trenchless techniques beneath utilities, watercourses and roads and launch and receptor pits for trenchless crossings;
- (f) temporary trenchless crossing compounds and working areas and their restoration;
- (g) works for the provision of apparatus including cabling, water and electricity supply works, foul drainage provision, surface water management systems, permanent drainage and temporary drainage during installation of cables and culverting;
- (h) works to alter the position of apparatus, including mains, sewers, drains and cables;
- (i) works to alter the course of, or otherwise interfere with, non-navigable rivers, streams and watercourses;
- (j) habitat creation and enhancement;
- (k) landscaping and other works to investigate, ascertain or mitigate any adverse effects of the construction, maintenance or operation of the authorised project.
- (l) works for the benefit or protection of land affected by the authorised project;
- (m) working sites in connection with the construction of the authorised project, construction of lay down areas and compounds, storage compounds and their restoration;
- (n) works of restoration;
- (o) fencing or other means of enclosure; and
- (p) such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project.

The grid coordinates for the DBS East Project offshore works and the DBS West Project offshore works are specified below—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	53° 59.636' N	0° 12.409' W
2	53° 59.828' N	0° 11.508' W
3	53° 59.84' N	0° 9.787' W
4	54° 0.103' N	0° 8.059' W
5	54° 0.456' N	0° 6.579' W
6	54° 1.884' N	0° 3.053' W
7	54° 3.141' N	0° 0.71' E
8	54° 3.776' N	0° 2.531' E
9	54° 4.146' N	0° 3.459' E
10	54° 4.277' N	0° 4.42' E
11	54° 4.311' N	0° 5.046' E

12	54° 8.777' N	0° 14.263' E
13	54° 16.039' N	0° 31.609' E
14	54° 16.335' N	0° 32.155' E
15	54° 18.431' N	0° 36.314' E
16	54° 19.527' N	0° 37.419' E
17	54° 25.526' N	0° 46.478' E
18	54° 29.179' N	0° 55.215' E
19	54° 35.243' N	1° 15.596' E
20	54° 41.979' N	1° 19.185' E
21	54° 42.688' N	1° 19.12' E
22	54° 42.896' N	1° 19.192' E
23	54° 43.005' N	1° 19.299' E
24	54° 43.102' N	1° 19.456' E
25	54° 44.185' N	1° 21.713' E
26	54° 44.281' N	1° 22.039' E
27	54° 44.3' N	1° 22.321' E
28	54° 44.265' N	1° 22.624' E
29	54° 39.029' N	1° 44.927' E
30	54° 38.849' N	1° 45.31' E
31	54° 38.572' N	1° 45.483' E
32	54° 34.746' N	1° 58.903' E
33	54° 34.771' N	1° 59.729' E
34	54° 34.672' N	2° 0.181' E
35	54° 34.475' N	2° 0.47' E
36	54° 24.475' N	2° 8.984' E
37	54° 24.094' N	2° 8.924' E
38	54° 23.829' N	2° 8.434' E
39	54° 21.084' N	1° 54.278' E
40	54° 21.06' N	1° 53.902' E
41	54° 21.146' N	1° 53.486' E
42	54° 21.337' N	1° 53.184' E
43	54° 29.145' N	1° 46.456' E
44	54° 28.725' N	1° 44.404' E
45	54° 27.929' N	1° 43.364' E
46	54° 27.843' N	1° 43.133' E
47	54° 26.379' N	1° 31.042' E
48	54° 25.979' N	1° 27.06' E
49	54° 26.251' N	1° 24.963' E
50	54° 27.33' N	1° 8.974' E
51	54° 27.864' N	0° 59.075' E
52	54° 28.15' N	0° 55.927' E
53	54° 24.71' N	0° 47.697' E
54	54° 18.879' N	0° 38.899' E
55	54° 17.721' N	0° 37.725' E
56	54° 15.532' N	0° 33.384' E
57	54° 15.193' N	0° 32.753' E
58	54° 13.677' N	0° 29.116' E
59	54° 12.454' N	0° 27.885' E

60	54° 12.333' N	0° 27.605' E
61	54° 11.974' N	0° 25.037' E
62	54° 7.921' N	0° 15.379' E
63	54° 3.303' N	0° 5.845' E
64	54° 3.262' N	0° 5.664' E
65	54° 3.21' N	0° 4.703' E
66	54° 3.152' N	0° 4.231' E
67	54° 2.862' N	0° 3.501' E
68	54° 2.209' N	0° 1.631' E
69	54° 0.97' N	0° 2.081' W
70	53° 59.501' N	0° 5.71' W
71	53° 58.989' N	0° 7.857' W
72	53° 58.699' N	0° 8.792' W
73	53° 58.439' N	0° 9.962' W
74	53° 58.389' N	0° 11.761' W
75	54° 28.994' N	0° 58.647' E
76	54° 34.543' N	1° 17.322' E
77	54° 34.091' N	1° 19.939' E
78	54° 33.849' N	1° 20.161' E
79	54° 33.702' N	1° 20.56' E
80	54° 31.685' N	1° 32.691' E
81	54° 31.68' N	1° 33.169' E
82	54° 31.818' N	1° 33.611' E
83	54° 30.757' N	1° 40.251' E
84	54° 29.978' N	1° 44.941' E
85	54° 29.626' N	1° 43.28' E
86	54° 28.833' N	1° 42.219' E
87	54° 27.438' N	1° 30.694' E
88	54° 27.073' N	1° 27.083' E
89	54° 27.316' N	1° 25.259' E
90	54° 28.402' N	1° 9.17' E
91	54° 28.935' N	0° 59.302' E

PART 2

Ancillary works

1. Works within the Order limits which have been subject to an environmental assessment recorded in the environmental statement comprising—

- (a) intrusive ground investigations including the making of boreholes and trial pits;
- (b) temporary landing places, moorings or other means of accommodating or anchoring vessels in the construction or maintenance of the authorised project;
- (c) temporary or permanent buoys, beacons, fenders and other navigational warning or ship impact protection works; and
- (d) temporary works for the benefit or protection of land, groundwater, watercourses or structures affected by the authorised project.

PART 1

Requirements

Time limits

1.—(1) The DBS East Project must commence no later than the expiration of five years beginning with the date this Order comes into force.

(2) The DBS West Project must commence no later than the expiration of five years beginning with the date this Order comes into force.

(3) If proceedings are begun to challenge the validity of this Order before the end of the period referred to in sub-paragraph (1) or (2) the period in sub-paragraph (1) or (2) must be taken to be extended by one year.

Detailed offshore design parameters*Wind turbine generator dimensions*

2.—(1) Subject to sub-paragraph (2), wind turbine generators forming part of the authorised project must not—

- (a) exceed a height of 376.8 metres when measured from MHWS to the tip of the vertical blade;
- (b) exceed a rotor diameter of 344.08 metres;
- (c) be less than 830 metres from the nearest wind turbine generator in any direction;
- (d) have a distance of less than 34 metres between the lowest point of the rotating blade of the wind turbine generator and mean sea level;
- (e) exceed 100 wind turbine generators in respect of the DBS East Project offshore works; or
- (f) exceed 100 wind turbine generators in respect of the DBS West Project offshore works.

(2) References to the location of a wind turbine generator are references to the centre point at the base of the wind turbine generator.

Wind turbine generator foundations

3.—(1) Wind turbine generator foundations must be piled monopile foundation and/or piled jacket foundation.

(2) Wind turbine generator piled monopile foundations must not have a pile diameter exceeding 15 metres.

(3) Any wind turbine generator piled jacket foundation must not—

- (a) have more than four legs;
- (b) have more than four piles; or
- (c) have a pile diameter exceeding four metres.

(4) Within Work No. 1A, the wind turbine generator foundations must not have—

- (a) a total combined seabed footprint (including scour protection) exceeding 311,725 square metres; or
- (b) a total combined amount of scour protection exceeding 302,221.21 square metres.

(5) Within Work No. 1B, the wind turbine generator foundations must not have—

- (a) a total combined seabed footprint (including scour protection) exceeding 311,725 square metres; or

- (b) a total combined amount of scour protection exceeding 302,221.21 square metres.

Offshore converter platform dimensions

4.—(1) The total number of offshore converter platforms and offshore accommodation platforms in respect of the authorised project must not exceed two, consisting of one offshore converter platform and one offshore accommodation platform.

(2) The dimensions of any offshore converter platform and offshore accommodation platform (excluding helidecks, lightning protection, towers, masts and cranes) must not exceed—

- (a) 125 metres in length;
- (b) 100 metres in width; or
- (c) 105 metres in height above LAT.

Offshore converter platform foundations

5.—(1) Offshore converter platforms and offshore accommodation platform foundations must be of one or more of the following foundation options: piled monopile, and/or piled jacket.

(2) Any offshore converter platform or offshore accommodation platform piled monopile foundation must not have a pile diameter exceeding 15 metres.

(3) Any offshore converter platform or offshore accommodation platform piled jacket foundation must not—

- (a) have more than eight legs;
- (b) have more than eight piles; or
- (c) have a pile diameter exceeding 3.8 metres.

(4) Any offshore converter platform or offshore accommodation platform foundation must not—

- (a) have a seabed footprint (including scour protection) exceeding 5,411 square metres for piled monopile or piled jacket foundations; or
- (b) have a seabed footprint (excluding scour protection) exceeding 177 square metres for piled monopile or piled jacket foundations.

(5) Within Work Nos. 4A and 4B, the offshore accommodation platform foundations must not have—

- (a) a total combined seabed footprint (including scour protection) exceeding 5,411 square metres; or
- (b) a total combined amount of scour protection exceeding 5,234 square metres.

(6) Within Work Nos. 2A and 2B, the offshore converter platform foundations must not have—

- (a) a total combined seabed footprint (including scour protection) exceeding 10,822 square metres; or
- (b) a total combined amount of scour protection exceeding 10,468 square metres.

(7) The total volume of scour protection for wind turbine generators, offshore converter platforms and offshore accommodation platforms must not exceed 1,067,840 cubic metres.

Cables and cable protection

6.—(1) Within Work No. 1A the array cables must not, in total—

- (a) exceed 350 kilometres in length;
- (b) exceed 20 cable crossings;
- (c) have cable protection (including cable crossings) exceeding 375,780 square metres in area; or
- (d) have cable protection (including cable crossings) exceeding 219,115 cubic metres in volume.

(2) Within Work Nos. 1B the array cables must not, in total—

- (a) exceed 350 kilometres in length;
 - (b) exceed 20 cable crossings;
 - (c) have cable protection (including cable crossings) exceeding 375,780 square metres in area; or
 - (d) have cable protection (including cable crossings) exceeding 219,115 cubic metres in volume.
- (3) Within Work Nos. 2A the inter-platform cables must not, in total—
- (a) exceed 1 in number;
 - (b) exceed 23 kilometres in length;
 - (c) exceed 1 cable crossings;
 - (d) have cable protection (including cable crossings) exceeding 43,203 square metres in area; or
 - (e) have cable protection (including cable crossings) exceeding 39,207 cubic metres in volume.
- (4) Within Work Nos. 2B the inter-platform cables must not, in total—
- (a) exceed 1 in number;
 - (b) exceed 23 kilometres in length;
 - (c) exceed 1 cable crossings;
 - (d) have cable protection (including cable crossings) exceeding 43,203 square metres in area; or
 - (e) have cable protection (including cable crossings) exceeding 39,207 cubic metres in volume.
- (5) Within Work Nos. 3A, the offshore export cables must not, in total—
- (a) exceed 2 in number;
 - (b) exceed 376 kilometres in length;
 - (c) exceed 12 cable crossings;
 - (d) have cable protection (including cable crossings) exceeding 576,021 square metres in area; or
 - (e) have cable protection (including cable crossings) exceeding 522,615 cubic metres in volume.
- (6) Within Work Nos. 3B the offshore export cables must not, in total—
- (a) exceed 2 in number;
 - (b) exceed 306 kilometres in length;
 - (c) exceed 12 cable crossings;
 - (d) have cable protection (including cable crossings) exceeding 470,350 square metres in area; or
 - (e) have cable protection (including cable crossings) exceeding 426,747 cubic metres in volume.
- (7) Within Work Nos. 5A and 5B the inter-platform cables must not, in total—
- (a) exceed 3 in number;
 - (b) exceed 138 kilometres in length;
 - (c) exceed 9 cable crossings;
 - (d) have cable protection (including cable crossings) exceeding 286,808 square metres in area; or
 - (e) have cable protection (including cable crossings) exceeding 260,234 cubic metres in volume.

- (8) Within Work Nos. 8A and 8B the offshore export cables must not, in total—
- (a) exceed 4 in number;
 - (b) involve cable crossings;
 - (c) have any cable protection.

Offshore decommissioning

7.—(1) The DBS East Project offshore works must not be commenced until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2)(a) (requirement to prepare decommissioning programmes) of the 2004 Act has been submitted to the Secretary of State for approval.

(2) The DBS West Project offshore works must not be commenced until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2) (requirement to prepare decommissioning programmes) of the 2004 Act has been submitted to the Secretary of State for approval.

Phases of authorised development

8.—(1) The DBS East Project onshore works must not be commenced until a written scheme setting out the phases of construction of the DBS East Project onshore works has been submitted to and approved by the relevant planning authority.

(2) The DBS West Project onshore works must not be commenced until a written scheme setting out the phases of construction of the DBS West Project onshore works has been submitted to and approved by the relevant planning authority.

(3) Any subsequent amendments to any written scheme submitted for approval under sub-paragraphs (1) and (2) must be submitted to, and approved by, the relevant planning authority.

(4) Each written scheme submitted for approval under sub-paragraphs (1) and (2) must be implemented as approved. The approved details shall be taken to include any amendment that may subsequently be approved in accordance with sub-paragraph (3).

(5) The DBS East onshore works must not be commenced until notification has been submitted to the relevant planning authority by the undertaker as to whether DBSWL intends to commence development of the DBS West Project.

(6) The notification required under sub-paragraph (5) must be submitted to the relevant planning authority prior to submission of a written scheme to be submitted for approval under sub-paragraphs (1) or (2).

(7) If the notification submitted under sub-paragraph (5) gives notice that DBSWL does not intend to commence development of the DBS West Project, DBSEL must not commence construction of Work No. 25A.

(8) If the notification submitted under sub-paragraph (5) gives notice that DBSWL does intend to commence development of the DBS West Project, DBSEL must not commence construction of Work No. 26A.

Detailed design parameters onshore

9.—(1) Construction of Work No. 25A or 26A (as appropriate in accordance with requirement 8) must not commence until the details specified under sub-paragraph (3) have been submitted to and approved in writing by the relevant planning authority.

(2) Construction of Work No. 26B must not commence until the details specified under sub-paragraph (3) have been submitted to and approved in writing by the relevant planning authority.

(3) The details required for approval in accordance with either sub-paragraphs (1) or (2) are—

(a) Section 105(2) was substituted by section 69(3) of the Energy Act 2008 (c. 32).

- (a) layout;
 - (b) scale, which must not exceed:
 - (i) 24 metres in height; and
 - (ii) a maximum footprint of 32,208 square metres for each onshore converter station;
 - (c) proposed finished ground levels;
 - (d) external appearance and materials;
 - (e) hard surfacing materials;
 - (f) vehicular and pedestrian access and parking areas;
 - (g) minor structures, such as furniture, refuse or other storage units, signs and external lighting; and
 - (h) proposed and existing functional services above and below ground, including drainage, power and communications cables and pipelines, manholes and supports.
- (4) The details submitted under sub-paragraphs (1) or (2) must be in accordance with the design and access statement.
- (5) Work Nos. 25A or 26A and 26B must be carried out in accordance with the details approved under sub-paragraphs (1) or (2) for each work.

Provision of landscaping

10.—(1) Any phase of the onshore works must not be commenced until a written landscape management plan (which accords with the outline landscape management plan) for that phase has been submitted to, and approved by, the relevant planning authority.

(2) Pre-commencement early planting of landscaping works must only take place in accordance with a specific written landscape management plan for early planting of landscaping works (which accords with the relevant details for early planting of landscaping works in the outline landscape management plan) that has been submitted to and approved by the relevant planning authority.

(3) Each landscape management plan must include details of all proposed hard and soft landscaping works, including—

- (a) surveys, assessments and method statements;
- (b) location, number, species, size and planting density of any proposed planting;
- (c) cultivation, treatment of materials and other operations to ensure plant establishment;
- (d) proposed finished ground levels;
- (e) details of existing trees and hedges to be removed and details of existing trees and hedges to be retained, with measures for their protection during the construction period where applicable and the details provided should be in accordance with British Standard 5837:2012 “Trees in relation to design, demolition and construction” and the Hedgerow Regulations 1997; and
- (f) implementation timetables for all landscaping works, including proposals for reinstatement.

(4) The details submitted under sub-paragraphs (2) and (3) must be in accordance with the design and access statement.

(5) A landscape management plan submitted under sub-paragraph (1) may cover one or more phase of the onshore works.

(6) Each landscape management plan must be implemented as approved.

Implementation and maintenance of landscaping

11.—(1) All landscaping works must be carried out in accordance with a landscape management plan approved under requirement 10 (provision of landscaping).

(2) Any tree or shrub planted as part of an approved landscape management plan that, within five years after planting (save in relation to Work Nos. 22A(g), 22B(g), 24A, 24B, 27A, 27B, 29A and 29B, for which the relevant period is the operational lifetime of the authorised development), is removed, dies or becomes, in the opinion of the relevant planning authority, seriously damaged or diseased, must be replaced in the next planting season with a specimen of the same species and size as that originally planted, unless otherwise agreed by the relevant planning authority.

Ecological management plan

12.—(1) Any phase of the onshore works must not be commenced until a written ecological management plan (which accords with the outline ecological management plan) for that phase reflecting the survey results and ecological mitigation and enhancement included in the environmental statement has been submitted to and approved by the relevant planning authority in consultation with the relevant statutory nature conservation body and (where works have potential to affect wetland habitat) the Environment Agency.

(2) Pre-commencement site clearance works must only take place in accordance with a specific written ecological management plan for site clearance works (which accords with the relevant details for pre-commencement site clearance works in the outline ecological management plan) has been submitted to and approved by the relevant planning authority in consultation with the relevant statutory nature conservation body and (where works have potential to affect wetland habitat) the Environment Agency.

(3) Any ecological management plan submitted under sub-paragraph (1) may cover one or more phase of the onshore works.

(4) Each ecological management plan must include an implementation timetable and must be carried out as approved.

Permanent fencing and other means of enclosure

13.—(1) No phase of the onshore works may be brought into use until details of all proposed permanent fences, walls or other means of enclosure for that phase have been submitted to and approved by the relevant planning authority.

(2) The details submitted under sub-paragraph (1) must be in accordance with the design and access statement.

(3) All permanent fencing, walls and other means of enclosure must be in accordance with the details approved under sub-paragraph (1).

(4) Any approved permanent fencing in relation to Work Nos. 25A or 26A and 26B must be completed before that work is brought into use.

(5) Any details submitted under sub-paragraph (1) may cover one or more phase of the onshore works.

(6) Permanent fencing, walls and other means of enclosure approved under sub-paragraph (1) must be provided and maintained until the onshore works to which they relate are decommissioned in accordance with the onshore decommissioning plan approved under requirement 27 (*onshore decommissioning*).

Traffic and Transport

14.—(1) Any phase of the onshore works must not be commenced until a construction traffic management plan (which must be in accordance with the outline construction traffic management plan) has for that phase been submitted to and approved by the relevant planning authority in consultation with—

- (a) the relevant highway authority; and/or
- (b) National Highways; and/or
- (c) Hull City Council,

as specified in the outline construction traffic management plan.

(2) Any plan submitted under sub-paragraph (1) may cover one or more phase of the onshore works.

(3) Each plan approved under sub-paragraph (1) must be implemented upon commencement of the relevant phase of the onshore works.

Highway accesses

15.—(1) Construction of any new permanent or temporary means of access to a highway, or alteration, or use of an existing means of access to a highway, must not commence until an access plan for that access has been submitted to and approved by the relevant planning authority in consultation with the relevant highway authority.

(2) The access plan must include details of the siting, design, layout, visibility splays, access management measures, lighting, signing, safety measures, swept path analysis and a maintenance programme relevant to the access it relates to.

(3) The highway accesses (including visibility splays) must be constructed and maintained in accordance with the approved details.

Pre-commencement, Construction and Operational Drainage Strategy

16.—(1) Any phase of the onshore works must not be commenced until a written plan for drainage during construction of the relevant phase has been submitted to and approved by the relevant planning authority in consultation with the lead local flood authority, relevant drainage authority and the Environment Agency.

(2) Any pre-commencement works must not be commenced until a specific written plan for drainage for the relevant pre-commencement works has been submitted to and approved or agreed not required by the relevant planning authority in consultation with the lead local flood authority, relevant drainage authority and the Environment Agency.

(3) Any phase of the onshore works must not be commenced until a written plan for drainage during operation of the relevant work, has been submitted to and approved by the relevant planning authority in consultation with the lead local flood authority, relevant drainage authority and the Environment Agency.

(4) Each pre-commencement drainage strategy, construction drainage strategy and operational drainage strategy must accord with the principles for the relevant phase set out in the outline drainage strategy, must include a timetable for implementation, and must include provision for the maintenance of any measures identified.

(5) Each pre-commencement drainage strategy, construction drainage strategy and operational drainage strategy must be implemented as approved.

(6) Any construction drainage strategy and operational drainage strategy submitted under sub-paragraphs (1) and (2) may cover one or more phases.

Foul Water Drainage

17.—(1) Any phase of the onshore works must not be commenced until written details of the foul water drainage system (if any) (including means of pollution control) for the construction of that phase of the onshore works have been submitted to and approved by the relevant drainage and sewerage authorities in consultation with the lead local flood authority and the Environment Agency.

(2) Any phase of the onshore works must not be commenced until written details of the foul water drainage system (if any) (including means of pollution control) for the operation of that phase of the onshore works have been submitted to and approved by the relevant drainage and sewerage authorities in consultation with the lead local flood authority and the Environment Agency.

(3) The foul water drainage system must be constructed, operated and maintained in accordance with the approved details.

(4) Any details submitted under sub-paragraphs (1) and (2) may cover one or more phase of the onshore works.

Onshore Archaeology

18.—(1) Any phase of the onshore works must not be commenced until a written scheme of archaeological investigation for that phase (which must accord with the outline onshore written scheme of investigation) has, after consultation with the statutory historic body, been submitted to and approved by the relevant planning authority in consultation with the statutory historic body.

(2) Each scheme must—

- (a) set out a pre-construction programme of archaeological evaluation that defines the extent and character of archaeological sites and identifies where subsequent archaeological mitigation (i.e. archaeological excavation or monitoring) are required;
- (b) set out the programme and methodology for site investigation and recording;
- (c) set out the programme for post-excavation assessment, the results of which may inform the scope of analysis;
- (d) provision to be made for analysis of the site investigation and recording;
- (e) provision to be made for publication and dissemination of the analysis and records of the site investigation;
- (f) provision to be made for archive deposition of the analysis and records of the site investigation; and
- (g) nominate a competent person or organisation to undertake the works set out in the written scheme of investigation.

(3) Any written scheme of archaeological investigation or archaeological monitoring works submitted under sub-paragraph (1) may cover one or more phase of the onshore works.

(4) Any archaeological investigations must be carried out in accordance with a scheme approved under sub-paragraph (1).

(5) The pre-construction archaeological evaluation, archaeological site investigations, archaeological monitoring and post-excavation assessment for each phase must be completed for that phase in accordance with the programme set out in the relevant written scheme of archaeological investigation and provision made for analysis, publication and dissemination of results and archive deposition secured for that phase.

(6) For the purposes of this requirement 18 only, the definition of “commence” includes intrusive archaeological investigations.

Code of construction practice

19.—(1) Any phase of the onshore works must not be commenced until a code of construction practice (which must accord with the outline code of construction practice) for that phase has been submitted to and approved by the relevant planning authority in consultation as appropriate with the Environment Agency, the relevant statutory nature conservation body and the MMO where required.

(2) Any code of construction practice submitted under sub-paragraph (1) may cover one or more phase of the onshore works.

(3) All construction works for each phase must be undertaken in accordance with the relevant approved code of construction practice.

(4) Pre-commencement screening and fencing works must only take place in accordance with a specific plan for such pre-commencement works which must accord with the relevant details for screening and fencing security set out in the outline code of construction practice, and which has

been submitted to and approved by the relevant planning authority following consultation with the relevant statutory nature conservation body.

(5) Any temporary fencing must be removed on completion of the relevant phase of the onshore works unless otherwise approved by the relevant planning authority.

(6) Any pre-commencement screening and fencing works must be removed on completion of the relevant pre-commencement works unless otherwise approved by the relevant planning authority.

Construction hours for the onshore works

20.—(1) Construction work for the onshore works must only take place between 0700 hours and 1900 hours Monday to Saturday, with no activity on Sundays, bank holidays or public holidays, except as specified in sub-paragraphs (2) to (4).

(2) Outside the hours specified in sub-paragraph (1), construction work may be undertaken for essential activities including but not limited to—

- (a) continuous periods of operation that are required as assessed in the environmental statement, such as concrete pouring, drilling, and pulling cables (including fibre optic cables) through ducts and trenchless crossings;
- (b) internal fitting out works associated with the onshore HVDC converter station buildings comprised within Work Nos. 25A or 26A and 26B;
- (c) delivery of abnormal loads to the onshore works that may otherwise cause congestion on the local road network;
- (d) the testing or commissioning of any electrical plant installed as part of the onshore works;
- (e) security monitoring; or
- (f) activity necessary in the instance of an emergency or where there is an immediate risk to persons, the environment, delivery of electricity, or property.

(3) Save for emergency works, full details, including but not limited to type of activity, vehicle movements and type, timing and duration and any proposed mitigation, of all essential construction activities under sub-paragraph (2) and undertaken outside of the hours specified in sub-paragraph (1) must be approved by the relevant planning authority in writing in advance, and must be carried out within the agreed time.

(4) In the event of an emergency, notification of that emergency must be given to the relevant planning authority and the relevant highway authority as soon as reasonably practicable.

(5) For the purposes of this requirement “emergency” means a situation where, if the relevant action is not taken, there will be adverse health, safety, security or environmental consequences that in the reasonable opinion of the undertaker would outweigh the adverse effects to the public (whether individuals, classes or generally as the case may be) of taking that action.

Control of noise during operational phase

21.—(1) Prior to the commencement of Work No. 25A or 26A a noise management plan for those works must be submitted to and approved by the relevant planning authority.

(2) Prior to the commencement of Work No. 26B a noise management plan for those works must be submitted to and approved by the relevant planning authority.

(3) Any noise management plan submitted under sub-paragraphs (1) or (2) must set out the particulars of—

- (a) an assessment of noise from the converter station, demonstrating that the rating level of the converter station sound (determined in accordance with British Standard 4142:2014+A1:2019 ‘Methods for rating and assessing industrial and commercial noise’) does not exceed the following levels at daytime (0700 – 2300 hours) and nighttime (2300 – 0700 hours) at the stated properties (OSGB coordinates provided)—
 - (i) 50 dB(A) daytime and 40 dB(A) nighttime at Butt Farm, Victoria Road (X:502021, Y:437000);

- (ii) 58 dB(A) daytime and 40 dB(A) nighttime at:
 - (aa) 158 Victoria Road (X:502448, Y:437129);
 - (bb) Maurice Wood, Jocks Lodge, Victoria Road (X:502509, Y:436990);
 - (cc) Bentley Lodge, Victoria Road (X:502572, Y:436762);
 - (dd) Spring Mount, Victoria Road (X:502558, Y:436638);
 - (ee) Rose Villa, Bentley (X:502533, Y:436495);
 - (iii) 49 dB(A) daytime and 40 dB(A) nighttime at:
 - (aa) Lake Farm, Bentley (X:501894, Y:435945);
 - (bb) Church Cottage, Bentley (X:501974, Y:435973);
 - (cc) St Peters House, Bentley (X:501985, Y:435982);
 - (dd) 1-4 Manor Farm Cottages, Bentley (X:502107, Y:436022);
 - (ee) Keeper's Cottage, Bentley (X:502147, Y:436035);
 - (ff) Rose Cottage, Bentley (X:502159, Y:436035);
 - (b) a scheme for monitoring noise levels which must include—
 - (i) the circumstances under which noise will be monitored;
 - (ii) the locations at which noise will be monitored;
 - (iii) the method of noise measurement (which must be in accordance with British Standard 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial noise', an equivalent successor standard or other agreed noise measurement methodology appropriate to the circumstances); and
 - (c) a scheme for a complaints procedure.
- (4) Any noise management plan approved under sub-paragraphs (1) or (2) must be implemented as approved.

Control of artificial light emissions

22.—(1) Work No. 25A or 26A must not be brought into operation until a written scheme for the management and mitigation of artificial light emissions during the operation of that work has been submitted to and approved by the relevant planning authority.

(2) Work No. 26B must not be brought into operation until a written scheme for the management and mitigation of artificial light emissions during the operation of that work has been submitted to and approved by the relevant planning authority.

(3) The details submitted under sub-paragraphs (1) or (2) must be in accordance with the design and access statement.

(4) Any scheme approved under sub-paragraphs (1) or (2) must be implemented as approved and thereafter operated and maintained in accordance with the approved details.

European protected species: onshore

23.—(1) Any phase of the onshore works must not be commenced until final pre-construction survey work has been carried out to establish whether a European protected species is present on any of the land affected, or likely to be affected, by that phase of the onshore works or in any of the trees to be lopped or felled as part of that phase of the onshore works.

(2) Where a European protected species is shown to be present, the relevant phase of the onshore works must not commence until a European protected species licence has been granted by the relevant statutory nature conservation body.

(3) The onshore works must be carried out in accordance with any approved European protected species license.

(4) In this requirement “European protected species” has the same meaning as in regulations 42 (European protected species of animals) and 46 (European protected species of plants) of the 2017 Regulations.

Public Rights of Way Management Plan

24.—(1) No phase of the onshore works that would affect a public right of way specified in Schedule 4 is to be undertaken until a public rights of way management plan in respect of that phase and in accordance with the outline public rights of way management plan, including the specification for making up of an alternative right of way (where appropriate) has been submitted to and approved by the relevant planning authority.

(2) Any alternative public rights of way must be implemented in accordance with the approved public rights of way management plan.

(3) Any public rights of way management plan submitted under sub-paragraph (1) may cover one or more phases of the onshore works.

Restoration of land used temporarily for construction

25. Subject to article 30 (*temporary use of land for carrying out the authorised project*), any land landward of MLWS within the Order limits that is used temporarily for construction of the onshore works, and not ultimately incorporated in permanent works or approved landscaping, must be reinstated to its former condition, or such condition as the relevant planning authority may approve in consultation with, where appropriate, the MMO, and where reinstatement works affect a watercourse, the relevant drainage authority, as soon as reasonably practicable and in any event within 12 months of completion of the relevant phase of the onshore works, or such other period as the relevant planning authority may approve.

Skills and employment

26.—(1) Any phase of the DBS East Project must not be commenced until a skills and employment strategy in respect of that phase (which accords with the outline skills and employment strategy) has been submitted to and approved in writing by the relevant planning authority.

(2) Any phase of the DBS West Project must not be commenced until a skills and employment strategy in respect of that phase (which accords with the outline skills and employment strategy) has been submitted to and approved in writing by the relevant planning authority.

(3) Each skills and employment strategy must be implemented as approved.

(4) Any skills and employment strategy submitted under sub-paragraph (1) may cover one or more phases of the onshore works.

Onshore decommissioning

27.—(1) Within six months of the permanent cessation of commercial operation of the DBS East Project onshore works, an onshore decommissioning plan must be submitted by DBSEL to the relevant planning authority for approval unless otherwise agreed in writing by the relevant planning authority.

(2) Within six months of the permanent cessation of commercial operation of the DBS West Project onshore works, an onshore decommissioning plan must be submitted by DBSWL to the relevant planning authority for approval unless otherwise agreed in writing by the relevant planning authority.

(3) Any onshore decommissioning plan submitted under sub-paragraphs (1) or (2) must be approved by the relevant planning authority prior to any decommissioning works commencing unless otherwise agreed in writing between the relevant planning authority and the undertaker.

(4) If the relevant planning authority fails to notify the undertaker of its decision within 56 days of receiving a request for approval under sub-paragraphs (1) or (2) the relevant planning authority is deemed to have given its approval.

(5) Any decommissioning plan approved under this requirement must be implemented as approved.

Notification of generation of power

28.—(1) DBSEL must notify the relevant planning authority and the MMO upon first generation of power from each phase of the DBS East Project no later than seven days after the occurrence of this event.

(2) DBSWL must notify the relevant planning authority and the MMO upon first generation of power from each phase of the DBS West Project no later than seven days after the occurrence of this event.

Contaminated land and groundwater scheme

29.—(1) Pre-commencement remedial work and onshore works in respect of any identified ground contamination that is likely to cause significant harm to persons or pollution of controlled waters or the environment, must only take place in accordance with a scheme to deal with the contamination of that land (including groundwater), which scheme must be submitted to, and approved by, the relevant planning authority in consultation with the Environment Agency.

(2) Each scheme submitted under sub-paragraph (1) must include an investigation and assessment report, prepared by a specialist consultant to identify the extent of any contamination and the remedial measures to be taken for that stage to render the land fit for its intended purpose, together with a management plan which sets out measures in the event that contamination not previously identified is found to be present and long-term measures with respect to any contaminants remaining on the site.

(3) Such remediation as may be identified in each approved scheme must be carried out in accordance with that approved scheme.

Port traffic

30.—(1) Work Nos. 1A or 1B must not be commenced until—

- (a) a port construction traffic management plan for the onshore port-related traffic to and from the construction port or ports and relating to that part of the authorised project, has been submitted to and approved by the relevant highway authority in consultation with the relevant planning authority; or
- (b) the relevant highway authority has confirmed, after consultation with the relevant planning authority, that no port construction traffic management plan is required for that part of the authorised project.

(2) Work Nos. 1A or 1B must not begin operating until—

- (a) a port travel plan for the onshore port-related traffic to and from the operation port or ports and relating to that part of the authorised project, has been submitted to and approved by the relevant highway authority in consultation with the relevant planning authority; or
- (b) the relevant highway authority has confirmed, after consultation with the relevant planning authority, that no port travel plan is required for that part of the authorised project.

(3) The port construction traffic management plan must be implemented as approved at all times specified within the port construction traffic management plan during the construction of the authorised project.

(4) The port travel plan must be implemented as approved at all times specified within the port travel plan during the operation of the authorised project.

(5) For the purposes of this requirement—

“relevant planning authority” and “relevant highway authority” mean—

- (a) in respect of sub-paragraph (1), the planning or highway authority or authorities in whose area the relevant construction port is located; and
- (b) in respect of sub-paragraph (2), the planning or highway authority or authorities in whose area the relevant operation port is located;

“construction port” or “ports” means a port or ports situated in England and/or Wales and used for construction of the authorised project; and

“operation port” or “ports” means a port or ports situated in England and/or Wales and used by management personnel for the ongoing operational management of the authorised project.

Ministry of Defence Radar Mitigation

31.—(1) No part of any wind turbine generator shall be erected as part of Work No. 1B until the Secretary of State, having consulted with the Ministry of Defence, confirms in writing that appropriate mitigation will be implemented and maintained for the life of the authorised development and that arrangements have been put in place with the Ministry of Defence to ensure that the approved mitigation is implemented, unless it is otherwise agreed it is not necessary.

(2) No wind turbine generator forming part of Work No. 1B is permitted to rotate its rotor blades on its horizontal axis until the Secretary of State, having consulted with the Ministry of Defence, confirms satisfaction in writing that the approved mitigation has been implemented and will be maintained for the life of the DBS West Project Offshore development.

(3) For the purposes of this requirement—

“appropriate mitigation” means measures to prevent or remove any adverse effects which the DBS West Project Offshore works will have on the air defence radar(s) at Remote Radar Head (RRH) Staxton Wold, and the Ministry of Defence’s air surveillance and control operations;

“approved mitigation” means the detailed Radar Mitigation Scheme (RMS) that will set out the appropriate measures and timescales for implementation as agreed with the Ministry of Defence at the time the Secretary of State confirms satisfaction in writing in accordance with sub-paragraph (1); and

“Ministry of Defence” means the Ministry of Defence as represented by Defence Infrastructure Organisation – Safeguarding, St George’s House, DIO Head Office, DMS Whittington, Lichfield, Staffordshire, WS14 9PY or any successor body.

(4) The undertaker must thereafter comply with all other obligations contained within the approved mitigation for the life of the DBS West Project Offshore works.

Biodiversity net gain

32.—(1) Any phase of the onshore works must not be commenced until a biodiversity net gain strategy (in accordance with the biodiversity net gain strategy forming Appendix 18-10 of the environmental statement) in relation to that phase has been submitted and approved by the relevant planning authority in consultation with the relevant statutory nature conservation body.

(2) Any biodiversity net gain strategy submitted under sub-paragraph (1) may cover one or more phases of the onshore works.

(3) The biodiversity net gain strategy for each phase must be implemented as approved.

Onshore monitoring plan

33.—(1) Any phase of the onshore works must not be commenced until an onshore operational monitoring plan (in accordance with the outline code of construction practice) in relation to that phase has been submitted to and approved by the relevant planning authority.

(2) Any onshore operational monitoring plan submitted under sub-paragraph (1) may cover one or more phases of the onshore works.

- (3) The onshore operational monitoring plan for each phase must be implemented as approved.

Amendments to approved details

34.—(1) Where any requirement requires the authorised project to be carried out in accordance with the details approved by the relevant planning authority or another person (the “approving authority”), the approved details must be taken to include any amendments that may subsequently be approved by the approving authority (after consulting any person that the approving authority is required to consult under the relevant requirement).

(2) The approving authority must not approve an amendment unless it is satisfied that the amendment is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Onshore collaboration

35. DBSEL and DBSWL must—

- (a) before submitting any plan or document required to be submitted for approval under the requirements to the relevant discharging authority, provide a copy of the plan or document to the other undertaker to enable the other undertaker to provide comments on the relevant plans and documentation; and
- (b) when submitting any plan or document referred to in sub-paragraph (a) for approval, submit to the relevant discharging authority any comments duly received from the other undertaker or a statement confirming that no such comments were received.

Permanent access road to onshore converter stations

36.—(1) The permanent access road to the onshore DBS East Project converter station and onshore DBS West Project converter station must not commence until details of its precise location, width, the proposed finished ground levels and materials, along with any signage or lighting proposed at the entrance to the access road have been submitted to and approved in writing by the relevant planning authority.

(2) The details submitted under sub-paragraph (1) must be in accordance with the design and access statement.

(3) The permanent access road to the onshore DBS East Project converter station and onshore DBS West Project converter station must be carried out in accordance with the details approved under sub-paragraph (1).

Wake effects plan

37.—(1) Work No. 1A must not be commenced until either—

- (a) A wake effects plan relating to that part of the authorised project has been submitted to and approved by the Secretary of State following consultation with owners of the relevant offshore wind farm(s); or
- (b) The undertaker has provided evidence to the Secretary of State that alternative mitigation for wake effects has been agreed with the owners of the relevant offshore wind farm(s); or
- (c) A combination of (1)(a) and (1)(b) is provided to and agreed by the Secretary of State to ensure that each of the relevant offshore wind farm(s) is considered.

(2) Work No. 1B must not be commenced until either—

- (a) A wake effects plan relating to that part of the authorised project has been submitted to and approved by the Secretary of State following consultation with each of the owners of the relevant offshore wind farm(s); or

- (b) The undertaker has provided evidence to the Secretary of State that alternative mitigation for wake effects has been agreed with the owners of the relevant offshore wind farm(s); or
 - (c) A combination of (2)(a) and (2)(b) is provided to and agreed by the Secretary of State to ensure that each of the relevant offshore wind farm(s) is considered.
- (3) Any wake effects plan(s) provided in accordance with paragraphs (1)(a), 1(c), (2)(a) or (2)(c) must include:
- (a) the wake effects from the authorised development on the annual energy production of the relevant offshore wind farm(s);
 - (b) details of reasonable steps that have been taken or are proposed to be taken by the undertaker to minimise wake effects on the relevant offshore wind farm(s) whilst maximising the capacity and energy output of the authorised development within the identified technical, environmental and other constraints of the authorised development;
 - (c) the timescales for implementation of any wake effect mitigation measures;
 - (d) any time limits for wake effect mitigation measures; and
 - (e) details of any necessary monitoring of the wake effect mitigation measures.
- (4) The layout plan submitted to the MMO under condition 15(1)(a) of schedule 10 of this Order must be in accordance with any approved wake effects plan submitted in accordance with subparagraph (1) above.
- (5) The layout plan submitted to the MMO under condition 15(1)(a) of schedule 11 of this Order must be in accordance with any approved wake effects plan submitted in accordance with subparagraph (2) above.
- (6) Each approved wake effects plan submitted under this requirement must be implemented as approved.
- (7) For the purposes of this requirement—“relevant offshore wind farms” means the two offshore wind farms consented under the Dogger Bank Creyke Beck Offshore Wind Farm Order 2015 (SI2015/318) as amended at the date of this Order and known as Dogger Bank A and Dogger Bank B, the offshore wind farm consented under the Dogger Bank Teesside A and B Offshore Wind Farm Order 2015 (SI2015/1592) as amended at the date of this Order and known as Dogger Bank C, the offshore wind farm consented under the Hornsea One Offshore Wind Farm Order 2014 (SI2014/3334) as amended at the date of this Order, the offshore wind farm consented under the Hornsea Two Offshore Wind Farm Order 2016 (SI2016/844) as amended at the date of this Order and the offshore wind farm consented under the Hornsea Three Offshore Wind Farm Order 2020 as amended at the date of this Order.

PART 2

Approval of matters specified in requirements

Applications made under requirements

1. In this Part of this Schedule, “discharging authority” means—
 - (a) any body responsible for giving any consent, agreement or approval required by a requirement included in Part 1 of this Schedule, or for giving any consent, agreement or approval further to any document referred to in any such requirement; or

- (b) the local authority in the exercise of its functions set out in sections 60 (control of noise on construction sites) and 61 (prior consent for work on construction sites) of the Control of Pollution Act 1974 subsequently referred to as “the 1974 Act”(a).

2.—(1) Where an application has been made to the discharging authority for any consent, agreement or approval required pursuant to a requirement included in Part 1 of this Schedule, or for any consent, agreement or approval further to any document referred to in any such requirement, the discharging authority must give notice to the undertaker of its decision on the application within a period of eight weeks beginning with—

- (a) the day immediately following that on which a valid application is received by the discharging authority (such validity to be confirmed by the discharging authority within five days of receipt of the application);
- (b) where further information is requested under paragraph 3, the day immediately following that on which the further information has been supplied by the undertaker; or
- (c) such longer period as may be agreed in writing by the undertaker and the discharging authority.

(2) In determining any application made to the discharging authority for any consent, agreement or approval required by a requirement contained in Part 1 of this Schedule, the discharging authority may—

- (a) give or refuse its consent, agreement or approval; or
- (b) give its consent, agreement or approval either subject to reasonable conditions, or unconditionally.

(3) In the event that the discharging authority does not determine an application within the period set out in sub-paragraph (1), the discharging authority is to be taken to have granted all parts of the application (without any condition or qualification) at the end of that period.

(4) In this Part of this Schedule, references to the “undertaker” should be read as a reference to the undertaker who submitted the relevant application.

Further information

3.—(1) In relation to any application referred to in paragraph (2), the discharging authority may request such further information from the undertaker as it considers necessary to enable it to consider the application.

(2) If the discharging authority considers that further information is necessary, and the requirement concerned contained in Part 1 of this Schedule does not specify that consultation with a consultee is required, the discharging authority must, within ten days of receipt of the application, notify the undertaker in writing specifying the further information required.

(3) If the requirement concerned contained in Part 1 of this Schedule specifies that consultation with a consultee is required, the discharging authority must issue the application to the consultee within five working days of receipt of the application, and notify the undertaker in writing specifying any further information requested by the consultee within five working days of receipt of such a request.

(4) If the discharging authority does not give the notification within the period specified in sub-paragraphs (2) or (3) it (and the consultee, as the case may be) is deemed to have sufficient information to consider the application and is not entitled to request further information without the prior agreement of the undertaker.

(a) 1974 c.40 Section 61 was amended by Schedule 7 to the Building Act 1984 (c.55), Schedule 15 to the Environmental Protection Act 1990 (c.43) and Schedule 24 to the Environment Act 1995 (c.25).

Appeal

4.—(1) Where a person (“the applicant”) makes an application to a discharging authority, the applicant may appeal to the Secretary of State in the event that—

- (a) The discharging authority refuses an application for any consent, agreement or approval required by—
 - (i) a requirement contained in Part 1 of this Schedule; or
 - (ii) a document referred to in any requirement contained in Part 1 of this Schedule.
- (b) the discharging authority issues a notice further to sections 60 (control of noise on construction sites) or 61 (prior consent for work on construction sites) of the 1974 Act;
- (c) on receipt of a request for further information pursuant to paragraph (3), the applicant considers that either the whole or part of the specified information requested by the discharging authority is not necessary for the consideration of the application; or
- (d) on receipt of any further information requested, the discharging authority notifies the applicant that the information provided is inadequate and requests additional information which the undertaker considers is not necessary for the consideration of the application.

(2) The appeal process is to be as follows—

- (a) any appeal by the applicant must be made within 42 days of the date of the notice of the decision or determination, or (where no determination has been made) the expiry of the time period set out in paragraph 2(1), giving rise to the appeal referred to in sub-paragraph (1);
- (b) the applicant must submit the appeal documentation to the Secretary of State and must on the same day provide copies of the appeal documentation to the discharging authority and any consultee specified under the relevant requirement contained in Part 1 of this Schedule;
- (c) as soon as is practicable after receiving the appeal documentation, the Secretary of State must appoint a person to consider the appeal (“the appointed person”) and must notify the appeal parties of the identity of the appointed person and the address to which all correspondence for the attention of the appointed person should be sent;
- (d) the discharging authority and any consultee (if applicable) must submit their written representations together with any other representations to the appointed person in respect of the appeal within 20 working days of the start date specified by the appointed person and must ensure that copies of their written representations and any other representations as sent to the appointed person are sent to each other and to the applicant on the day on which they are submitted to the appointed person;
- (e) the applicant must make any counter-submissions to the appointed person within 20 working days of receipt of written representations pursuant to sub-paragraph (d) above; and
- (f) the appointed person must make a decision and notify it to the appeal parties, with reasons, as soon as reasonably practicable after the end of the 20 day period for counter-submissions under sub-paragraph (e).

(3) The appointment of the person pursuant to sub-paragraph (2)(c) may be undertaken by a person appointed by the Secretary of State for this purpose instead of by the Secretary of State.

(4) In the event that the appointed person considers that further information is necessary to consider the appeal, the appointed person must notify the appeal parties in writing specifying the further information required, the appeal party from whom the information is sought, and the date by which the information is to be submitted.

(5) Any further information required under sub-paragraph (4) must be provided by the appeal party from whom the further information was requested to the appointed person and the other appeal parties by the date specified by the appointed person. The appointed person must notify the appeal parties of the revised timetable for the appeal on or before that day. The revised timetable for the appeal must require submission of written representations to the appointed person within

ten working days of the date specified by the appointed person but must otherwise be in accordance with the process and time limits set out in sub-paragraphs (2)(c) to (2)(e).

(6) On an appeal under this paragraph, the appointed person may—

- (a) allow or dismiss the appeal; or
- (b) reverse or vary any part of the decision of the discharging authority (whether the appeal relates to that part of it or not),
- (c) and may deal with the application as if it had been made to the appointed person in the first instance.

(7) The appointed person may proceed to a decision on an appeal taking into account such written representations as have been sent within the relevant time limits and in the sole discretion of the appointed person such written representations as have been sent outside of the relevant time limits.

(8) The appointed person may proceed to a decision even though no written representations have been made within the relevant time limits, if it appears to the appointed person that there is sufficient material to enable a decision to be made on the merits of the case.

(9) The decision of the appointed person on an appeal is final and binding on the parties, and a court may entertain proceedings for questioning the decision only if the proceedings are brought by a claim for a judicial review.

(10) If an approval is given by the appointed person pursuant to this Part of this Schedule, it is deemed to be an approval for the purpose of Part 1 of this Schedule as if it had been given by the discharging authority. The discharging authority may confirm any determination given by the appointed person in identical form in writing, but a failure to give such confirmation (or a failure to give it in identical form) is not to be taken to affect or invalidate the effect of the appointed person's determination.

(11) Save where a direction is given pursuant to sub-paragraph (12) requiring the costs of the appointed person to be paid by the discharging authority, the reasonable costs of the appointed person must be met by the applicant.

(12) On application by the discharging authority or the applicant, the appointed person may give directions as to the costs of the appeal parties and as to the parties by whom the costs of the appeal are to be paid. In considering whether to make any such direction and the terms on which it is to be made, the appointed person must have regard to relevant guidance on the Planning Practice Guidance website or any official circular or guidance which may from time to time replace it.

SCHEDULE 3

Articles 8 and 13

Streets subject to street works

PART 1

Streets subject to permanent street works

<i>(1) Area</i>	<i>(2) Street subject to permanent street works</i>
East Riding of Yorkshire	A1079 between reference points 26a and 26b and marked with a green line on the Streets Plan

PART 2

Streets subject to temporary street works

<i>(1) Area</i>	<i>(2) Street subject to temporary street works</i>

East Riding of Yorkshire	North Turnpike between the reference points 1a and 1b and marked with a purple line on sheet 1 of the Streets Plan
East Riding of Yorkshire	Cliff Road between the reference points 2a and 2b and marked with a green line on sheet 5 of the Streets Plan
East Riding of Yorkshire	B1242 (Hornsea Road) between the reference points 2c and 2d and marked with a green line on sheet 5 of the Streets Plan
East Riding of Yorkshire	B1242 (Hornsea Road) between the reference points 2e and 2f and marked with a green line on sheet 5 of the Streets Plan
East Riding of Yorkshire	Bewholme Lane between the reference points 3a and 3b and marked with a green line on sheet 6 of the Streets Plan
East Riding of Yorkshire	Dunnington Lane between the reference points 4a and 4b and marked with a green line on sheet 7 of the Streets Plan
East Riding of Yorkshire	Dunnington Lane between the reference points 5a and 5b and marked with a green line on sheet 8 of the Streets Plan
East Riding of Yorkshire	Dunnington Lane between the reference points 5c and 5d and marked with a green line on sheet 8 of the Streets Plan
East Riding of Yorkshire	A165 (Beverley Road) between the reference points 5e and 5f and marked with a green line on sheet 8 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 6a and 6b and marked with a purple line on sheet 11 of the Streets Plan
East Riding of Yorkshire	Billings Lane between the reference points 7a and 7b and marked with a green line on sheet 12 of the Streets Plan
East Riding of Yorkshire	Catfoss Road between the reference points 7c and 7d and marked with a green line on sheet 12 of the Streets Plan
East Riding of Yorkshire	Harsell Lane between reference points 8a and 8b and marked with a green line on sheet 13 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 9a and 9b and marked with a purple line on sheet 15 of the Streets Plan
East Riding of Yorkshire	Catwick Heads between reference points 9c and 9d and marked with a green line on sheet 15 of the Streets Plan
East Riding of Yorkshire	A1035 (West Road) between reference points 9e and 9f and marked with a green line on sheet 15 of the Streets Plan
East Riding of Yorkshire	A1035 (West Road) between reference points 9g and 9h and marked with a green line on sheet 15 of the Streets Plan
East Riding of Yorkshire	Catwick Heads between reference points 10a and 10b and marked with a green line on sheet 16 of the Streets Plan
East Riding of Yorkshire	Catwick Heads between reference points 10c and 10d and marked with a green line on sheet 16 of the Streets Plan
East Riding of Yorkshire	Rise Lane between reference points 11a and 11b and marked with a green line on sheet 17 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 11c and 11d and marked with a purple line on sheet 17 of the Streets Plan
East Riding of Yorkshire	Riston Road between reference points 12a and 12b and marked with a green line on sheet 18 of the Streets Plan
East Riding of Yorkshire	A165 (Whitecross Road) between reference points 13a and 13b and marked with a green line on sheet 19 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 14a and 14b and marked with a purple line on sheet 20 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 14c and 14d and marked with a purple line on sheet 20 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 15a and 15b and marked with a purple line on sheet 21 of the Streets Plan
East Riding of Yorkshire	A1035 (Hornsea Road) between reference points 15c and 15d and

	marked with a green line on sheet 21 of the Streets Plan
East Riding of Yorkshire	Meaux Lane between reference points 16a and 16b and marked with a green line on sheet 22 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 16c and 16d and marked with a purple line on sheet 22 of the Streets Plan
East Riding of Yorkshire	A1035 (Hornsea Road) between reference points 17a and 17b and marked with a green line on sheet 23 of the Streets Plan
East Riding of Yorkshire	A1035 (Hornsea Road) between reference points 17c and 17d and marked with a green line on sheet 23 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 17e and 17f and marked with a purple line on sheet 23 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 17g and 17h and marked with a purple line on sheet 23 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 17i and 17j and marked with a purple line on sheet 23 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 17k and 17l and marked with a purple line on sheet 23 of the Streets Plan
East Riding of Yorkshire	A1035 (Hornsea Road) between reference points 18a and 18b and marked with a green line on sheets 24 and 25 of the Streets Plan
East Riding of Yorkshire	Eske Lane between reference points 18c and 18d and marked with a green line on sheets 24 and 25 of the Streets Plan
East Riding of Yorkshire	A1035 (Hull Bridge Road) between reference points 19a and 19b and marked with a green line on sheet 28 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 19c and 19d and marked with a purple line on sheet 28 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 20a and 20b and marked with a purple line on sheet 29 of the Streets Plan
East Riding of Yorkshire	A1035 (Grange Way) between reference points 20c and 20d and marked with a green line on sheet 29 of the Streets Plan
East Riding of Yorkshire	Ings Road between reference points 20e and 20f and marked with a green line on sheet 29 of the Streets Plan
East Riding of Yorkshire	A164 (Driffild Road) between reference points 21a and 21b and marked with a green line on sheet 30 of the Streets Plan
East Riding of Yorkshire	A1035 (Constitution Hill) between reference points 22a and 22b and marked with a green line on sheet 31 of the Streets Plan
East Riding of Yorkshire	A1035 (Constitution Hill) between reference points 22c and 22d and marked with a green line on sheet 31 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 23a and 23b and marked with a purple line on sheet 32 of the Streets Plan
East Riding of Yorkshire	A1174 (York Road) between reference points 23c and 23d and marked with a green line on sheet 32 of the Streets Plan
East Riding of Yorkshire	Newbald Road between reference points 24a and 24b and marked with a green line on sheet 33 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 25a and 25b and marked with a purple line on sheet 34 of the Streets Plan
East Riding of Yorkshire	B1230 (Broadgate) between reference points 25c and 25d and marked with a green line on sheet 34 of the Streets Plan
East Riding of Yorkshire	A1079 between reference points 26a and 26b and marked with a green line on sheet 35 of the Streets Plan
East Riding of Yorkshire	A164 (Beverley Road) between reference points 27a and 27b and marked with a green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Planned Jock's Lodge Highway Alignment between reference points 27c and 27d and marked with a dashed green line on sheets 36 and 37 of the Streets Plan

East Riding of Yorkshire	Planned Jock's Lodge Highway Alignment between reference points 27e and 27f and marked with a dashed green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Planned Jock's Lodge Highway Alignment between reference points 27g and 27h and marked with a dashed green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Planned Jock's Lodge Highway Alignment between reference points 28a and 28b and marked with a dashed green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Planned Jock's Lodge Highway Alignment between reference points 28c and 28d and marked with a dashed green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 28e and 28f and marked with a purple line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Private Access Track between reference points 28g and 28h and marked with a purple line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	A1079 between reference points 29a and 29b and marked with a green line on sheets 37 and 38 of the Streets Plan
East Riding of Yorkshire	Planned Hornsea Project 4 Alignment between reference points 29c and 29d and marked with a dashed pink line on sheets 37 and 38 of the Streets Plan
East Riding of Yorkshire	Planned Hornsea Project 4 Alignment between reference points 29e and 29f and marked with a dashed pink line on sheets 37 and 38 of the Streets Plan
East Riding of Yorkshire	Planned Hornsea Project 4 Alignment between reference points 29g and 29h and marked with a dashed pink line on sheets 37 and 38 of the Streets Plan
East Riding of Yorkshire	Park Lane between reference points 30a and 30b and marked with a purple line on sheet 38 of the Streets Plan
East Riding of Yorkshire	Park Lane between reference points 30c and 30d and marked with a purple line on sheet 38 of the Streets Plan

SCHEDULE 4

Article 10

Streets to be temporarily closed or restricted

<i>(1) Area</i>	<i>(2) Streets to be temporarily closed or restricted</i>	<i>(3) Extent of temporary closure or restriction</i>
East Riding of Yorkshire	North Turnpike	Between the reference points 1a and 1b and marked with a purple line on sheet 1 of the Streets Plan
East Riding of Yorkshire	Cliff Road	Between the reference points 2a and 2b and marked with a green line on sheet 5 of the Streets Plan
East Riding of Yorkshire	B1242 (Hornsea Road)	Between the reference points 2c and 2d and marked with a green line on sheet 5 of the Streets Plan
East Riding of Yorkshire	B1242 (Hornsea Road)	Between the reference points 2e and 2f and marked with a green line on sheet 5 of the Streets Plan
East Riding of Yorkshire	Bewholme Lane	Between the reference points 3a and 3b and marked with a green line on sheet 6 of the Streets Plan

East Riding of Yorkshire	Dunnington Lane	Between the reference points 4a and 4b and marked with a green line on sheet 7 of the Streets Plan
East Riding of Yorkshire	Dunnington Lane	Between the reference points 5a and 5b and marked with a green line on sheet 8 of the Streets Plan
East Riding of Yorkshire	Dunnington Lane	Between the reference points 5c and 5d and marked with a green line on sheet 8 of the Streets Plan
East Riding of Yorkshire	A165/Beverley Road	Between the reference points 5e and 5f and marked with a green line on sheet 8 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 6a and 6b and marked with a purple line on sheet 11 of the Streets Plan
East Riding of Yorkshire	Billings Lane	Between the reference points 7a and 7b and marked with a green line on sheet 12 of the Streets Plan
East Riding of Yorkshire	Catfoss Road	Between the reference points 7c and 7d and marked with a green line on sheet 12 of the Streets Plan
East Riding of Yorkshire	Harsell Lane	Between reference points 8a and 8b and marked with a green line on sheet 13 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 9a and 9b and marked with a purple line on sheet 15 of the Streets Plan
East Riding of Yorkshire	Catwick Heads	Between reference points 9c and 9d and marked with a green line on sheet 15 of the Streets Plan
East Riding of Yorkshire	A1035 (West Road)	Between reference points 9e and 9f and marked with a green line on sheet 15 of the Streets Plan
East Riding of Yorkshire	A1035 (West Road)	Between reference points 9g and 9h and marked with a green line on sheet 15 of the Streets Plan
East Riding of Yorkshire	Catwick Heads	Between reference points 10a and 10b and marked with a green line on sheet 16 of the Streets Plan
East Riding of Yorkshire	Catwick Heads	Between reference points 10c and 10d and marked with a green line on sheet 16 of the Streets Plan
East Riding of Yorkshire	Rise Lane	Between reference points 11a and 11b and marked with a green line on sheet 17 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 11c and 11d and marked with a purple line on sheet 17 of the Streets Plan
East Riding of Yorkshire	Riston Road	Between reference points 12a and 12b and marked with a green line on sheet 18 of the Streets Plan
East Riding of Yorkshire	A165 (Whitecross Road)	Between reference points 13a and 13b and marked with a green line on sheet 19 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 14a and 14b. and

		marked with a purple line on sheet 20 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 14c and 14d and marked with a purple line on sheet 20 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 15a and 15b and marked with a purple line on sheet 21 of the Streets Plan
East Riding of Yorkshire	A1035 (Hornsea Road)	Between reference points 15c and 15d and marked with a green line on sheet 21 of the Streets Plan
East Riding of Yorkshire	Meaux Lane	Between reference points 16a and 16b and marked with a green line on sheet 22 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 16c and 16d and marked with a purple line on sheet 22 of the Streets Plan
East Riding of Yorkshire	A1035 (Hornsea Road)	Between reference points 17a and 17b and marked with a green line on sheet 23 of the Streets Plan
East Riding of Yorkshire	A1035 (Hornsea Road)	Between reference points 17c and 17d and marked with a green line on sheet 23 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 17e and 17f and marked with a purple line on sheet 23 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 17g and 17h and marked with a purple line on sheet 23 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 17i and 17j and marked with a purple line on sheet 23 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 17k and 17l and marked with a purple line on sheet 23 of the Streets Plan
East Riding of Yorkshire	A1035 (Hornsea Road)	Between reference points 18a and 18b and marked with a green line on sheets 24 and 25 of the Streets Plan
East Riding of Yorkshire	Eske Lane	Between reference points 18c and 18d and marked with a green line on sheets 24 and 25 of the Streets Plan
East Riding of Yorkshire	A1035 (Hull Bridge Road)	Between reference points 19a and 19b and marked with a green line on sheet 28 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 19c and 19d and marked with a purple line on sheet 28 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 20a and 20b and marked with a purple line on sheet 29 of the Streets Plan
East Riding of Yorkshire	A1035 (Grange Way)	Between reference points 20c and 20d and marked with a green line on sheet 29 of the Streets Plan
East Riding of Yorkshire	Ings Road	Between reference points 20e and 20f and marked with a green line on sheet 29 of the

		Streets Plan
East Riding of Yorkshire	A164 (Drifffield Road)	Between reference points 21a and 21b and marked with a green line on sheet 30 of the Streets Plan
East Riding of Yorkshire	A1035 (Constitution Hill)	Between reference points 22a and 22b and marked with a green line on sheet 31 of the Streets Plan
East Riding of Yorkshire	A1035 (Constitution Hill)	Between reference points 22c and 22d and marked with a green line on sheet 31 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 23a and 23b and marked with a purple line on sheet 32 of the Streets Plan
East Riding of Yorkshire	A1174 (York Road)	Between reference points 23c and 23d and marked with a green line on sheet 32 of the Streets Plan
East Riding of Yorkshire	Newbald Road	Between reference points 24a and 24b and marked with a green line on sheet 33 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 25a and 25b and marked with a purple line on sheet 34 of the Streets Plan
East Riding of Yorkshire	B1230 (Broadgate)	Between reference points 25c and 25d and marked with a green line on sheet 34 of the Streets Plan
East Riding of Yorkshire	A1079	Between reference points 26a and 26b and marked with a green line on sheet 35 of the Streets Plan
East Riding of Yorkshire	A164 (Beverley Road)	Between reference points 27a and 27b and marked with a green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Planned Jock's Lodge Highway Alignment	Between reference points 27c and 27d and marked with a dashed green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Planned Jock's Lodge Highway Alignment	Between reference points 27e and 27f and marked with a dashed green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Planned Jock's Lodge Highway Alignment	Between reference points 27g and 27h and marked with a dashed green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Planned Jock's Lodge Highway Alignment	Between reference points 28a and 28b and marked with a dashed green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Planned Jock's Lodge Highway Alignment	Between reference points 28c and 28d and marked with a dashed green line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 28e and 28f and marked with a purple line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	Private Access Track	Between reference points 28g and 28h and marked with a purple line on sheets 36 and 37 of the Streets Plan
East Riding of Yorkshire	A1079	Between reference points 29a and 29b and marked with a green line on sheets 37 and 38 of the Streets Plan

East Riding of Yorkshire	Planned Hornsea Project 4 Alignment	Between reference points 29c and 29d and marked with a dashed pink line on sheets 37 and 38 of the Streets Plan
East Riding of Yorkshire	Planned Hornsea Project 4 Alignment	Between reference points 29e and 29f and marked with a dashed pink line on sheets 37 and 38 of the Streets Plan
East Riding of Yorkshire	Planned Hornsea Project 4 Alignment	Between reference points 29g and 29h and marked with a dashed pink line on sheets 37 and 38 of the Streets Plan
East Riding of Yorkshire	Park Lane	Between reference points 30a and 30b and marked with a purple line on sheet 38 of the Streets Plan
East Riding of Yorkshire	Park Lane	Between reference points 30c and 30d and marked with a purple line on sheet 38 of the Streets Plan

SCHEDULE 5

Article 11

Closure and diversion of public rights of way

PART 1

Public Rights of Way to be temporarily closed or restricted

<i>(1) Area</i>	<i>(2) Public rights of way to be temporarily closed or restricted</i>	<i>(3) Extent of temporary closure or restriction</i>
East Riding of Yorkshire	Ulrome Footpath No.6	Between reference points 2a and 2b marked with a solid orange line on sheet 2 of the Public Rights of Way plan.
East Riding of Yorkshire	Skipsea Footpath No.6	Between reference points 5a and 5b marked with a solid orange line on sheet 5 of the Public Rights of Way plan.
East Riding of Yorkshire	Seaton Footpath No.10	Between reference points 12a and 12b marked with a solid orange line on sheet 12 of the Public Rights of Way plan.
East Riding of Yorkshire	Catwick Footpath No. 8	Between reference points 13a and 13b marked with a solid orange line on sheet 13 of the Public Rights of Way plan.
East Riding of Yorkshire	Proposed Bridleway in the parishes of Catwiche and Leven	Between reference points 15a and 15b marked with a solid purple line on sheet 15 of the Public Rights of Way plan.
East Riding of Yorkshire	Riston Footpath No.2	Between reference points 16a and 16b marked with a solid orange line on sheet 16 of the Public Rights of Way plan.
East Riding of Yorkshire	Molescroft Footpath No.5	Between reference points 22a and 22b marked with a solid orange line on sheet 22 of the

		Public Rights of Way plan
East Riding of Yorkshire	Molescroft Footpath No.3	Between reference points 24a and 24b marked with a solid orange line on sheet 24 of the Public Rights of Way plan
East Riding of Yorkshire	Walkington Footpath No.6	Between reference points 27a and 27b marked with a solid orange line on sheet 27 of the Public Rights of Way plan
East Riding of Yorkshire	Walkington Footpath No.4	Between reference points 28c and 28d marked with a solid orange line on sheet 27 of the Public Rights of Way plan
East Riding of Yorkshire	Rowley Bridleway No.13	Between reference points 30a and 30b, 30c and 30d and 30e and 30f marked with a solid green line on sheet 30 of the Public Rights of Way plan
East Riding of Yorkshire	Woodmansey Bridleway No.30	Between reference points 30g and 30h marked with a solid green line on sheet 30 of the Public Rights of Way plan
East Riding of Yorkshire	Woodmansey Bridleway No.6	Between reference points 31a and 31b and 31c and 31d marked with a solid green line on sheet 31 of the Public Rights of Way plan

PART 2

Public Rights of Way to be permanently diverted

<i>(1) Area</i>	<i>(2) Public rights of way to be permanently diverted</i>	<i>(3) Extent of closure</i>	<i>(4) Extent of substitute right of way</i>
East Riding of Yorkshire	Walkington Footpath No.4	Between reference points 28a and 28b marked with a solid pink line on sheet 28 of the Public Rights of Way Plan	Between reference points 28a and 28b marked with a blue dashed line on sheet 28 of the Public Rights of Way plan

SCHEDULE 6

Article 13

Access to works

<i>(1) Area</i>	<i>(2) Description of access</i>
East Riding of Yorkshire	Vehicular access from North Turnpike marked point AC0 on sheet 2 of the Access to Works plan
East Riding of Yorkshire	Vehicular access from Cliff Road marked points C1 (North) and C1 (South) on sheet 5 of the Access to Works plan
East Riding of Yorkshire	Vehicular access from B1242 (Hornsea Road) marked points AC1 (East) and AC1 (West) on sheet 5 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Bewholme Lane marked points C2 (East) and

	C2 (West) on sheet 6 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Dunnington Lane marked points C3 (East) and C3 (West) on sheet 7 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Dunnington Lane marked points C4 (East) and C4 (West) on sheet 8 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Dunnington Lane marked point AC2 on sheet 8 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Billings Lane marked points C5 (West) and C5 (East) on sheet 12 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Catfoss Road marked points AC3 (North) and AC3 (South) on sheet 12 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Harsell Lane marked points C6 (North) and C6 (South) on sheet 13 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Catwick Heads marked point AC4 on sheet 15 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A1035 (West Road) marked point AC5 on sheet 15 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Catwick Heads marked points C7 (East) and C7 (West) on sheet 16 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Rise Lane marked points C8 (North) and C8 (South) on sheet 17 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Riston Road marked points C9 (East) and C9 (West) on sheet 18 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A165 (Whitecross Road) marked points AC7 (North) and AC7 (South) on sheet 19 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A1035 (Hornsea Road) marked point AC8 on sheet 21 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Meaux Lane marked points C10 (East) and C10 (West) on sheet 22 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A1035 (Hornsea Road) marked points AC9 (South) and AC9 (North) on sheet 23 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Eske Lane marked points AC10 (East) and AC10 (West) on sheet 24 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A1035 (Hull Bridge Road) marked point AC11 on sheet 28 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Ings Road marked point AC12 on sheet 29 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A164 (Driffeld Road) marked points AC14 (East) and AC14 (West) on sheet 30 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A1035 (Constitution Hill) marked points AC13 (North) and AC13 (South) on sheet 31 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A1174 (York Road) marked points AC15 (North) and AC15 (South) on sheet 32 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the B1230 (Broadgate) marked points AC16 (North) and AC16 (South) on sheet 34 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A1079 marked point AC-SB4 on sheet 35 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A1079 marked point AC17 (South) on sheet 37 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Planned Jock's Lodge Highway Alignment

	marked point AC17 (West) on sheets 36 and 37 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from the A164 (Beverley Road) marked point AC18 on sheets 36 and 37 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Park Lane marked points C14 (North), C14 (West) and C14 (South) on sheet 38 of the Access to Works plan.
East Riding of Yorkshire	Vehicular access from Park Lane marked points C15 (North) and C15 (South) on sheet 38 of the Access to Works plan.

SCHEDULE 7

Article 22

Land in which only new rights, etc. may be acquired

<i>(1) Plot reference number shown on land plans</i>	<i>(2) Purpose for which rights may be acquired</i>
02-001, 02-002, 02-003, 02-004, 02-005, 02-006, 02-007, 02-008, 02-009, 02-010, 02-011, 02-012, 02-013, 02-014, 02-015, 02-017, 02-021, 02-022, 02-024, 02-026, 02-030, 02-031, 02-034, 02-038, 03-001, 03-002, 03-010, 03-011, 03-012, 03-013, 04-008, 04-009, 04-010, 04-014, 04-018, 04-021, 04-022, 04-023, 04-024, 05-001, 05-003, 05-004, 05-005, 06-001, 06-002, 06-007, 06-017, 06-018, 06-025, 07-001, 07-002, 07-003, 07-004, 07-005, 08-008, 08-009, 08-013, 08-015, 08-016, 08-017, 08-025, 08-026, 09-001, 09-002, 09-003, 09-008, 09-009, 09-010, 09-013, 10-005, 10-006, 10-007, 10-008, 10-009, 10-010, 10-011, 10-012, 10-013, 10-014, 10-019, 11-008, 11-018, 12-004, 12-011, 12-012, 12-013, 12-014, 13-001, 13-002, 13-003, 13-004, 13-005, 13-009, 13-014, 13-015, 13-016, 13-017, 14-005, 14-006, 14-007, 14-008, 14-013, 14-014, 15-006, 15-007, 15-008, 16-001, 16-002, 16-003, 16-004, 16-008,	Cable rights and restrictive covenants 1. Cable rights Rights for the purposes of the construction, installation, operation, maintenance and decommissioning of the authorised project to— (a) lay down, install, retain, adjust, alter, construct, operate, erect, use, maintain, repair, renew, upgrade, inspect, remove and replace the electricity cables (including the removal of materials including spoil) in, under, over and/or on the Land, together with such telemetry and fibre-optic lines, ducting, jointing bays, allow the installation and use of electricity cables in the additional ducts, and other apparatus, protection measures, cable marker posts, chambers and manholes, manhole covers and other equipment which is ancillary to the purposes of transmitting electricity along such electricity cables (all collectively referred to as the “cables”), and in doing so, to use or resort to trenchless installation techniques including (but not limited to) directional drilling beneath sea defences, watercourses, roads and railways; (b) lay down, install, retain, adjust, alter, construct, operate, erect, use, maintain, repair, renew, upgrade, inspect, remove and replace the additional ducts for electricity cables (including the removal of materials including spoil) in, under, over and/or on the Land, allow the installation and use of electricity cables in the additional ducts, together with such telemetry and fibre-optic lines, ducting, jointing bays and other apparatus, protection measures, cable marker posts, chambers and manholes, manhole covers and other equipment which is ancillary to the purposes of transmitting electricity along such electricity cables (all collectively referred to as the “cables”), and in doing so, to use or resort to trenchless installation techniques including (but not limited to) directional drilling beneath sea defences, watercourses, roads and railways; (c) enter, be on, and break open and break up the surface of the Land and remain with or without plant, vehicles,

16-009, 17-002, 17-008, 17-009, 17-010, 17-011, 18-001, 18-002, 18-007, 18-009, 18-010a, 18-012, 18-014a, 18-027, 18-038, 18-039, 18-039a, 18-043a, 18-043b, 18-043c, 18-043d, 18-043e, 18-043f, 18-043g, 18-043h, 18-043i, 18-043, 18-050, 18-052, 18-054, 19-003, 19-004, 19-005, 19-007, 20-002	machinery, apparatus and equipment which is ancillary to the purposes of transmitting electricity along the cables; (d) benefit from continuous vertical and lateral support for the authorised project; (e) pass and re-pass with or without vehicles, plant, machinery, apparatus, equipment and materials for the purposes of laying down, installing, adjusting, altering, constructing, using, maintaining, repairing, renewing, inspecting, removing and replacing the ducting, electrical infrastructure and cables; (f) construct and install and thereafter use the Land for all necessary purposes for the commissioning, construction, repair, testing and maintenance of the ducting, electrical infrastructure and cables in, on or under the Land; (g) place and use plant, machinery, structures and temporary structures within the Land for the purposes of the installation, construction, maintenance, repairing, renewing, upgrading, inspecting, removal and replacing of the ducting, electrical infrastructure and cables and to erect temporary signage and provide measures for the benefit of public and personnel safety; (h) erect fencing, gates, walls, barriers or other means of enclosure, and create secure working areas and compounds including trenchless installation technique compounds and working areas; (i) construct, lay down, use and remove temporary access roads including any necessary hard standing and other surface materials including (but not limited to) matting, aggregate, trackway, stone, tarmacadam, terram, temporary bridging, culverting or diversion of water courses and drains during any period during which construction, maintenance, repair or renewal is being carried out; (j) erect temporary bridges and supporting or protective structures for the purposes of access to adjoining land; (k) effect access and egress to the highway; (l) make such investigations in or on the Land as required; (m) alter, fell, lop or cut, coppice wood, uproot trees or hedges or shrubs which now or hereafter may be standing on the Land or other land which would if not felled, lopped, cut or removed would obstruct or interfere with the operation of the cables and ancillary equipment including ducting; (n) take and use, remove and discharge water from the Land, and to install, retain, use, maintain, inspect, alter, remove, refurbish, reconstruct, replace, protect and improve sewers, drains, pipes, ducts, mains, conduits, flues and to drain into and manage waterflows in any drains, watercourses and culverts, install, use, inspect, maintain, adjust, alter, renew, repair, test or cleanse drainage schemes on the Land or reinstate the any existing drainage scheme on the Land; (o) install, alter, re-lay, maintain, protect, adjust or remove

	pipes, cables or conduits or apparatus including but not limited to electricity poles, electricity pylons, electricity masts, overhead electricity lines, telecommunications cables and any ancillary equipment and apparatus public and private drains, watercourses, sewers, ponds or culverts, service media (including the pipes, cables or conduits or apparatus of statutory undertakers); (p) erect and remove temporary fencing, gates, walls, barriers or other means of enclosure, remove fences and structures within the Land during any period during which construction, maintenance, repair or renewal is being carried out (subject to erection of any temporary stock-proof fencing as is reasonably required and the re-instatement or suitable replacement of the fences or structures following the exercise of the rights); (q) store and stockpile materials (including excavated material); (r) create boreholes and trial excavation pits for the purposes of intrusively surveying the land and monitoring the use of any trenchless installation technique, to keep in place and monitor the same through construction, maintenance repair, replacement or decommissioning and to reinstate the Land; (s) excavate materials below ground level, including soils, and to store and re-use or dispose of the same, and in so excavating to undertake any works, including works of protection or removal of archaeological remains as may be required by any written scheme of investigation approved under this Order; (t) lay out temporary paths and bridleways for public use as temporary diversions for public rights of way which are interfered with during any period in which construction, maintenance, repair, renewal or decommissioning is being carried out; (u) install, execute, implement, retain, repair, improve, renew, relocate, maintain and carry out mitigation, maintenance, remediation works for environmental or ecological mitigation or enhancement works, including temporary works for noise alleviation measures and the installation of temporary barriers for the protection of fauna; (v) carry out such works (together with associated fencing) required by a planning permission and/or consent now or to be granted over the Land and/or in accordance with any necessary licences relating to protected species and/or wildlife; and (w) (in an emergency only when the cables are temporarily unusable) to lay down, install, use, maintain and inspect underground cables, telephone signalling and fibre-optic cables and ancillary equipment, associated works and other conducting media together with conduits or pipes for containing the same in and under the Land. 2. Restrictive covenants

	A restrictive covenant over the Land for the benefit of the remainder of the Order land to: (a) prevent anything to be done in or upon the Land or any part thereof for the purpose of the erection of any buildings or construction erection or works of any kind (including the foundations or footings thereto); (b) prevent anything to be done by way of hard surfacing of the Land with concrete of any kind or with any other material or surface whatsoever without the consent in writing of the undertaker (such consent not to be unreasonably withheld or delayed if the proposed surfacing would not cause damage to relevant part of the authorised project nor make it materially more difficult or expensive to maintain the authorised project); (c) prevent anything to be done by way of excavation of any kind in the Land nor any activities which would alter, increase or decrease ground cover or soil levels in any manner whatsoever without the consent in writing of the undertaker save as are reasonably required for agricultural activities (being ploughing to no deeper than 0.6m for the purposes of arable farming); (d) prevent the planting or growing within the Land of any trees, shrubs or underwood without the consent in writing of the undertaker (such consent not to be unreasonably withheld or delayed provided that the proposed trees, shrubs or underwood would not cause damage to the relevant part of the authorised project nor make it materially more difficult or expensive to access the relevant part of the authorised project); (e) prevent anything being done which may interfere with free flow and passage of electricity or telecommunications through the cables or support for the authorised project; (f) prevent carrying out operations or actions (including but not limited to blasting and piling) which may obstruct, interrupt, or interfere with the exercise of the rights or damage the authorised project; and (g) prevent any activity which would in the reasonable opinion of the undertaker result in the disturbance of ecological mitigation areas or areas of habitat creation including any ploughing or grazing without the prior written consent of the undertaker
02-016, 02-018, 02-019, 02-020, 02-023, 02-025	Cable rights, transition joint bay rights and restrictive covenants 1. Cable rights Rights for the purposes of the construction, installation, operation, maintenance and decommissioning of the authorised project to— (a) lay down, install, retain, adjust, alter, construct, operate, erect, use, maintain, repair, renew, upgrade, inspect, remove and replace the electricity cables (including the removal of materials including spoil) in, under, over and/or on the Land, together with such telemetry and fibre-optic lines, ducting, jointing bays and other

	apparatus, protection measures, cable marker posts, chambers and manholes, manhole covers and other equipment which is ancillary to the purposes of transmitting electricity along such electricity cables (all collectively referred to as the “cables”), and in doing so, to use or resort to trenchless installation techniques including (but not limited to) directional drilling beneath sea defences, watercourses, roads and railways; (b) lay down, install, retain, adjust, alter, construct, operate, erect, use, maintain, repair, renew, upgrade, inspect, remove and replace the additional ducts for electricity cables (including the removal of materials including spoil) in, under, over and/or on the Land, allow the installation and use of electricity cables in the additional ducts, together with such telemetry and fibre-optic lines, ducting, jointing bays and other apparatus, protection measures, cable marker posts, chambers and manholes, manhole covers and other equipment which is ancillary to the purposes of transmitting electricity along such electricity cables (all collectively referred to as the “cables”), and in doing so, to use or resort to trenchless installation techniques including (but not limited to) directional drilling beneath sea defences, watercourses, roads and railways; (c) enter, be on, and break open and break up the surface of the Land and remain with or without plant, vehicles, machinery, apparatus and equipment which is ancillary to the purposes of transmitting electricity along the cables; (d) benefit from continuous vertical and lateral support for the authorised project; (e) pass and re-pass with or without vehicles, plant, machinery, apparatus, equipment and materials for the purposes of laying down, installing, adjusting, altering, constructing, using, maintaining, repairing, renewing, inspecting, removing and replacing the ducting, electrical infrastructure and cables; (f) construct and install and thereafter use the Land for all necessary purposes for the commissioning, construction, repair, testing and maintenance of the ducting, electrical infrastructure and cables in, on or under the Land; (g) place and use plant, machinery, structures and temporary structures within the Land for the purposes of the installation, construction, maintenance, repairing, renewing, upgrading, inspecting, removal and replacing of the ducting, electrical infrastructure and cables and to erect temporary signage and provide measures for the benefit of public and personnel safety; (h) erect fencing, gates, walls, barriers or other means of enclosure, and create secure working areas and compounds including trenchless installation technique compounds and working areas; (i) construct, lay down, use and remove temporary access roads including any necessary hard standing and other surface materials including (but not limited to) matting, aggregate, trackway, stone, tarmacadam, terram,

	temporary bridging, culverting or diversion of water courses and drains during any period during which construction, maintenance, repair or renewal is being carried out; (j) erect temporary bridges and supporting or protective structures for the purposes of access to adjoining land; (k) effect access and egress to the highway; (l) make such investigations in or on the Land as required; (m) alter, fell, lop or cut, coppice wood, uproot trees or hedges or shrubs which now or hereafter may be standing on the Land or other land which would if not felled, lopped, cut or removed would obstruct or interfere with the operation of the cables and ancillary equipment including ducting; (n) take and use, remove and discharge water from the Land, and to install, retain, use, maintain, inspect, alter, remove, refurbish, reconstruct, replace, protect and improve sewers, drains, pipes, ducts, mains, conduits, flues and to drain into and manage waterflows in any drains, watercourses and culverts, install, use, inspect, maintain, adjust, alter, renew, repair, test or cleanse drainage schemes on the Land or reinstate any existing drainage scheme on the Land; (o) install, alter, re-lay, maintain, protect, adjust or remove pipes, cables or conduits or apparatus including but not limited to electricity poles, electricity pylons, electricity masts, overhead electricity lines, telecommunications cables and any ancillary equipment and apparatus public and private drains, watercourses, sewers, ponds or culverts, service media (including the pipes, cables or conduits or apparatus of statutory undertakers); (p) erect and remove temporary fencing, gates, walls, barriers or other means of enclosure, remove fences and structures within the Land during any period during which construction, maintenance, repair or renewal is being carried out (subject to erection of any temporary stock-proof fencing as is reasonably required and the re-instatement or suitable replacement of the fences or structures following the exercise of the rights); (q) store and stockpile materials (including excavated material); (r) create boreholes and trial excavation pits for the purposes of intrusively surveying the Land and monitoring the use of any trenchless installation technique, to keep in place and monitor the same through construction, maintenance repair, replacement or decommissioning and to reinstate the Land; (s) excavate materials below ground level, including soils, and to store and re-use or dispose of the same, and in so excavating to undertake any works, including works of protection or removal of archaeological remains as may be required by any written scheme of investigation approved under this Order; (t) lay out temporary paths and bridleways for public use as

	temporary diversions for public rights of way which are interfered with during any period in which construction, maintenance, repair, renewal or decommissioning is being carried out; (u) install, execute, implement, retain, repair, improve, renew, relocate, maintain and carry out mitigation, maintenance, remediation works for environmental or ecological mitigation or enhancement works, including temporary works for noise alleviation measures and the installation of temporary barriers for the protection of fauna; (v) carry out such works (together with associated fencing) required by a planning permission and/or consent now or to be granted over the Land and/or in accordance with any necessary licences relating to protected species and/or wildlife; and (w) (in an emergency only when the cables are temporarily unusable) to lay down, install, use, maintain and inspect underground cables, telephone signalling and fibre-optic cables and ancillary equipment, associated works and other conducting media together with conduits or pipes for containing the same in and under the Land. 2. Transition joint bay rights Rights for the purposes of the construction, installation, operation, maintenance and decommissioning of the authorised project to lay down, install, adjust, alter, construct, create, use, maintain, repair, renew, upgrade, inspect, remove and replace transition joint bays. 3. Restrictive covenants A restrictive covenant over the Land for the benefit of the remainder of the Order land to: (a) prevent anything to be done in or upon the Land or any part thereof for the purpose of the erection of any buildings or construction erection or works of any kind (including the foundations or footings thereto); (b) prevent anything to be done by way of hard surfacing of the Land with concrete of any kind or with any other material or surface whatsoever without the consent in writing of the undertaker (such consent not to be unreasonably withheld or delayed if the proposed surfacing would not cause damage to relevant part of the authorised project nor make it materially more difficult or expensive to maintain the authorised project); (c) prevent anything to be done by way of excavation of any kind in the Land nor any activities which would alter, increase or decrease ground cover or soil levels in any manner whatsoever without the consent in writing of the undertaker save as are reasonably required for agricultural activities (being ploughing to no deeper than 0.6m for the purposes of arable farming); (d) prevent the planting or growing within the Land of any trees, shrubs or underwood without the consent in writing of the undertaker (such consent not to be unreasonably

	withheld or delayed provided that the proposed trees, shrubs or underwood would not cause damage to the relevant part of the authorised project nor make it materially more difficult or expensive to access the relevant part of the authorised project); (e) prevent anything being done which may interfere with free flow and passage of electricity or telecommunications through the cables or support for the authorised project; (f) prevent carrying out operations or actions (including but not limited to blasting and piling) which may obstruct, interrupt, or interfere with the exercise of the rights or damage the authorised project; and (g) prevent any activity which would in the reasonable opinion of the undertaker result in the disturbance of ecological mitigation areas or areas of habitat creation including any ploughing or grazing without the prior written consent of the undertaker.
02-027, 02-033, 03-006, 04-004, 04-013, 06-004, 06-012, 06-021, 08-005, 08-014, 08-021, 09-006, 10-002, 11-004, 11-010, 11-011, 11-012, 12-005, 14-011, 15-004, 16-007, 17-001, 17-005, 18-003, 18-004, 18-027, 18-029, 18-032, 18-040, 18-040a, 18-040b	Cable rights and restrictive covenants under existing infrastructure 1. Cable rights Rights for the purposes of the construction, installation, operation, maintenance and decommissioning of the authorised project to— (a) lay down, install, retain, adjust, alter, construct, operate, erect, use, maintain, repair, renew, upgrade, inspect, remove and replace the electricity cables (including the removal of materials including spoil) in, under, over and/or on the Land, allow the installation and use of electricity cables in the additional ducts, together with such telemetry and fibre-optic lines, ducting, jointing bays and other apparatus, protection measures, cable marker posts, chambers and manholes, manhole covers and other equipment which is ancillary to the purposes of transmitting electricity along such electricity cables (all collectively referred to as the “cables”), and in doing so, to use or resort to trenchless installation techniques including (but not limited to) directional drilling beneath sea defences, watercourses, roads and railways; (b) lay down, install, retain, adjust, alter, construct, operate, erect, use, maintain, repair, renew, upgrade, inspect, remove and replace the additional ducts for electricity cables (including the removal of materials including spoil) in, under, over and/or on the Land, allow the installation and use of electricity cables in the additional ducts, together with such telemetry and fibre-optic lines, ducting, jointing bays and other apparatus, protection measures, cable marker posts, chambers and manholes, manhole covers and other equipment which is ancillary to the purposes of transmitting electricity along such electricity cables (all collectively referred to as the “cables”), and in doing so, to use or resort to trenchless installation techniques including (but not limited to) directional drilling beneath sea defences, watercourses, roads and railways;

	(c) enter, be on, and break open and break up the surface of the Land and remain with or without plant, vehicles, machinery, apparatus and equipment which is ancillary to the purposes of transmitting electricity along the cables; (d) benefit from continuous vertical and lateral support for the authorised project; (e) pass and re-pass with or without vehicles, plant, machinery, apparatus, equipment and materials for the purposes of laying down, installing, adjusting, altering, constructing, using, maintaining, repairing, renewing, inspecting, removing and replacing the ducting, electrical infrastructure and cables; (f) construct and install and thereafter use the Land for all necessary purposes for the commissioning, construction, repair, testing and maintenance of the ducting, electrical infrastructure and cables in, on or under the Land; (g) place and use plant, machinery, structures and temporary structures within the Land for the purposes of the installation, construction, maintenance, repairing, renewing, upgrading, inspecting, removal and replacing of the ducting, electrical infrastructure and cables and to erect temporary signage and provide measures for the benefit of public and personnel safety; (h) erect fencing, gates, walls, barriers or other means of enclosure, and create secure working areas and compounds including trenchless installation technique compounds and working areas; (i) construct, lay down, use and remove temporary access roads including any necessary hard standing and other surface materials including (but not limited to) matting, aggregate, trackway, stone, tarmacadam, terram, temporary bridging, culverting or diversion of water courses and drains during any period during which construction, maintenance, repair or renewal is being carried out; (j) Erect temporary bridges and supporting or protective structures for the purposes of access to adjoining land; (k) effect access and egress to the highway; (l) make such investigations in or on the Land as required; (m) alter, fell, lop or cut, coppice wood, uproot trees or hedges or shrubs which now or hereafter may be standing on the Land or other land which would if not felled, lopped, cut or removed would obstruct or interfere with the operation of the cables and ancillary equipment including ducting; (n) take and use, remove and discharge water from the Land, and to install, retain, use, maintain, inspect, alter, remove, refurbish, reconstruct, replace, protect and improve sewers, drains, pipes, ducts, mains, conduits, flues and to drain into and manage waterflows in any drains, watercourses and culverts, install, use, inspect, maintain, adjust, alter, renew, repair, test or cleanse drainage schemes on the Land or reinstate the any existing

	drainage scheme on the Land; (o) install, alter, re-lay, maintain, protect, adjust or remove pipes, cables or conduits or apparatus including but not limited to electricity poles, electricity pylons, electricity masts, overhead electricity lines, telecommunications cables and any ancillary equipment and apparatus public and private drains, watercourses, sewers, ponds or culverts, service media (including the pipes, cables or conduits or apparatus of statutory undertakers); (p) erect and remove temporary fencing, gates, walls, barriers or other means of enclosure, remove fences and structures within the Land during any period during which construction, maintenance, repair or renewal is being carried out (subject to erection of any temporary stock-proof fencing as is reasonably required and the re-instatement or suitable replacement of the fences or structures following the exercise of the rights); (q) store and stockpile materials (including excavated material); (r) create boreholes and trial excavation pits for the purposes of intrusively surveying the land and monitoring the use of any trenchless installation technique, to keep in place and monitor the same through construction, maintenance repair, replacement or decommissioning and to reinstate the Land; (s) excavate materials below ground level, including soils, and to store and re-use or dispose of the same, and in so excavating to undertake any works, including works of protection or removal of archaeological remains as may be required by any written scheme of investigation approved under this Order; (t) lay out temporary paths and bridleways for public use as temporary diversions for public rights of way which are interfered with during any period in which construction, maintenance, repair, renewal or decommissioning is being carried out; install, execute, implement, retain, repair, improve, renew, relocate, maintain and carry out mitigation, maintenance, remediation works for environmental or ecological mitigation or enhancement works, including temporary works for noise alleviation measures and the installation of temporary barriers for the protection of fauna; (u) carry out such works (together with associated fencing) required by a planning permission and/or consent now or to be granted over the Land and/or in accordance with any necessary licences relating to protected species and/or wildlife; and (v) (in an emergency only when the cables are temporarily unusable) to lay down, install, use, maintain and inspect underground cables, telephone signalling and fibre-optic cables and ancillary equipment, associated works and other conducting media together with conduits or pipes for containing the same in and under the Land. 2. Restrictive covenants

	A restrictive covenant over the Land for the benefit of the remainder of the Order land to: (a) prevent anything to be done in or upon the Land or any part thereof for the purpose of the erection of any buildings or construction, erection or works of any kind (including the foundations or footings thereto) other than those related to works for the benefit of existing highway or railway infrastructure; (b) prevent anything to be done by way of excavation of any kind in the Land nor any activities which would alter, increase or decrease ground cover or soil levels by greater than 1 metre whatsoever without the consent in writing of the undertaker, save where such works are reasonably required for the exercise of statutory functions or rights in relation any public highway or railway on the Land and will not damage, undermine or interfere with the cables; (c) prevent the planting or growing within the Land of any trees, shrubs or underwood without the consent in writing of the undertaker (such consent not to be unreasonably withheld or delayed provided that the proposed trees, shrubs or underwood would not cause damage to the relevant part of the authorised project nor make it materially more difficult or expensive to access the relevant part of the authorised project); (d) prevent anything being done which may interfere with free flow and passage of electricity or telecommunications through the cables or support for the authorised project; and (e) prevent carrying out operations or actions (including but not limited to blasting and piling) which may obstruct, interrupt, or interfere with the exercise of the rights or damage the authorised project; and (f) prevent any activity which would in the reasonable opinion of the undertaker result in the disturbance of ecological mitigation areas or areas of habitat creation including any ploughing or grazing without the prior written consent of the undertaker..
18-010a, 18-014a, 18-015, 18-016, 18-017, 18-019, 18-020, 18-021, 18-022a, 18-023, 18-024, 18-025a	Mitigation work areas access rights, mitigation rights and restrictive covenants 1. Permanent access rights Rights for the purposes of the construction, installation, operation, maintenance and decommissioning of the authorised project to— (a) pass and re-pass with or without vehicles, plant, machinery, apparatus, equipment and materials for the purposes of the authorised project, the inspection, testing, maintenance, renewal, upgrading, replacement and removal of the ducting, electrical infrastructure and cables and connection into any adjacent cables and associated works, to take plant and equipment on to adjoining land and make such investigations in or on the Land which is ancillary for the purposes of exercise of the rights;

	(b) enter, be on, and break open and break up the surface of the Land and remain with or without plant, vehicles, machinery, apparatus and equipment which is ancillary to the purposes of transmitting electricity along the cables; (c) construct, use, maintain and improve a permanent means of access including visibility splays, and retain, maintain, straighten, widen, repair, alter, upgrade and use existing access routes for the purposes of accessing the Land, adjoining land and highway; (d) construct, lay down, use and remove temporary access roads including any necessary hard standing and other surface materials including (but not limited to) matting, aggregate, trackway, stone, tarmacadam, terram, temporary bridging, culverting or diversion of water courses and drains during any period during which construction, maintenance, repair, renewal or decommissioning is being carried out; (e) erect temporary bridges and supporting or protective structures for the purposes of access to adjoining land; (f) place and use plant, machinery, structures and temporary structures within the Land, and to erect temporary signage and provide measures for the benefit of public and personnel safety; (g) alter, fell, lop, cut, coppice wood, uproot trees or hedges or shrubs which now or hereafter may be present on the Land for the purpose of enabling the right to pass and re-pass to adjoining land; (h) repair, improve, renew, remove, relocate and plant trees, woodland, shrubs, hedgerows, seeding and other ecological measures together with the right to maintain, inspect and replant such trees, shrubs and landscaping; (i) erect and remove temporary fencing, gates, walls, barriers or other means of enclosure; and (j) lay out temporary paths and bridleways for public use as temporary diversions for public rights of way which are interfered with during any period in which construction, maintenance, repair or renewal decommissioning is being carried out. 2. Mitigation works rights Rights for the purposes of the construction, installation, operation, maintenance and decommissioning of the authorised project to— (a) install, execute, implement, retain, repair, improve, renew, remove, relocate and plant trees, woodland, shrubs, hedgerows, seeding and other ecological measures together with the right to maintain, inspect and replant such trees, shrubs and landscaping; (b) install, execute, implement, retain, repair, improve, renew, relocate, maintain and carry out mitigation, maintenance, remediation works for environmental or ecological mitigation or enhancement works, including temporary works and the installation of temporary barriers for the protection of fauna;

	(c) erect maintain, repair, improve and remove permanent fencing, gates, barriers or other means of enclosure; and (d) carry out such works (together with associated fencing) required by a planning permission and/or consent now or to be granted over the Land in accordance with any necessary licences relating to protected species and/or wildlife (e) carry out works required to facilitate the protection of utilities apparatus. 3. Restrictive covenants A restrictive covenant over the Land for the benefit of the remainder of the Order land to prevent any activity which would in the reasonable opinion of the undertaker result in the disturbance of ecological mitigation areas or areas of habitat creation including any ploughing or grazing, during the period within which the undertaker is bound by any consent to maintain that ecological mitigation areas or areas of habitat creation, without the prior written consent of the undertaker.
20-004	1. National Grid substation works area rights Rights for the purposes of the construction, installation, operation, maintenance and decommissioning of the authorised project to— (a) lay down, install, retain, adjust, alter, construct, operate, erect, use, maintain, repair, renew, upgrade, inspect, remove and replace the electricity cables (including the removal of materials including spoil) in, under, over and/or on the Land, allow the installation and use of electricity cables in the additional ducts, together with such telemetry and fibre-optic lines, ducting, jointing bays and other apparatus, protection measures, cable marker posts, chambers and manholes, manhole covers and other equipment which is ancillary to the purposes of transmitting electricity along such electricity cables (all collectively referred to as the “cables”) and in doing so, to use or resort to trenchless installation techniques including (but not limited to) directional drilling beneath sea defences, watercourses, roads and railways; (b) lay down, install, retain, adjust, alter, construct, operate, erect, use, maintain, repair, renew, upgrade, inspect, remove and replace the additional ducts for electricity cables (including the removal of materials including spoil) in, under, over and/or on the Land, allow the installation and use of electricity cables in the additional ducts, together with such telemetry and fibre-optic lines, ducting, jointing bays and other apparatus, protection measures, cable marker posts, chambers and manholes, manhole covers and other equipment which is ancillary to the purposes of transmitting electricity along such electricity cables (all collectively referred to as the “cables”) and in doing so to use or resort to trenchless installation techniques including (but not limited to) directional drilling beneath sea defences, watercourses, roads and railways; (c) enter, be on, and break open and break up the surface of

	the Land and remain with or without plant, vehicles, machinery, apparatus and equipment which is ancillary to the purposes of transmitting electricity along the cables; (d) benefit from continuous vertical and lateral support for the authorised project; (e) pass and re-pass with or without vehicles, plant, machinery, apparatus, equipment and materials for the purposes of laying down, installing, adjusting, altering, constructing, using, maintaining, repairing, renewing, inspecting the authorised project and for removing and replacing the ducting, electrical infrastructure and cables; (f) use, maintain, renew improve and alter existing accesses, roads, streets, tracks or ways over the Land, providing that such use is not exclusive and exercise of this right must not prevent or unreasonably inhibit use by other parties; (g) construct, lay down, use and remove temporary access roads including any necessary hard standing and other surface materials including (but not limited to) matting, aggregate, trackway, stone, tarmacadam, terram, temporary bridging, culverting or diversion of water courses and drains during any period during which construction, maintenance, repair, renewal or decommissioning is being carried out; (h) place and use plant, machinery, structures and temporary structures within the Land, and to erect temporary signage and provide measures for the benefit of public and personnel safety; (i) alter, fell, lop, cut, coppice wood, uproot trees or hedges or shrubs which now or hereafter may be present on the Land for the purpose of enabling the right to pass and re-pass to adjoining land; and (j) take and use, remove and discharge water from the Land and to install, retain, use, maintain, inspect, alter, remove, refurbish, reconstruct, replace, protect and improve sewers, drains, pipes, ducts, mains, conduits, flues and to drain into and manage waterflows in any drains, watercourses and culverts, to lay down, install, adjust, alter, construct, create, use, maintain, repair, renew, upgrade, inspect, remove and replace a drainage scheme on the Land; and (k) install, alter, re-lay, maintain, protect, adjust or remove pipes, cables or conduits or apparatus including but not limited to electricity poles, electricity pylons, electricity masts, overhead electricity lines, telecommunications cables and any ancillary equipment and apparatus public and private drains, watercourses, sewers, ponds or culverts, service media (including the pipes, cables or conduits or apparatus of statutory undertakers). A restrictive covenant over the Land for the benefit of the remainder of the Order land— (a) prevent anything to be done in or upon the Land or any part thereof for the purpose of the erection of any buildings or construction, erection or works of any kind

	(including the foundations or footings thereto) without the prior written consent of the undertaker; (b) prevent the planting or growing within the Land of any trees, shrubs or underwood without the consent in writing of the undertaker (such consent not to be unreasonably withheld or delayed provided that the proposed trees, shrubs or underwood would not cause damage to the relevant part of the authorised project nor make it materially more difficult or expensive to access the relevant part of the authorised project); (c) prevent anything being done which may interfere with free flow and passage of electricity or telecommunications through the cables or support for the authorised project; and (d) to prevent carrying out operations or actions (including but not limited to blasting and piling) which may obstruct, interrupt, or interfere with the exercise of the rights or damage the authorised project.

SCHEDULE 8

Article 22

Modification of compensation and compulsory purchase enactments for creation of new rights and imposition of restrictive covenants

Compensation enactments

1. The enactments for the time being in force with respect to compensation for the compulsory purchase of land apply, with the necessary modifications as respects compensation, in the case of a compulsory acquisition under this Order of a right by the creation of a new right or the imposition of a restrictive covenant as they apply as respects compensation for the compulsory purchase of land and interests in land.

2.—(1) Without limitation on the scope of paragraph 1, the 1961 Act has effect subject to the modification set out in sub-paragraph (2).

(2) For section 5A(5A) (relevant valuation date) of the 1961 Act substitute—

“(5A) If—

- (a) the acquiring authority enters on land for the purposes of exercising a right in pursuance of a notice of entry under section 11(1) of the Compulsory Purchase Act 1965 (as modified by paragraph [5(5)] of Schedule 8 (modification of compensation and compulsory purchase enactments for creation of new rights and imposition of restrictive covenants) to the Dogger Bank South East and West Offshore Wind Farms Development Consent Order 202[•] (the “202[•] Order”));
- (b) the acquiring authority is subsequently required by a determination under paragraph 12 of Schedule 2A to the Compulsory Purchase Act 1965 (as substituted by paragraph 5(8) of Schedule 8 (modification of compensation and compulsory purchase enactments for creation of new rights and imposition of restrictive covenants) to the 202[•] Order) to acquire an interest in the land; and
- (c) the acquiring authority enters on and takes possession of that land,

the authority is deemed for the purposes of subsection (3)(a) to have entered on that land when it entered on that land for the purpose of exercising that right.”

3.—(1) Without limitation on the scope of paragraph 1, the Land Compensation Act 1973^(a) has effect subject to the modifications set out in sub-paragraph (2).

(2) In section 44(1) (compensation for injurious affection), as it applies to compensation for injurious affection under section 7 (measure of compensation in case of severance) of the 1965 Act as substituted by paragraph 5(3)—

- (a) for “land is acquired or taken from” substitute “a right or restrictive covenant over land is purchased from or imposed on”; and
- (b) for “acquired or taken from him” substitute “over which the right is exercisable or the restrictive covenant enforceable”.

Application of Part 1 of the 1965 Act

4. Part 1 (compulsory purchase under Acquisition of Land Act of 1946) of the 1965 Act, as applied by section 125 (application of compulsory acquisition provisions) of the 2008 Act (and modified by article 28 (*modification of Part 1 of the 1965 Act*)) to the acquisition of land under article 20 (*compulsory acquisition of land*), applies to the compulsory acquisition of a right by the creation of a new right, or to the imposition of a restrictive covenant, under article 22 (*compulsory acquisition of rights*)—

- (a) with the modifications specified in paragraph 5; and
- (b) with such other modifications as may be necessary.

5.—(1) The modifications referred to in paragraph 4(a) are as follows.

(2) References in the 1965 Act to land are, in the appropriate contexts, to be read (according to the requirements of the particular context) as referring to, or as including references to—

- (a) the right acquired or to be acquired, or the restriction imposed or to be imposed; or
- (b) the land over which the right is or is to be exercisable, or the restriction is or is to be enforceable.

(3) For section 7 (measure of compensation in case of severance) of the 1965 Act substitute—

“7. In assessing the compensation to be paid by the acquiring authority under this Act, regard must be had not only to the extent (if any) to which the value of the land over which the right is to be acquired or the restrictive covenant is to be imposed is depreciated by the acquisition of the right or the imposition of the covenant but also to the damage (if any) to be sustained by the owner of the land by reason of its severance from other land of the owner, or injuriously affecting that other land by the exercise of the powers conferred by this or the special Act.”

(4) The following provisions of the 1965 Act (which state the effect of a deed poll executed in various circumstances where there is no conveyance by persons with interests in the land), that is to say—

- (a) section 9(4) (refusal to convey, failure to make title, etc.);
- (b) paragraph 10(3) of Schedule 1 (conveyance of the land or interest);
- (c) paragraph 2(3) of Schedule 2 (absent and untraced owners); and
- (d) paragraphs 2(3) and 7(2) of Schedule 4 (common land),

are modified so as to secure that, as against persons with interests in the land which are expressed to be overridden by the deed, the right which is to be compulsorily acquired or the restrictive covenant which is to be imposed is vested absolutely in the acquiring authority.

(5) Section 11 (powers of entry) of the 1965 Act is modified so as to secure that, where the acquiring authority has served notice to treat in respect of any right or restrictive covenant, as well as the notice of entry required by subsection (1) of that section (as it applies to a compulsory

(a) 1973 c. 26.

acquisition under article 20 (compulsory acquisition of land)), it has power, exercisable in equivalent circumstances and subject to equivalent conditions, to enter for the purpose of exercising that right or enforcing that restrictive covenant (which is deemed for this purpose to have been created on the date of service of the notice); and sections 11A (powers of entry: further notices of entry), 11B (counter-notice requiring possession to be taken on specified date), 12 (unauthorised entry) and 13 (refusal to give possession to acquiring authority) of the 1965 Act are modified correspondingly.

(6) Section 20 (tenants at will, etc.) of the 1965 Act applies with the modifications necessary to secure that persons with such interests in land as are mentioned in that section are compensated in a manner corresponding to that in which they would be compensated on a compulsory acquisition under this Order of that land, but taking into account only the extent (if any) of such interference with such an interest as is actually caused, or likely to be caused, by the exercise of the right or the enforcement of the restrictive covenant in question.

(7) Section 22 (interests omitted from purchase) of the 1965 Act as modified by article 28(4) (modification of Part 1 of the 1965 Act) is modified so as to enable the acquiring authority, in circumstances corresponding to those referred to in that section, to continue to be entitled to exercise the right acquired or enforce the restrictive covenant imposed, subject to compliance with that section as respects compensation.

(8) For Schedule 2A (counter-notice requiring purchase of land not in notice to treat) to the 1965 Act substitute—

“SCHEDULE 2A

Ref

COUNTER-NOTICE REQUIRING PURCHASE OF LAND NOT IN NOTICE TO TREAT

Introduction

1.—(1) This Schedule applies where an acquiring authority serves a notice to treat in respect of a right over, or a restrictive covenant affecting, the whole or part of a house, building or factory and has not executed a general vesting declaration under section 4 of the Acquisition of Land Act 1981 as applied by article 24 (application of the 1981 Act) of the Dogger Bank South East and West Offshore Wind Farms Development Consent Order 202[•] in respect of the land to which the notice to treat relates.

(2) But see article 26 (acquisition of subsoil or airspace only) of the Dogger Bank South East and West Offshore Wind Farms Development Consent Order 202[•] which excludes the acquisition of subsoil or airspace only from this Schedule.

(3) In this Schedule “house”, except in paragraph 10, includes any park or garden belonging to a house.

Counter-notice requiring purchase of land

3. A person who is able to sell the house, building or factory (“the owner”) may serve a counter-notice requiring the acquiring authority to purchase the owner’s interest in the house, building or factory.

4. A counter-notice under paragraph 3 must be served within the period of 28 days beginning with the day on which the notice to treat was served.

Response to counter-notice

5. On receiving a counter-notice, the acquiring authority must decide whether to—

- (a) withdraw the notice to treat,
- (b) accept the counter-notice, or

(c) refer the counter-notice to the Upper Tribunal.

6. The authority must serve notice of their decision on the owner within the period of 3 months beginning with the day on which the counter-notice is served (“the decision period”).

7. If the authority decide to refer the counter-notice to the Upper Tribunal they must do so within the decision period.

8. If the authority do not serve notice of a decision within the decision period they are to be treated as if they had served notice of a decision to withdraw the notice to treat at the end of that period.

9. If the authority serve notice of a decision to accept the counter-notice, the compulsory purchase order and the notice to treat are to have effect as if they included the owner’s interest in the house, building or factory.

Determination by the Upper Tribunal

10. On a referral under paragraph 7, the Upper Tribunal must determine whether the acquisition of the right or the imposition of the restrictive covenant would—

- (a) in the case of a house, building or factory, cause material detriment to the house, building or factory, or
- (b) in the case of a park or garden, seriously affect the amenity or convenience of the house to which the park or garden belongs.

11. In making its determination, the Upper Tribunal must take into account—

- (a) the effect of the acquisition of the right or the imposition of the covenant,
- (b) the use to be made of the right or covenant proposed to be acquired or imposed, and
- (c) if the right or covenant is proposed to be acquired or imposed for works or other purposes extending to other land, the effect of the whole of the works and the use of the other land.

12. If the Upper Tribunal determines that the acquisition of the right or the imposition of the covenant would have either of the consequences described in paragraph 10, it must determine how much of the house, building or factory the acquiring authority ought to be required to take.

13. If the Upper Tribunal determines that the acquiring authority ought to be required to take some or all of the house, building or factory, the compulsory purchase order and the notice to treat are to have effect as if they included the owner’s interest in that land.

14.—(1) If the Upper Tribunal determines that the acquiring authority ought to be required to take some or all of the house, building or factory, the acquiring authority may at any time within the period of 6 weeks beginning with the day on which the Upper Tribunal makes its determination withdraw the notice to treat in relation to that land.

(2) If the acquiring authority withdraws the notice to treat under this paragraph they must pay the person on whom the notice was served compensation for any loss or expense caused by the giving and withdrawing of the notice.

(3) Any dispute as to the compensation is to be determined by the Upper Tribunal.”

SCHEDULE 9

Article 30

Land of which only temporary possession may be taken

In the District of East Riding of Yorkshire

<i>(1) Plot reference number shown on land plans</i>	<i>(2) Purpose for which temporary possession may be taken</i>	<i>(3) Relevant part of the authorised project</i>
01-001, 01-002, 01-003, 01-004, 01-005, 01-007, 01-008, 01-009	Temporary use for emergency access in the event of accidents and / or environmental incidents to Work Nos. 8A/B and 9A/B and to facilitate construction of a temporary construction compound at Work No. 10A/B	Work No. 10A/B
01-006	Temporary use as a temporary construction compound and laydown area to facilitate emergency works in the event of accidents and / or environmental incidents to Work Nos. 8A/B and 9A/B	Work No. 11A/B
01-010, 01-011, 01-012, 01-013, 01-014, 01-015	Temporary use for emergency access in the event of accidents and / or environmental incidents to Work No. 8A/B	Work No.9A/B
02-028, 02-029	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work Nos. 14A/B, 13A/B and 16A/B	Work No.15A/B
02-032	Temporary use as a construction compound, construction working areas and laydown areas, construction of haul road and for access to facilitate construction of Work Nos. 14A/B and 13A/B	Work No 16A/B
08-007, 14-001, 17-003	Temporary use as a construction compound, construction working areas and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B	Work No. 16A/B & 17A/B
06-015, 06-016, 12-001, 12-002	Temporary use as a construction compound, construction working areas and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B and Work No. 18A/B	Work No. 16A/B & 17A/B

06-008, 04-011, 04-016, 04-017, 11-013	Temporary use as a construction compound, construction working areas and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B and Work No. 16A/B	Work No. 17A/B & 18A/B
04-019, 06-011	Temporary use as a construction compound, construction working areas and laydown areas, construction of haul road and for access to facilitate construction of works 14A/B, Work No. 18A/B and Work No. 19A/B	Work No. 16A/B & 17A/B
02-035, 02-036, 13-011	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B	Work No. 18A/B
02-037, 08-001, 11-016, 12-010	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B	Work No. 17A/B & 18A/B
10-001	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B and 20A/B	Work No. 17A/B & 18A/B
03-003, 03-004, 03-005, 03-007, 03-008, 03-009, 04-001, 04-002, 04-003, 04-005, 04-006, 04-007, 06-003, 06-005, 06-006, 06-019, 06-020, 06-022, 06-023, 06-024, 08-011, 08-018, 08-019, 08-020, 08-022, 08-023, 08-024, 09-004, 09-005, 09-007, 11-001, 11-002, 11-003, 11-005, 11-006, 11-007	Temporary use as a construction working area and laydown areas, and for access to facilitate construction of Work No. 14A/B	Work No 15A/B
04-012, 04-015	Temporary use as a construction working area and laydown areas, and for access to facilitate construction of Work No. 14A/B, Work No 16A/B and Work No 18A/B	Work No. 15A/B
04-020	Temporary use to improve junctions, roads and passing places to allow access to Work No. 14A/B, Work No	Work No 19A/B & 17A/B

	17A/B and Work No 16A/B	
05-002, 09-011, 09-012, 11-017, 13-006, 13-007, 13-008	Temporary use as a construction of haul road, construction working area and laydown areas to facilitate construction of Work No 14A/B	Work No 18A/B
06-013, 14-009, 14-010, 14-012, 16-005, 16-006, 17-006, 17-007	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B	Work No 17A/B
15-002, 15-003	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B and Work No. 20A/B	Work No. 17A/B
11-014, 11-015, 14-002, 17-004	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B and 16A/B	Work No. 17A/B
10-017, 10-018, 13-012, 13-013	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B, Work No. 16A/B and Work No. 18A/B	Work No 17A/B
10-003	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B, 18A/B and 20A/B	Work No 17A/B
08-006	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B and Work No. 18A/B	Work No 17A/B
06-009	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of Work No. 14A/B, Work No. 16A/B and Work No. 18A/B	Work No 17A/B
08-002	Temporary use as a construction of haul road, construction working area and	17A/B & 19A/B

	laydown areas and for access to facilitate construction of Work No 14A/B, Work No. 16A/B and Work No. 18A/B	
06-010	Temporary use as a construction of haul road, construction working area and laydown areas and for access to facilitate construction of Work No 14A/B, Work No. 16A/B and Work No. 18A/B	Work No. 17A/B & 19A/B
6-014, 12-003	Temporary use to improve junctions, roads and passing places to allow access to Work No. 18A/B, 16A/B & 14A/B	Work No. 17A/B & 19A/B
14-003	Temporary use to improve junctions, roads and passing places to allow access to Work No. 16A/B & 14A/B	Work No. 17A/B & 19A/B
08-003, 08-004	Temporary use to improve junctions, roads and passing places to allow access to Work No 17A/B, Work No.16A/B, Work No. 18A/B & Work No. 14A/B	Work No. 19A/B
14-004	Temporary use to improve junctions, roads and passing places to allow access to Work No 17A/B, Work No.16A/B & Work No. 14A/B	Work No. 19A/B
08-010, 08-012	Temporary use as a construction of haul road, construction working area and laydown areas and haul roads to facilitate Work No 18A/B and 14A/B	Works Number 15A/B & 18A/B
10-016	Temporary use as a construction of haul road, construction working area and laydown areas and for access to facilitate construction of Work No 14A/B & 16A/B	Works Number 17A/B & 18A/B
10-015	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of works 14A/B	Work No 16A/B & 18A/B
11-009	Temporary use as a construction working area and laydown areas, and for access to facilitate construction of Work No.14A/B, Work No. 17A/B and Work No. 18A/B	Work No. 16A/B
12-006, 12-007, 12-008, 12-	Temporary use to improve	Work No 19A/B

009	junctions, roads and passing places to allow access to Work No 17A/B, 16A/B & 14A/B & 18A/B	
13-010	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of works 14A/B	Work No. 16A/B & 18A/B & 17A/B
10-004, 15-001, 15-005	Temporary use as a construction of haul road, construction working area, construction compound and laydown areas and for access to facilitate construction of Work No 14A/B	Work No 17A/B & 20A/B
18-005	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction off A1079 of Work No. 14A/B, Work No. 20A/B, Work No. 23A/B and Work No. 24A/B	Work No 21A/B & 22A/B
18-011, 18-013	Temporary use as a construction of haul road, construction working area, construction compound and laydown areas and for access to facilitate construction of Work No 24A/B	Work No 23A/B
18-041, 18-042, 18-042a, 18-047c	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of works 31A/B	Work No 17A/B
18-044, 18-044a	Temporary use as a construction working area and laydown areas, and for access to facilitate construction of works 31A/B	Work No 16A/B
18-027a, 18-045, 18-045a, 18-045b, 18-045c, 18-046, 18-046a, 18-047a, 18-047e, 18-049, 18-051, 18-053, 19-006, 20-001	Temporary use as a construction of haul road, construction working area and laydown areas and for access to facilitate construction of Work No 31A/B	Work No 18A/B
18-047, 18-047b, 18-047d, 18-048, 18-048a, 18-048b	Temporary use as a construction of haul road, construction working area and laydown areas and for access to facilitate construction of Work No 31A/B	Work No 17A/B & 18A/B
20-003	Temporary use as a	Work No 15A/B & 18A/B

	construction of haul road, construction working area and laydown areas and for access to facilitate construction of Work No 31A/B	
18-055	Temporary use as a construction of haul road, construction working area and laydown areas and for access to facilitate construction of Work No 31A/B	Work No 18A/B & 33A/B
18-055a, 19-001, 19-001a, 19-001b, 19-001c, 19-002	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction off A1079 of works 31A/B	Work No 33A/B
20-005	Temporary use as a construction working area and laydown areas, construction of haul road and for access to facilitate construction of works 31A/B & 34A/B	Work No 15A/B

SCHEDULE 10

Article 35

Deemed Marine Licence 1: DBS East Project Offshore Generation – Work Nos. 1A, 4A and 7A

PART 1

Licensed marine activities

Interpretation

1.—(1) In this deemed marine licence—

“the 2004 Act” means the Energy Act 2004;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“the 2017 Regulations” means the Conservation of Offshore Marine Habitats and Species Regulations 2017(a);

“Annex I subtidal habitat” means a subtidal habitat of a type listed in Annex I to Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora;

“array cable” means a cable linking the wind turbine generators to each other and to the offshore converter platforms;

“authorised deposits” means the substances and articles specified in paragraph 4 of Part 1 of this deemed marine licence;

“authorised project” means the development and associated development described in Part 1 of Schedule 1 (authorised development) of the Order and any other development authorised by

(a) S.I. 2017/1013.

the Order that is development within the meaning of section 32 (meaning of “development”) of the 2008 Act;

“authorised scheme” means Work Nos. 1A, 4A and 7A and the further associated development described in paragraph 3 of Part 1 of this deemed marine licence or any part of that work or development;

“buoy” means any floating device used for navigational purposes or measurement purposes including LiDAR buoys, wave buoys and guard buoys;

“cable” means any offshore cable and includes direct-lay cables and cables laid in cable ducts and further includes fibre optic and other communications cables either within the cable or laid alongside;

“cable crossing” means the crossing of existing subsea cables or pipelines by the array, inter-platform or export cables authorised by the Order and forming part of the authorised scheme together with physical protection measures including cable protection;

“cable protection” means measures to protect cables forming part of the authorised scheme from physical damage and exposure due to loss of seabed sediment including, but not limited to, rock placement, concrete mattresses with or without frond devices, protective aprons or coverings, bagged solutions filled with sand, rock, grout or other materials and protective shells;

“cable statement” means the document certified by the Secretary of State as the cable statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“commence” means the first carrying out of any licensed marine activities authorised by this deemed marine licence, save for pre-construction monitoring surveys approved under this deemed marine licence, and “commenced” and “commencement” must be construed accordingly;

“condition” means a condition in Part 2 of this licence;

“DBS East” means the Dogger Bank South East Offshore Wind Farm;

“DBS East array area” means the area covered by Work No. 1A as shown on the offshore works plan;

“DBS East Project” means the DBS East Project offshore works and the DBS East Project onshore works;

“DBS East Project offshore works” means Work Nos. 1A to 8A and any other authorised development associated with those works;

“DBS East Project onshore works” means Work Nos. 9A to 34A and any other authorised development associated with those works;

“DBSEL” means RWE Renewables UK Dogger Bank South (East) Limited, company number 13656240, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“DBS West offshore works” means Work Nos. 1B to 8B and any authorised development associated with those works;

“DBS West Project” means the DBS West Project onshore works and the DBS West Project offshore works;

“DBS West Project onshore works” means Work Nos. 9B to 34B and any other authorised development associated with those works;

“DBSWL” means RWE Renewables UK Dogger Bank South (West) Limited, company number 13656525, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“Defence Infrastructure Organisation Safeguarding” means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands, B75 7RL and any successor body to its functions;

“disposal ground 1 (DBS East)” means the site to be used for disposal of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and cable sandwave clearance for the DBS East Project offshore works as shown on the Disposal Site Plan and with MMO disposal site reference DG036;

“Disposal Site Plan” means the plan certified by the Secretary of State as the Disposal Site Plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Dropped Object Procedure Form” means the MMO notification proforma with reference MLDIR1 for reporting the loss or dumping of synthetic materials and other refuse at sea or any other format advised in writing by the MMO;

“environmental statement” means the document certified by the Secretary of State as the environmental statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“habitats of principal importance” “means a habitat designated as being of principal importance in accordance with section 41 (biodiversity lists and action (England)) of the Natural Environment and Rural Communities Act 2006;

“HAT” means highest astronomical tide;

“HVAC” means high voltage alternating current;

“in principle monitoring plan” means the document certified by the Secretary of State as the in principle monitoring plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation” means the document certified by the Secretary of State as the in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“inter-platform cable” means a cable linking the offshore converter platforms;

“intrusive activities” means activities including anchoring of vessels, jacking up of vessels, and temporary wet storage areas;

“jacket foundation” means a lattice type structure constructed of steel which is fixed to the seabed at 3 or more points with steel pin piles and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms;

“JNCC Guidance” means the statutory nature conservation body ‘Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs’ Joint Nature Conservation Committee Report No.654, May 2020 published in June 2020 as amended, updated or superseded from time to time;

“LAT” means lowest astronomical tide;

“maintain” includes inspect, upkeep, repair, adjust, alter, remove, reconstruct and replace (including replenishment of cable protection), but does not include the removal, reconstruction or replacement of foundations associated with the authorised scheme, to the extent assessed in the environmental statement; and “maintenance” must be construed accordingly;

“Marine Management Organisation” means the body created under the 2009 Act which is responsible for the regulation of this deemed marine licence or any successor of that function and “MMO” must be construed accordingly;

“Marine Noise Registry” means the database developed and maintained by JNCC on behalf of Defra to record the spatial and temporal distribution of impulsive noise generating activities in UK seas;

“MCA” means the Maritime and Coastguard Agency, the executive agency of the Department for Transport;

“MCMS” means the Marine Case Management System web portal provided and operated by the MMO;

“mean sea level” means the average level of the sea surface over a period of time, taking account of all tidal effects and surge events;

“MHWS” or “mean high water springs” means the average throughout the year of two successive high waters during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides);

“MLWS” or “mean low water springs” means the lowest level that spring tides reach on average over a period of time;

“monopile foundation” means a steel pile driven or drilled into the seabed and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms and equipment;

“offshore accommodation platform” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and open with modular equipment or fully clad and may include a helicopter platform, containing accommodation, storage, workshop auxiliary equipment and facilities for operating, maintaining and controlling the offshore converters or wind turbine generators, including but not limited to navigation, aviation and safety marking and lighting, systems for vessel access and retrieval, cranes, potable water supply, black water separation, stores, fuels and spares, communications systems and control hub facilities;

“offshore converter platform” means an offshore converter platform with equipment to convert the HVAC power generated at the wind turbine generators into HVDC power, being a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and open with modular equipment or fully clad and may include a helicopter platform, containing electrical equipment required to switch, transform, convert electricity generated at the wind turbine generators to a higher voltage and provide reactive power compensation, including but not limited to high voltage power transformers, high voltage switchgear and busbars, substation auxiliary systems and low voltage distribution, instrumentation, metering equipment and control systems, standby generators, shunt reactors, auxiliary and uninterruptible power supply systems, facilities to support operations and maintenance;

“offshore order limits and grid coordinates plan” means the plan certified by the Secretary of State as the offshore order limits and grid coordinates plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Order” means Dogger Bank South East and West Offshore Wind Farms Order 20[];

“Order limits” means the limits shown on the offshore order limits and grid coordinates plans within which the authorised scheme may be carried out and the grid coordinates for Work Nos. 1A, 4A and 7A are set out in paragraph 5 of Part 1 of this deemed marine licence;

“outline fisheries liaison and co-existence plan” means the document certified by the Secretary of State as the outline fisheries liaison and co-existence plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline marine mammal mitigation protocol” means the document certified by the Secretary of State as the outline marine mammal mitigation protocol for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline offshore operations and maintenance plan” means the document certified by the Secretary of State as the outline offshore operations and maintenance plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline project environmental management plan” means the document certified by the Secretary of State as the outline project environmental management plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline scour protection plan” means the document certified by the Secretary of State as the outline scour protection plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline vessel traffic monitoring plan” means the document certified by the Secretary of State as the outline vessel traffic monitoring plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline written scheme of investigation (offshore)” means the document certified by the Secretary of State as the outline written scheme of investigation (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“scour protection” means measures to prevent loss of seabed sediment around any structure placed in or on the seabed including by the use of bagged solutions, filled with grout or other materials, protective aprons, concrete mattresses with or without frond devices, and rock and gravel placement;

“statutory historic body” means Historic England or its successor in function;

“statutory nature conservation body” means a statutory nature conservation body, being the appropriate nature conservation body as defined in Regulation 5 of the Conservation of Habitats and Species Regulations 2017(a) or its equivalent in the Conservation of Offshore Marine Habitats and Species Regulations 2017(b);

“transition piece” means a metal structure attached to the top of a foundation where the base of a wind turbine generator is connected and includes additional equipment such as J-tubes, corrosion protection systems, boat access systems, access platforms, craneage, electrical transmission equipment and associated equipment;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“UKHO” means the United Kingdom Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

“undertaker” means DBSEL;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“VHF” means very high frequency;

“wind turbine generator” means a structure comprising a tower, a rotor with three blades connected at the hub, a nacelle and ancillary electrical and other equipment which may include J-tubes, transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation and forming part of the authorised scheme;

“works plans” means the works plans (offshore) and the works plans (onshore);

“works plans (offshore)” means the plans certified by the Secretary of State as the works plans (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified); and

“works plans (onshore)” means the plans certified by the Secretary of State as the works plans (onshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified).

(a) S.I. 2017/1012

(b) S.I. 2017/1013

(2) In this deemed marine licence, a reference to any statute, order, regulation or similar instrument is a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) In this deemed marine licence, unless otherwise indicated—

(a) all times are Greenwich Mean Time (“GMT”);

(b) all coordinates are latitude and longitude degrees and minutes to two decimal places.

(4) Unless otherwise stated or agreed with the MMO, all submissions, notifications and communications must be sent by the undertaker to the MMO using MCMS. Except where otherwise notified in writing by the relevant organisation, the addresses for correspondence for the purposes of this deemed marine licence Schedule are—

(a) Historic England

37 Tanner Road

York

YO1 6WP

(b) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle Business Park

Newcastle upon Tyne

NE4 7YH

Tel: 0300 123 1032

(c) Marine Management Organisation (local office)

Room 13, Ground Floor

Crosskill House

Mill Lane

Beverley

HU17 9JB

Tel: 0208 026 0519

(d) Maritime and Coastguard Agency

UK Technical Services Navigation

Spring Place

105 Commercial Road

Southampton

SO15 1EG

Tel: 020 3817 2433

Email: navigationsafety@mcga.gov.uk

(e) Natural England

4th Floor

Foss House

1-2 Peasholme Green

York

YO1 7PX

Tel: 0300 060 4911

- (f) Trinity House
Tower Hill
London
EC3N 4DH
Tel: 020 7481 6900
- (g) United Kingdom Hydrographic Office
Admiralty Way
Taunton
Somerset
TA1 2DN
Tel: 01823 337 900

(5) Unless otherwise advised in writing by the MMO, the address for electronic communication with the MMO for the purposes of this licence is marineconsents@marinemangement.org.uk, or where contact to the Local Office of the MMO is required, beverley@marinemangement.org.uk.

Details of licensed marine activities

2. Subject to the conditions, this deemed marine licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea within the Order limits seaward of MHWS of the substances and objects specified in paragraph 4 below and, when combined with the disposal authorised within disposal ground 1 (DBS East) by the deemed marine licences granted under Schedules 12, 14 and 14A of the Order, of up to 4,242,327 cubic metres (being a maximum, not an approximate upper figure) of inert material of natural origin produced during construction drilling or seabed preparation for foundation works, cable works and boulder clearance works at disposal site references to be provided to the MMO within disposal ground 1 (DBS East) and any other disposal sites approved in writing by the MMO;
- (b) the construction of works in or over the sea or on or under the sea bed;
- (c) dredging for the purposes of seabed preparation for foundation works or cable works;
- (d) the removal of sediment samples for the purposes of informing environmental monitoring under this deemed marine licence during pre-construction, construction and operation;
- (e) boulder clearance works by displacement ploughing or subsea grab technique or any other comparable method;
- (f) removal of static fishing equipment; and
- (g) site preparation works.

3. Such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 1A—

- (a) An offshore wind turbine generating station with a gross electrical output of over 100 megawatts comprising up to 100 wind turbine generators each fixed to the seabed by monopile or jacket foundations;
- (b) a network of HVAC subsea cables connecting the wind turbine generators and Work No. 2A within the area shown on the works plans, including cable crossings and cable protection;

Work No. 4A—

Up to one accommodation platform fixed to the seabed by jacket or monopile foundations within the area shown on the works plans;

Work No. 7A—

A temporary work area associated with Work Nos. 1A to 5A for vessels to carry out intrusive activities and non-intrusive activities alongside Work Nos. 1A to 5A;

In connection with such Work Nos. 1A, 4A and 7A and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence, including—

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 1A, and 4A and the disposal of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works, cable installation preparation such as sandwave clearance, and boulder clearance;
- (d) removal of static fishing equipment;
- (e) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised scheme;
- (f) disposal of drill arisings in connection with any foundation drilling up to a total of 35,086 cubic metres;
- (g) creation and use of temporary laydown areas, use of cable lay vessel anchors; and
- (h) lighting.

4. The substances and objects authorised for deposit at sea are—

- (a) iron, steel, copper and aluminium;
- (b) stone and rock;
- (c) concrete and grout;
- (d) sand and gravel;
- (e) cement bound sand;
- (f) natural soils;
- (g) plastic and synthetic material;
- (h) drilling fluid;
- (i) material extracted from within the Order limits during construction drilling or seabed preparation for foundation works and cable installation preparation works;
- (j) weights used for the calibration of vessels, consisting of a hessian sack, metal shackles or chains; and
- (k) marine coatings, other chemicals and timber.

5. The grid coordinates for that part of the authorised scheme comprising Work Nos. 1A, 4A and 7A are specified below—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	54° 31.15408' N	1° 44.71761' E
2	54° 31.46655' N	1° 44.62625' E
3	54° 31.75489' N	1° 44.85252' E
4	54° 34.18354' N	1° 48.56875' E
5	54° 34.30904' N	1° 48.85301' E
6	54° 34.36288' N	1° 49.19779' E
7	54° 34.74598' N	1° 58.90264' E
8	54° 34.77086' N	1° 59.72884' E

9	54° 34.67215' N	2° 0.18106' E
10	54° 34.47546' N	2° 0.46972' E
11	54° 24.47523' N	2° 8.98399' E
12	54° 24.09368' N	2° 8.92387' E
13	54° 23.82918' N	2° 8.43359' E
14	54° 21.08378' N	1° 54.2778' E
15	54° 21.0601' N	1° 53.90188' E
16	54° 21.14588' N	1° 53.48645' E
17	54° 21.33732' N	1° 53.18358' E

6. This deemed marine licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108, and the completion of such programme has been confirmed by the Secretary of State in writing.

7. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this deemed marine licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence apply only to a transfer not falling within article 5 (benefit of order) of the Order.

8.—(1) With respect to any condition which requires the licensed activities be carried out in accordance with the details, plans or schemes approved under this deemed marine licence, the approved details, plans or schemes are taken to include any amendments that may subsequently be approved in writing by the MMO.

(2) Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statement and approval of an amendment or variation may only be given where it has been demonstrated to the satisfaction of the MMO that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

9. Should the undertaker become aware that any of the information on which the granting of this deemed marine licence was based was materially false or misleading, the undertaker must notify the MMO of this fact in writing as soon as is reasonably practicable. The undertaker must explain in writing what information was materially false or misleading and must provide to the MMO the correct information.

PART 2

Conditions

Design parameters

Wind turbine generator dimensions

1.—(1) Subject to sub-paragraph (2), wind turbine generators forming part of the authorised scheme must not—

- (a) exceed a height of 376.8 metres when measured from MHWS to the tip of the vertical blade;
- (b) exceed a rotor diameter of 344.08 metres;
- (c) be less than 830 metres from the nearest wind turbine generator in any direction;
- (d) have a distance of less than 34 metres between the lowest point of the rotating blade of the wind turbine generator and mean sea level; or

- (e) exceed 100 wind turbine generators.

(2) References to the location of a wind turbine generator are references to the centre point at the base of the wind turbine generator.

Wind turbine generator foundations

2.—(1) Wind turbine generator foundations must be of one or more of the following foundation options: piled monopile, or piled jacket foundation.

(2) Wind turbine generator piled monopile foundations must not have a pile diameter exceeding 15 metres.

(3) Any wind turbine generator piled jacket foundation must not—

- (a) have more than four legs;
- (b) have more than four piles; or
- (c) have a pile diameter exceeding four metres.

(4) Within Work No. 1A, the wind turbine generator foundations must not have—

- (a) a total combined seabed footprint (including scour protection) exceeding 311,725 square metres; or
- (b) a total combined amount of scour protection exceeding 302,221.21 square metres.

Offshore accommodation platform dimensions

3.—(1) The total number of offshore accommodation platforms in respect of the authorised scheme must not exceed one.

(2) The dimensions of any offshore accommodation platform (excluding helidecks, lightning protection, towers, masts and cranes) must not exceed—

- (a) 125 metres in length;
- (b) 100 metres in width; or
- (c) 105 metres in height above LAT.

Offshore accommodation platform foundations

4.—(1) Offshore accommodation platform foundations must be of one or more of the following foundation options: piled monopile or piled jacket foundation.

(2) The pile diameter of any offshore accommodation platform piled monopile must not exceed 15 metres.

(3) Any offshore accommodation platform piled jacket foundation must not—

- (a) have more than eight legs;
- (b) have more than eight piles; or
- (c) have a pile diameter exceeding 3.8 metres.

(4) Any offshore accommodation platform foundation must not—

- (a) have a seabed footprint (including scour protection) exceeding 5,411 square metres; or
- (b) have a seabed footprint (excluding scour protection) exceeding 177 square metres.

(5) The total volume of scour protection for wind turbine generators and the offshore accommodation platform must not exceed 548,095 cubic metres.

Cables and cable protection

5.—(1) Within Work No. 1A the array cables must not, in total—

- (a) exceed 350 kilometres in length;
- (b) exceed 20 cable crossings;
- (c) have cable protection (including cable crossings) exceeding 375,780 square metres in area; or

- (d) have cable protection (including cable crossings) exceeding 219,115 cubic metres in volume.

(2) The array cables within Work No. 1A which fall within the Dogger Bank Special Area of Conservation must not have cable protection exceeding 10% of the length of such cables, when combined with the offshore export cables, array cables and inter-platform cables authorised by the deemed marine licences granted under Schedules 11 – 14A of the Order.

Phases of authorised scheme

6.—(1) The authorised scheme must not commence until an offshore works phasing scheme setting out the phases of construction of the authorised scheme has been submitted to and approved in writing by the MMO.

(2) The authorised scheme must be submitted at least 6 months prior to the proposed commencement of the works.

(3) Any subsequent amendments to the offshore works phasing scheme submitted for approval under sub-paragraph (1) must be submitted to the MMO for approval in writing.

(4) The offshore works phasing scheme submitted for approval under sub-paragraph (1) must be implemented as approved. The approved details shall be taken to include any amendment that may subsequently be approved by the MMO in accordance with sub-paragraph (3).

Maintenance of the authorised scheme

7.—(1) The undertaker may at any time maintain the authorised scheme, except to the extent that this licence or an agreement made under this licence provides otherwise.

(2) Maintenance works include but are not limited to—

- (a) Routine maintenance of wind turbine generators, offshore accommodation platform, and their respective foundations;
- (b) Major wind turbine component or offshore accommodation platform replacement;
- (c) Painting and applying other coatings to wind turbine generators or offshore accommodation platforms;
- (d) Bird waste and marine growth removal;
- (e) Surveys/inspections of cables;
- (f) Cable remedial burial;
- (g) Cable protection replenishment;
- (h) Cable repairs and replacement;
- (i) Access ladder and boat landing replacement;
- (j) Wind turbine generator and offshore accommodation platform anode replacement; and
- (k) J-tube repair/replacement.

(3) Operation of the licensed activities must not commence until an offshore operations and maintenance plan substantially in accordance with the outline offshore operations and maintenance plan has been submitted to and approved in writing by the MMO. The operations and maintenance plan must include, but is not limited to—

- (a) a list of maintenance activities within the marine environment that are planned for the lifetime of the licensed activities;
- (b) details of the typical construction plant, machinery and personnel requirements for each maintenance activity and any requirements for detailed method statements;
- (c) details of the typical frequency and timing of each maintenance activity; and
- (d) details of controls and mitigation that will be in place in order to protect the marine environment.

(4) The offshore operations and maintenance plan must be reviewed every three years commencing from the date on which the plan was approved, unless otherwise agreed by the MMO, to ensure the details of the maintenance activities remain accurate. The conclusions of that review must be submitted to and approved by the MMO in writing.

(5) The offshore operations and maintenance plan must be implemented as approved by the MMO.

(6) Unless otherwise agreed in writing with the MMO, the undertaker must submit—

- (a) the first offshore operations and maintenance plan at least 6 months prior to the operation of the licensed activities;
- (b) any revised offshore operations and maintenance plan submitted in accordance with sub-paragraph (4) at least 6 months before such revised plan is required to be put in place; and
- (c) where additional maintenance activities are identified that are not included in the approved offshore operations and maintenance plan, or any revised plan approved in accordance with sub-paragraph (4), an updated offshore operations and maintenance plan including the additional maintenance activities must be submitted to and approved by the MMO in writing as soon as possible after the need for such additional maintenance activities is identified.

Extension of time periods

8. Any time period given in this deemed marine licence to either the undertaker or the MMO may be extended with the agreement of the other party in writing, such agreement not to be unreasonably withheld or delayed.

Notifications and inspections

9.—(1) The undertaker must ensure that—

- (a) a copy of this deemed marine licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 19;
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 19;
- (b) the undertaker must confirm in writing to the MMO within 28 days of a copy of this deemed marine licence and any subsequent amendments or revisions to it being provided to the persons listed in sub-paragraph (1)(a) that the required information has been provided.

(2) Only those persons and vessels notified to the MMO in accordance with condition 19 are permitted to carry out the licensed activities.

(3) Copies of this deemed marine licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
- (c) on board each vessel and at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.

(4) The documents referred to in sub-paragraph (1)(a) must be available for inspection by an authorised enforcement officer at the locations set out in sub-paragraph (3)(b).

(5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during the construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Local Office in writing at least fourteen days prior to the commencement of the licensed activities or any part of them and within five days of the completion of the licensed activity.

(7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—

- (a) at least 14 days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data;
- (b) as soon as reasonably practicable and no later than 24 hours of completion of the DBS East Project offshore works,

and confirmation of notification must be provided to the MMO within five days.

(8) The undertaker must ensure that a local notification to mariners is issued at least 14 days prior to the commencement of the authorised scheme or any part thereof advising of the start date of each of Work Nos. 1A, 4A and 7A and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(9) The undertaker must ensure that local notifications to mariners are updated and reissued at weekly intervals during construction activities and at least five days before any planned operations (unless otherwise agreed in writing by the MMO) and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme and monitoring plan approved under condition 15(1)(b). Copies of all notices must be provided to the MMO, UKHO and the MCA within five days.

(10) The undertaker must notify UKHO and the MCA of the commencement (within ten days), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical and aeronautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days of the notification.

(11) In case of damage to, or destruction or decay of, the authorised scheme or any part thereof, excluding the exposure of cables, the undertaker must as soon as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify the MMO, the MMO Local Office, MCA, Trinity House, the Kingfisher Information Service of Seafish and UKHO.

(12) In case of the exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners and inform the Kingfisher Information Service of Seafish of the location and extent of exposure. Copies of all notices must be provided to the MMO, MCA, Trinity House, and UKHO within five days.

(13) The undertaker must notify the MMO in writing a minimum of five days in advance of the commencement of each discrete incident of cable repair, replacement, or protection replenishment activity. Such a notification must include proposed timings and a description of proposed methodologies.

(14) The undertaker must ensure that the MMO, the MMO Local Office, local mariners, local fishermen's organisations and the Source Data Receipt Team at the UK Hydrographic Office, Taunton, Somerset, TA1 2DN (sdr@ukho.gov.uk) are notified within five days of completion of each instance of cable repair, replacement or protection replenishment activity.

Aids to navigation

10.—(1) The undertaker must during the whole of the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation, as Trinity House may from time to time direct.

(2) The undertaker must during the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme keep Trinity House and the MMO informed of progress of the authorised scheme including—

- (a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within five days of completion of construction of the authorised scheme.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation in accordance with the frequencies set out in the aids to navigation management plan agreed pursuant to condition 15(1)(f) using the reporting system provided by Trinity House.

(4) The undertaker must during the period from commencement of the licensed activities to completion of decommissioning of the authorised scheme notify Trinity House and the MMO of any failure of the aids to navigation, and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 9(11) or condition 9(12) are invoked, the undertaker must lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Colouring of Structures

11.—(1) Except as otherwise required by Trinity House the undertaker must colour all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height directed by Trinity House or must colour the structure as directed by Trinity House in writing from time to time.

(2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs in writing, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Aviation safety

12.—(1) The undertaker must exhibit such lights, with such shape, colour and character as are required in writing by the Air Navigation Order 2016^(a) and determined necessary for aviation safety in consultation with the Defence Infrastructure Organisation Safeguarding and as directed by the Civil Aviation Authority.

(2) The undertaker must notify the Defence Infrastructure Organisation Safeguarding, the Civil Aviation Authority and the MMO, as soon as reasonably practicable and at least 14 days prior to the commencement of the authorised scheme, in writing of the following information—

- (a) the date of the commencement of construction of the authorised scheme;
- (b) the date any wind turbine generators are to be installed;
- (c) the maximum height of any construction equipment or vessels to be used;
- (d) the maximum height of each wind turbine generator to be constructed;
- (e) the latitude and longitude of each wind turbine generator to be constructed;

and the Defence Infrastructure Organisation Safeguarding and the Civil Aviation Authority must be notified of any changes to the information supplied under this paragraph and of the completion of the construction of the authorised scheme. Copies of notifications must be provided to the MMO within 5 days.

Chemicals, drilling and debris

13.—(1) The undertaker must ensure that any coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by the Health and Safety Executive and the Environment Agency Pollution Prevention Control Guidelines.

^(a) S.I. 2016/765.

(2) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must be undertaken to prevent releases into the marine environment, including bunding of 110 percent of the total volume of all reservoirs and containers.

(3) The undertaker must inform the MMO in writing of the location and quantities of material disposed of each month under this deemed marine licence by submission of a disposal return by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive and must provide a null return if no activity has taken place during the reporting period.

(4) The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within the Order limits seaward of MHWS.

(5) The undertaker must ensure that any rock material used in the construction of the authorised scheme is from a recognised source, free from contaminants and containing minimal fines.

(6) In the event that any rock material used in the construction of the authorised scheme is misplaced or lost below MHWS, the undertaker must report the loss in writing to the local enforcement office within 24 hours and if the MMO, in consultation with the MCA and Trinity House, reasonably considers such material to constitute a navigation or environmental hazard (dependent on the size and nature of the material) the undertaker must, in that event, demonstrate to the MMO that reasonable attempts have been made to locate, remove or move any such material.

(7) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas must be contained to prevent run off entering the water through the freeing ports.

(8) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 15(1)(d)(i).

(9) Debris or dropped objects which are considered a danger or hazard to navigation must be reported as soon as reasonably practicable but no later than six hours from the undertaker becoming aware of an incident, to the relevant HM Coastguard Maritime Rescue Co-ordination Centre by telephone (0344 382 0580), and the UK Hydrographic Office email: navwarnings@btconnect.com.

(10) All dropped objects including those in sub-paragraph (9) must be reported to the MMO using the Dropped Object Procedure Form (including any updated form as provided by the MMO) as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident, unless otherwise agreed in writing with the MMO.

(11) On receipt of notification or the Dropped Object Procedure Form the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the marine environment at the undertaker's expense if reasonable to do so.

Force majeure

14. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

Pre-construction plans and documentation

15.—(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO, in consultation with Trinity House, the MCA, the relevant statutory nature conservation body and UKHO as appropriate—

- (a) a layout plan setting out proposed details of the authorised scheme, including the:

- (i) number, dimensions, specification, foundation type(s) and depth for each wind turbine generator and offshore accommodation platform;
 - (ii) the grid coordinates of the centre point of the proposed location for each wind turbine generator and offshore accommodation platform;
 - (iii) proposed layout of all cables;
 - (iv) location and specification of all other aspects of the authorised scheme; and
 - (v) any exclusion zones or micro-siting requirements identified pursuant to 15(1)(e)(iv) or relating to any habitats of principal importance, Annex I subtidal habitats or surficial deposits of glacial till identified as part of surveys undertaken in accordance with condition 20;
- to ensure conformity with the description of Work No. 1A and 4A and compliance with conditions 1 to 5;
- (b) a construction programme and monitoring plan (which accords with the in principle monitoring plan) which, save in respect information submitted pursuant to sub-paragraph (b)(iii)(aa), is to be submitted to the MMO at least six months prior to commencement of licensed activities and to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant delivery of materials and installation works;
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with conditions 20, 21 and 22 to be submitted to the MMO in accordance with the following (unless otherwise agreed in writing with the MMO)—
 - (aa) at least six months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
 - (bb) at least six months prior to construction, detail on construction monitoring; and
 - (cc) at least six months prior to commissioning, detail of post-construction (and operational) monitoring;
 - (iv) an indicative written construction programme for all wind turbine generators and cables including fibre optic cables comprised in the works at Part 1 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above); and
 - (v) a monitoring plan setting out the circumstances in which monitoring will be required and the monitoring to be carried out in such circumstances;
 - (c) a construction method statement (in accordance with the cable statement), including details of—
 - (i) cable burial, specification, installation and monitoring to include—
 - (aa) the technical specification of cables below MHWS;
 - (bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum;
 - (cc) in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House and the MMO in consultation with the statutory nature conservation body) to be taken to ensure existing and future safe navigation is not compromised, including updated nearshore sediment transport modelling and comparison and demonstration against the environmental statement if within the 10m depth contour and/ or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and

- (dd) proposals for monitoring cables including cable protection until the authorised scheme is decommissioned which includes a risk-based approach to the management of unburied or shallow buried cables;
 - (ii) a scour protection plan (in accordance with the outline scour protection plan) including details of scour protection and cable protection including details of the need, type, sources, quantity and installation methods for scour protection and cable protection, with details updated and resubmitted for approval if changes to it are proposed following cable laying operations;
 - (iii) foundation installation methodology, including drilling methods and disposal of drill arisings and material extracted during seabed preparation for foundation and cable installation works and having regard to any mitigation scheme pursuant to subparagraph (1)(g);
 - (iv) advisory safe passing distances for vessels around sites where the licensed activities are taking place.
 - (v) contractors;
 - (vi) vessels and vessel transit corridors;
 - (vii) associated ancillary works; and
 - (viii) guard vessels to be employed;
- (d) a project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation to include details of—
 - (i) a marine pollution contingency plan to address the risks, methods and procedures to deal with any spills and collision incidents during construction of the authorised scheme in relation to all activities carried out;
 - (ii) a chemical risk assessment, including information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance and standards;
 - (iii) waste management and disposal arrangements;
 - (iv) the appointment and responsibilities of a fisheries liaison officer;
 - (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of commencement of licensed activities pursuant to condition 9 and to address the interaction of the licensed activities with fishing activities;
 - (vi) a code of conduct for vessel operators to reduce risk of injury to mammals; and
 - (vii) procedures, which must be adopted within vessel transit corridors to minimise disturbance to red-throated diver during the period 1 November to 31 March (inclusive), which must be in accordance with the best practice protocol for minimising disturbance to red-throated diver;
- (e) an archaeological written scheme of investigation in relation to the offshore Order limits seaward of MHWS, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body to include—
 - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
 - (v) monitoring of archaeological exclusion zones during and post construction;

- (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the Archaeological Data Service, by submitting an OASIS ('Online Access to the Index of archaeological investigations') form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO and Historic England that the OASIS form has been submitted to the Archaeological Data Service within two weeks of submission;
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and
 - (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities;
- (f) an aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, the MCA, the Civil Aviation Authority and UKHO specifying how the undertaker will ensure compliance with condition 10 from the commencement of construction of the authorised scheme to the completion of decommissioning;
- (g) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol (in accordance with the outline marine mammal mitigation protocol), the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation bodies and which must include details of noise reduction methods through project design (primary measures) and/or, deployment of noise mitigation systems or noise abatement systems (secondary measures) that will be utilised to manage sounds from those piling activities and such protocol must include full details and justification for the mitigation chosen or excluded for deployment;
- (h) a navigation management plan to manage crew transfer vessels (including daughter craft) during the construction and operation of the authorised scheme;
- (i) a final cable statement (in accordance with the cable statement); and
- (j) a site specific chemical risk assessment, which must be submitted no later than ten weeks prior to use of the relevant chemical, for all chemicals (with the exception of chemicals present on the OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment) that have a pathway to the marine environment used for the marine licensed activities, outside the course of normal navigation, to include—
- (i) the function of the chemical,
 - (ii) the quantities being used and the frequency of use; and
 - (iii) the physical, chemical, and ecotoxicological properties of the chemical.
- (2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific outline written scheme of investigation (which must accord with the details set out in the outline written scheme of investigation (offshore)) which has been submitted to and approved by the MMO.
- (3) Any sediment removed from within the Dogger Bank Special Area of Conservation during construction of the authorised scheme must be disposed of within that part of the Dogger Bank Special Area of Conservation which falls within the Order limits.
- (4) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive monopile foundations must not exceed 6,000kJ and the hammer energy used to drive or part-drive pin pile foundations must not exceed 3,000kJ.
- (5) The maximum number of main vessels engaged at any time in activities related to piling for the licensed activities when combined with the number of main vessels engaged in piling activities

authorised by the deemed marine licences granted under Schedules 11 to 13 must not exceed 2 vessels.

(6) The number of piled foundations installed within a 24 hour period when combined with the number of piled foundations installed pursuant to the deemed marine licences granted under Schedules 11 to 13 of the Order within the same 24 hour period must not exceed—

- (a) 4 monopile foundations;
- (b) 8 pin pile foundations;
- (c) 3 monopile foundations and 2 pin pile foundations;
- (d) 2 monopile foundations and 4 pin pile foundations; or
- (e) 1 monopile foundation and 6 pin pile foundations.

(7) The number of piled foundations installed concurrently when combined with the number of piled foundations installed concurrently pursuant to the deemed marine licences granted under Schedules 11 to 13 must not exceed—

- (a) where only monopile foundations are being installed concurrently exceed 2 monopile foundations;
- (b) where only pin pile foundations are being installed concurrently exceed 2 pin pile foundations; and
- (c) where a combination of monopile foundations and pin pile foundations are being installed concurrently exceed 1 monopile foundation and 1 pin pile foundation.

(8) In sub-paragraphs 15(1)(d)(ii) and 15(1)(j) above—

- (a) “pathway to the marine environment” means open systems or closed systems that required top up;
- (b) “chemicals” comprise both substances and preparations;
- (c) “preparation” means a mixture or solution composed of two or more substances; and
- (d) “substance” means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Site Integrity Plan

16.—(1) No piling activities can take place until a Site Integrity Plan (“SIP”), which accords with the principles set out in the in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation, has been submitted to, and approved in writing, by the MMO in consultation with the relevant statutory nature conservation body.

(2) The SIP submitted for approval must contain a description of the conservation objectives for the Southern North Sea Special Area of Conservation (“SNS SAC”) as well as any relevant management measures and it must set out the key statutory nature conservation body advice on activities within the SNS SAC relating to piling as set out within the JNCC Guidance and how this has been considered in the context of the authorised scheme.

(3) The SIP must be submitted in writing to the MMO no later than six months prior to the commencement of piling activities.

(4) In approving the SIP the MMO must be satisfied that the authorised scheme at the preconstruction stage, in-combination with other plans and projects, is in line with the JNCC Guidance.

(5) The approved SIP may be amended with the prior written approval of the MMO, in consultation with the relevant statutory nature conservation body, where the MMO remains satisfied that the Project, in-combination with other plans or projects at the pre-construction stage, is in line with the JNCC Guidance.

Approval of programmes, statements etc

17.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 15 must be submitted in writing for approval at least six months prior to the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The MMO must determine an application for approval made under conditions 15 and 16 within a period of six months commencing on the date the application is received by the MMO, unless otherwise agreed in writing with the undertaker.

(3) The licensed activities must be carried out in accordance with the plans, protocols, statements, schemes and details approved under conditions 15 and 16, unless otherwise agreed in writing by the MMO.

Offshore safety management

18. Any part of the authorised scheme must not be commenced until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN654 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (or any equivalent guidance that replaces or supersedes it) and its annexes.

Reporting of engaged agents, contractors and vessels

19.—(1) The undertaker must provide the following information in writing to the MMO—

- (a) the name, function, company number (if applicable), registered or head office address (as appropriate) of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) The undertaker must notify the MMO in writing of any vessel being used to carry on any licensed activity listed in this deemed marine licence on behalf of the undertaker. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity. Notification must include the master’s name, vessel type, vessel IMO number and vessel owner or operating company

(3) Any changes to the supplied details must be notified to the MMO in writing at least 24 hours before the agent, contractor or vessel engages in the licensed activities.

Pre-construction monitoring and surveys

20.—(1) The undertaker must, in discharging condition 15(1)(b), submit a monitoring plan or plans in accordance with the in principle monitoring plan for written approval by the MMO in consultation with the relevant statutory nature conservation body, which must contain details of proposed monitoring and surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report.

(2) The survey proposals submitted under sub-paragraph (1) must be in accordance with the principles set out in the in principle monitoring plan and must specify each survey’s objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The baseline report proposals submitted under sub-paragraph (1) must ensure that the outcome of the agreed surveys, together with existing data and reports, are drawn together to present a valid statement of the pre-construction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

(4) The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, include, but not be limited to, the need to undertake—

- (a) a survey to determine the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works;
- (b) a swath-bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works including an appropriate buffer around the location of each work;
- (c) undertake any monitoring required by the SIP submitted in accordance with condition 16; and
- (d) undertake or contribute to any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g).

(5) The undertaker must carry out the surveys specified within the monitoring plan or plans in accordance with that plan or plans, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

(6) When any surveys are carried out in accordance with sub-paragraph (5) a survey report must be submitted to the MMO following completion of the relevant survey. Any report submitted under this sub-paragraph must be submitted prior to the commencement of licensed activities for the relevant stage.

Construction monitoring and surveys

21.—(1) The undertaker must, in discharging condition 15(1)(b), for each phase of construction submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring and surveys, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.

(3) The undertaker must carry out the surveys approved under sub-paragraph (1), including any further noise monitoring required in writing by the MMO, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(4) The results of the initial noise measurements monitored in accordance with sub-paragraph (2) must be provided to the MMO within six weeks of the installation of the first four piled foundations. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the reasonable opinion of the MMO in consultation with the relevant statutory nature conservation body, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have been agreed.

(5) The undertaker must carry out the surveys specified in the construction monitoring plan in accordance with that plan, including any further noise monitoring required in writing by the MMO under sub-paragraph (4), unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

(6) Construction monitoring must include vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan, including the provision of reports on the results of that

monitoring by automatic identification system at the end of each year of the construction period to the MMO, MCA and Trinity House.

(7) In the event that piled foundations are proposed to be used, the details submitted in accordance with the marine mammal mitigation protocol must include proposals for monitoring marine mammals.

Post-construction monitoring and surveys

22.—(1) The undertaker must, in discharging condition 15(1)(b), submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with relevant statutory nature conservation bodies of proposed post-construction monitoring and surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results.

(2) The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The post-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, have due regard to, but not be limited to, the need to—

- (a) undertake a survey to determine any change in the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey and the construction benthic surveys;
- (b) undertake, within 12 months of completion of the licensed activities, a full sea floor coverage swath-bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables (including fibre optic cables) have been buried or protected;
- (c) undertake any monitoring required by the SIP submitted in accordance with condition 16;
- (d) undertake post-construction vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan by automatic identification system for a duration of three consecutive years following the completion of construction of the authorised project, unless otherwise agreed in writing by the MMO, with provision for a report to be submitted annually to the MMO, Trinity House and the MCA; and
- (e) undertake any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g).

(4) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the agreed reports to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.

Reporting of scour and cable protection

23.—(1) No more than four months following completion of the construction of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection and scour protection used for the authorised scheme.

(2) The report must include the following information—

- (a) the location of cable protection and scour protection;
- (b) the volume of cable protection and scour protection; and
- (c) any other information relating to the cable protection and scour protection as agreed between the MMO and the undertaker.

(3) Where any cable protection or scour protection is replenished following completion of construction the undertaker must submit an updated report in accordance with sub-paragraph (2) in writing to the MMO and the relevant statutory nature conservation bodies no more than four months following completion of the relevant replenishment being deposited.

Completion of construction

24.—(1) The undertaker must submit a close out report to the MMO, the MCA, Trinity House, UKHO and the relevant statutory nature conservation body within three months of the date of completion of construction. The close out report must confirm the date of completion of construction and must include the following details—

- (a) the final number of installed wind turbine generators;
- (b) the installed wind turbine generator parameters;
- (c) as built plans;
- (d) latitude and longitude coordinates of the centre point of the location for each wind turbine generator and offshore accommodation platform, provided as Geographical Information System data referenced to WGS84 datum; and
- (e) latitude and longitude coordinates of the array cables, provided as Geographical Information System data referenced to WGS84 datum.

(2) Following completion of construction, no further construction activities can be undertaken under this deemed marine licence.

Collaboration

25.—(1) Prior to submission of plans and documentation required to be submitted to the MMO for approval in accordance with conditions 16 and 17, the undertaker must provide a copy of the relevant plans and documentation to DBSWL to enable DBSWL to provide any comments on the plans and documentation to the undertaker.

(2) The plans and documentation submitted to the MMO for approval in accordance with conditions 16 and 17 must be accompanied by any comments received by the undertaker from DBSWL in accordance with sub-paragraph (1) or a statement from the undertaker confirming that no such comments were received.

Reporting of impact pile driving

26.—(1) In the event that driven or part-driven pile foundations are proposed to be used as part of the foundation installation the undertaker must provide the following information to the Marine Noise Registry—

- (a) no less than six months prior to the commencement of each phase of construction of the licensed activities, information on the expected location, start and end dates of impact pile driving to satisfy the Marine Noise Registry's Forward Look requirements;
- (b) within two weeks after commencement of each phase of construction of the licensed activities, information on the location, start and end dates of impact pile driving to satisfy the Marine Noise Registry's Forward Look requirements; and
- (c) at six-month intervals following the commencement of pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements by 7 April for winter season October to March inclusive and 7 October for summer season April to September inclusive or within 12 weeks of completion of impact pile driving whichever is earlier.

(2) The undertaker must notify the MMO in writing of the successful submission of Forward Look or Close Out data pursuant to paragraph (1) above within seven days of the submission.

(3) For the purpose of this condition, “Forward Look” and “Close Out” mean the requirements as set out in the UK Marine Noise Registry Information Document Version 1 (July 2015) as amended, updated, or superseded from time to time.

Maintenance reporting

27.—(1) An annual maintenance report must be submitted to the MMO in writing within one month following the first anniversary of the date of commencement of operations, and every year thereafter until the permanent cessation of operation.

(2) The report must provide a record of the licensed activities undertaken as set out in condition 7 during the preceding year, the timing of activities and methodologies used.

(3) Every fifth year, the undertaker must submit to the MMO in writing, within one month of that date, a consolidated maintenance report, which will—

- (a) include a review of licensed activities undertaken during the preceding five years with reference to the reports submitted in accordance with condition 27 (1) of this licence.
- (b) reconfirm the applicability of the methodologies and frequencies of the licensable activities permitted by this licence for the remaining duration of this licence.

Sediment Sampling

28.—(1) The undertaker must submit a sample plan request in writing to the MMO for written approval of a sample plan.

(2) The sample plan request must be made—

- (a) for capital dredging, at least six months prior to the commencement of any capital dredging; or
- (b) for maintenance dredging, at least six months prior to the end of every third year from the date of the previous sediment sample analysis.

(3) The sample plan request must include details of—

- (a) the volume of material to be dredged;
- (b) the location of the area to be dredged;
- (c) details of the material type proposed for dredging;
- (d) the type and dredging methodology (including whether it is a capital or maintenance dredge, depth of material to be dredged and proposed programme for the dredging activities); and
- (e) the location and depth of any supporting samples.

(4) Unless otherwise agreed by the MMO, the undertaker must undertake the sampling in accordance with the approved sample plan.

Ornithological monitoring

29.—(1) The licensed activities or any phase of those activities must not commence until an ornithological monitoring plan setting out the circumstances in which ornithological monitoring will be required and the monitoring to be carried out in such circumstances has been submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.

(2) The ornithological monitoring plan must be submitted in writing to the MMO no later than six months prior to the first pre-construction survey.

(3) The undertaker must carry out any monitoring agreed under sub-paragraph (1) and provide the agreed reports to the MMO in the agreed format in accordance with the agreed timetable,

unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation body.

Noise restriction

30.—(1) No piling activity can commence within Work Nos. 1A and 4A during the herring spawning season until a herring spawning piling restriction plan (in accordance with the herring spawning plan) is submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.

(2) The herring spawning piling restriction plan must be submitted to the MMO no later than six months prior to the commencement of the relevant activities unless otherwise agreed in writing by the MMO.

(3) The herring spawning piling restriction plan must present updated underwater noise modelling, which must be based on final project parameters to be used to install piles and must include details of any mitigation measures to be employed.

(4) If the updated underwater noise modelling referred to in sub-paragraph (3) above demonstrates that noise levels above 135 decibel from any piling area within Work Nos. 1A and/or 4A will impact the area shoreward of the Herring Spawning Noise Restriction Boundary during the herring spawning season then any piles located within that piling area must not be installed during the herring spawning season without written approval from the MMO.

(5) Any piling activity within Work Nos. 1A and 4A during the herring spawning season must be undertaken in accordance with the approved herring spawning piling restriction plan approved under sub-paragraph (1) or in accordance with any approval given by the MMO under sub-paragraph (4) above.

(6) In this condition-

“Herring Spawning Noise Restriction Boundary” means the boundary indicated by the red line on the herring spawning plan, with the restricted area being the area shoreward of this boundary

“herring spawning plan” means the document certified by the Secretary of State as the herring spawning plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified)

“herring spawning season” means 1 August to 31 October inclusive or such other period as agreed in writing with the MMO;

“piling area” means any area within Work Nos. 1A and/or 4A within which one or more piled foundations is proposed to be installed.

SCHEDULE 11

Article 35

Deemed Marine Licence 2: DBS West Project Offshore Generation – Work No. 1B, 4B and 7B

PART 1

Licensed marine activities

Interpretation

1.—(1) In this deemed marine licence—

“the 2004 Act” means the Energy Act 2004;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“the 2017 Regulations” means the Conservation of Offshore Marine Habitats and Species Regulations 2017;

“Annex I subtidal habitat” means a subtidal habitat of a type listed in Annex I to Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora;

“array area” means the area covered by Work No. 1B as shown on the offshore works plan;

“array cable” means a cable linking the wind turbine generators to each other and to the offshore converter platforms;

“authorised deposits” means the substances and articles specified in paragraph 4 of Part 1 of this deemed marine licence;

“authorised project” means the development and associated development described in Part 1 of Schedule 1 (authorised development) of the Order and any other development authorised by the Order that is development within the meaning of section 32 (meaning of “development”) of the 2008 Act;

“authorised scheme” means Work No. 1B, 4B and 7B and the further associated development described in paragraph 3 of Part 1 of this deemed marine licence or any part of that work or development;

“buoy” means any floating device used for navigational purposes or measurement purposes including LiDAR buoys, wave buoys and guard buoys;

“cable” means any offshore cable and includes direct-lay cables and cables laid in cable ducts and further includes fibre optic and other communications cables either within the cable or laid alongside;

“cable crossing” means the crossing of existing subsea cables and pipelines by the array, inter-platform or export cables authorised by the Order and forming part of the authorised scheme together with physical protection measures including cable protection;

“cable protection” means measures to protect cables forming part of the authorised scheme from physical damage and exposure due to loss of seabed sediment including, but not limited to, rock placement, concrete mattresses with or without frond devices, protective aprons or coverings, bagged solutions filled with sand, rock, grout or other materials and protective shells;

“cable statement” means the document certified by the Secretary of State as the cable statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“commence” means the first carrying out of any licensed marine activities authorised by this deemed marine licence, save for pre-construction monitoring surveys approved under this deemed marine licence, and “commenced” and “commencement” must be construed accordingly;

“condition” means a condition in Part 2 of this licence;

“DBS East” means the Dogger Bank South East Offshore Wind Farm;

“DBS East Project” means the DBS East Project offshore works and the DBS East Project onshore works;

“DBS East Project offshore works” means Work Nos. 1A to 8A and any other authorised development associated with those works;

“DBS East Project onshore works” means Work Nos. 9A to 34A and any other authorised development associated with those works;

“DBSEL” means RWE Renewables UK Dogger Bank South (East) Limited, company number 13656240, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“DBS West offshore works” means Work Nos. 1B to 8B and any authorised development associated with those works;

“DBS West Project” means the DBS West Project onshore works and the DBS West Project offshore works;

“DBS West Project onshore works” means Work Nos. 9B to 34B and any other authorised development associated with those works;

“DBSWL” means RWE Renewables UK Dogger Bank South (West) Limited, company number 13656525, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“Defence Infrastructure Organisation Safeguarding” means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands, B75 7RL and any successor body to its functions;

“disposal ground 2 (DBS West)” means the site to be used for disposal of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and cable sandwave clearance for the DBS West offshore works as shown on the Disposal Site Plan and with MMO disposal site reference DG035;

“Disposal Site Plan” means the plan certified by the Secretary of State as the Disposal Site Plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Dropped Object Procedure Form” means the MMO notification proforma with reference MLDIR1 for reporting the loss or dumping of synthetic materials and other refuse at sea or any other format advised in writing by the MMO;

“environmental statement” means the document certified by the Secretary of State as the environmental statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“habitats of principal importance” “means a habitat designated as being of principal importance in accordance with section 41 (biodiversity lists and action (England)) of the Natural Environment and Rural Communities Act 2006;

“HAT” means highest astronomical tide;

“HVAC” means high voltage alternating current;

“in principle monitoring plan” means the document certified by the Secretary of State as the in principle monitoring plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation” means the document certified by the Secretary of State as the in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“inter-platform cable” means a cable linking the offshore converter platforms;

“intrusive activities” means activities including anchoring of vessels, jacking up of vessels, and temporary wet storage areas;

“jacket foundation” means a lattice type structure constructed of steel which is fixed to the seabed at 3 or more points with steel pin piles and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms;

“JNCC Guidance” means the statutory nature conservation body ‘Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs’ Joint Nature Conservation Committee Report No.654, May 2020 published in June 2020 as amended, updated or superseded from time to time;

“LAT” means lowest astronomical tide;

“maintain” includes inspect, upkeep, repair, adjust, alter, remove, reconstruct and replace (including replenishment of cable protection), but does not include the removal, reconstruction or replacement of foundations associated with the authorised scheme, to the extent assessed in the environmental statement; and “maintenance” must be construed accordingly;

“Marine Management Organisation” means the body created under the 2009 Act which is responsible for the regulation of this deemed marine licence or any successor of that function and “MMO” must be construed accordingly;

“Marine Noise Registry” means the database developed and maintained by JNCC on behalf of Defra to record the spatial and temporal distribution of impulsive noise generating activities in UK seas;

“MCA” means the Maritime and Coastguard Agency, the executive agency of the Department for Transport;

“MCMS” means the Marine Case Management System web portal provided and operated by the MMO;

“mean sea level” means the average level of the sea surface over a period of time, taking account of all tidal effects and surge events;

“MHWS” or “mean high water springs” means the average throughout the year of two successive high waters during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides);

“MLWS” or “mean low water springs” means the lowest level that spring tides reach on average over a period of time;

“monopile foundation” means a steel pile driven or drilled into the seabed and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms and equipment;

“offshore accommodation platform” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and open with modular equipment or fully clad and may include a helicopter platform, containing accommodation, storage, workshop auxiliary equipment and facilities for operating, maintaining and controlling the offshore converters or wind turbine generators, including but not limited to navigation, aviation and safety marking and lighting, systems for vessel access and retrieval, cranes, potable water supply, black water separation, stores, fuels and spares, communications systems and control hub facilities;

“offshore converter platform” means an offshore converter platform with equipment to convert the HVAC power generated at the wind turbine generators into HVDC power, being a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and open with modular equipment or fully clad and may include a helicopter platform, containing electrical equipment required to switch, transform, convert electricity generated at the wind turbine generators to a higher voltage and provide reactive power compensation, including but not limited to high voltage power transformers, high voltage switchgear and busbars, substation auxiliary systems and low voltage distribution, instrumentation, metering equipment and control systems, standby generators, shunt reactors, auxiliary and uninterruptible power supply systems, facilities to support operations and maintenance;

“offshore order limits and grid coordinates plan” means the plan certified by the Secretary of State as the offshore order limits and grid coordinates plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Order” means Dogger Bank South East and West Offshore Wind Farms Order 20[];

“Order limits” means the limits shown on the offshore order limits and grid coordinates plans within which the authorised scheme may be carried out and the grid coordinates for Work Nos. 1B, 4B and 7B are set out in paragraph 5 of Part 1 of this deemed marine licence;

“outline fisheries liaison and co-existence plan” means the document certified by the Secretary of State as the outline fisheries liaison and co-existence plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline marine mammal mitigation protocol” means the document certified by the Secretary of State as the outline marine mammal mitigation protocol for the purposes of the Order under

article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline offshore operations and maintenance plan” means the document certified by the Secretary of State as the outline offshore operations and maintenance plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline project environmental management plan” means the document certified by the Secretary of State as the outline project environmental management plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline scour protection plan” means the document certified by the Secretary of State as the outline scour protection plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline vessel traffic monitoring plan” means the document certified by the Secretary of State as the outline vessel traffic monitoring plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline written scheme of investigation (offshore)” means the document certified by the Secretary of State as the outline written scheme of investigation (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“scour protection” means measures to prevent loss of seabed sediment around any structure placed in or on the seabed including by the use of bagged solutions, filled with grout or other materials, protective aprons, concrete mattresses with or without frond devices, and rock and gravel placement;

“statutory historic body” means Historic England or its successor in function;

“statutory nature conservation body” means a statutory nature conservation body, being the appropriate nature conservation body as defined in Regulation 5 of the Conservation of Habitats and Species Regulations 2017^(a) or its equivalent in the Conservation of Offshore Marine Habitats and Species Regulations 2017^(b);

“transition piece” means a metal structure attached to the top of a foundation where the base of a wind turbine generator is connected and includes additional equipment such as J-tubes, corrosion protection systems, boat access systems, access platforms, craneage, electrical transmission equipment and associated equipment;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“UKHO” means the United Kingdom Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

“undertaker” means DBSWL;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“VHF” means very high frequency;

“wind turbine generator” means a structure comprising a tower, a rotor with three blades connected at the hub, a nacelle and ancillary electrical and other equipment which may include J-tubes, transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities

(a) S.I. 2017/1012

(b) S.I. 2017/1013

and other associated equipment, fixed to a foundation and forming part of the authorised scheme;

“works plans” means the works plans (offshore) and the works plans (onshore);

“works plans (offshore)” means the plans certified by the Secretary of State as the works plans (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified); and

“works plans (onshore)” means the plans certified by the Secretary of State as the works plans (onshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified).

(2) In this deemed marine licence, a reference to any statute, order, regulation or similar instrument is a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) In this deemed marine licence, unless otherwise indicated—

(a) all times are Greenwich Mean Time (“GMT”);

(b) all coordinates are latitude and longitude degrees and minutes to two decimal places.

(4) Unless otherwise stated or agreed with the MMO, all submissions, notifications and communications must be sent by the undertaker to the MMO using MCMS. Except where otherwise notified in writing by the relevant organisation, the addresses for correspondence for the purposes of this deemed marine licence are—

(a) Historic England

37 Tanner Road

York

YO1 6WP

(b) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle upon Tyne

NE4 7YH

Email: marine.consents@marinemangement.org.uk

Tel: 0300 123 1032

(c) Marine Management Organisation (local office)

Room 13, Ground Flood

Crosskill House

Mill Lane

Beverley

HU17 9JB

Tel: 0208 026 0519

(d) Maritime and Coastguard Agency

UK Technical Services Navigation

Spring Place

105 Commercial Road

Southampton

SO15 1EG

Tel: 020 3817 2433

Email: navigationsafety@mcga.gov.uk

- (e) Natural England
Foss House
Kings Pool
1-2 Peasholme Green
York
YO1 7PX
Tel: 0300 060 4911
- (f) Trinity House
Tower Hill
London
EC3N 4DH
Tel: 020 7481 6900
- (g) United Kingdom Hydrographic Office
Admiralty Way
Taunton
Somerset
TA1 2DN
Tel: 01823 337 900

(5) Unless otherwise advised in writing by the MMO, the address for electronic communication with the MMO for the purposes of this licence is marine.consents@marinemanagement.org.uk, or where contact to the Local Office of the MMO is required, beverley@marinemanagement.org.uk.

Details of licensed marine activities

2. Subject to the conditions, this deemed marine licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea within the Order limits seaward of MHWS of the substances and objects specified in paragraph 4 below and, when combined with the disposal authorised within disposal ground 2 (DBS West) by the deemed marine licences granted under Schedules 13, 14 and 14A of the Order, of up to 2,258,194 cubic metres (being a maximum, not an approximate upper figure) of inert material of natural origin produced during construction drilling or seabed preparation for foundation works, cable works and boulder clearance works at disposal site references to be provided to the MMO within disposal ground 2 (DBS West) and any other disposal sites approved in writing by the MMO;
- (b) the construction of works in or over the sea or on or under the sea bed;
- (c) dredging for the purposes of seabed preparation for foundation works or cable works;
- (d) the removal of sediment samples for the purposes of informing environmental monitoring under this deemed marine licence during pre-construction, construction and operation;
- (e) boulder clearance works by displacement ploughing or subsea grab technique or any other comparable method;
- (f) removal of static fishing equipment; and
- (g) site preparation works.

3. Such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 1B—

- (a) An offshore wind turbine generating station with a gross electrical output of over 100 megawatts comprising up to 100 wind turbine generators each fixed to the seabed by monopile or jacket foundations;
- (b) a network of HVAC subsea cables connecting the wind turbine generators and Work No. 3 within the area shown on the works plans, including cable crossings and cable protection;

Work No. 4B—

Up to one accommodation platform fixed to the seabed by jacket or monopile foundations within the area shown on the works plans;

Work No. 7B—

A temporary work area associated with Work Nos. 1B to 5B for vessels to carry out intrusive activities and non-intrusive activities alongside Work Nos. 1B to 5B;

In connection with such Work Nos. 1B, 4B and 7B and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence, including—

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 1B and 4B and the disposal of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works, cable installation preparation such as sandwave clearance, and boulder clearance;
- (d) removal of static fishing equipment;
- (e) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised scheme;
- (f) disposal of drill arisings in connection with any foundation drilling up to a total of 35,086 cubic metres;
- (g) creation and use of temporary laydown areas, use of cable lay vessel anchors;
- (h) lighting.

4. The substances and objects authorised for deposit at sea are—

- (a) iron, steel, copper and aluminium;
- (b) stone and rock;
- (c) concrete and grout;
- (d) sand and gravel;
- (e) cement bound sand;
- (f) natural soils;
- (g) plastic and synthetic material;
- (h) drilling fluid;
- (i) material extracted from within the Order limits during construction drilling or seabed preparation for foundation works and cable installation preparation works;
- (j) weights used for the calibration of vessels, consisting of a hessian sack, metal shackles or chains; and
- (k) marine coatings, other chemicals and timber.

5. The grid coordinates for that part of the authorised scheme comprising Work No. 1B, 4B and 7B are specified below—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	54° 33.7017' N	1° 20.55955' E
2	54° 33.84869' N	1° 20.16118' E
3	54° 34.09052' N	1° 19.9387' E
4	54° 42.68808' N	1° 19.11958' E
5	54° 42.89576' N	1° 19.19192' E
6	54° 43.00532' N	1° 19.2987' E
7	54° 43.10223' N	1° 19.45603' E
8	54° 44.18515' N	1° 21.7125' E
9	54° 44.28093' N	1° 22.03856' E
10	54° 44.30046' N	1° 22.32068' E
11	54° 44.26468' N	1° 22.62418' E
12	54° 39.02878' N	1° 44.92686' E
13	54° 38.84907' N	1° 45.31024' E
14	54° 38.57165' N	1° 45.4825' E
15	54° 36.48108' N	1° 44.38088' E
16	54° 36.3193' N	1° 44.24208' E
17	54° 36.19975' N	1° 44.03507' E
18	54° 31.81809' N	1° 33.61066' E
19	54° 31.68029' N	1° 33.16936' E
20	54° 31.68491' N	1° 32.6914' E

6. This deemed marine licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108, and the completion of such programme has been confirmed by the Secretary of State in writing.

7. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this deemed marine licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence apply only to a transfer not falling within article 5 (benefit of order) of the Order.

8.—(1) With respect to any condition which requires the licensed activities be carried out in accordance with the details, plans or schemes approved under this deemed marine licence, the approved details, plans or schemes are taken to include any amendments that may subsequently be approved in writing by the MMO.

(2) Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statement and approval of an amendment or variation may only be given where it has been demonstrated to the satisfaction of the MMO that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

9. Should the undertaker become aware that any of the information on which the granting of this deemed marine licence was based was materially false or misleading, the undertaker must notify the MMO of this fact in writing as soon as is reasonably practicable. The undertaker must explain in writing what information was materially false or misleading and must provide to the MMO the correct information.

PART 2

Conditions

Design parameters

Wind turbine generators

1.—(1) Subject to sub-paragraph (2), wind turbine generators forming part of the authorised scheme must not—

- (a) exceed a height of 376.8 metres when measured from MHWS to the tip of the vertical blade;
- (b) exceed a rotor diameter of 344.08 metres;
- (c) be less than 830 metres from the nearest wind turbine generator in any direction;
- (d) have a distance of less than 34 metres between the lowest point of the rotating blade of the wind turbine generator and mean sea level; or
- (e) exceed 100 wind turbine generators.

(2) References to the location of a wind turbine generator are references to the centre point at the base of the wind turbine generator.

Wind turbine generator foundations

2.—(1) Wind turbine generator foundations must be of one or more of the following foundation options: piled monopile, or piled jacket foundation.

(2) Wind turbine generator piled monopile foundations must not have a pile diameter exceeding 15 metres.

(3) Any wind turbine generator piled jacket foundation must not—

- (a) have more than four legs;
- (b) have more than four piles; or
- (c) have a pile diameter exceeding four metres.

(4) Within Work No. 1B, the wind turbine generator foundations must not have:—

- (a) a total combined seabed footprint (including scour protection) exceeding 311,725 square metres; or
- (b) a total combined amount of scour protection exceeding 302,221.21 square metres.

Offshore accommodation platform dimensions

3.—(1) The total number of offshore accommodation platforms in respect of the authorised scheme must not exceed one.

(2) The dimensions of any offshore accommodation platform (excluding helidecks, lightning protection, towers, masts and cranes) must not exceed—

- (a) 125 metres in length;
- (b) 100 metres in width; or
- (c) 105 metres in height above LAT.

Offshore accommodation platform foundations

4.—(1) Offshore accommodation platform foundations must be of one or more of the following foundation options: piled monopile or piled jacket foundation.

(2) The pile diameter of any offshore accommodation platform piled monopile foundation must not exceed 15 metres.

(3) Any offshore accommodation platform piled jacket foundation must not—

- (a) have more than eight legs;

- (b) have more than eight piles; or
 - (c) have a pile diameter exceeding 3.8 metres.
- (4) Any offshore accommodation platform foundation must not—
- (a) have a seabed footprint (including scour protection) exceeding 5,411 square metres; or
 - (b) have a seabed footprint (excluding scour protection) exceeding 177 square metres.
- (5) The total volume of scour protection for wind turbine generators and the offshore accommodation platform must not exceed 548,095 cubic metres.

Cables and cable protection

- 5.—(1) Within Work Nos. 1B the array cables must not, in total—
- (a) exceed 350 kilometres in length;
 - (b) exceed 20 cable crossings;
 - (c) have cable protection (including cable crossings) exceeding 375,800 square metres in area; or
 - (d) have cable protection (including cable crossings) exceeding 219,115 cubic metres in volume.
- (2) The array cables within Work No. 1B which fall within the Dogger Bank Special Area of Conservation must not have cable protection exceeding 10% of the length of such cables, when combined with the offshore export cables, array cables and inter-platform cables authorised by the deemed marine licences granted under Schedules 10 and 12 – 14A of the Order.

Phases of authorised scheme

- 6.—(1) The authorised scheme must not commence until an offshore works phasing scheme setting out the phases of construction of the authorised scheme has been submitted to and approved in writing by the MMO.
- (2) The authorised scheme must be submitted at least 6 months prior to the proposed commencement of the works.
- (3) Any subsequent amendments to the offshore works phasing scheme submitted for approval under sub-paragraph (1) must be submitted to the MMO for approval in writing.
- (4) The offshore works phasing scheme submitted for approval under sub-paragraph (1) must be implemented as approved. The approved details shall be taken to include any amendment that may subsequently be approved by the MMO in accordance with sub-paragraph (3).

Maintenance of the authorised scheme

- 7.—(1) The undertaker may at any time maintain the authorised scheme, except to the extent that this licence or an agreement made under this licence provides otherwise.
- (2) Maintenance works include but are not limited to—
- (a) Routine maintenance of wind turbine generators, offshore accommodation platform, and their respective foundations;
 - (b) Major wind turbine component or offshore accommodation platform replacement;
 - (c) Painting and applying other coatings to wind turbine generators or offshore accommodation platforms;
 - (d) Bird waste and marine growth removal;
 - (e) Surveys/inspections of cables;
 - (f) Cable remedial burial;
 - (g) Cable protection replenishment;
 - (h) Cable repairs and replacement;

- (i) Access ladder and boat landing replacement;
- (j) Wind turbine generator and offshore accommodation platform anode replacement; and
- (k) J-tube repair/replacement.

(3) Operation of the licensed activities must not commence until an offshore operations and maintenance plan substantially in accordance with the outline offshore operations and maintenance plan has been submitted to and approved in writing by the MMO. The operations and maintenance plan must include, but is not limited to—

- (a) a list of maintenance activities within the marine environment that are planned for the lifetime of the licensed activities;
- (b) details of the typical construction plant, machinery and personnel requirements for each maintenance activity and any requirements for detailed method statements;
- (c) details of the typical frequency and timing of each maintenance activity; and
- (d) details of controls and mitigation that will be in place in order to protect the marine environment.

(4) The offshore operations and maintenance plan must be reviewed every three years commencing from the date on which the plan was approved, unless otherwise agreed by the MMO, to ensure the details of the maintenance activities remain accurate. The conclusions of that review must be submitted to and approved by the MMO in writing.

(5) The offshore operations and maintenance plan must be implemented as approved by the MMO.

(6) Unless otherwise agreed in writing with the MMO, the undertaker must submit—

- (a) the first offshore operations and maintenance plan at least 6 months prior to the operation of the licensed activities;
- (b) any revised offshore operations and maintenance plan submitted in accordance with sub-paragraph (4) at least 6 months before such revised plan is required to be put in place; and
- (c) where additional maintenance activities are identified that are not included in the approved offshore operations and maintenance plan, or any revised plan approved in accordance with sub-paragraph (4), an updated offshore operations and maintenance plan including the additional maintenance activities must be submitted to and approved by the MMO in writing as soon as possible after the need for such additional maintenance activities is identified.

Extension of time periods

8. Any time period given in this deemed marine licence to either the undertaker or the MMO may be extended with the agreement of the other party in writing, such agreement not to be unreasonably withheld or delayed.

Notifications and inspections

9.—(1) The undertaker must ensure that—

- (a) a copy of this deemed marine licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 19;
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 19;
- (b) the undertaker must confirm in writing to the MMO within 28 days of a copy of this deemed marine licence and any subsequent amendments or revisions to it being provided to the persons listed in sub-paragraph (1)(a) that the required information has been provided.

(2) Only those persons and vessels notified to the MMO in accordance with condition 19 are permitted to carry out the licensed activities.

(3) Copies of this deemed marine licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
- (c) on board each vessel and at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.

(4) The documents referred to in sub-paragraph (1)(a) must be available for inspection by an authorised enforcement officer at the locations set out in sub-paragraph (3)(b).

(5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during the construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Local Office in writing at least fourteen days prior to the commencement of the licensed activities or any part of them and within five days of the completion of the licensed activity.

(7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—

- (a) at least 14 days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data;
- (b) as soon as reasonably practicable and no later than 24 hours of completion of the DBS West Project offshore works,

and confirmation of notification must be provided to the MMO within five days.

(8) The undertaker must ensure that a local notification to mariners is issued at least 14 days prior to the commencement of the authorised scheme or any part thereof advising of the start date of each of Work Nos. 1B, 4B and 7B and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(9) The undertaker must ensure that local notifications to mariners are updated and reissued at weekly intervals during construction activities and at least five days before any planned operations (unless otherwise agreed in writing by the MMO) and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme and monitoring plan approved under condition 15(1)(b). Copies of all notices must be provided to the MMO, UKHO and the MCA within five days.

(10) The undertaker must notify UKHO and the MCA of the commencement (within ten days), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical and aeronautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days of the notification.

(11) In case of damage to, or destruction or decay of, the authorised scheme or any part thereof, excluding the exposure of cables, the undertaker must as soon as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify the MMO, the MMO Local Office, MCA, Trinity House, the Kingfisher Information Service of Seafish and UKHO.

(12) In case of the exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners and inform the Kingfisher Information Service of Seafish of the location and extent of exposure. Copies of all notices must be provided to the MMO, MCA, Trinity House, and UKHO within five days.

(13) The undertaker must notify the MMO in writing a minimum of five days in advance of the commencement of each discrete incident of cable repair, replacement, or protection replenishment activity. Such a notification must include proposed timings and a description of proposed methodologies.

(14) The undertaker must ensure that the MMO, the MMO Local Office, local mariners, local fishermen's organisations and the Source Data Receipt Team at the UK Hydrographic Office, Taunton, Somerset, TA1 2DN (sdr@ukho.gov.uk) are notified within five days of completion of each instance of cable repair, replacement or protection replenishment activity.

Aids to navigation

10.—(1) The undertaker must during the whole of the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation, as Trinity House may from time to time direct.

(2) The undertaker must during the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme keep Trinity House and the MMO informed of progress of the authorised scheme including—

- (a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within five days of completion of construction of the authorised scheme.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation in accordance with the frequencies set out in the aids to navigation management plan agreed pursuant to condition 15(1)(f) using the reporting system provided by Trinity House.

(4) The undertaker must during the period from commencement of the licensed activities to completion of decommissioning of the authorised scheme notify Trinity House and the MMO of any failure of the aids to navigation, and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 9(11) or condition 9(12) are invoked, the undertaker must lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Colouring of Structures

11.—(1) Except as otherwise required by Trinity the undertaker must colour all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height directed by Trinity House or must colour the structure as directed by Trinity House in writing from time to time.

(2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs in writing, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Aviation safety

12.—(1) The undertaker must exhibit such lights, with such shape, colour and character as are required in writing by the Air Navigation Order 2016(a) and determined necessary for aviation safety in consultation with the Defence Infrastructure Organisation Safeguarding and as directed by the Civil Aviation Authority.

(a) S.I. 2016/765.

(2) The undertaker must notify the Defence Infrastructure Organisation Safeguarding, the Civil Aviation Authority and the MMO, as soon as reasonably practicable and at least 14 days prior to the commencement of the authorised scheme, in writing of the following information—

- (a) the date of the commencement of construction of the authorised scheme;
- (b) the date any wind turbine generators are to be installed;
- (c) the maximum height of any construction equipment or vessels to be used;
- (d) the maximum height of each wind turbine generator to be constructed;
- (e) the latitude and longitude of each wind turbine generator to be constructed;

and the Defence Infrastructure Organisation Safeguarding and the Civil Aviation Authority must be notified of any changes to the information supplied under this paragraph and of the completion of the construction of the authorised scheme. Copies of notifications must be provided to the MMO within 5 days.

Chemicals, drilling and debris

13.—(1) The undertaker must ensure that any coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by the Health and Safety Executive and the Environment Agency Pollution Prevention Control Guidelines.

(2) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must be undertaken to prevent releases into the marine environment, including bunding of 110 percent of the total volume of all reservoirs and containers.

(3) The undertaker must inform the MMO in writing of the location and quantities of material disposed of each month under this deemed marine licence by submission of a disposal return by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive and must provide a null return if no activity has taken place during the reporting period.

(4) The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within the Order limits seaward of the MHWS.

(5) The undertaker must ensure that any rock material used in the construction of the authorised scheme is from a recognised source, free from contaminants and containing minimal fines.

(6) In the event that any rock material used in the construction of the authorised scheme is misplaced or lost below MHWS, the undertaker must report the loss in writing to the local enforcement office within 24 hours and if the MMO, in consultation with the MCA and Trinity House, reasonably considers such material to constitute a navigation or environmental hazard (dependent on the size and nature of the material) the undertaker must, in that event, demonstrate to the MMO that reasonable attempts have been made to locate, remove or move any such material.

(7) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas must be contained to prevent run off entering the water through the freeing ports.

(8) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 15(1)(d)(i).

(9) Debris or dropped objects which are considered a danger or hazard to navigation must be reported as soon as reasonably practicable but no later than six hours from the undertaker becoming aware of an incident, to the relevant HM Coastguard Maritime Rescue Co-ordination Centre by telephone (0344 382 0580), and the UK Hydrographic Office email: navwarnings@btconnect.com.

(10) All dropped objects including those in sub-paragraph (9) must be reported to the MMO using the Dropped Object Procedure Form (including any updated form as provided by the MMO)

as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident, unless otherwise agreed in writing with the MMO.

(11) On receipt of notification or the Dropped Object Procedure Form the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the marine environment at the undertaker's expense if reasonable to do so.

Force majeure

14. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

Pre-construction plans and documentation

15.—(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO, in consultation with Trinity House, the MCA, the relevant statutory nature conservation body and UKHO as appropriate—

- (a) a layout plan setting out proposed details of the authorised scheme, including the—
 - (i) number, dimensions, specification, foundation type(s) and depth for each wind turbine generator and offshore accommodation platform;
 - (ii) the grid coordinates of the centre point of the proposed location for each wind turbine generator and offshore accommodation platform;
 - (iii) proposed layout of all cables;
 - (iv) location and specification of all other aspects of the authorised scheme; and
 - (v) any exclusion zones or micro-siting requirements identified pursuant to 15(1)(e)(iv) or relating to any habitats of principal importance, Annex 1 subtidal habitat or surficial deposits of glacial till identified as part of surveys undertaken in accordance with condition 20;to ensure conformity with the description of Work No. 1B and 4B and compliance with conditions 1 to 5;
- (b) a construction programme and monitoring plan (which accords with the in principle monitoring plan) which, save in respect information submitted pursuant to sub-paragraph (b)(iii)(aa), is to be submitted to the MMO at least six months prior to commencement of licensed activities and to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant delivery of materials and installation works;
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with conditions 20, 21 and 22 to be submitted to the MMO in accordance with the following (unless otherwise agreed in writing with the MMO):—
 - (aa) at least six months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
 - (bb) at least six months prior to construction, detail on construction monitoring;
 - (cc) at least six months prior to commissioning, detail of post-construction (and operational) monitoring;
 - (iv) an indicative written construction programme for all wind turbine generators and cables including fibre optic cables comprised in the works at Part 1 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above); and

- (v) a monitoring plan setting out the circumstances in which monitoring will be required and the monitoring to be carried out in such circumstances;
- (c) a construction method statement (in accordance with the cable statement), including details of—
 - (i) cable burial, specification, installation and monitoring to include—
 - (aa) the technical specification of cables below MHWS;
 - (bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum;
 - (cc) in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House and the MMO in consultation with the statutory nature conservation body) to be taken to ensure existing and future safe navigation is not compromised, including updated nearshore sediment transport modelling and comparison and demonstration against the environmental statement if within the 10m depth contour and/ or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and
 - (dd) proposals for monitoring cables including cable protection until the authorised scheme is decommissioned which includes a risk-based approach to the management of unburied or shallow buried cables;
 - (ii) a scour protection plan (in accordance with the outline scour protection plan) including details of scour protection and cable protection including details of the need, type, sources, quantity and installation methods for scour protection and cable protection, with details updated and resubmitted for approval if changes to it are proposed following cable laying operations;
 - (iii) foundation installation methodology, including drilling methods and disposal of drill arisings and material extracted during seabed preparation for foundation and cable installation works and having regard to any mitigation scheme pursuant to subparagraph (1)(g);
 - (iv) advisory safe passing distances for vessels around the sites where the licensed activities are taking place;
 - (v) contractors;
 - (vi) vessels and vessel transit corridors;
 - (vii) associated ancillary works; and
 - (viii) guard vessels to be employed;
- (d) a project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation to include details of—
 - (i) a marine pollution contingency plan to address the risks, methods and procedures to deal with any spills and collision incidents during construction and operation of the authorised scheme in relation to all activities carried out;
 - (ii) a chemical risk assessment, including information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance and standards;
 - (iii) waste management and disposal arrangements;
 - (iv) the appointment and responsibilities of a fisheries liaison officer;
 - (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of

commencement of licensed activities pursuant to condition 4 and to address the interaction of the licensed activities with fishing activities;

- (vi) a code of conduct for vessel operators to reduce risk of injury to mammals; and
 - (vii) procedures, which must be adopted within vessel transit corridors to minimise disturbance to red-throated diver during the period 1 November to 31 March (inclusive), which must be in accordance with the best practice protocol for minimising disturbance to red-throated diver;
- (e) an archaeological written scheme of investigation in relation to the offshore Order limits seaward of MHWS, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body to include—
- (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
 - (v) monitoring of archaeological exclusion zones during and post construction;
 - (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the Archaeological Data Service, by submitting an OASIS ('Online Access to the Index of archaeological investigations') form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO and Historic England that the OASIS form has been submitted to the Archaeological Data Service within two weeks of submission;
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and
 - (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities;
- (f) an aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, the MCA, the Civil Aviation Authority and UKHO specifying how the undertaker will ensure compliance with condition 10 from the commencement of construction of the authorised scheme to the completion of decommissioning;
- (g) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol (in accordance with the outline marine mammal mitigation protocol), the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation bodies and which must include details of noise reduction methods through project design (primary measures) and/or, deployment of noise mitigation systems or noise abatement systems (secondary measures) that will be utilised to manage sounds from those piling activities and such protocol must include full details and justification for the mitigation chosen or excluded for deployment;
- (h) a navigation management plan to manage crew transfer vessels (including daughter craft) during the construction and operation of the authorised scheme;
- (i) a final cable statement (in accordance with the cable statement); and
- (j) a site specific chemical risk assessment, which must be submitted no later than ten weeks prior to use of the relevant chemical, for all chemicals (with the exception of chemicals present on the OSPAR List of Substances Used and Discharged Offshore which Are

Considered to Pose Little or No Risk to the Environment) that have a pathway to the marine environment used for the marine licensed activities, outside the course of normal navigation, to include—

- (i) the function of the chemical,
- (ii) the quantities being used and the frequency of use; and
- (iii) the physical, chemical, and ecotoxicological properties of the chemical.

(2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific outline written scheme of investigation (which must accord with the details set out in the outline written scheme of investigation (offshore)) which has been submitted to and approved by the MMO.

(3) Any sediment removed from within the Dogger Bank Special Area of Conservation during construction of the authorised scheme must be disposed of within that part of the Dogger Bank Special Area of Conservation which falls within the Order limits.

(4) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive monopile foundations must not exceed 6,000kJ and the hammer energy used to drive or part-drive pin pile foundations must not exceed 3,000kJ.

(5) The maximum number of main vessels engaged at any time in activities related to piling for the licensed activities when combined with the number of main vessels engaged in piling activities authorised by the deemed marine licences granted under Schedules 10, 12 and 13 must not exceed 2 vessels.

(6) The number of piled foundations installed within a 24 hour period when combined with the number of piled foundations installed pursuant to the deemed marine licences granted under Schedules 10, 12 and 13 of the Order within the same 24 hour period must not exceed—

- (a) 4 monopile foundations;
- (b) 8 pin pile foundations;
- (c) 3 monopile foundations and 2 pin pile foundations;
- (d) 2 monopile foundations and 4 pin pile foundations; or
- (e) 1 monopile foundation and 6 pin pile foundations.

(7) The number of piled foundations installed concurrently when combined with the number of piled foundations installed concurrently pursuant to the deemed marine licences granted under Schedules 10, 12 and 13 must not exceed—

- (a) where only monopile foundations are being installed concurrently exceed 2 monopile foundations;
- (b) where only pin pile foundations are being installed concurrently exceed 2 pin pile foundations; and
- (c) where a combination of monopile foundations and pin pile foundations are being installed concurrently exceed 1 monopile foundation and 1 pin pile foundation.

(8) In sub-paragraphs (15)(1)(d)(ii) and 15(1)(j) above:

- (a) “pathway to the marine environment” means open systems or closed systems that require top up;
- (b) “chemicals” comprise both substances and preparations;
- (c) “preparation” means a mixture or solution composed of two or more substances; and
- (d) “substance” means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Site Integrity Plan

16.—(1) No piling activities can take place until a Site Integrity Plan (“SIP”), which accords with the principles set out in the in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation, has been submitted to, and approved in writing, by the MMO in consultation with the relevant statutory nature conservation body.

(2) The SIP submitted for approval must contain a description of the conservation objectives for the Southern North Sea Special Area of Conservation (“SNS SAC”) as well as any relevant management measures and it must set out the key statutory nature conservation body advice on activities within the SNS SAC relating to piling as set out within the JNCC Guidance and how this has been considered in the context of the authorised scheme.

(3) The SIP must be submitted in writing to the MMO no later than six months prior to the commencement of piling activities.

(4) In approving the SIP the MMO must be satisfied that the authorised scheme at the preconstruction stage, in-combination with other plans and projects, is in line with the JNCC Guidance.

(5) The approved SIP may be amended with the prior written approval of the MMO, in consultation with the relevant statutory nature conservation body, where the MMO remains satisfied that the Project, in-combination with other plans or projects at the pre-construction stage, is in line with the JNCC Guidance.

Approval of programmes, statements etc

17.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 15 must be submitted in writing for approval at least six months prior to the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The MMO must determine an application for approval made under conditions 15 and 16 within a period of six months commencing on the date the application is received by the MMO, unless otherwise agreed in writing with the undertaker.

(3) The licensed activities must be carried out in accordance with the plans, protocols, statements, schemes and details approved under conditions 15 and 16, unless otherwise agreed in writing by the MMO.

Offshore safety management

18. Any part of the authorised scheme must not be commenced until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN654 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (or any equivalent guidance that replaces or supersedes it) and its annexes.

Reporting of engaged agents, contractors and vessels

19.—(1) The undertaker must provide the following information in writing to the MMO—

- (a) the name, function, company number (if applicable), registered or head office address (as appropriate) of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) The undertaker must notify the MMO in writing of any vessel being used to carry on any licensed activity listed in this deemed marine licence on behalf of the undertaker. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed

activity. Notification must include the master's name, vessel type, vessel IMO number and vessel owner or operating company

(3) Any changes to the supplied details must be notified to the MMO in writing at least 24 hours before the agent, contractor or vessel engages in the licensed activities.

Pre-construction monitoring and surveys

20.—(1) The undertaker must, in discharging condition 15(1)(b), submit a monitoring plan or plans in accordance with the in principle monitoring plan for written approval by the MMO in consultation with the relevant statutory nature conservation body, which must contain details of proposed monitoring and surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report.

(2) The survey proposals submitted under sub-paragraph (1) must be in accordance with the principles set out in the in principle monitoring plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The baseline report proposals submitted under sub-paragraph (1) must ensure that the outcome of the agreed surveys, together with existing data and reports, are drawn together to present a valid statement of the pre-construction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

(4) The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, include, but not be limited to, the need to undertake—

- (a) a survey to determine the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, or habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works;
- (b) a swath-bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works including an appropriate buffer around the location of each work;
- (c) undertake any monitoring required by the SIP submitted in accordance with condition 16; and
- (d) undertake or contribute to any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g).

(5) The undertaker must carry out the surveys specified within the monitoring plan or plans in accordance with that plan or plans, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

(6) When any surveys are carried out in accordance with sub-paragraph (5) a survey report must be submitted to the MMO following completion of the relevant survey. Any report submitted under this sub-paragraph must be submitted prior to the commencement of licensed activities for the relevant stage.

Construction monitoring and surveys

21.—(1) The undertaker must, in discharging condition 15(1)(b), for each phase of construction submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring and surveys, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.

(3) The undertaker must carry out the surveys approved under sub-paragraph (1), including any further noise monitoring required in writing by the MMO, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(4) The results of the initial noise measurements monitored in accordance with sub-paragraph (2) must be provided to the MMO within six weeks of the installation of the first four piled foundations. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the reasonable opinion of the MMO in consultation with the relevant statutory nature conservation body, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have been agreed.

(5) The undertaker must carry out the surveys specified in the construction monitoring plan in accordance with that plan, including any further noise monitoring required in writing by the MMO under sub-paragraph (4), unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

(6) Construction monitoring must include vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan, including the provision of reports on the results of that monitoring by automatic identification system at the end of each year of the construction period to the MMO, MCA and Trinity House.

(7) In the event that piled foundations are proposed to be used, the details submitted in accordance with the marine mammal mitigation protocol must include proposals for monitoring marine mammals.

Post-construction monitoring and surveys

22.—(1) The undertaker must, in discharging condition 15(1)(b), submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with relevant statutory nature conservation bodies of proposed post-construction monitoring and surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results.

(2) The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The post-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, have due regard to, but not be limited to, the need to—

- (a) undertake a survey to determine any change in the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, or habitat with suitability for sandeel or surficial deposits of glacial till identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey and the construction benthic surveys;
- (b) undertake, within 12 months of completion of the licensed activities, a full sea floor coverage swath-bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables (including fibre optic cables) have been buried or protected;
- (c) undertake any monitoring required by the SIP submitted in accordance with condition 16;
- (d) undertake post-construction vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan by automatic identification system for a duration of three

consecutive years following the completion of construction of the authorised project, unless otherwise agreed in writing by the MMO, with provision for a report to be submitted annually to the MMO, Trinity House and the MCA; and

- (e) undertake any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g).

(4) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the agreed reports to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.

Reporting of scour and cable protection

23.—(1) No more than four months following completion of the construction of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection and scour protection used for the authorised scheme.

(2) The report must include the following information—

- (a) the location of cable protection and scour protection;
- (b) the volume of cable protection and scour protection; and
- (c) any other information relating to the cable protection and scour protection as agreed between the MMO and the undertaker.

(3) Where any cable protection or scour protection is replenished following completion of construction the undertaker must submit an updated report in accordance with sub-paragraph (2) in writing to the MMO and the relevant statutory nature conservation bodies no more than four months following completion of the relevant replenishment being deposited.

Completion of construction

24.—(1) The undertaker must submit a close out report to the MMO, the MCA, Trinity House, UKHO and the relevant statutory nature conservation body within three months of the date of completion of construction. The close out report must confirm the date of completion of construction and must include the following details—

- (a) the final number of installed wind turbine generators;
- (b) the installed wind turbine generator parameters;
- (c) as built plans;
- (d) latitude and longitude coordinates of the centre point of the location for each wind turbine generator and offshore accommodation platform, provided as Geographical Information System data referenced to WGS84 datum; and
- (e) latitude and longitude coordinates of the array cables, provided as Geographical Information System data referenced to WGS84 datum.

(2) Following completion of construction, no further construction activities can be undertaken under this deemed marine licence.

Collaboration

25.—(1) Prior to submission of plans and documentation required to be submitted to the MMO for approval in accordance with conditions 16 and 17, the undertaker must provide a copy of the relevant plans and documentation to DBSEL to enable DBSEL to provide any comments on the plans and documentation to the undertaker.

(2) The plans and documentation submitted to the MMO for approval in accordance with conditions 16 and 17 must be accompanied by any comments received by the undertaker from DBSEL in accordance with sub-paragraph (1) or a statement from the undertaker confirming that no such comments were received.

Reporting of impact pile driving

26.—(1) In the event that driven or part-driven pile foundations are proposed to be used as part of the foundation installation the undertaker must provide the following information to the Marine Noise Registry—

- (a) no less than six months prior to the commencement of each phase of construction of the licensed activities, information on the expected location, start and end dates of impact pile driving to satisfy the Marine Noise Registry's Forward Look requirements;
- (b) within two weeks after commencement of each phase of construction of the licensed activities, information on the location, start and end dates of impact pile driving to satisfy the Marine Noise Registry's Forward Look requirements; and
- (c) at six-month intervals following the commencement of pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements by 7 April for winter season October to March inclusive and 7 October for summer season April to September inclusive or within 12 weeks of completion of impact pile driving whichever is earlier.

(2) The undertaker must notify the MMO in writing of the successful submission of Forward Look or Close Out data pursuant to paragraph (1) above within seven days of the submission.

(3) For the purpose of this condition, "Forward Look" and "Close Out" mean the requirements as set out in the UK Marine Noise Registry Information Document Version 1 (July 2015) as amended, updated, or superseded from time to time.

Maintenance reporting

27.—(1) An annual maintenance report must be submitted to the MMO in writing within one month following the first anniversary of the date of commencement of operations, and every year thereafter until the permanent cessation of operation.

(2) The report must provide a record of the licensed activities undertaken as set out in condition 7 during the preceding year, the timing of activities and methodologies used.

(3) Every fifth year, the undertaker must submit to the MMO in writing, within one month of that date, a consolidated maintenance report, which will—

- (a) include a review of licensed activities undertaken during the preceding five years with reference to the reports submitted in accordance with condition 27 (1) of this licence.
- (b) reconfirm the applicability of the methodologies and frequencies of the licensable activities permitted by this licence for the remaining duration of this licence.

Sediment Sampling

28.—(1) The undertaker must submit a sample plan request in writing to the MMO for written approval of a sample plan.

(2) The sample plan request must be made—

- (a) for capital dredging, at least six months prior to the commencement of any capital dredging; or
- (b) for maintenance dredging, at least six months prior to the end of every third year from the date of the previous sediment sample analysis.

(3) The sample plan request must include details of—

- (a) the volume of material to be dredged;

- (b) the location of the area to be dredged;
- (c) details of the material type proposed for dredging;
- (d) the type and dredging methodology (including whether it is a capital or maintenance dredge, depth of material to be dredged and proposed programme for the dredging activities); and
- (e) the location and depth of any supporting samples.

(4) Unless otherwise agreed by the MMO, the undertaker must undertake the sampling in accordance with the approved sample plan.

Ornithological monitoring

29.—(1) The licensed activities or any phase of those activities must not commence until an ornithological monitoring plan setting out the circumstances in which ornithological monitoring will be required and the monitoring to be carried out in such circumstances has been submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.

(2) The ornithological monitoring plan must be submitted in writing to the MMO no later than six months prior to the first pre-construction survey.

(3) The undertaker must carry out any monitoring agreed under sub-paragraph (1) and provide the agreed reports to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation body.

Noise restriction

30.—(1) No piling activity can commence within Work Nos. 1B and 4B during the herring spawning season until a herring spawning piling restriction plan (in accordance with the herring spawning plan) is submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.

(2) The herring spawning piling restriction plan must be submitted to the MMO no later than six months prior to the commencement of the relevant activities unless otherwise agreed in writing by the MMO.

(3) The herring spawning piling restriction plan must present updated underwater noise modelling, which must be based on final project parameters to be used to install piles and must include details of any mitigation measures to be employed.

(4) If the updated underwater noise modelling referred to in sub-paragraph (3) above demonstrates that noise levels above 135 decibel from any piling area within Work Nos. 1B and/or 4B will impact the area shoreward of the Herring Spawning Noise Restriction Boundary during the herring spawning season then any piles located within that piling area must not be installed during the herring spawning season without written approval from the MMO.

(5) Any piling activity within Work Nos. 1B and 4B during the herring spawning season must be undertaken in accordance with the approved herring spawning piling restriction plan approved under sub-paragraph (1) or in accordance with any approval given by the MMO under sub-paragraph (4) above.

(6) In this condition—

“Herring Spawning Noise Restriction Boundary” means the boundary indicated by the red line on the herring spawning plan, with the restricted area being the area shoreward of this boundary

“herring spawning plan” means the document certified by the Secretary of State as the herring spawning plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified)

“herring spawning season” means 1 August to 31 October inclusive or such other period as agreed in writing with the MMO;

“piling area” means any area within Work Nos. 1B and/or 4B within which one or more piled foundations is proposed to be installed.

SCHEDULE 12

Article 35

Deemed Marine Licence 3: DBS East Project Offshore Transmission – Work Nos. 2A, 3A, 7A and 8A

PART 1

Licensed marine activities

Interpretation

1.—(1) In this deemed marine licence—

“the 2004 Act” means the Energy Act 2004;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“the 2017 Regulations” means the Conservation of Offshore Marine Habitats and Species Regulations 2017;

“Annex I subtidal habitat” means a subtidal habitat of a type listed in Annex I to Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora;

“array cable” means a cable linking the wind turbine generators to each other and to the offshore converter platforms;

“authorised deposits” means the substances and articles specified in paragraph 4 of Part 1 of this deemed marine licence;

“authorised scheme” means Work No. 2A, 3A, 7A and 8A and the further associated development described in paragraph 3 of Part 1 of this deemed marine licence or any part of that work or development;

“buoy” means any floating device used for navigational purposes or measurement purposes including LiDAR buoys, wave buoys and guard buoys;

“cable” means any offshore cable and includes direct-lay cables and cables laid in cable ducts and further includes fibre optic and other communications cables either within the cable or laid alongside;

“cable crossing” means the crossing of existing subsea cables and pipelines by the array, inter-platform or export cables authorised by the Order and forming part of the authorised scheme together with physical protection measures including cable protection;

“cable protection” means measures to protect cables forming part of the authorised scheme from physical damage and exposure due to loss of seabed sediment including, but not limited to, rock placement, concrete mattresses with or without frond devices, protective aprons or coverings, bagged solutions filled with sand, rock, grout or other materials and protective shells;

“cable statement” means the document certified by the Secretary of State as the cable statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“commence” means the first carrying out of any licensed marine activities authorised by this deemed marine licence, save for pre-construction monitoring surveys approved under this deemed marine licence, and “commenced” and “commencement” must be construed accordingly;

“condition” means a condition in Part 2 of this licence;

“DBS East” means the Dogger Bank South East Offshore Wind Farm;

“DBS East Project” means the DBS East Project offshore works and the DBS East Project onshore works;

“DBS East Project offshore works” means Work Nos. 1A to 8A and any other authorised development associated with those works;

“DBS East Project onshore works” means Work Nos. 9A to 34A and any other authorised development associated with those works;

“DBS West offshore works” means Work Nos. 1B to 8B and any authorised development associated with those works;

“DBS West Project” means the DBS West Project onshore works and the DBS West Project offshore works;

“DBS West Project onshore works” means Work Nos. 9B to 34B and any other authorised development associated with those works;

“DBSWL” means RWE Renewables UK Dogger Bank South (West) Limited, company number 13656525, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“Defence Infrastructure Organisation Safeguarding” means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands, B75 7RL and any successor body to its functions;

“disposal ground 1 (DBS East)” means the site to be used for disposal of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and cable sandwave clearance for the DBS East Project offshore works as shown on the Disposal Site Plan and with MMO disposal site reference DG036;

“disposal ground 3 (Export Cable)” means the site to be used for disposal of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and cable sandwave clearance for the DBS East Project offshore works as shown on the Disposal Site Plan as “Dogger Bank South Cable A” (MMO disposal site reference DG033) and “Dogger Bank South Cable B” (MMO disposal site reference DG034);

“Disposal Site Plan” means the plan certified by the Secretary of State as the Disposal Site Plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Dogger Bank SAC” means the site designated as the Dogger Bank Special Area of Conservation;

“Dropped Object Procedure Form” means the MMO notification proforma with reference MLDIR1 for reporting the loss or dumping of synthetic materials and other refuse at sea or any other format advised in writing by the MMO;

“environmental statement” means the document certified by the Secretary of State as the environmental statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“habitats of principal importance” means a habitat designated as being of principal importance in accordance with section 41 (biodiversity lists and action (England)) of the Natural Environment and Rural Communities Act 2006;

“HAT” means highest astronomical tide;

“HVAC” means high voltage alternating current;

“in principle monitoring plan” means the document certified by the Secretary of State as the in principle monitoring plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation” means the document certified by the Secretary of State as the in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation for the purposes of the Order under

article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“inter-platform cable” means a cable linking the offshore converter platforms;

“intrusive activities” means activities including anchoring of vessels, jacking up of vessels, and temporary wet storage areas;

“jacket foundation” means a lattice type structure constructed of steel which is fixed to the seabed at 3 or more points with steel pin piles and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms;

“JNCC Guidance” means the statutory nature conservation body ‘Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs’ Joint Nature Conservation Committee Report No.654, May 2020 published in June 2020 as amended, updated or superseded from time to time;

“LAT” means lowest astronomical tide;

“maintain” includes inspect, upkeep, repair, adjust, alter, remove, reconstruct and replace (including replenishment of cable protection), but does not include the removal, reconstruction or replacement of foundations associated with the authorised scheme, to the extent assessed in the environmental statement; and “maintenance” must be construed accordingly;

“Marine Management Organisation” means the body created under the 2009 Act which is responsible for the regulation of this deemed marine licence or any successor of that function and “MMO” shall be construed accordingly;

“Marine Noise Registry” means the database developed and maintained by JNCC on behalf of Defra to record the spatial and temporal distribution of impulsive noise generating activities in UK seas;

“MCA” means the Maritime and Coastguard Agency, the executive agency of the Department for Transport;

“MCMS” means the Marine Case Management System web portal provided and operated by the MMO;

“MHWS” or “mean high water springs” means the average throughout the year of two successive high waters during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides);

“MLWS” or “mean low water springs” means the lowest level that spring tides reach on average over a period of time;

“monopile foundation” means a steel pile driven or drilled into the seabed and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms and equipment;

“offshore converter platform” means an offshore converter platform with equipment to convert the HVAC power generated at the wind turbine generators into HVDC power, being a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and open with modular equipment or fully clad and may include a helicopter platform, containing electrical equipment required to switch, transform, convert electricity generated at the wind turbine generators to a higher voltage and provide reactive power compensation, including but not limited to high voltage power transformers, high voltage switchgear and busbars, substation auxiliary systems and low voltage distribution, instrumentation, metering equipment and control systems, standby generators, shunt reactors, auxiliary and uninterruptible power supply systems, facilities to support operations and maintenance;

“offshore order limits and grid coordinates plan” means the plan certified by the Secretary of State as the offshore order limits and grid coordinates plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Order” means The Dogger Bank South East and West Offshore Wind Farms Order 20[];

“Order limits” means the limits shown on the offshore order limits and grid coordinates plans within which the authorised scheme may be carried out and the grid coordinates for Work

Nos. 2A, 3A, 5A, 7A and 8A are set out in paragraph 5 of Part 1 of this deemed marine licence;

“outline fisheries liaison and co-existence plan” means the document certified by the Secretary of State as the outline fisheries liaison and co-existence plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline marine mammal mitigation protocol” means the document certified by the Secretary of State as the outline marine mammal mitigation protocol for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline offshore operations and maintenance plan” means the document certified by the Secretary of State as the outline offshore operations and maintenance plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline project environmental management plan” means the document certified by the Secretary of State as the outline project environmental management plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline scour protection plan” means the document certified by the Secretary of State as the outline scour protection plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified) ;

“outline vessel traffic monitoring plan” means the document certified by the Secretary of State as the outline vessel traffic monitoring plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline written scheme of investigation (offshore)” means the document certified by the Secretary of State as the outline written scheme of investigation (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“scour protection” means measures to prevent loss of seabed sediment around any structure placed in or on the seabed including by the use of bagged solutions, filled with grout or other materials, protective aprons, mattresses with or without frond devices, flow energy dissipation devices and rock and gravel placement;

“statutory historic body” means Historic England or its successor in function;

“statutory nature conservation body” means a statutory nature conservation body, being the appropriate nature conservation body as defined in Regulation 5 of the Conservation of Habitats and Species Regulations 2017^(a) or its equivalent in the Conservation of Offshore Marine Habitats and Species Regulations 2017^(b);

“transition piece” means a metal structure attached to the top of a foundation where the base of a wind turbine generator is connected and includes additional equipment such as J-tubes, corrosion protection systems, boat access systems, access platforms, craneage, electrical transmission equipment and associated equipment;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“UKHO” means the United Kingdom Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

“undertaker” means DBSEL;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or

(a) S.I. 2017/1012

(b) S.I. 2017/1013

adapted for movement through, in, on or over water and which is at the time in, on or over water;

“VHF” means very high frequency;

“wind turbine generator” means a structure comprising a tower, a rotor with three blades connected at the hub, a nacelle and ancillary electrical and other equipment which may include J-tubes, transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation;

“works plans” means the works plans (offshore) and the works plans (onshore);

“works plans (offshore)” means the plans certified by the Secretary of State as the works plans (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified); and

“works plans (onshore)” means the plans certified by the Secretary of State as the works plans (onshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified).

(2) In this deemed marine licence, a reference to any statute, order, regulation or similar instrument is a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) In this deemed marine licence, unless otherwise indicated—

(a) all times are Greenwich Mean Time (“GMT”);

(b) all coordinates are latitude and longitude degrees and minutes to two decimal places.

(4) Unless otherwise stated or agreed with the MMO, all submissions, notifications and communications must be sent by the undertaker to the MMO using MCMS. Except where otherwise notified in writing by the relevant organisation, the addresses for correspondence for the purposes of this deemed marine licence are—

(a) Historic England

37 Tanner Road

York

YO1 6WP

(b) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle upon Tyne

NE4 7YH

Tel: 0300 123 1032

(c) Marine Management Organisation (local office)

Room 13, Ground Flood

Crosskill House

Mill Lane

Beverley

HU17 9JB

Tel: 0208 026 0519

(d) Maritime and Coastguard Agency

UK Technical Services Navigation

Spring Place

105 Commercial Road

Southampton
SO15 1EG
Tel: 020 3817 2433
Email: navigationsafety@mcga.gov.uk

(e) Natural England
4th Floor
Foss House
1-2 Peasholme Green
York
YO1 7PX
Tel: 0300 060 4911

(f) Trinity House
Tower Hill
London
EC3N 4DH
Tel: 020 7481 6900

(g) United Kingdom Hydrographic Office
Admiralty Way
Taunton
Somerset
TA1 2DN
Tel: 01823 337 900

(5) Unless otherwise advised in writing by the MMO, the address for electronic communication with the MMO for the purposes of this licence is marine.consents@marinemangement.org.uk, or where contact to the Local Office of the MMO is required, beverley@marinemangement.org.uk.

Details of licensed marine activities

2. Subject to the conditions this deemed marine licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea within the Order limits seaward of MHWS of the substances and objects specified in paragraph 4 below and, when combined with the disposal authorised within disposal ground 1 (DBS East) by the deemed marine licences granted under Schedules 10, 14 and 14A of the Order, of up to 4,242,327 cubic metres (being a maximum, not an approximate upper figure) of inert material of natural origin produced during construction drilling or seabed preparation for foundation works, cable works and boulder clearance works at disposal site references to be provided to the MMO within disposal ground 1 (DBS East) and any other disposal sites approved in writing by the MMO;
- (b) the deposit at sea within the Order limits seaward of MHWS of the substances and objects specified in paragraph 4 below and, when combined with the disposal authorised within disposal ground 3 (Export Cable) by the deemed marine licence granted under Schedule 13 of the Order, of up to 26,025,965 cubic metres (being a maximum, not an approximate upper figure) of inert material of natural origin produced during construction drilling or seabed preparation for cable works and boulder clearance works at disposal site references to be provided to the MMO within disposal ground 3 (Export Cable);
- (c) the construction of works in or over the sea or on or under the sea bed;
- (d) dredging for the purposes of seabed preparation for foundation works or cable works;

- (e) the removal of sediment samples for the purposes of informing environmental monitoring under this deemed marine licence during pre-construction, construction and operation;
- (f) boulder clearance works by displacement ploughing or subsea grab technique or any other comparable method;
- (g) removal of static fishing equipment; and
- (h) site preparation works.

3. Such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 2A—

- (a) up to one offshore converter platform fixed to the seabed by jacket or monopile foundations within the area shown on the works plans;
- (b) a network of subsea inter-platform cabling within the area shown on the works plans, including cable crossings and cable protection;

Work No. 3A—

- (a) up to two HVDC subsea export cables between Work Nos. 2A and 8A along routes within the area shown on the works plans including cable crossings and cable protection;
- (b) up to two cables for the transmission of fibre optic communications laid between Work Nos. 2A and 8A consisting of cables along routes within the area shown on the works plans including cable crossings and cable protection;
- (c) up to three temporary pits for trenchless cable installation at landfall seaward of MLWS and up to three additional temporary pits for trenchless cable installation at landfall seaward of MLWS for the DBS West Project within the area shown on the works plans;
- (d) installation of up to three landfall cable ducts (if required) and up to three additional landfall cable ducts (if required) for the DBS West Project within the area shown on the works plans;

Work No. 6A—

Not used;

Work No. 7A—

A temporary work area associated with Work Nos. 1A to 5A for vessels to carry out intrusive activities and non-intrusive activities alongside Work Nos. 1A to 7A;

In connection with such Work Nos. 2A, 3A and 7A and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence, including—

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 2A, 3A and 5A and the disposal of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works, cable installation preparation such as sandwave clearance, boulder clearance and pre-trenching and excavation of trenchless crossing exit pits;
- (d) removal of static fishing equipment;
- (e) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised scheme;
- (f) disposal of drill arisings in connection with any foundation drilling up to a total of 704 cubic metres;

- (g) creation and use of temporary laydown areas, use of cable lay vessel anchors;
- (h) lighting.

Work No. 8A—

- (a) Installation of up to two HVDC subsea export cables and up to two cables for the transmission of fibre optic communications within up to three landfall cable ducts (if required) between Work No. 3A and Work No. 12A and up to three landfall cable ducts (if required) for the DBS West Project between Work No. 3B and Work No. 12B;
- (b) trenchless cable installation;
- (c) temporary construction working areas for emergency works; and
- (d) vessel anchoring for emergency works.

4. The substances and objects authorised for deposit at sea are—

- (a) iron, steel, copper and aluminium;
- (b) stone and rock;
- (c) concrete and grout;
- (d) sand and gravel;
- (e) cement bound sand;
- (f) natural soils;
- (g) plastic and synthetic material;
- (h) drilling fluid;
- (i) material extracted from within the Order limits during construction drilling or seabed preparation for foundation works and cable installation preparation works;
- (j) weights used for the calibration of vessels, consisting of a hessian sack, metal shackles or chains; and
- (k) marine coatings, other chemicals and timber.

5. The grid coordinates for that part of the authorised scheme comprising Work Nos. 2A, 3A, 7A and 8A are specified below—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	53° 59.6364' N	0° 12.40874' W
2	53° 59.82784' N	0° 11.50751' W
3	53° 59.84021' N	0° 9.78718' W
4	54° 0.1033' N	0° 8.05888' W
5	54° 0.45563' N	0° 6.57895' W
6	54° 1.88431' N	0° 3.05262' W
7	54° 3.14098' N	0° 0.70959' E
8	54° 3.77637' N	0° 2.53092' E
9	54° 4.14562' N	0° 3.45918' E
10	54° 4.27659' N	0° 4.42011' E
11	54° 4.31082' N	0° 5.04613' E
12	54° 8.77722' N	0° 14.26259' E
13	54° 16.03855' N	0° 31.60943' E
14	54° 16.33488' N	0° 32.15475' E
15	54° 18.43135' N	0° 36.31356' E
16	54° 19.52715' N	0° 37.41854' E
17	54° 25.52646' N	0° 46.47839' E
18	54° 29.17866' N	0° 55.21543' E
19	54° 29.23775' N	0° 55.41054' E

20	54° 29.26306' N	0° 55.54642' E
21	54° 29.26308' N	0° 55.68909' E
22	54° 28.99427' N	0° 58.64713' E
23	54° 28.93459' N	0° 59.30204' E
24	54° 28.40177' N	1° 9.1699' E
25	54° 27.31636' N	1° 25.25919' E
26	54° 27.07325' N	1° 27.08349' E
27	54° 27.43831' N	1° 30.69383' E
28	54° 28.83322' N	1° 42.21898' E
29	54° 29.62572' N	1° 43.27968' E
30	54° 29.97807' N	1° 44.94092' E
31	54° 30.11639' N	1° 45.61608' E
32	54° 31.15408' N	1° 44.71761' E
33	54° 31.46655' N	1° 44.62625' E
34	54° 31.75489' N	1° 44.85252' E
35	54° 34.18354' N	1° 48.56875' E
36	54° 34.30904' N	1° 48.85301' E
37	54° 34.36288' N	1° 49.19779' E
38	54° 34.74598' N	1° 58.90264' E
39	54° 34.77086' N	1° 59.72884' E
40	54° 34.67215' N	2° 0.18106' E
41	54° 34.47546' N	2° 0.46972' E
42	54° 24.47523' N	2° 8.98399' E
43	54° 24.09368' N	2° 8.92387' E
44	54° 23.82918' N	2° 8.43359' E
45	54° 21.08378' N	1° 54.2778' E
46	54° 21.0601' N	1° 53.90188' E
47	54° 21.14588' N	1° 53.48645' E
48	54° 21.33732' N	1° 53.18358' E
49	54° 29.14527' N	1° 46.45614' E
50	54° 28.72479' N	1° 44.40444' E
51	54° 27.92907' N	1° 43.36372' E
52	54° 27.84264' N	1° 43.13336' E
53	54° 26.37912' N	1° 31.04218' E
54	54° 25.97903' N	1° 27.06027' E
55	54° 26.25093' N	1° 24.96288' E
56	54° 27.32951' N	1° 8.97414' E
57	54° 27.86406' N	0° 59.07512' E
58	54° 28.15029' N	0° 55.92687' E
59	54° 24.70977' N	0° 47.69726' E
60	54° 18.87875' N	0° 38.89895' E
61	54° 17.72124' N	0° 37.72511' E
62	54° 15.53155' N	0° 33.38368' E
63	54° 15.19324' N	0° 32.75337' E
64	54° 13.67671' N	0° 29.11575' E
65	54° 12.45423' N	0° 27.88505' E
66	54° 12.33295' N	0° 27.60465' E
67	54° 11.97431' N	0° 25.0371' E
68	54° 7.92055' N	0° 15.37852' E
69	54° 3.30272' N	0° 5.84501' E
70	54° 3.26167' N	0° 5.6635' E

71	54° 3.21017' N	0° 4.70318' E
72	54° 3.15199' N	0° 4.23063' E
73	54° 2.86151' N	0° 3.50109' E
74	54° 2.20927' N	0° 1.63117' E
75	54° 0.96981' N	0° 2.08082' W
76	53° 59.50126' N	0° 5.71047' W
77	53° 58.98868' N	0° 7.85689' W
78	53° 58.69884' N	0° 8.79203' W
79	53° 58.4388' N	0° 9.96246' W
80	53° 58.38876' N	0° 11.76128' W

6. This deemed marine licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108, and the completion of such programme has been confirmed by the Secretary of State in writing.

7. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this deemed marine licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence apply only to a transfer not falling within article 5 (benefit of order) of the Order.

8.—(1) With respect to any condition which requires the licensed activities be carried out in accordance with the details, plans or schemes approved under this deemed marine licence, the approved details, plans or schemes are taken to include any amendments that may subsequently be approved in writing by the MMO.

(2) Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statement and approval of an amendment or variation may only be given where it has been demonstrated to the satisfaction of the MMO that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

9. Should the undertaker become aware that any of the information on which the granting of this deemed marine licence was based was materially false or misleading, the undertaker must notify the MMO of this fact in writing as soon as is reasonably practicable. The undertaker must explain in writing what information was materially false or misleading and must provide to the MMO the correct information.

PART 2

Conditions

Design parameters

Offshore converter platform dimensions

1.—(1) The total number of offshore converter platforms in respect of the authorised scheme must not exceed one.

(2) The dimensions of any offshore converter platform (excluding helidecks, lightning protection, towers, masts and cranes) must not exceed—

- (a) 125 metres in length;
- (b) 100 metres in width; or
- (c) 105 metres in height above LAT.

Offshore converter platform foundations

2.—(1) Offshore converter platform foundations must be of one or more of the following foundation options: piled monopile or piled jacket foundation.

(2) The pile diameter of any offshore converter platform piled monopile foundation must not exceed 15 metres.

(3) Any offshore converter platform piled jacket foundation must not—

- (a) have more than eight legs;
- (b) have more than eight piles; or
- (c) have a pile diameter exceeding 3.8 metres.

(4) Any offshore converter platform foundation must not—

- (a) have a seabed footprint (including scour protection) exceeding 5,411 square metres; or
- (b) have a seabed footprint (excluding scour protection) exceeding 177 square metres.

(5) Within Work No. 2A, the offshore converter platform foundations must not have—

- (a) A total combined seabed footprint (including scour protection) exceeding 5,411 square metres; or
- (b) a total combined amount of scour protection exceeding 5,234 square metres.

(6) The total volume of scour protection for offshore converter platforms in respect of the authorised scheme must not exceed 9,450 cubic metres.

Cables and cable protection

3.—(1) Within Work Nos. 3A, the offshore export cables must not, in total—

- (a) exceed 2 in number;
- (b) exceed 376 kilometres in length;
- (c) exceed 12 cable crossings;
- (d) have cable protection (including cable crossings) exceeding 576,021 square metres in area; or
- (e) have cable protection (including cable crossings) exceeding 522,615 cubic metres in volume.

(2) The offshore export cables within Work No. 3A which fall within the Dogger Bank Special Area of Conservation must not have cable protection exceeding 10% of the length of such cables, when combined with the offshore export cables, array cables and inter-platform cables authorised by the deemed marine licences granted under Schedules 10, 11 and 13 - 14A of the Order.

(3) Within the area between MHWS and 350 metres seaward of MLWS, all offshore export cables must be buried, and must not have cable protection.

(4) The offshore export cables within the area between 350 metres seaward of MLWS and the 10 metre depth contour as measured against LAT (as at the date of commencement of construction of the licensed activities) must not have cable protection exceeding 10% of the length of such cables, when combined with the offshore export cables authorised by the deemed marine licence granted under Schedule 13 of the Order.

(5) Within Work Nos. 2A the inter-platform cables must not, in total—

- (a) exceed 1 in number;
- (b) exceed 23 kilometres in length;
- (c) exceed 1 cable crossings;
- (d) have cable protection (including cable crossings) exceeding 43,203 square metres in area; or
- (e) have cable protection (including cable crossings) exceeding 39,207 cubic metres in volume.

Phases of authorised scheme

4.—(1) The authorised scheme must not commence until an offshore works phasing scheme setting out the phases of construction of the authorised scheme has been submitted to and approved in writing by the MMO.

(2) The authorised scheme must be submitted at least 6 months prior to the proposed commencement of the works.

(3) Any subsequent amendments to the offshore works phasing scheme submitted for approval under sub-paragraph (1) must be submitted to the MMO for approval in writing.

(4) The offshore works phasing scheme submitted for approval under sub-paragraph (1) must be implemented as approved. The approved details shall be taken to include any amendment that may subsequently be approved by the MMO in accordance with sub-paragraph (3).

Maintenance of the authorised scheme

5.—(1) The undertaker may at any time maintain the authorised scheme, except to the extent that this licence or an agreement made under this licence provides otherwise.

(2) Maintenance works include but are not limited to—

- (a) Routine maintenance of wind turbine generators, offshore converter platforms, and their respective foundations;
- (b) Major offshore converter platform replacement;
- (c) Painting and applying other coatings to offshore converter platforms;
- (d) Bird waste and marine growth removal;
- (e) Surveys/inspections of cables;
- (f) Cable remedial burial;
- (g) Cable protection replenishment;
- (h) Cable repairs and replacement;
- (i) Access ladder and boat landing replacement;
- (j) Offshore converter platform anode replacement; and
- (k) J-tube repair/replacement.

(3) Operation of the licensed activities must not commence until an offshore operations and maintenance plan substantially in accordance with the outline offshore operations and maintenance plan has been submitted to and approved in writing by the MMO. The operations and maintenance plan must include, but is not limited to—

- (a) a list of maintenance activities within the marine environment that are planned for the lifetime of the licensed activities;
- (b) details of the typical construction plant, machinery and personnel requirements for each maintenance activity and any requirements for detailed method statements;
- (c) details of the typical frequency and timing of each maintenance activity; and
- (d) details of controls and mitigation that will be in place in order to protect the marine environment.

(4) The offshore operations and maintenance plan must be reviewed every three years commencing from the date on which the plan was approved, unless otherwise agreed by the MMO, to ensure the details of the maintenance activities remain accurate. The conclusions of that review must be submitted to and approved by the MMO in writing.

(5) The offshore operations and maintenance plan must be implemented as approved by the MMO.

(6) Unless otherwise agreed in writing with the MMO, the undertaker must submit—

- (a) the first offshore operations and maintenance plan at least 6 months prior to the operation of the licensed activities;

- (b) any revised offshore operations and maintenance plan submitted in accordance with sub-paragraph (4) at least 6 months before such revised plan is required to be put in place; and
- (c) where additional maintenance activities are identified that are not included in the approved offshore operations and maintenance plan, or any revised plan approved in accordance with sub-paragraph (4), an updated offshore operations and maintenance plan including the additional maintenance activities must be submitted to and approved by the MMO in writing as soon as possible after the need for such additional maintenance activities is identified.

Extension of time periods

6. Any time period given in this deemed marine licence to either the undertaker or the MMO may be extended with the agreement of the other party in writing, such agreement not to be unreasonably withheld or delayed.

Notifications and inspections

7.—(1) The undertaker must ensure that—

- (a) a copy of this deemed marine licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 17;
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 17; and
- (b) the undertaker must confirm in writing to the MMO within 28 days of a copy of this deemed marine licence and any subsequent amendments or revisions to it being provided to the persons listed in sub-paragraph (1)(a) that the required information has been provided.

(2) Only those persons and vessels notified to the MMO in accordance with condition 17 are permitted to carry out the licensed activities.

(3) Copies of this deemed marine licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
- (c) on board each vessel and at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.

(4) The documents referred to in sub-paragraph (1) must be available for inspection by an authorised enforcement officer at the locations set out in sub-paragraph (3).

(5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during the construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Local Office in writing at least fourteen days prior to the commencement of the licensed activities or any part of them and within five days of the completion of the licensed activity.

(7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—

- (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data;

(b) as soon as reasonably practicable and no later than 24 hours of completion of the DBS East Project offshore works,
and confirmation of notification must be provided to the MMO within five days.

(8) The undertaker must ensure that a local notification to mariners is issued at least 14 days prior to the commencement of the authorised scheme or any part thereof advising of the start date of each of Work Nos. 2A, 3A, 7A and 8A and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(9) The undertaker must ensure that local notifications to mariners are updated and reissued at weekly intervals during construction activities and at least five days before any planned operations (unless otherwise agreed in writing by the MMO) and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme and monitoring plan approved under condition 13(1)(b). Copies of all notices must be provided to the MMO, UKHO and the MCA within five days.

(10) The undertaker must notify UKHO and the MCA of the commencement (within ten days), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical and aeronautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days of the notification.

(11) In case of damage to, or destruction or decay of, the authorised scheme or any part thereof, excluding the exposure of cables, the undertaker must as soon as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify the MMO, the MMO Local Office, MCA, Trinity House, the Kingfisher Information Service of Seafish and UKHO.

(12) In case of the exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners and inform the Kingfisher Information Service of Seafish of the location and extent of exposure. Copies of all notices must be provided to the MMO, MCA, Trinity House, and UKHO within five days.

(13) The undertaker must notify the MMO in writing a minimum of five days in advance of the commencement of each discrete incident of cable repair, replacement, or protection replenishment activity. Such a notification must include proposed timings and a description of proposed methodologies.

(14) The undertaker must ensure that the MMO, the MMO Local Office, local mariners, local fishermen's organisations and the Source Data Receipt Team at the UK Hydrographic Office, Taunton, Somerset, TA1 2DN (sdr@ukho.gov.uk) are notified within five days of completion of each instance of cable repair, replacement or protection replenishment activity.

Aids to navigation

8.—(1) The undertaker must during the whole of the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation, as Trinity House may from time to time direct.

(2) The undertaker must during the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme keep Trinity House and the MMO informed of progress of the authorised scheme including—

- (a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within five days of completion of construction of the authorised scheme.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation in accordance with the frequencies set out in the aids to navigation management plan agreed pursuant to condition 13(1)(f) using the reporting system provided by Trinity House.

(4) The undertaker must during the period from commencement of the licensed activities to completion of decommissioning of the authorised scheme notify Trinity House and the MMO of any failure of the aids to navigation, and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 7(11) or condition 7(12) are invoked, the undertaker must lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Colouring of Structures

9.—(1) Except as otherwise required by Trinity House the undertaker must colour all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height directed by Trinity House or must colour the structure as directed by Trinity House in writing from time to time.

(2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs in writing, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Aviation safety

10.—(1) The undertaker must exhibit such lights, with such shape, colour and character as are required in writing by the Air Navigation Order 2016(a) and determined necessary for aviation safety in consultation with the Defence Infrastructure Organisation Safeguarding and as directed by the Civil Aviation Authority.

(2) The undertaker must notify the Defence Infrastructure Organisation Safeguarding, the Civil Aviation Authority and the MMO, as soon as reasonably practicable and at least 14 days prior to the commencement of the authorised scheme, in writing of the following information—

- (a) the date of the commencement of construction of the authorised scheme;
- (b) the date any wind turbine generators are to be installed;
- (c) the maximum height of any construction equipment or vessels to be used;
- (d) the maximum height of each wind turbine generator to be constructed;
- (e) the latitude and longitude of each wind turbine generator to be constructed;

and the Defence Infrastructure Organisation Safeguarding and the Civil Aviation Authority must be notified of any changes to the information supplied under this paragraph and of the completion of the construction of the authorised scheme. Copies of notifications must be provided to the MMO within 5 days.

Chemicals, drilling and debris

11.—(1) The undertaker must ensure that any coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by the Health and Safety Executive and the Environment Agency Pollution Prevention Control Guidelines.

(2) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must be undertaken to prevent releases into the marine environment, including bunding of 110 percent of the total volume of all reservoirs and containers.

(3) The undertaker must inform the MMO in writing of the location and quantities of material disposed of each month under this deemed marine licence by submission of a disposal return by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive and must provide a null return if no activity has taken place during the reporting period.

(a) S.I. 2016/765.

(4) The undertaker must ensure that only inert material of natural origin, produced during pre-sweeping sandwave clearance where relevant, the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within the Order limits seaward of MHWS.

(5) The undertaker must ensure that any rock material used in the construction of the authorised scheme is from a recognised source, free from contaminants and containing minimal fines.

(6) In the event that any rock material used in the construction of the authorised scheme is misplaced or lost below MHWS, the undertaker must report the loss in writing to the local enforcement office within 24 hours and if the MMO, in consultation with the MCA and Trinity House, reasonably considers such material to constitute a navigation or environmental hazard (dependent on the size and nature of the material) the undertaker must, in that event, demonstrate to the MMO that reasonable attempts have been made to locate, remove or move any such material.

(7) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas must be contained to prevent run off entering the water through the freeing ports.

(8) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 13(1)(d)(i).

(9) Debris or dropped objects which are considered a danger or hazard to navigation must be reported as soon as reasonably practicable but no later than six hours from the undertaker becoming aware of an incident, to the relevant HM Coastguard Maritime Rescue Co-ordination Centre by telephone (0344 382 0580), and the UK Hydrographic Office email: navwarnings@btconnect.com.

(10) All dropped objects including those in sub-paragraph (9) must be reported to the MMO using the Dropped Object Procedure Form (including any updated form as provided by the MMO) as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident, unless otherwise agreed in writing with the MMO.

(11) On receipt of notification or the Dropped Object Procedure Form the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the marine environment at the undertaker's expense if reasonable to do so.

Force majeure

12. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

Pre-construction plans and documentation

13.—(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO, in consultation with Trinity House, the MCA, the relevant statutory nature conservation body and UKHO as appropriate—

- (a) a layout plan setting out proposed details of the authorised scheme, including the:
 - (i) number, dimensions, specification, foundation type(s) and depth for each offshore converter platform;
 - (ii) the grid coordinates of the centre point of the proposed location for each wind turbine generator and offshore converter platform;
 - (iii) proposed layout of all cables;
 - (iv) location and specification of all other aspects of the authorised scheme; and

- (v) any exclusion zones or micro-siting requirements identified pursuant to 13(1)(e)(iv) or relating to any habitats of principal importance, Annex 1 subtidal habitat or surficial deposits of glacial till identified as part of surveys undertaken in accordance with condition 18;
- to ensure conformity with the description of Work Nos. 2A, 3A, 7A and 8A and compliance with conditions 1 to 3;
- (b) a construction programme and monitoring plan (which accords with the in principle monitoring plan) which, save in respect information submitted pursuant to sub-paragraph (b)(iii)(aa), is to be submitted to the MMO at least six months prior to commencement of licensed activities and to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works;
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with conditions 18, 19 and 20 to be submitted to the MMO in accordance with the following (unless otherwise agreed in writing with the MMO)—
 - (aa) at least six months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
 - (bb) at least six months prior to construction, detail on construction monitoring; and
 - (cc) at least six months prior to commissioning, detail of post-construction (and operational) monitoring;
 - (iv) an indicative written construction programme for all offshore converter platforms and cables including fibre optic cables comprised in the works at Part 1 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above); and
 - (v) a monitoring plan setting out the circumstances in which monitoring will be required and the monitoring to be carried out in such circumstances;
 - (c) a construction method statement (in accordance with the cable statement), including details of—
 - (i) cable burial, specification, installation and monitoring to include—
 - (aa) the technical specification of cables below MHWS;
 - (bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum;
 - (cc) in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House and the MMO in consultation with the statutory nature conservation body) to be taken to ensure existing and future safe navigation is not compromised, including updated nearshore sediment transport modelling and comparison and demonstration against the environmental statement if within the 10m depth contour and/ or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and
 - (dd) proposals for monitoring cables including cable protection until the authorised scheme is decommissioned which includes a risk-based approach to the management of unburied or shallow buried cables;
 - (ii) a scour protection plan (in accordance with the outline scour protection plan) including details of scour protection and cable protection including details of the need, type, sources, quantity and installation methods for scour protection and cable

- protection, with details updated and resubmitted for approval if changes to it are proposed following cable laying operations;
- (iii) foundation installation methodology, including drilling methods and disposal of drill arisings and material extracted during seabed preparation for foundation and cable installation works and having regard to any mitigation scheme pursuant to subparagraph (1)(g);
 - (iv) advisory safe passing distances for vessels around the sites where the licensed activities are taking place;
 - (v) contractors;
 - (vi) vessels and vessel transit corridors;
 - (vii) associated ancillary works; and
 - (viii) guard vessels to be employed;
- (d) a project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation to include details of—
- (i) a marine pollution contingency plan to address the risks, methods and procedures to deal with any spills and collision incidents during construction and operation of the authorised scheme in relation to all activities carried out;
 - (ii) a chemical risk assessment, including information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance and standards;
 - (iii) waste management and disposal arrangements;
 - (iv) the appointment and responsibilities of a fisheries liaison officer;
 - (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of commencement of licensed activities pursuant to condition 4 and to address the interaction of the licensed activities with fishing activities;
 - (vi) a code of conduct for vessel operators to reduce risk of injury to mammals; and
 - (vii) procedures, which must be adopted within vessel transit corridors to minimise disturbance to red-throated diver during the period 1 November to 31 March (inclusive), which must be in accordance with the best practice protocol for minimising disturbance to red-throated diver;
- (e) an archaeological written scheme of investigation in relation to the offshore Order limits seaward of MHWS, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body to include—
- (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
 - (v) monitoring of archaeological exclusion zones during and post construction;
 - (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the Archaeological Data Service, by submitting an OASIS ('Online Access to the Index of archaeological investigations') form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO and Historic England that the OASIS form has been submitted to the Archaeological Data Service within two weeks of submission;

- (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and
- (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities;
- (f) an aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, the MCA, the Civil Aviation Authority and UKHO specifying how the undertaker will ensure compliance with condition 8 from the commencement of construction of the authorised scheme to the completion of decommissioning;
- (g) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol (in accordance with the outline marine mammal mitigation protocol), the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation bodies and which must include details of noise reduction methods through project design (primary measures) and/or, deployment of noise mitigation systems or noise abatement systems (secondary measures) that will be utilised to manage sounds from those piling activities and such protocol must include full details and justification for the mitigation chosen or excluded for deployment;
- (h) a navigation management plan to manage crew transfer vessels (including daughter craft) during the construction and operation of the authorised scheme;
- (i) a final cable statement (in accordance with the cable statement); and
- (j) a site specific chemical risk assessment, which must be submitted no later than ten weeks prior to use of the relevant chemical, for all chemicals (with the exception of chemicals present on the OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment) that have a pathway to the marine environment used for the marine licensed activities, outside the course of normal navigation, to include—
 - (i) the function of the chemical,
 - (ii) the quantities being used and the frequency of use; and
 - (iii) the physical, chemical, and ecotoxicological properties of the chemical.

(2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific outline written scheme of investigation (which must accord with the details set out in the outline written scheme of investigation (offshore)) which has been submitted to and approved by the MMO.

(3) Anchoring of vessels must not occur within the Holderness Inshore Marine Conservation Zone or within the Smithic Bank, unless otherwise agreed in writing with the MMO following consultation with the relevant statutory nature conservation body and in the event that jack-up vessels are proposed to be used for cable installation or maintenance, their legs must not be deployed within the Holderness Inshore Marine Conservation Zone or within the Smithic Bank, unless otherwise agreed in writing with the MMO following consultation with the relevant statutory nature conservation body . For the purposes of this sub-paragraph the “Holderness Inshore Marine Conservation Zone” and the “Smithic Bank” means the area bounded by the following coordinates:

<i>Co-ordinate ID</i>	<i>X</i>	<i>Y</i>	<i>Co-ordinate ID</i>	<i>X</i>	<i>Y</i>
1	295623.5	5988145	23	298275.5	5998380
2	295151.2	5988060	24	298621.2	5998874
3	294745.5	5988423	25	298836.9	5999246
4	294511.3	5988778	26	299247.9	5999525

5	294268.6	5989292	27	299486.8	5999430
6	293876.3	5989601	28	299598.1	5998762
7	293560.8	5989880	39	299594.8	5997967
8	293332.8	5990368	30	299268.7	5997636
9	293232.9	5990929	31	298936.8	5997174
10	293248	5991618	32	298720.2	5996494
11	293357	5992382	33	298564.6	5995785
12	293486	5993034	34	298381.8	5994812
13	293672.5	5993577	35	298391.6	5993963
14	293869.5	5994077	36	298294.2	5992800
15	294131.6	5994638	37	298298.3	5991819
16	294494.2	5995216	38	298274.7	5990919
17	295039.8	5995701	39	298010.4	5989870
18	295805.2	5996367	40	297423.3	5988941
19	296495.2	5996740	41	296719	5988548
20	297164.8	5997219	42	296143.8	5988255
21	297591.3	5997561	43	295623.5	5988145
22	297845.4	5997953			

(4) Any sediment removed from within the Dogger Bank Special Area of Conservation during construction of the authorised scheme must be disposed of within that part of the Dogger Bank Special Area of Conservation which falls within the Order limits.

(5) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive monopile foundations must not exceed 6,000kJ and the hammer energy used to drive or part-drive pin pile foundations must not exceed 3,000kJ.

(6) The maximum number of main vessels engaged at any time in activities related to piling for the licensed activities when combined with the number of main vessels engaged in piling activities authorised by the deemed marine licences granted under Schedules 10, 11 and 13 must not exceed 2 vessels.

(7) The number of piled foundations installed within a 24 hour period when combined with the number of piled foundations installed pursuant to the deemed marine licences granted under Schedules 10, 11 and 13 of the Order within the same 24 hour period must not exceed—

- (a) 4 monopile foundations;
- (b) 8 pin pile foundations;
- (c) 3 monopile foundations and 2 pin pile foundations;
- (d) 2 monopile foundations and 4 pin pile foundations; or
- (e) 1 monopile foundation and 6 pin pile foundations.

(8) The number of piled foundations installed concurrently when combined with the number of piled foundations installed concurrently pursuant to the deemed marine licences granted under Schedules 10, 11 and 13 must not exceed—

- (a) where only monopile foundations are being installed concurrently exceed 2 monopile foundations;
- (b) where only pin pile foundations are being installed concurrently exceed 2 pin pile foundations; and

(9) where a combination of monopile foundations and pin pile foundations are being installed concurrently exceed 1 monopile foundation and 1 pin pile foundation.

(10) In sub-paragraphs 13(1)(d)(ii) and 13(1)(j) above—

- (a) “pathway to the marine environment” means open systems or closed systems that require top up;
- (b) “chemicals” comprise both substances and preparations;

- (c) “preparation” means a mixture or solution composed of two or more substances; and
- (d) “substance” means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Site Integrity Plan

14.—(1) No piling activities can take place until a Site Integrity Plan (“SIP”), which accords with the principles set out in the in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation, has been submitted to, and approved in writing, by the MMO in consultation with the relevant statutory nature conservation body.

(2) The SIP submitted for approval must contain a description of the conservation objectives for the Southern North Sea Special Area of Conservation (“SNS SAC”) as well as any relevant management measures and it must set out the key statutory nature conservation body advice on activities within the SNS SAC relating to piling as set out within the JNCC Guidance and how this has been considered in the context of the authorised scheme.

(3) The SIP must be submitted in writing to the MMO no later than six months prior to the commencement of piling activities.

(4) In approving the SIP the MMO must be satisfied that the authorised scheme at the preconstruction stage, in-combination with other plans and projects, is in line with the JNCC Guidance.

(5) The approved SIP may be amended with the prior written approval of the MMO, in consultation with the relevant statutory nature conservation body, where the MMO remains satisfied that the Project, in-combination with other plans or projects at the pre-construction stage, is in line with the JNCC Guidance.

Approval of programmes, statements etc

15.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 13 must be submitted for approval at least six months before the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The MMO must determine an application for approval made under conditions 13 and 14 within a period of six months commencing on the date the application is received by the MMO, unless otherwise agreed in writing with the undertaker.

(3) The licensed activities must be carried out in accordance with the plans, protocols, statements, schemes and details approved under conditions 13 and 14, unless otherwise agreed in writing by the MMO.

Offshore safety management

16. Any part of the authorised scheme must not be commenced until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN654 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (or any equivalent guidance that replaces or supersedes it) and its annexes.

Reporting of engaged agents, contractors and vessels

17.—(1) The undertaker must provide the following information in writing to the MMO—

- (a) the name, function, company number (if applicable), registered or head office address (as appropriate) of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and

- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) The undertaker must notify the MMO in writing of any vessel being used to carry on any licensed activity listed in this deemed marine licence on behalf of the undertaker. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity. Notification must include the master's name, vessel type, vessel IMO number and vessel owner or operating company

(3) Any changes to the supplied details must be notified to the MMO in writing at least 24 hours before the agent, contractor or vessel engages in the licensed activities.

Pre-construction monitoring and surveys

18.—(1) The undertaker must, in discharging condition 13(1)(b), submit a monitoring plan or plans in accordance with the in principle monitoring plan for written approval in writing by the MMO in consultation with the relevant statutory nature conservation body, which must contain details of proposed monitoring and surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report.

(2) The survey proposals submitted under sub-paragraph (1) must be in accordance with the principles set out in the in principle monitoring plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The baseline report proposals submitted under sub-paragraph (1) must ensure that the outcome of the agreed surveys, together with existing data and reports, are drawn together to present a valid statement of the pre-construction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

(4) The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, include, but not be limited to, the need to undertake—

- (a) a survey to determine the location, extent and composition of habitats of principal importance, Annex I subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works;
- (b) a swath-bathymetry survey to IHO Order 1a standard that meets the requirements MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works including an appropriate buffer around the location of each work; and
- (c) undertake any monitoring required by the SIP submitted in accordance with condition 14; and
- (d) undertake or contribute to any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 13(1)(g).

(5) The undertaker must carry out the surveys specified within the monitoring plan or plans in accordance with that plan or plans, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

(6) When any surveys are carried out in accordance with sub-paragraph (5) a survey report must be submitted to the MMO following completion of the relevant survey. Any report submitted under this sub-paragraph must be submitted prior to the commencement of licensed activities for the relevant stage.

Construction monitoring and surveys

19.—(1) The undertaker must, in discharging condition 13(1)(b), for each phase of construction submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring and surveys, including methodologies and timings, to be carried out during the

construction of the authorised scheme. The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.

(3) The undertaker must carry out the surveys approved under sub-paragraph (1), including any further noise monitoring required in writing by the MMO, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(4) The results of the initial noise measurements monitored in accordance with sub-paragraph (2) must be provided to the MMO within six weeks of the installation of the first four piled foundations. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the reasonable opinion of the MMO in consultation with the relevant statutory nature conservation body, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have been agreed.

(5) The undertaker must carry out the surveys specified in the construction monitoring plan in accordance with that plan, including any further noise monitoring required in writing by the MMO under sub-paragraph (4), unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

(6) Construction monitoring must include vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan, including the provision of reports on the results of that monitoring by automatic identification system at the end of each year of the construction period to the MMO, MCA and Trinity House.

(7) In the event that piled foundations are proposed to be used, the details submitted in accordance with the marine mammal mitigation protocol must include proposals for monitoring marine mammals.

Post-construction monitoring and surveys

20.—(1) The undertaker must, in discharging condition 13(1)(b), submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of proposed post-construction monitoring and surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results.

(2) The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The post-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed with the MMO, have due regard to, but not be limited to, the need to—

- (a) undertake a survey to determine any change in the location, extent and composition of any habitats of principal importance, Annex I subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey and the construction benthic surveys;
- (b) undertake, within twelve months of completion of the licensed activities, a full sea floor coverage swath-bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography

and such further monitoring or assessment as may be agreed to ensure that cables (including fibre optic cables) have been buried or protected;

- (c) undertake any monitoring required by the SIP submitted in accordance with condition 14;
- (d) undertake post-construction vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan by automatic identification system for a duration of three consecutive years following the completion of construction of the authorised project, unless otherwise agreed in writing by the MMO, with provision for a report to be submitted annually to the MMO, Trinity House and the MCA; and
- (e) undertake any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 13(1)(g);

(4) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the agreed reports to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.

Reporting of scour and cable protection

21.—(1) No more than four months following completion of the construction of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection and scour protection used for the authorised scheme.

(2) The report must include the following information—

- (a) the location of cable protection and scour protection;
- (b) the volume of cable protection and scour protection; and
- (c) any other information relating to the cable protection and scour protection as agreed between the MMO and the undertaker.

(3) Where any cable protection or scour protection is replenished following completion of construction the undertaker must submit an updated report in accordance with sub-paragraph (2) in writing to the MMO and the relevant statutory nature conservation bodies no more than four months following completion of the relevant replenishment being deposited.

Completion of construction

22.—(1) The undertaker must submit a close out report to the MMO, the MCA, Trinity House, UKHO and the relevant statutory nature conservation body within three months of the date of completion of construction. The close out report must confirm the date of completion of construction and must include the following details—

- (a) As built plans;
- (b) Latitude and longitude co-ordinates of the centre point of the location for each offshore converter platform, provided as Geographical Information System data referenced to WGS84 datum; and
- (c) latitude and longitude co-ordinates of the export cables, provided as Geographical Information System data referenced to WGS84 datum.

(2) Following completion of construction, no further construction activities can be undertaken under this deemed marine licence.

Collaboration

23.—(1) Prior to submission of plans and documentation required to be submitted to the MMO for approval in accordance with conditions 14 and 15, the undertaker must provide a copy of the

relevant plans and documentation to DBSWL to enable DBSWL to provide any comments on the plans and documentation to the undertaker.

(2) The plans and documentation submitted to the MMO for approval in accordance with conditions 14 and 15 must be accompanied by any comments received by the undertaker from DBSWL in accordance with sub-paragraph (1) or a statement from the undertaker confirming that no such comments were received.

Reporting of impact pile driving

24.—(1) In the event that driven or part-driven pile foundations are proposed to be used as part of the foundation installation the undertaker must provide the following information to the Marine Noise Registry—

- (a) no less than six months prior to the commencement of each phase of construction of the licensed activities, information on the expected location, start and end dates of impact pile driving to satisfy the Marine Noise Registry's Forward Look requirements;
- (b) within two weeks after commencement of each phase of construction of the licensed activities, information on the location, start and end dates of impact pile driving to satisfy the Marine Noise Registry's Forward Look requirements; and
- (c) at six-month intervals following the commencement of pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements by 7 April for winter season October to March inclusive and 7 October for summer season April to September inclusive or within 12 weeks of completion of impact pile driving whichever is earlier.

(2) The undertaker must notify the MMO in writing of the successful submission of Forward Look or Close Out data pursuant to paragraph (1) above within seven days of the submission.

(3) For the purpose of this condition, "Forward Look" and "Close Out" mean the requirements as set out in the UK Marine Noise Registry Information Document Version 1 (July 2015) as amended, updated, or superseded from time to time.

Maintenance reporting

25.—(1) An annual maintenance report must be submitted to the MMO in writing within one month following the first anniversary of the date of commencement of operations, and every year thereafter until the permanent cessation of operation.

(2) The report must provide a record of the licensed activities undertaken as set out in condition 5 during the preceding year, the timing of activities and methodologies used.

(3) Every fifth year, the undertaker must submit to the MMO in writing, within one month of that date, a consolidated maintenance report, which will—

- (a) include a review of licensed activities undertaken during the preceding five years with reference to the reports submitted in accordance with condition 25 (1) of this licence.
- (b) reconfirm the applicability of the methodologies and frequencies of the licensable activities permitted by this licence for the remaining duration of this licence.

Sediment Sampling

26.—(1) The undertaker must submit a sample plan request in writing to the MMO for written approval of a sample plan.

(2) The sample plan request must be made—

- (a) for capital dredging, at least six months prior to the commencement of any capital dredging; or
- (b) for maintenance dredging, at least six months prior to the end of every third year from the date of the previous sediment sample analysis.

(3) The sample plan request must include details of—

- (a) the volume of material to be dredged;
- (b) the location of the area to be dredged;
- (c) details of the material type proposed for dredging;
- (d) the type and dredging methodology (including whether it is a capital or maintenance dredge, depth of material to be dredged and proposed programme for the dredging activities); and
- (e) the location and depth of any supporting samples.

(4) Unless otherwise agreed by the MMO, the undertaker must undertake the sampling in accordance with the approved sample plan.

Noise restriction

27.—(1) No piling activity can commence within Work No. 2A during the herring spawning season until a herring spawning piling restriction plan (in accordance with the herring spawning plan) is submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.

(2) The herring spawning piling restriction plan must be submitted to the MMO no later than six months prior to the commencement of the relevant activities unless otherwise agreed in writing by the MMO.

(3) The herring spawning piling restriction plan must present updated underwater noise modelling, which must be based on final project parameters to be used to install piles and must include details of any mitigation measures to be employed.

(4) If the updated underwater noise modelling referred to in sub-paragraph (3) above demonstrates that noise levels above 135 decibel from any piling area within Work No. 2A will impact the area shoreward of the Herring Spawning Noise Restriction Boundary during the herring spawning season then any piles located within that piling area must not be installed during the herring spawning season without written approval from the MMO.

(5) Any piling activity within Work No. 2A during the herring spawning season must be undertaken in accordance with the approved herring spawning piling restriction plan approved under sub-paragraph (1) or in accordance with any approval given by the MMO under sub-paragraph (4) above.

(6) In this condition—

“Herring Spawning Noise Restriction Boundary” means the boundary indicated by the red line on the herring spawning plan, with the restricted area being the area shoreward of this boundary

“herring spawning plan” means the document certified by the Secretary of State as the herring spawning plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified)

“herring spawning season” means 1 August to 31 October inclusive or such other period as agreed in writing with the MMO;

“piling area” means any area within Work No. 2A within which one or more piled foundations is proposed to be installed.

Export cable restriction

28.—(1) The cable installation works listed at sub-paragraphs (a) – (f) below must not be undertaken on the seabed within the restricted area during the restricted period, unless otherwise agreed in writing by the MMO—

- (a) pre-sweeping;
- (b) dredging;
- (c) mechanical ploughing;

- (d) cutting;
- (e) water jetting; and
- (f) cable burial operations.

(2) No later than sixteen weeks (or such other period as agreed by the MMO in writing) prior to the commencement of any licensed activities in sub-paragraph (1) within Work No. 3A, a Back Calculation Technical Report, which must include details of the restricted period, must be submitted to the MMO for approval.

(3) The licensed activities in sub-paragraph (1) within Work No. 3A must not commence until the MMO has approved the Back Calculation Technical Report.

(4) In this condition—

“Back Calculation Technical Report” means an updated version of environmental statement Appendix 10-3, which must include evidence to support the restricted period;

“cable installation works restricted area plan” means the plan certified by the Secretary of State as the cable installation works restricted area plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“restricted area” means the area of seabed within Work No. 3A between KP20 and KP40 as shown on the cable installation works restricted area plan”;

“restricted period” means 1 August to 31 October inclusive or such other period indicated by the Back Calculation Technical Report as the period when herring are most likely to have spawned and where eggs and newly hatched larvae should be undisturbed to avoid any adverse impacts to those eggs or larvae and any such alternative period must be agreed with the MMO in writing.

SCHEDULE 13

Article 35

Deemed Marine Licence 4: DBS West Project Offshore Transmission – Work Nos. 2B, 3B, 7B and 8B

PART 1

Licensed marine activities

Interpretation

1.—(1) In this deemed marine licence—

“the 2004 Act” means the Energy Act 2004;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“the 2017 Regulations” means the Conservation of Offshore Marine Habitats and Species Regulations 2017;

“Annex I subtidal habitat” means a subtidal habitat of a type listed in Annex I to Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora;

“array cable” means a cable linking the wind turbine generators to each other and to the offshore converter platforms;

“authorised deposits” means the substances and articles specified in paragraph 4 of Part 1 of this deemed marine licence;

“authorised scheme” means Work Nos. 2B, 3B, 7B and 8B and the further associated development described in paragraph 3 of Part 1 of this deemed marine licence or any part of that work or development;

“buoy” means any floating device used for navigational purposes or measurement purposes including LiDAR buoys, wave buoys and guard buoys;

“cable” means any offshore cable and includes direct-lay cables and cables laid in cable ducts and further includes fibre optic and other communications cables either within the cable or laid alongside;

“cable crossing” means the crossing of existing subsea cables and pipelines by the array, inter-platform or export cables authorised by the Order and forming part of the authorised scheme together with physical protection measures including cable protection;

“cable protection” means measures to protect cables forming part of the authorised scheme from physical damage and exposure due to loss of seabed sediment including, but not limited to, rock placement, concrete mattresses with or without frond devices, protective aprons or coverings, bagged solutions filled with sand, rock, grout or other materials and protective shells;

“cable statement” means the document certified by the Secretary of State as the cable statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“commence” means the first carrying out of any licensed marine activities authorised by this deemed marine licence, save for pre-construction monitoring surveys approved under this deemed marine licence, and “commenced” and “commencement” must be construed accordingly;

“condition” means a condition in Part 2 of this licence;

“DBS East” means the Dogger Bank South East Offshore Wind Farm;

“DBS East Project” means the DBS East Project offshore works and the DBS East Project onshore works;

“DBS East Project offshore works” means Work Nos. 1A to 8A and any other authorised development associated with those works;

“DBS East Project onshore works” means Work Nos. 9A to 34A and any other authorised development associated with those works;

“DBS West offshore works” means Work Nos. 1B to 8B and any authorised development associated with those works;

“DBS West Project” means the DBS West Project onshore works and the DBS West Project offshore works;

“DBS West Project onshore works” means Work Nos. 9B to 34B and any other authorised development associated with those works;

“DBSWL” means RWE Renewables UK Dogger Bank South (West) Limited, company number 13656525, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“Defence Infrastructure Organisation Safeguarding” means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands, B75 7RL and any successor body to its functions;

“disposal ground 2 (DBS West)” means the site to be used for disposal of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and cable sandwave clearance for the DBS West offshore works as shown on the Disposal Site Plan and with MMO disposal site reference DG035;

“disposal ground 3 (Export Cable)” means the site to be used for disposal of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and cable sandwave clearance for the DBS West offshore works as shown on the

Disposal Site Plan as “Dogger Bank South Cable A” (MMO disposal site reference DG033) and “Dogger Bank South Cable B” (MMO disposal site reference DG034);

“Disposal Site Plan” means the plan certified by the Secretary of State as the Disposal Site Plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Dogger Bank SAC” means the site designated as the Dogger Bank Special Area of Conservation;

“Dropped Object Procedure Form” means the MMO notification proforma with reference MLDIR1 for reporting the loss or dumping of synthetic materials and other refuse at sea or any other format advised in writing by the MMO;

“environmental statement” means the document certified by the Secretary of State as the environmental statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“habitats of principal importance” “means a habitat designated as being of principal importance in accordance with section 41 (biodiversity lists and action (England)) of the Natural Environment and Rural Communities Act 2006;

“HAT” means highest astronomical tide;

“HVAC” means high voltage alternating current;

“in principle monitoring plan” means the document certified by the Secretary of State as the in principle monitoring plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation” means the document certified by the Secretary of State as the in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“inter-platform cable” means a cable linking the offshore converter platforms;

“intrusive activities” means activities including anchoring of vessels, jacking up of vessels, and temporary wet storage areas;

“jacket foundation” means a lattice type structure constructed of steel which is fixed to the seabed at 3 or more points with steel pin piles and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms;

“JNCC Guidance” means the statutory nature conservation body ‘Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs’ Joint Nature Conservation Committee Report No.654, May 2020 published in June 2020 as amended, updated or superseded from time to time;

“LAT” means lowest astronomical tide;

“maintain” includes inspect, upkeep, repair, adjust, alter, remove, reconstruct and replace (including replenishment of cable protection), but does not include the removal, reconstruction or replacement of foundations associated with the authorised scheme, to the extent assessed in the environmental statement; and “maintenance” must be construed accordingly;

“Marine Management Organisation” means the body created under the 2009 Act which is responsible for the regulation of this deemed marine licence or any successor of that function and “MMO” shall be construed accordingly;

“Marine Noise Registry” means the database developed and maintained by JNCC on behalf of Defra to record the spatial and temporal distribution of impulsive noise generating activities in UK seas;

“MCA” means the Maritime and Coastguard Agency, the executive agency of the Department for Transport;

“MCMS” means the Marine Case Management System web portal provided and operated by the MMO;

“MHWS” or “mean high water springs” means the average throughout the year of two successive high waters during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides);

“MLWS” or “mean low water springs” means the lowest level that spring tides reach on average over a period of time;

“monopile foundation” means a steel pile driven or drilled into the seabed and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms and equipment;

“offshore converter platform” means an offshore converter platform with equipment to convert the HVAC power generated at the wind turbine generators into HVDC power, being a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and open with modular equipment or fully clad and may include a helicopter platform, containing electrical equipment required to switch, transform, convert electricity generated at the wind turbine generators to a higher voltage and provide reactive power compensation, including but not limited to high voltage power transformers, high voltage switchgear and busbars, substation auxiliary systems and low voltage distribution, instrumentation, metering equipment and control systems, standby generators, shunt reactors, auxiliary and uninterruptible power supply systems, facilities to support operations and maintenance;

“offshore order limits and grid coordinates plan” means the plan certified by the Secretary of State as the offshore order limits and grid coordinates plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Order” means The Dogger Bank South East and West Offshore Wind Farms Order 20[];

“Order limits” means the limits shown on the offshore order limits and grid coordinates plans within which the authorised scheme may be carried out and the grid coordinates for Work Nos. 2B, 3B, 5B, 7B and 8B are set out in paragraph 5 of Part 1 of this deemed marine licence;

“outline fisheries liaison and co-existence plan” means the document certified by the Secretary of State as the outline fisheries liaison and co-existence plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline marine mammal mitigation protocol” means the document certified by the Secretary of State as the outline marine mammal mitigation protocol for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline offshore operations and maintenance plan” means the document certified by the Secretary of State as the outline offshore operations and maintenance plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline project environmental management plan” means the document certified by the Secretary of State as the outline project environmental management plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline scour protection plan” means the document certified by the Secretary of State as the outline scour protection plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified) ;

“outline vessel traffic monitoring plan” means the document certified by the Secretary of State as the outline vessel traffic monitoring plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline written scheme of investigation (offshore)” means the document certified by the Secretary of State as the outline written scheme of investigation (offshore) for the purposes of

the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“scour protection” means measures to prevent loss of seabed sediment around any structure placed in or on the seabed including by the use of bagged solutions, filled with grout or other materials, protective aprons, mattresses with or without frond devices, flow energy dissipation devices and rock and gravel placement;

“statutory historic body” means Historic England or its successor in function;

“statutory nature conservation body” means a statutory nature conservation body, being the appropriate nature conservation body as defined in Regulation 5 of the Conservation of Habitats and Species Regulations 2017^(a) or its equivalent in the Conservation of Offshore Marine Habitats and Species Regulations 2017^(b);

“transition piece” means a metal structure attached to the top of a foundation where the base of a wind turbine generator is connected and includes additional equipment such as J-tubes, corrosion protection systems, boat access systems, access platforms, craneage, electrical transmission equipment and associated equipment;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“UKHO” means the United Kingdom Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

“undertaker” means DBSWL;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“VHF” means very high frequency;

“wind turbine generator” means a structure comprising a tower, a rotor with three blades connected at the hub, a nacelle and ancillary electrical and other equipment which may include J-tubes, transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation;

“works plans” means the works plans (offshore) and the works plans (onshore);

“works plans (offshore)” means the plans certified by the Secretary of State as the works plans (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified); and

“works plans (onshore)” means the plans certified by the Secretary of State as the works plans (onshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified)

(2) In this deemed marine licence, a reference to any statute, order, regulation or similar instrument is a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) In this deemed marine licence, unless otherwise indicated—

(a) all times are Greenwich Mean Time (“GMT”);

(b) all coordinates are latitude and longitude degrees and minutes to two decimal places.

(4) Unless otherwise stated or agreed with the MMO, all submissions, notifications and communications must be sent by the undertaker to the MMO using MCMS. Except where otherwise notified in writing by the relevant organisation, the addresses for correspondence for the purposes of this deemed marine licence are—

(a) S.I. 2017/1012

(b) S.I. 2017/1013

- (a) Historic England
37 Tanner Road
York
YO1 6WP
- (b) Marine Management Organisation
Marine Licensing Team
Lancaster House
Hampshire Court
Newcastle upon Tyne
NE4 7YH
Tel: 0300 123 1032
- (c) Marine Management Organisation (local office)
Room 13, Ground Floor
Crosskill House
Mill Lane
Beverley
HU17 9JB
Tel: 0208 026 0519
- (d) Maritime and Coastguard Agency
UK Technical Services Navigation
Spring Place
105 Commercial Road
Southampton
SO15 1EG
Tel: 020 3817 2433
Email: navigationsafety@mcga.gov.uk
- (e) Natural England
4th Floor
Foss House
1-2 Peasholme Green
York
YO1 7PX
Tel: 0300 060 4911
- (f) Trinity House
Tower Hill
London
EC3N 4DH
Tel: 020 7481 6900
- (g) United Kingdom Hydrographic Office
Admiralty Way
Taunton
Somerset
TA1 2DN

Tel: 01823 337 900

(5) Unless otherwise advised in writing by the MMO, the address for electronic communication with the MMO for the purposes of this licence is marine.consents@marinemangement.org.uk, or where contact to the Local Office of the MMO is required, beverley@marinemangement.org.uk.

Details of licensed marine activities

2. Subject to the conditions this deemed marine licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea within the Order limits seaward of MHWS of the substances and objects specified in paragraph 4 below and, when combined with the disposal authorised within disposal ground 2 (DBS West) by the deemed marine licences granted under Schedules 11, 14 and 14A of the Order, of up to 2,258,194 cubic metres (being a maximum, not an approximate upper figure) of inert material of natural origin produced during construction drilling or seabed preparation for foundation works, cable works and boulder clearance works at disposal site references to be provided to the MMO within disposal ground 2 (DBS West) and any other disposal sites approved in writing by the MMO;
- (b) the deposit at sea within the Order limits seaward of MHWS of the substances and objects specified in paragraph 4 below and, when combined with the disposal authorised within disposal ground 3 (Export Cable) by the deemed marine licence granted under Schedule 12 of the Order, of up to 26,025,965 cubic metres (being a maximum, not an approximate upper figure) of inert material of natural origin produced during construction drilling or seabed preparation for cable works and boulder clearance works at disposal site references to be provided to the MMO within disposal ground 3 (Export Cable);
- (c) the construction of works in or over the sea or on or under the sea bed;
- (d) dredging for the purposes of seabed preparation for foundation works or cable works;
- (e) the removal of sediment samples for the purposes of informing environmental monitoring under this deemed marine licence during pre-construction, construction and operation;
- (f) boulder clearance works by displacement ploughing or subsea grab technique or any other comparable method;
- (g) removal of static fishing equipment; and
- (h) site preparation works.

3. Such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 2B—

- (a) up to one offshore converter platform fixed to the seabed by jacket or monopile foundations within the area shown on the works plans;
- (b) a network of subsea inter-platform cabling within the area shown on the works plans, including cable crossings and cable protection;

Work No. 3B—

- (a) up to two HVDC subsea export cables between Work Nos. 2B and 8B along routes within the area shown on the works plans including cable crossings and cable protection;
- (b) up to two cables for the transmission of fibre optic communications laid between Work Nos. 2B and 8B consisting of cables along routes within the area shown on the works plans including cable crossings and cable protection;
- (c) up to three temporary pits for trenchless cable installation at landfall seaward of MLWS and up to three additional temporary pits for trenchless cable installation at landfall seaward of MLWS for the DBS East Project within the area shown on the works plans;

- (d) installation of up to three landfall cable ducts (if required) and up to three additional landfall cable ducts (if required) for the DBS East Project within the area shown on the works plans;
- (e) installation of up to three cable duct extensions from below LAT to any temporary pits created for trenchless cable installation situated above MLWS and up to three additional landfall cable ducts (if required) for the DBS East Project from below LAT to any temporary pits created for trenchless cable installation situated above MLWS;

Work No. 6B—

Not used;

Work No. 7B—

A temporary work area associated with Work Nos. 1B to 5B for vessels to carry out intrusive activities and non-intrusive activities alongside Work Nos. 1B to 7B;

In connection with such Work Nos. 2B, 3B and 7B and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence, including—

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 2B, 3B and 5B and the disposal of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works, cable installation preparation such as sandwave clearance, boulder clearance and pre-trenching and excavation of trenchless crossing exit pits;
- (d) removal of static fishing equipment;
- (e) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised scheme;
- (f) disposal of drill arisings in connection with any foundation drilling up to a total of 704 cubic metres;
- (g) creation and use of temporary laydown areas, use of cable lay vessel anchors;
- (h) lighting.

Work No. 8B—

- (a) Installation of up to two HVDC subsea export cables and up to two cables for the transmission of fibre optic communications within up to three landfall cable ducts (if required) between Work No. 3B and Work No. 12B and up to three landfall cable ducts (if required) for the DBS East Project between Work No. 3A and Work No. 12A;
- (b) trenchless cable installation;
- (c) temporary construction working areas for emergency works; and
- (d) vessel anchoring for emergency works.

4. The substances and objects authorised for deposit at sea are—

- (a) iron, steel, copper and aluminium;
- (b) stone and rock;
- (c) concrete and grout;
- (d) sand and gravel;
- (e) cement bound sand;

- (f) natural soils;
- (g) plastic and synthetic material;
- (h) drilling fluid;
- (i) material extracted from within the Order limits during construction drilling or seabed preparation for foundation works and cable installation preparation works;
- (j) weights used for the calibration of vessels, consisting of a hessian sack, metal shackles or chains; and
- (k) marine coatings, other chemicals and timber.

5. The grid coordinates for that part of the authorised scheme comprising Work Nos. 2B, 3B, 7B and 8B are specified below—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	53° 59.6364' N	0° 12.40874' W
2	53° 59.82784' N	0° 11.50751' W
3	53° 59.84021' N	0° 9.78718' W
4	54° 0.1033' N	0° 8.05888' W
5	54° 0.45563' N	0° 6.57895' W
6	54° 1.88431' N	0° 3.05262' W
7	54° 3.14098' N	0° 0.70959' E
8	54° 3.77637' N	0° 2.53092' E
9	54° 4.14562' N	0° 3.45918' E
10	54° 4.27659' N	0° 4.42011' E
11	54° 4.31082' N	0° 5.04613' E
12	54° 8.77722' N	0° 14.26259' E
13	54° 16.03855' N	0° 31.60943' E
14	54° 16.33488' N	0° 32.15475' E
15	54° 18.43135' N	0° 36.31356' E
16	54° 19.52715' N	0° 37.41854' E
17	54° 25.52646' N	0° 46.47839' E
18	54° 29.17866' N	0° 55.21543' E
19	54° 35.2432' N	1° 15.59582' E
20	54° 41.97912' N	1° 19.18481' E
21	54° 42.68808' N	1° 19.11958' E
22	54° 42.89576' N	1° 19.19192' E
23	54° 43.00532' N	1° 19.2987' E
24	54° 43.10223' N	1° 19.45603' E
25	54° 44.18515' N	1° 21.7125' E
26	54° 44.28093' N	1° 22.03856' E
27	54° 44.30046' N	1° 22.32068' E
28	54° 44.26468' N	1° 22.62418' E
29	54° 39.02878' N	1° 44.92686' E
30	54° 38.84907' N	1° 45.31024' E
31	54° 38.57165' N	1° 45.4825' E
32	54° 36.48108' N	1° 44.38088' E
33	54° 36.3193' N	1° 44.24208' E
34	54° 36.19975' N	1° 44.03507' E
35	54° 31.81809' N	1° 33.61066' E
36	54° 31.68029' N	1° 33.16936' E
37	54° 31.68491' N	1° 32.6914' E
38	54° 33.7017' N	1° 20.55955' E

39	54° 33.84869' N	1° 20.16118' E
40	54° 34.09052' N	1° 19.9387' E
41	54° 34.54334' N	1° 17.32206' E
42	54° 28.99427' N	0° 58.64713' E
43	54° 28.15029' N	0° 55.92687' E
44	54° 24.70977' N	0° 47.69726' E
45	54° 18.87875' N	0° 38.89895' E
46	54° 17.72124' N	0° 37.72511' E
47	54° 15.53155' N	0° 33.38368' E
48	54° 15.19324' N	0° 32.75337' E
49	54° 13.67671' N	0° 29.11575' E
50	54° 12.45423' N	0° 27.88505' E
51	54° 12.33295' N	0° 27.60465' E
52	54° 11.97431' N	0° 25.0371' E
53	54° 7.92055' N	0° 15.37852' E
54	54° 3.30272' N	0° 5.84501' E
55	54° 3.26167' N	0° 5.6635' E
56	54° 3.21017' N	0° 4.70318' E
57	54° 3.15199' N	0° 4.23063' E
58	54° 2.86151' N	0° 3.50109' E
59	54° 2.20927' N	0° 1.63117' E
60	54° 0.96981' N	0° 2.08082' W
61	53° 59.50126' N	0° 5.71047' W
62	53° 58.98868' N	0° 7.85689' W
63	53° 58.69884' N	0° 8.79203' W
64	53° 58.4388' N	0° 9.96246' W
65	53° 58.38876' N	0° 11.76128' W

6. This deemed marine licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108, and the completion of such programme has been confirmed by the Secretary of State in writing.

7. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this deemed marine licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence apply only to a transfer not falling within article 5 (benefit of order) of the Order.

8.—(1) With respect to any condition which requires the licensed activities be carried out in accordance with the details, plans or schemes approved under this deemed marine licence, the approved details, plans or schemes are taken to include any amendments that may subsequently be approved in writing by the MMO.

(2) Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statement and approval of an amendment or variation may only be given where it has been demonstrated to the satisfaction of the MMO that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

9. Should the undertaker become aware that any of the information on which the granting of this deemed marine licence was based was materially false or misleading, the undertaker must notify the MMO of this fact in writing as soon as is reasonably practicable. The undertaker must explain in writing what information was materially false or misleading and must provide to the MMO the correct information.

PART 2

Conditions

Design parameters

Offshore converter platform dimensions

1.—(1) The total number of offshore converter platforms in respect of the authorised scheme must not exceed one.

(2) The dimensions of any offshore converter platform (excluding helidecks, lightning protection, towers, masts and cranes) must not exceed—

- (a) 125 metres in length;
- (b) 100 metres in width; or
- (c) 105 metres in height above LAT.

Offshore converter platform foundations

2.—(1) Offshore converter platform foundations must be of one or more of the following foundation options: piled monopile, or piled jacket foundation.

(2) The pile diameter of any offshore converter platform piled monopile foundation must not exceed 15 metres.

(3) Any offshore converter platform piled jacket must not—

- (a) have more than eight legs;
- (b) have more than eight piles; or
- (c) have a pile diameter exceeding 3.8 metres.

(4) Any offshore converter platform foundation must not—

- (a) have a seabed footprint (including scour protection) exceeding 5,411 square metres; or
- (b) have a seabed footprint (excluding scour protection) exceeding 3,317 square metres.

(5) Within Work No. 2B, the offshore converter platforms foundations must not have—

- (a) A total combined seabed footprint (including scour protection) exceeding 5,411 square metres; or
- (b) a total combined amount of scour protection exceeding 5,234 square metres.

(6) The total volume of scour protection for offshore converter platforms in respect of the authorised scheme must not exceed 9,450 cubic metres.

Cables and cable protection

3.—(1) Within Work Nos. 3B the offshore export cables must not, in total—

- (a) exceed 2 in number;
- (b) exceed 306 kilometres in length;
- (c) exceed 12 cable crossings;
- (d) have cable protection (including cable crossings) exceeding 470,350 square metres in area; or
- (e) have cable protection (including cable crossings) exceeding 426,747 cubic metres in volume.

(2) The offshore export cables within Work No. 3B which fall within the Dogger Bank Special Area of Conservation must not have cable protection exceeding 10% of the length of such cables, when combined with the offshore export cables, array cables and inter-platform cables authorised by the deemed marine licences granted under Schedules 10 –12 and 14 – 14A of the Order.

(3) Within the area between MHWS and 350 metres seaward of MLWS, all offshore export cables must be buried, and must not have cable protection.

(4) Any offshore export cables within the area between 350 metres seaward of MLWS and the 10 metre depth contour as measured against LAT (as at the date of commencement of construction of the licensed activities) must not have cable protection exceeding 10% of the length of such cables, when combined with the offshore export cables authorised by the deemed marine licence granted under Schedule 12 of the Order.

(5) Within Work Nos. 2B the inter-platform cables must not, in total—

- (a) exceed 1 in number;
- (b) exceed 23 kilometres in length;
- (c) exceed 1 cable crossings;
- (d) have cable protection (including cable crossings) exceeding 43,203 square metres in area;
or
- (e) have cable protection (including cable crossings) exceeding 39,207 cubic metres in volume.

Phases of authorised scheme

4.—(1) The authorised scheme must not commence until an offshore works phasing scheme setting out the phases of construction of the authorised scheme has been submitted to and approved in writing by the MMO.

(2) The authorised scheme must be submitted at least 6 months prior to the proposed commencement of the works.

(3) Any subsequent amendments to the offshore works phasing scheme submitted for approval under sub-paragraph (1) must be submitted to the MMO for approval in writing.

(4) The offshore works phasing scheme submitted for approval under sub-paragraph (1) must be implemented as approved. The approved details shall be taken to include any amendment that may subsequently be approved by the MMO in accordance with sub-paragraph (3).

Maintenance of the authorised scheme

5.—(1) The undertaker may at any time maintain the authorised scheme, except to the extent that this licence or an agreement made under this licence provides otherwise.

(2) Maintenance works include but are not limited to—

- (a) Routine maintenance of wind turbine generators, offshore converter platforms, and their respective foundations;
- (b) Major offshore converter platform replacement;
- (c) Painting and applying other coatings to offshore converter platforms;
- (d) Bird waste and marine growth removal;
- (e) Surveys/inspections of cables;
- (f) Cable remedial burial;
- (g) Cable protection replenishment;
- (h) Cable repairs and replacement;
- (i) Access ladder and boat landing replacement;
- (j) Offshore converter platform anode replacement; and
- (k) J-tube repair/replacement.

(3) Operation of the licensed activities must not commence until an offshore operations and maintenance plan substantially in accordance with the outline offshore operations and maintenance plan has been submitted to and approved in writing by the MMO. The operations and maintenance plan must include, but is not limited to—

- (a) a list of maintenance activities within the marine environment that are planned for the lifetime of the licensed activities;
- (b) details of the typical construction plant, machinery and personnel requirements for each maintenance activity and any requirements for detailed method statements;
- (c) details of the typical frequency and timing of each maintenance activity; and
- (d) details of controls and mitigation that will be in place in order to protect the marine environment.

(4) The offshore operations and maintenance plan must be reviewed every three years commencing from the date on which the plan was approved, unless otherwise agreed by the MMO, to ensure the details of the maintenance activities remain accurate. The conclusions of that review must be submitted to and approved by the MMO in writing.

(5) The offshore operations and maintenance plan must be implemented as approved by the MMO.

(6) Unless otherwise agreed in writing with the MMO, the undertaker must submit—

- (a) the first offshore operations and maintenance plan at least 6 months prior to the operation of the licensed activities;
- (b) any revised offshore operations and maintenance plan submitted in accordance with sub-paragraph (4) at least 6 months before such revised plan is required to be put in place; and
- (c) where additional maintenance activities are identified that are not included in the approved offshore operations and maintenance plan, or any revised plan approved in accordance with sub-paragraph (4), an updated offshore operations and maintenance plan including the additional maintenance activities must be submitted to and approved by the MMO in writing as soon as possible after the need for such additional maintenance activities is identified.

Extension of time periods

6. Any time period given in this deemed marine licence to either the undertaker or the MMO may be extended with the agreement of the other party in writing, such agreement not to be unreasonably withheld or delayed.

Notifications and inspections

7.—(1) The undertaker must ensure that—

- (a) a copy of this deemed marine licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 17;
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 17; and
- (b) the undertaker must confirm in writing to the MMO within 28 days of a copy of this deemed marine licence and any subsequent amendments or revisions to it being provided to the persons listed in sub-paragraph (1)(a) that the required information has been provided.

(2) Only those persons and vessels notified to the MMO in accordance with condition 18 are permitted to carry out the licensed activities.

(3) Copies of this deemed marine licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and

- (c) on board each vessel and at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.
- (4) The documents referred to in sub-paragraph (1) must be available for inspection by an authorised enforcement officer at the locations set out in sub-paragraph (3).
- (5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during the construction and operation of the authorised scheme.
- (6) The undertaker must inform the MMO Local Office in writing at least fourteen days prior to the commencement of the licensed activities or any part of them and within five days of the completion of the licensed activity.
- (7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—
 - (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data;
 - (b) as soon as reasonably practicable and no later than 24 hours of completion of the DBS West Project offshore works,
 and confirmation of notification must be provided to the MMO within five days.
- (8) The undertaker must ensure that a local notification to mariners is issued at least 14 days prior to the commencement of the authorised scheme or any part thereof advising of the start date of each of Work Nos. 2B, 3B, 7B and 8B and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.
- (9) The undertaker must ensure that local notifications to mariners are updated and reissued at weekly intervals during construction activities and at least five days before any planned operations (unless otherwise agreed in writing by the MMO) and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme and monitoring plan approved under condition 13(1)(b). Copies of all notices must be provided to the MMO, UKHO and the MCA within five days.
- (10) The undertaker must notify UKHO and the MCA of the commencement (within ten days), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical and aeronautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days of the notification.
- (11) In case of damage to, or destruction or decay of, the authorised scheme or any part thereof, excluding the exposure of cables, the undertaker must as soon as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify the MMO, the MMO Local Office, MCA, Trinity House, the Kingfisher Information Service of Seafish and UKHO.
- (12) In case of the exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners and inform the Kingfisher Information Service of Seafish of the location and extent of exposure. Copies of all notices must be provided to the MMO, MCA, Trinity House, and UKHO within five days.
- (13) The undertaker must notify the MMO in writing a minimum of five days in advance of the commencement of each discrete incident of cable repair, replacement, or protection replenishment activity. Such a notification must include proposed timings and a description of proposed methodologies.
- (14) The undertaker must ensure that the MMO, the MMO Local Office, local mariners, local fishermen's organisations and the Source Data Receipt Team at the UK Hydrographic Office, Taunton, Somerset, TA1 2DN (sdr@ukho.gov.uk) are notified within five days of completion of each instance of cable repair, replacement or protection replenishment activity.

Aids to navigation

8.—(1) The undertaker must during the whole of the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation, as Trinity House may from time to time direct.

(2) The undertaker must during the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme keep Trinity House and the MMO informed of progress of the authorised scheme including—

- (a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within five days of completion of construction of the authorised scheme.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation in accordance with the frequencies set out in the aids to navigation management plan agreed pursuant to condition 13(1)(f) using the reporting system provided by Trinity House.

(4) The undertaker must during the period from commencement of the licensed activities to completion of decommissioning of the authorised scheme notify Trinity House and the MMO of any failure of the aids to navigation, and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 7(11) or condition 7(12) are invoked, the undertaker must lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Colouring of Structures

9.—(1) Except as otherwise required by Trinity House the undertaker must colour all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height directed by Trinity House or must colour the structure as directed by Trinity House in writing from time to time.

(2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs in writing, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Aviation safety

10.—(1) The undertaker must exhibit such lights, with such shape, colour and character as are required in writing by the Air Navigation Order 2016^(a) and determined necessary for aviation safety in consultation with the Defence Infrastructure Organisation Safeguarding and as directed by the Civil Aviation Authority.

(2) The undertaker must notify the Defence Infrastructure Organisation Safeguarding, the Civil Aviation Authority and the MMO, as soon as reasonably practicable and at least 14 days prior to the commencement of the authorised scheme, in writing of the following information—

- (a) the date of the commencement of construction of the authorised scheme;
- (b) the date any wind turbine generators are to be installed;
- (c) the maximum height of any construction equipment or vessels to be used;
- (d) the maximum height of each wind turbine generator to be constructed;
- (e) the latitude and longitude of each wind turbine generator to be constructed;

and the Defence Infrastructure Organisation Safeguarding and the Civil Aviation Authority must be notified of any changes to the information supplied under this paragraph and of the completion

(a) S.I. 2016/765.

of the construction of the authorised scheme. Copies of notifications must be provided to the MMO within 5 days.

Chemicals, drilling and debris

11.—(1) The undertaker must ensure that any coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by the Health and Safety Executive and the Environment Agency Pollution Prevention Control Guidelines.

(2) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must be undertaken to prevent releases into the marine environment, including bunding of 110 percent of the total volume of all reservoirs and containers.

(3) The undertaker must inform the MMO in writing of the location and quantities of material disposed of each month under this deemed marine licence by submission of a disposal return by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive and must provide a null return if no activity has taken place during the reporting period.

(4) The undertaker must ensure that only inert material of natural origin, produced during pre-sweeping sandwave clearance where relevant, the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within the Order limits seaward of MHWS.

(5) The undertaker must ensure that any rock material used in the construction of the authorised scheme is from a recognised source, free from contaminants and containing minimal fines.

(6) In the event that any rock material used in the construction of the authorised scheme is misplaced or lost below MHWS, the undertaker must report the loss in writing to the local enforcement office within 24 hours and if the MMO, in consultation with the MCA and Trinity House, reasonably considers such material to constitute a navigation or environmental hazard (dependent on the size and nature of the material) the undertaker must, in that event, demonstrate to the MMO that reasonable attempts have been made to locate, remove or move any such material.

(7) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas must be contained to prevent run off entering the water through the freeing ports.

(8) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 13(1)(d)(i).

(9) Debris or dropped objects which are considered a danger or hazard to navigation must be reported as soon as reasonably practicable but no later than six hours from the undertaker becoming aware of an incident, to the relevant HM Coastguard Maritime Rescue Co-ordination Centre by telephone (0344 382 0580), and the UK Hydrographic Office email: navwarnings@btconnect.com.

(10) All dropped objects including those in sub-paragraph (9) must be reported to the MMO using the Dropped Object Procedure Form (including any updated form as provided by the MMO) as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident, unless otherwise agreed in writing by the MMO.

(11) On receipt of notification or the Dropped Object Procedure Form the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the marine environment at the undertaker's expense if reasonable to do so.

Force majeure

12. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

Pre-construction plans and documentation

13.—(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO, in consultation with Trinity House, the MCA, the relevant statutory nature conservation body and UKHO as appropriate—

- (a) a layout plan setting out proposed details of the authorised scheme, including the:
 - (i) number, dimensions, specification, foundation type(s) and depth for each offshore converter platform;
 - (ii) the grid coordinates of the centre point of the proposed location for each wind turbine generator and offshore converter platform;
 - (iii) proposed layout of all cables;
 - (iv) location and specification of all other aspects of the authorised scheme; and
 - (v) any exclusion zones or micro-siting requirements identified pursuant to 13(1)(e)(iv) or relating to any habitats of principal importance, Annex I subtidal habitat or surficial deposits of glacial till identified as part of surveys undertaken in accordance with condition 18;to ensure conformity with the description of Work Nos. 2B, 3B, 7B and 8B and compliance with conditions 1 to 3;
- (b) a construction programme and monitoring plan (which accords with the in principle monitoring plan) which, save in respect information submitted pursuant to sub-paragraph (b)(iii)(aa), is to be submitted to the MMO at least six months prior to commencement of licensed activities and to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works;
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with conditions 18, 19 and 20 to be submitted to the MMO in accordance with the following (unless otherwise agreed in writing with the MMO)—
 - (aa) at least six months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
 - (bb) at least six months prior to construction, detail on construction monitoring; and
 - (cc) at least six months prior to commissioning, detail of post-construction (and operational) monitoring;
 - (iv) an indicative written construction programme for all offshore converter platforms and cables including fibre optic cables comprised in the works at Part 1 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above); and
 - (v) a monitoring plan setting out the circumstances in which monitoring will be required and the monitoring to be carried out in such circumstances;
- (c) a construction method statement (in accordance with the cable statement), including details of—
 - (i) cable burial, specification, installation and monitoring to include—
 - (aa) the technical specification of cables below MHWS;
 - (bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum;
 - (cc) in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following

- consultation with the MCA and Trinity House and the MMO in consultation with the statutory nature conservation body) to be taken to ensure existing and future safe navigation is not compromised, including updated nearshore sediment transport modelling and comparison and demonstration against the environmental statement if within the 10m depth contour and/ or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and
- (dd) proposals for monitoring cables including cable protection until the authorised scheme is decommissioned which includes a risk-based approach to the management of unburied or shallow buried cables;
 - (ii) a scour protection plan (in accordance with the outline scour protection plan) including details of scour protection and cable protection including details of the need, type, sources, quantity and installation methods for scour protection and cable protection, with details updated and resubmitted for approval if changes to it are proposed following cable laying operations;
 - (iii) foundation installation methodology, including drilling methods and disposal of drill arisings and material extracted during seabed preparation for foundation and cable installation works and having regard to any mitigation scheme pursuant to subparagraph (1)(i);
 - (iv) advisory safe passing distances for vessels around sites where the licensed activities are taking place;
 - (v) contractors;
 - (vi) vessels and vessel transit corridors;
 - (vii) associated ancillary works; and
 - (viii) guard vessels to be employed;
- (d) a project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation to include details of—
- (i) a marine pollution contingency plan to address the risks, methods and procedures to deal with any spills and collision incidents during construction and operation of the authorised scheme in relation to all activities carried out;
 - (ii) a chemical risk assessment, including information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance and standards;
 - (iii) waste management and disposal arrangements;
 - (iv) the appointment and responsibilities of a fisheries liaison officer;
 - (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of commencement of licensed activities pursuant to condition 4 and to address the interaction of the licensed activities with fishing activities;
 - (vi) a code of conduct for vessel operators to reduce risk of injury to mammals; and
 - (vii) procedures, which must be adopted within vessel transit corridors to minimise disturbance to red-throated diver during the period 1 November to 31 March (inclusive), which must be in accordance with the best practice protocol for minimising disturbance to red-throated diver;
- (e) an archaeological written scheme of investigation in relation to the offshore Order limits seaward of MHWS, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body to include—
- (i) details of responsibilities of the undertaker, archaeological consultant and contractor;

- (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
 - (v) monitoring of archaeological exclusion zones during and post construction;
 - (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the Archaeological Data Service, by submitting an OASIS ('Online Access to the Index of archaeological investigations') form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO and Historic England that the OASIS form has been submitted to the Archaeological Data Service within two weeks of submission;
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and
 - (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities;
- (f) an aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, the MCA, the Civil Aviation Authority and UKHO specifying how the undertaker will ensure compliance with condition 8 from the commencement of construction of the authorised scheme to the completion of decommissioning;
- (g) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol (in accordance with the outline marine mammal mitigation protocol), the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation bodies and which must include details of noise reduction methods through project design (primary measures) and/or, deployment of noise mitigation systems or noise abatement systems (secondary measures) that will be utilised to manage sounds from those piling activities and such protocol must include full details and justification for the mitigation chosen or excluded for deployment;
- (h) a navigation management plan to manage crew transfer vessels (including daughter craft) during the construction and operation of the authorised scheme;
- (i) a final cable statement (in accordance with the cable statement); and
- (j) a site specific chemical risk assessment, which must be submitted no later than ten weeks prior to use of the relevant chemical, for all chemicals (with the exception of chemicals present on the OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment) that have a pathway to the marine environment used for the marine licensed activities, outside the course of normal navigation, to include—
- (i) the function of the chemical,
 - (ii) the quantities being used and the frequency of use; and
 - (iii) the physical, chemical, and ecotoxicological properties of the chemical.
- (2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific outline written scheme of investigation (which must accord with the details set out in the outline written scheme of investigation (offshore)) which has been submitted to and approved by the MMO.

(3) Anchoring of vessels must not occur within the Holderness Inshore Marine Conservation Zone or within the Smithic Bank, unless otherwise agreed in writing with the MMO following consultation with the relevant statutory nature conservation body and in the event that jack-up vessels are proposed to be used for cable installation or maintenance, their legs must not be deployed within the Holderness Inshore Marine Conservation Zone or within the Smithic Bank, unless otherwise agreed in writing with the MMO following consultation with the relevant statutory nature conservation body. For the purposes of this sub-paragraph the “Holderness Inshore Marine Conservation Zone” and the “Smithic Bank” means the area bounded by the following coordinates:

<i>Co-ordinate ID</i>	<i>X</i>	<i>Y</i>	<i>Co-ordinate ID</i>	<i>X</i>	<i>Y</i>
1	295623.5	5988145	23	298275.5	5998380
2	295151.2	5988060	24	298621.2	5998874
3	294745.5	5988423	25	298836.9	5999246
4	294511.3	5988778	26	299247.9	5999525
5	294268.6	5989292	27	299486.8	5999430
6	293876.3	5989601	28	299598.1	5998762
7	293560.8	5989880	39	299594.8	5997967
8	293332.8	5990368	30	299268.7	5997636
9	293232.9	5990929	31	298936.8	5997174
10	293248	5991618	32	298720.2	5996494
11	293357	5992382	33	298564.6	5995785
12	293486	5993034	34	298381.8	5994812
13	293672.5	5993577	35	298391.6	5993963
14	293869.5	5994077	36	298294.2	5992800
15	294131.6	5994638	37	298298.3	5991819
16	294494.2	5995216	38	298274.7	5990919
17	295039.8	5995701	39	298010.4	5989870
18	295805.2	5996367	40	297423.3	5988941
19	296495.2	5996740	41	296719	5988548
20	297164.8	5997219	42	296143.8	5988255
21	297591.3	5997561	43	295623.5	5988145
22	297845.4	5997953			

(4) Any sediment removed from within the Dogger Bank Special Area of Conservation during construction of the authorised scheme must be disposed of within that part of the Dogger Bank Special Area of Conservation which falls within the Order limits.

(5) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive monopile foundations must not exceed 6,000kJ and the hammer energy used to drive or part-drive pin pile foundations must not exceed 3,000kJ.

(6) The maximum number of main vessels engaged at any time in activities related to piling for the licensed activities when combined with the number of main vessels engaged in piling activities authorised by the deemed marine licences granted under Schedules 10 to 12 must not exceed 2 vessels.

(7) The number of piled foundations installed within a 24 hour period when combined with the number of piled foundations installed pursuant to the deemed marine licences granted under Schedules 10 to 12 of the Order within the same 24 hour period must not exceed—

- (a) 4 monopile foundations;
- (b) 8 pin pile foundations;
- (c) 3 monopile foundations and 2 pin pile foundations;
- (d) 2 monopile foundations and 4 pin pile foundations; or
- (e) 1 monopile foundation and 6 pin pile foundations.

(8) The number of piled foundations installed concurrently when combined with the number of piled foundations installed concurrently pursuant to the deemed marine licences granted under Schedules 10 to 12 must not exceed—

- (a) where only monopile foundations are being installed concurrently exceed 2 monopile foundations;
 - (b) where only pin pile foundations are being installed concurrently exceed 2 pin pile foundations; and
 - (c) where a combination of monopile foundations and pin pile foundations are being installed concurrently exceed 1 monopile foundation and 1 pin pile foundation.
- (9) In sub-paragraphs 13(1)(d)(ii) and 13(1)(j) above—
- (a) “pathway to the marine environment” means open systems or closed systems that require top up;
 - (b) “chemicals” comprise both substances and preparations;
 - (c) “preparation” means a mixture or solution composed of two or more substances; and
 - (d) “substance” means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Site Integrity Plan

14.—(1) No piling activities can take place until a Site Integrity Plan (“SIP”), which accords with the principles set out in the in principle Site Integrity Plan for the Southern North Sea Special Area of Conservation, has been submitted to, and approved in writing, by the MMO in consultation with the relevant statutory nature conservation body.

(2) The SIP submitted for approval must contain a description of the conservation objectives for the Southern North Sea Special Area of Conservation (“SNS SAC”) as well as any relevant management measures and it must set out the key statutory nature conservation body advice on activities within the SNS SAC relating to piling as set out within the JNCC Guidance and how this has been considered in the context of the authorised scheme.

(3) The SIP must be submitted in writing to the MMO no later than six months prior to the commencement of piling activities.

(4) In approving the SIP the MMO must be satisfied that the authorised scheme at the preconstruction stage, in-combination with other plans and projects, is in line with the JNCC Guidance.

(5) The approved SIP may be amended with the prior written approval of the MMO, in consultation with the relevant statutory nature conservation body, where the MMO remains satisfied that the Project, in-combination with other plans or projects at the pre-construction stage, is in line with the JNCC Guidance.

Approval of programmes, statements etc

15.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 13 must be submitted for approval at least six months before the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The MMO must determine an application for approval made under conditions 13 and 14 within a period of six months commencing on the date the application is received by the MMO, unless otherwise agreed in writing with the undertaker.

(3) The licensed activities must be carried out in accordance with the plans, protocols, statements, schemes and details approved under conditions 13 and 14, unless otherwise agreed in writing by the MMO.

Offshore safety management

16. Any part of the authorised scheme must not be commenced until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN654 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (or any equivalent guidance that replaces or supersedes it) and its annexes.

Reporting of engaged agents, contractors and vessels

17.—(1) The undertaker must provide the following information in writing to the MMO—

- (a) the name, function, company number (if applicable), registered or head office address (as appropriate) of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) The undertaker must notify the MMO in writing of any vessel being used to carry on any licensed activity listed in this deemed marine licence on behalf of the undertaker. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity. Notification must include the master’s name, vessel type, vessel IMO number and vessel owner or operating company.

(3) Any changes to the supplied details must be notified to the MMO in writing at least 24 hours before the agent, contractor or vessel engages in the licensed activities.

Pre-construction monitoring and surveys

18.—(1) The undertaker must, in discharging condition 13(1)(b), submit a monitoring plan or plans in accordance with the in principle monitoring plan for written approval in writing by the MMO in consultation with the relevant statutory nature conservation body, which must contain details of proposed monitoring and surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report.

(2) The survey proposals submitted under sub-paragraph (1) must be in accordance with the principles set out in the in principle monitoring plan and must specify each survey’s objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The baseline report proposals submitted under sub-paragraph (1) must ensure that the outcome of the agreed surveys, together with existing data and reports, are drawn together to present a valid statement of the pre-construction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

(4) The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, include, but not be limited to, the need to undertake—

- (a) a survey to determine the location, extent and composition of habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works;
- (b) a swath-bathymetry survey to IHO Order 1a standard that meets the requirements MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works including an appropriate buffer around the location of each work;
- (c) undertake any monitoring required by the SIP submitted in accordance with condition 14; and

- (d) undertake or contribute to any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 13(1)(g).
- (5) The undertaker must carry out the surveys specified within the monitoring plan or plans in accordance with that plan or plans, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.
- (6) When any surveys are carried out in accordance with sub-paragraph (5) a survey report must be submitted to the MMO following completion of the relevant survey. Any report submitted under this sub-paragraph must be submitted prior to the commencement of licensed activities for the relevant stage.

Construction monitoring and surveys

19.—(1) The undertaker must, in discharging condition 13(1)(b), for each phase of construction submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring and surveys, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.

(3) The undertaker must carry out the surveys approved under sub-paragraph (1), including any further noise monitoring required in writing by the MMO, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(4) The results of the initial noise measurements monitored in accordance with sub-paragraph (2) must be provided to the MMO within six weeks of the installation of the first four piled foundations. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the reasonable opinion of the MMO in consultation with the relevant statutory nature conservation body, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have been agreed.

(5) The undertaker must carry out the surveys specified in the construction monitoring plan in accordance with that plan, including any further noise monitoring required in writing by the MMO under sub-paragraph (4), unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

(6) Construction monitoring must include vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan, including the provision of reports on the results of that monitoring by automatic identification system at the end of each year of the construction period to the MMO, MCA and Trinity House.

(7) In the event that piled foundations are proposed to be used, the details submitted in accordance with the marine mammal mitigation protocol must include proposals for monitoring marine mammals.

Post-construction monitoring and surveys

20.—(1) The undertaker must, in discharging condition 13(1)(b), submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of proposed post-construction monitoring and surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results.

(2) The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The post-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed with the MMO, have due regard to, but not be limited to, the need to—

- (a) undertake a survey to determine any change in the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey and the construction benthic surveys;
- (b) undertake, within twelve months of completion of the licensed activities, a full sea floor coverage swath-bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables (including fibre optic cables) have been buried or protected;
- (c) undertake any monitoring required by the SIP submitted in accordance with condition 14;
- (d) undertake post-construction vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan by automatic identification system for a duration of three consecutive years following the completion of construction of the authorised project, unless otherwise agreed in writing by the MMO, with provision for a report to be submitted annually to the MMO, Trinity House and the MCA; and
- (e) undertake any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 13(1)(g);

(4) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the agreed reports to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.

Reporting of scour and cable protection

21.—(1) No more than four months following completion of the construction of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection and scour protection used for the authorised scheme.

(2) The report must include the following information—

- (a) the location of cable protection and scour protection;
- (b) the volume of cable protection and scour protection; and
- (c) any other information relating to the cable protection and scour protection as agreed between the MMO and the undertaker.

(3) Where any cable protection or scour protection is replenished following completion of construction the undertaker must submit an updated report in accordance with sub-paragraph (2) in writing to the MMO and the relevant statutory nature conservation bodies no more than four months following completion of the relevant replenishment being deposited.

Completion of construction

22.—(1) The undertaker must submit a close out report to the MMO, the MCA, Trinity House, UKHO and the relevant statutory nature conservation body within three months of the date of

completion of construction. The close out report must confirm the date of completion of construction and must include the following details—

- (a) As built plans;
- (b) Latitude and longitude co-ordinates of the centre point of the location for each offshore converter platform, provided as Geographical Information System data referenced to WGS84 datum; and

details of the latitude and longitude co-ordinates of the export cables, provided as Geographical Information System data referenced to WGS84 datum.

(2) Following completion of construction, no further construction activities can be undertaken under this deemed marine licence.

Collaboration

23.—(1) Prior to submission of plans and documentation required to be submitted to the MMO for approval in accordance with conditions 14 and 15, the undertaker must provide a copy of the relevant plans and documentation to DBSEL to enable DBSEL to provide any comments on the plans and documentation to the undertaker.

(2) The plans and documentation submitted to the MMO for approval in accordance with conditions 14 and 15 must be accompanied by any comments received by the undertaker from DBSEL in accordance with sub-paragraph (1) or a statement from the undertaker confirming that no such comments were received.

Reporting of impact pile driving

24.—(1) In the event that driven or part-driven pile foundations are proposed to be used as part of the foundation installation the undertaker must provide the following information to the Marine Noise Registry—

- (a) no less than six months prior to the commencement of each phase of construction of the licensed activities, information on the expected location, start and end dates of impact pile driving to satisfy the Marine Noise Registry’s Forward Look requirements;
- (b) within two weeks after commencement of each phase of construction of the licensed activities, information on the location, start and end dates of impact pile driving to satisfy the Marine Noise Registry’s Forward Look requirements; and
- (c) at six-month intervals following the commencement of pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry’s Close Out requirements by 7 April for winter season October to March inclusive and 7 October for summer season April to September inclusive or within 12 weeks of completion of impact pile driving whichever is earlier.

(2) The undertaker must notify the MMO in writing of the successful submission of Forward Look or Close Out data pursuant to paragraph (1) above within seven days of the submission.

(3) For the purpose of this condition, “Forward Look” and “Close Out” mean the requirements as set out in the UK Marine Noise Registry Information Document Version 1 (July 2015) as amended, updated, or superseded from time to time.

Maintenance reporting

25.—(1) An annual maintenance report must be submitted to the MMO in writing within one month following the first anniversary of the date of commencement of operations, and every year thereafter until the permanent cessation of operation.

(2) The report must provide a record of the licensed activities undertaken as set out in condition 5 during the preceding year, the timing of activities and methodologies used.

(3) Every fifth year, the undertaker must submit to the MMO in writing, within one month of that date, a consolidated maintenance report, which will—

- (a) include a review of licensed activities undertaken during the preceding five years with reference to the reports submitted in accordance with condition 25(1) of this licence.
- (b) reconfirm the applicability of the methodologies and frequencies of the licensable activities permitted by this licence for the remaining duration of this licence.

Sediment Sampling

26.—(1) The undertaker must submit a sample plan request in writing to the MMO for written approval of a sample plan.

(2) The sample plan request must be made—

- (a) for capital dredging, at least six months prior to the commencement of any capital dredging; or
- (b) for maintenance dredging, at least six months prior to the end of every third year from the date of the previous sediment sample analysis.

(3) The sample plan request must include details of—

- (a) the volume of material to be dredged;
- (b) the location of the area to be dredged;
- (c) details of the material type proposed for dredging;
- (d) the type and dredging methodology (including whether it is a capital or maintenance dredge, depth of material to be dredged and proposed programme for the dredging activities); and
- (e) the location and depth of any supporting samples.

(4) Unless otherwise agreed by the MMO, the undertaker must undertake the sampling in accordance with the approved sample plan.

Noise restriction

27.—(1) No piling activity can commence within Work No. 2B during the herring spawning season until a herring spawning piling restriction plan (in accordance with the herring spawning plan) is submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.

(2) The herring spawning piling restriction plan must be submitted to the MMO no later than six months prior to the commencement of the relevant activities unless otherwise agreed in writing by the MMO.

(3) The herring spawning piling restriction plan must present updated underwater noise modelling, which must be based on final project parameters to be used to install piles and must include details of any mitigation measures to be employed.

(4) If the updated underwater noise modelling referred to in sub-paragraph (3) above demonstrates that noise levels above 135 decibel from any piling area within Work No. 2B will impact the area shoreward of the Herring Spawning Noise Restriction Boundary during the herring spawning season then any piles located within that piling area must not be installed during the herring spawning season without written approval from the MMO.

(5) Any piling activity within Work No. 2B during the herring spawning season must be undertaken in accordance with the approved herring spawning piling restriction plan approved under sub-paragraph (1) or in accordance with any approval given by the MMO under sub-paragraph (4) above.

(6) In this condition—

“Herring Spawning Noise Restriction Boundary” means the boundary indicated by the red line on the herring spawning plan, with the restricted area being the area shoreward of this boundary

“herring spawning plan” means the document certified by the Secretary of State as the herring spawning plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified)

“herring spawning season” means 1 August to 31 October inclusive or such other period as agreed in writing with the MMO;

“piling area” means any area within Work No. 2B within which one or more piled foundations is proposed to be installed.

Export cable restriction

28.—(1) The cable installation works listed at sub-paragraphs (a) – (f) below must not be undertaken on the seabed within the restricted area during the restricted period, unless otherwise agreed in writing by the MMO—

- (a) pre-sweeping;
- (b) dredging;
- (c) mechanical ploughing;
- (d) cutting;
- (e) water jetting; and
- (f) cable burial operations.

(2) No later than sixteen weeks (or such other period as agreed by the MMO in writing) prior to the commencement of any licensed activities in sub-paragraph (1) within Work No. 3B, a Back Calculation Technical Report, which must include details of the restricted period, must be submitted to the MMO for approval.

(3) The licensed activities in sub-paragraph (1) within Work No. 3B must not commence until the MMO has approved the Back Calculation Technical Report.

(4) In this condition—

“Back Calculation Technical Report” means an updated version of environmental statement Appendix 10-3, which must include evidence to support the restricted period;

“cable installation works restricted area plan” means the plan certified by the Secretary of State as the cable installation works restricted area plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“restricted area” means the area of seabed within Work No. 3B between KP20 and KP40 as shown on the cable installation works restricted area plan”;

“restricted period” means 1 August to 31 October inclusive or such other period indicated by the Back Calculation Technical Report as the period when herring are most likely to have spawned and where eggs and newly hatched larvae should be undisturbed to avoid any adverse impacts to those eggs or larvae and any such alternative period must be agreed with the MMO in writing.

Deemed Marine Licence 5: DBS East Project Offshore Transmission –
Work Nos. 5A, and 7A

PART 1

Licensed marine activities

Interpretation

1.—(1) In this deemed marine licence—

“the 2004 Act” means the Energy Act 2004;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“the 2017 Regulations” means the Conservation of Offshore Marine Habitats and Species Regulations 2017;

“Annex I subtidal habitat” means a subtidal habitat of a type listed in Annex I to Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora;

“array cable” means a cable linking the wind turbine generators to each other and to the offshore converter platforms;

“authorised deposits” means the substances and articles specified in paragraph 4 of Part 1 of this deemed marine licence;

“authorised scheme” means Work No. 5A and 7A and the further associated development described in paragraph 3 of Part 1 of this deemed marine licence or any part of that work or development;

“buoy” means any floating device used for navigational purposes or measurement purposes including LiDAR buoys, wave buoys and guard buoys;

“cable” means any offshore cable and includes direct-lay cables and cables laid in cable ducts and further includes fibre optic and other communications cables either within the cable or laid alongside;

“cable crossing” means the crossing of existing subsea cables and pipelines by the array, inter-platform or export cables authorised by the Order and forming part of the authorised scheme together with physical protection measures including cable protection;

“cable protection” means measures to protect cables forming part of the authorised scheme from physical damage and exposure due to loss of seabed sediment including, but not limited to, rock placement, concrete mattresses with or without frond devices, protective aprons or coverings, bagged solutions filled with sand, rock, grout or other materials and protective shells;

“cable statement” means the document certified by the Secretary of State as the cable statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“commence” means the first carrying out of any licensed marine activities authorised by this deemed marine licence, save for pre-construction monitoring surveys approved under this deemed marine licence, and “commenced” and “commencement” must be construed accordingly;

“condition” means a condition in Part 2 of this licence;

“DBSEL” means RWE Renewables UK Dogger Bank South (East) Limited, company number 13656240, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“DBS East” means the Dogger Bank South East Offshore Wind Farm;

“DBS East Project” means the DBS East Project offshore works and the DBS East Project onshore works;

“DBS East Project offshore works” means Work Nos. 1A to 8A and any other authorised development associated with those works;

“DBS East Project onshore works” means Work Nos. 9A to 34A and any other authorised development associated with those works;

“DBS West offshore works” means Work Nos. 1B to 8B and any authorised development associated with those works;

“DBS West Project” means the DBS West Project onshore works and the DBS West Project offshore works;

“DBS West Project onshore works” means Work Nos. 9B to 34B and any other authorised development associated with those works;

“DBSWL” means RWE Renewables UK Dogger Bank South (West) Limited, company number 13656525, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“Defence Infrastructure Organisation Safeguarding” means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands, B75 7RL and any successor body to its functions;

“disposal ground 1 (DBS East)” means the site to be used for disposal of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and cable sandwave clearance for the DBS East Project offshore works as shown on the Disposal Site Plan and with MMO disposal site reference DG036;

“disposal ground 2 (DBS West)” means the site to be used for disposal of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and cable sandwave clearance for the DBS West offshore works as shown on the Disposal Site Plan and with MMO disposal site reference DG035;

“Disposal Site Plan” means the plan certified by the Secretary of State as the Disposal Site Plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Dropped Object Procedure Form” means the MMO notification proforma with reference MLDIR1 for reporting the loss or dumping of synthetic materials and other refuse at sea or any other format advised in writing by the MMO;

“environmental statement” means the document certified by the Secretary of State as the environmental statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“habitats of principal importance” means a habitat designated as being of principal importance in accordance with section 41 (biodiversity lists and action (England)) of the Natural Environment and Rural Communities Act 2006;

“HAT” means highest astronomical tide;

“HVAC” means high voltage alternating current;

“in principle monitoring plan” means the document certified by the Secretary of State as the in principle monitoring plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“inter-platform cable” means a cable linking the offshore converter platforms;

“intrusive activities” means activities including anchoring of vessels, jacking up of vessels, and temporary wet storage areas;

“JNCC Guidance” means the statutory nature conservation body ‘Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs’ Joint Nature Conservation Committee Report No.654, May 2020 published in June 2020 as amended, updated or superseded from time to time;

“maintain” includes inspect, upkeep, repair, adjust, alter, remove, reconstruct and replace (including replenishment of cable protection), but does not include the removal, reconstruction or replacement of foundations associated with the authorised scheme, to the extent assessed in the environmental statement; and “maintenance” must be construed accordingly;

“Marine Management Organisation” means the body created under the 2009 Act which is responsible for the regulation of this deemed marine licence or any successor of that function and “MMO” shall be construed accordingly;

“MCA” means the Maritime and Coastguard Agency, the executive agency of the Department for Transport;

“MCMS” means the Marine Case Management System web portal provided and operated by the MMO;

“MHWS” or “mean high water springs” means the average throughout the year of two successive high waters during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides);

“MLWS” or “mean low water springs” means the lowest level that spring tides reach on average over a period of time;

“offshore order limits and grid coordinates plan” means the plan certified by the Secretary of State as the offshore order limits and grid coordinates plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Order” means The Dogger Bank South East and West Offshore Wind Farms Order 20[];

“Order limits” means the limits shown on the offshore order limits and grid coordinates plans within which the authorised scheme may be carried out and the grid coordinates for Work Nos. 8A and 8B are set out in paragraph 5 of Part 1 of this deemed marine licence;

“outline fisheries liaison and co-existence plan” means the document certified by the Secretary of State as the outline fisheries liaison and co-existence plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline offshore operations and maintenance plan” means the document certified by the Secretary of State as the outline offshore operations and maintenance plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline project environmental management plan” means the document certified by the Secretary of State as the outline project environmental management plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline scour protection plan” means the document certified by the Secretary of State as the outline scour protection plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified) ;

“outline written scheme of investigation (offshore)” means the document certified by the Secretary of State as the outline written scheme of investigation (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“scour protection” means measures to prevent loss of seabed sediment around any structure placed in or on the seabed including by the use of bagged solutions, filled with grout or other materials, protective aprons, mattresses with or without frond devices, flow energy dissipation devices and rock and gravel placement;

“statutory historic body” means Historic England or its successor in function;

“statutory nature conservation body” means a statutory nature conservation body, being the appropriate nature conservation body as defined in Regulation 5 of the Conservation of

Habitats and Species Regulations 2017^(a) or its equivalent in the Conservation of Offshore Marine Habitats and Species Regulations 2017^(b);

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“UKHO” means the United Kingdom Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

“undertaker” means DBSEL;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“VHF” means very high frequency;

“wind turbine generator” means a structure comprising a tower, a rotor with three blades connected at the hub, a nacelle and ancillary electrical and other equipment which may include J-tubes, transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation;

“works plans” means the works plans (offshore) and the works plans (onshore);

“works plans (offshore)” means the plans certified by the Secretary of State as the works plans (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified); and

“works plans (onshore)” means the plans certified by the Secretary of State as the works plans (onshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified).

(2) In this deemed marine licence, a reference to any statute, order, regulation or similar instrument is a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) In this deemed marine licence, unless otherwise indicated—

(a) all times are Greenwich Mean Time (“GMT”);

(b) all coordinates are latitude and longitude degrees and minutes to two decimal places.

(4) Unless otherwise stated or agreed with the MMO, all submissions, notifications and communications must be sent by the undertaker to the MMO using MCMS. Except where otherwise notified in writing by the relevant organisation, the addresses for correspondence for the purposes of this deemed marine licence are—

(a) Historic England

37 Tanner Road

York

YO1 6WP

(b) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle upon Tyne

NE4 7YH

Tel: 0300 123 1032

(a) S.I. 2017/1012

(b) S.I. 2017/1013

(c) Marine Management Organisation (local office)

Room 13, Ground Floor

Crosskill House

Mill Lane

Beverley

HU17 9JB

Tel: 0208 026 0519

(d) Maritime and Coastguard Agency

UK Technical Services Navigation

Spring Place

105 Commercial Road

Southampton

SO15 1EG

Tel: 020 3817 2433

Email: navigationsafety@mcga.gov.uk

(e) Natural England

4th Floor

Foss House

1-2 Peasholme Green

York

YO1 7PX

Tel: 0300 060 4911

(f) Trinity House

Tower Hill

London

EC3N 4DH

Tel: 020 7481 6900

(g) United Kingdom Hydrographic Office

Admiralty Way

Taunton

Somerset

TA1 2DN

Tel: 01823 337 900

(5) Unless otherwise advised in writing by the MMO, the address for electronic communication with the MMO for the purposes of this licence is marine.consents@marinemanagement.org.uk, or where contact to the Local Office of the MMO is required, beverley@marinemanagement.org.uk.

Details of licensed marine activities

2. Subject to the conditions this deemed marine licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea within the Order limits seaward of MHWS of the substances and objects specified in paragraph 4 below and, when combined with the disposal authorised within disposal ground 1 (DBS East) by the deemed marine licences granted under Schedules 10, 12 and 14A of the Order, of up to 4,242,327 cubic metres (being a maximum, not an

approximate upper figure) of inert material of natural origin produced during construction drilling or seabed preparation for foundation works, cable works and boulder clearance works at disposal site references to be provided to the MMO within disposal ground 1 (DBS East) and any other disposal sites approved in writing by the MMO;

- (b) the deposit at sea within the Order limits seaward of MHWS of the substances and objects specified in paragraph 4 below and, when combined with the disposal authorised within disposal ground 2 (DBS West) by the deemed marine licences granted under Schedules 11, 13 and 14A of the Order, of up to 2,258,194 cubic metres (being a maximum, not an approximate upper figure) of inert material of natural origin produced during construction drilling or seabed preparation for foundation works, cable works and boulder clearance works at disposal site references to be provided to the MMO within disposal ground 2 (DBS West);
- (c) the construction of works in or over the sea or on or under the sea bed;
- (d) dredging for the purposes of seabed preparation for foundation works or cable works;
- (e) the removal of sediment samples for the purposes of informing environmental monitoring under this deemed marine licence during pre-construction, construction and operation;
- (f) boulder clearance works by displacement ploughing or subsea grab technique or any other comparable method;
- (g) removal of static fishing equipment; and
- (h) site preparation works.

3. Such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 5A—

Up to three HVAC subsea export cables linking Work Nos. 2A and 2B providing an electrical connection between Work Nos. 1A and 1B, including cable crossings and cable protection;

Work No. 7A—

A temporary work area associated with Work Nos. 1A to 5A for vessels to carry out intrusive activities and non-intrusive activities alongside Work Nos. 1A to 5A;

In connection with such Work Nos. 5A and 7A and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence, including—

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 5A and 7A and the disposal of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works, cable installation preparation such as sandwave clearance, and boulder clearance;
- (d) removal of static fishing equipment;
- (e) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised scheme;
- (f) creation and use of temporary laydown areas, use of cable lay vessel anchors;
- (g) lighting.

4. The substances and objects authorised for deposit at sea are—

- (a) iron, steel, copper and aluminium;
- (b) stone and rock;

- (c) concrete and grout;
- (d) sand and gravel;
- (e) cement bound sand;
- (f) natural soils;
- (g) plastic and synthetic material;
- (h) drilling fluid;
- (i) material extracted from within the Order limits during construction drilling or seabed preparation for foundation works and cable installation preparation works;
- (j) weights used for the calibration of vessels, consisting of a hessian sack, metal shackles or chains; and
- (k) marine coatings, other chemicals and timber.

5. The grid coordinates for that part of the authorised scheme comprising Work Nos. 5A and 7A are specified below—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	54° 33.7017' N	1° 20.55955' E
2	54° 33.84869' N	1° 20.16118' E
3	54° 34.09052' N	1° 19.9387' E
4	54° 42.68808' N	1° 19.11958' E
5	54° 42.89576' N	1° 19.19192' E
6	54° 43.00532' N	1° 19.2987' E
7	54° 43.10223' N	1° 19.45603' E
8	54° 44.18515' N	1° 21.7125' E
9	54° 44.28093' N	1° 22.03856' E
10	54° 44.30046' N	1° 22.32068' E
11	54° 44.26468' N	1° 22.62418' E
12	54° 39.02878' N	1° 44.92686' E
13	54° 38.84907' N	1° 45.31024' E
14	54° 38.57165' N	1° 45.4825' E
15	54° 34.74598' N	1° 58.90264' E
16	54° 34.77086' N	1° 59.72884' E
17	54° 34.67215' N	2° 0.18106' E
18	54° 34.47546' N	2° 0.46972' E
19	54° 24.47523' N	2° 8.98399' E
20	54° 24.09368' N	2° 8.92387' E
21	54° 23.82918' N	2° 8.43359' E
22	54° 21.08378' N	1° 54.2778' E
23	54° 21.0601' N	1° 53.90188' E
24	54° 21.14588' N	1° 53.48645' E
25	54° 21.33732' N	1° 53.18358' E
26	54° 29.82331' N	1° 45.86969' E
27	54° 30.75742' N	1° 40.25123' E
28	54° 31.81809' N	1° 33.61066' E
29	54° 31.68029' N	1° 33.16936' E
30	54° 31.68491' N	1° 32.6914' E

6. This deemed marine licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under

section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108, and the completion of such programme has been confirmed by the Secretary of State in writing.

7. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this deemed marine licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence apply only to a transfer not falling within article 5 (benefit of order) of the Order.

8.—(1) With respect to any condition which requires the licensed activities be carried out in accordance with the details, plans or schemes approved under this deemed marine licence, the approved details, plans or schemes are taken to include any amendments that may subsequently be approved in writing by the MMO.

(2) Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statement and approval of an amendment or variation may only be given where it has been demonstrated to the satisfaction of the MMO that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

9. Should the undertaker become aware that any of the information on which the granting of this deemed marine licence was based was materially false or misleading, the undertaker must notify the MMO of this fact in writing as soon as is reasonably practicable. The undertaker must explain in writing what information was materially false or misleading and must provide to the MMO the correct information.

PART 2

Conditions

Design parameters

Cables and cable protection

1.—(1) Within Work No. 5A the inter-platform cables must not, in total—

- (a) exceed 3 in number;
- (b) exceed 138 kilometres in length;
- (c) exceed 12 cable crossings;
- (d) have cable protection (including cable crossings) exceeding 286,808 square metres in area; or
- (e) have cable protection (including cable crossings) exceeding 260,234 cubic metres in volume.

(2) The inter-platform cables within Work No. 5A which falls within the Dogger Bank Special Area of Conservation must not have cable protection exceeding 10% of the length of such cables, when combined with the offshore export cables, array cables and inter-platform cables authorised by the deemed marine licences granted under Schedules 10 – 13 and 14A of the Order.

Phases of authorised scheme

2.—(1) The authorised scheme must not commence until an offshore works phasing scheme setting out the phases of construction of the authorised scheme has been submitted to and approved in writing by the MMO.

(2) The authorised scheme must be submitted at least 6 months prior to the proposed commencement of the works.

(3) Any subsequent amendments to the offshore works phasing scheme submitted for approval under sub-paragraph (1) must be submitted to the MMO for approval in writing’.

(4) The offshore works phasing scheme submitted for approval under subparagraph (1) must be implemented as approved. The approved details shall be taken to include any amendment that may subsequently be approved by the MMO in accordance with sub-paragraph (3).

Maintenance of the authorised scheme

3.—(1) The undertaker may at any time maintain the authorised scheme, except to the extent that this licence or an agreement made under this licence provides otherwise.

(2) Maintenance works include but are not limited to—

- (a) Bird waste and marine growth removal;
- (b) Surveys/inspections of cables;
- (c) Cable remedial burial;
- (d) Cable protection replenishment;
- (e) Cable repairs and replacement;
- (f) Access ladder and boat landing replacement; and
- (g) J-tube repair/replacement.

(3) Operation of the licensed activities must not commence until an offshore operations and maintenance plan substantially in accordance with the outline offshore operations and maintenance plan has been submitted to and approved in writing by the MMO. The operations and maintenance plan must include, but is not limited to—

- (a) a list of maintenance activities within the marine environment that are planned for the lifetime of the licensed activities;
- (b) details of the typical construction plant, machinery and personnel requirements for each maintenance activity and any requirements for detailed method statements;
- (c) details of the typical frequency and timing of each maintenance activity; and
- (d) details of controls and mitigation that will be in place in order to protect the marine environment.

(4) The offshore operations and maintenance plan must be reviewed every three years commencing from the date on which the plan was approved, unless otherwise agreed by the MMO, to ensure the details of the maintenance activities remain accurate. The conclusions of that review must be submitted to and approved by the MMO in writing.

(5) The offshore operations and maintenance plan must be implemented as approved by the MMO.

(6) Unless otherwise agreed in writing with the MMO, the undertaker must submit—

- (a) the first offshore operations and maintenance plan at least 6 months prior to the operation of the licensed activities;
- (b) any revised offshore operations and maintenance plan submitted in accordance with subparagraph (4) at least 6 months before such revised plan is required to be put in place; and
- (c) where additional maintenance activities are identified that are not included in the approved offshore operations and maintenance plan, or any revised plan approved in accordance with subparagraph (4), an updated offshore operations and maintenance plan including the additional maintenance activities must be submitted to and approved by the MMO in writing as soon as possible after the need for such additional maintenance activities is identified.

Extension of time periods

4. Any time period given in this deemed marine licence to either the undertaker or the MMO may be extended with the agreement of the other party in writing, such agreement not to be unreasonably withheld or delayed.

Notifications and inspections

- 5.—(1) The undertaker must ensure that—
- (a) a copy of this deemed marine licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 13;
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 13; and
 - (b) the undertaker must confirm in writing to the MMO within 28 days of a copy of this deemed marine licence and any subsequent amendments or revisions to it being provided to the persons listed in sub-paragraph (1)(a) that the required information has been provided.
- (2) Only those persons and vessels notified to the MMO in accordance with condition 18 are permitted to carry out the licensed activities.
- (3) Copies of this deemed marine licence must also be available for inspection at the following locations—
- (a) the undertaker's registered address;
 - (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
 - (c) on board each vessel and at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.
- (4) The documents referred to in sub-paragraph (1) must be available for inspection by an authorised enforcement officer at the locations set out in sub-paragraph (3).
- (5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during the construction and operation of the authorised scheme.
- (6) The undertaker must inform the MMO Local Office in writing at least fourteen days prior to the commencement of the licensed activities or any part of them and within five days of the completion of the licensed activity.
- (7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—
- (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data;
 - (b) as soon as reasonably practicable and no later than 24 hours of completion of the DBS East Project offshore works and the DBS West Project offshore works,
- and confirmation of notification must be provided to the MMO within five days.
- (8) The undertaker must ensure that a local notification to mariners is issued at least 14 days prior to the commencement of the authorised scheme or any part thereof advising of the start date of each of Work Nos. 5A and 7A and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.
- (9) The undertaker must ensure that local notifications to mariners are updated and reissued at weekly intervals during construction activities and at least five days before any planned operations (unless otherwise agreed in writing by the MMO) and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme and monitoring plan approved under condition 11(1)(b). Copies of all notices must be provided to the MMO, UKHO and the MCA within five days.

(10) The undertaker must notify UKHO and the MCA of the commencement (within ten days), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical and aeronautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days of the notification.

(11) In case of damage to, or destruction or decay of, the authorised scheme or any part thereof, excluding the exposure of cables, the undertaker must as soon as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify the MMO, the MMO Local Office, MCA, Trinity House, the Kingfisher Information Service of Seafish and UKHO.

(12) In case of the exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners and inform the Kingfisher Information Service of Seafish of the location and extent of exposure. Copies of all notices must be provided to the MMO, MCA, Trinity House, and UKHO within five days.

(13) The undertaker must notify the MMO in writing a minimum of five days in advance of the commencement of each discrete incident of cable repair, replacement, or protection replenishment activity. Such a notification must include proposed timings and a description of proposed methodologies.

(14) The undertaker must ensure that the MMO, the MMO Local Office, local mariners, local fishermen's organisations and the Source Data Receipt Team at the UK Hydrographic Office, Taunton, Somerset, TA1 2DN (sdr@ukho.gov.uk) are notified within five days of completion of each instance of cable repair, replacement or protection replenishment activity.

Aids to navigation

6.—(1) The undertaker must during the whole of the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation, as Trinity House may from time to time direct.

(2) The undertaker must during the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme keep Trinity House and the MMO informed of progress of the authorised scheme including—

- (a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within five days of completion of construction of the authorised scheme.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation in accordance with the frequencies set out in the aids to navigation management plan agreed pursuant to condition 11(1)(f) using the reporting system provided by Trinity House.

(4) The undertaker must during the period from commencement of the licensed activities to completion of decommissioning of the authorised scheme notify Trinity House and the MMO of any failure of the aids to navigation, and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 5(11) or condition 5(12) are invoked, the undertaker must lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Not used

7. NOT USED

Aviation safety

8.—(1) The undertaker must exhibit such lights, with such shape, colour and character as are required in writing by the Air Navigation Order 2016^(a) and determined necessary for aviation safety in consultation with the Defence Infrastructure Organisation Safeguarding and as directed by the Civil Aviation Authority.

(2) The undertaker must notify the Defence Infrastructure Organisation Safeguarding, the Civil Aviation Authority and the MMO, as soon as reasonably practicable and at least 14 days prior to the commencement of the authorised scheme, in writing of the following information—

- (a) the date of the commencement of construction of the authorised scheme;
- (b) the date any wind turbine generators are to be installed;
- (c) the maximum height of any construction equipment or vessels to be used;
- (d) the maximum height of each wind turbine generator to be constructed;
- (e) the latitude and longitude of each wind turbine generator to be constructed;

and the Defence Infrastructure Organisation Safeguarding and the Civil Aviation Authority must be notified of any changes to the information supplied under this paragraph and of the completion of the construction of the authorised scheme. Copies of notifications must be provided to the MMO within 5 days.

Chemicals, drilling and debris

9.—(1) The undertaker must ensure that any coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by the Health and Safety Executive and the Environment Agency Pollution Prevention Control Guidelines.

(2) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must be undertaken so as to prevent releases into the marine environment, including bunding of 110 percent of the total volume of all reservoirs and containers.

(3) The undertaker must inform the MMO in writing of the location and quantities of material disposed of each month under this deemed marine licence by submission of a disposal return by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive and must provide a null return if no activity has taken place during the reporting period.

(4) The undertaker must ensure that only inert material of natural origin, produced during pre-sweeping sandwave clearance where relevant, the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within the Order limits seaward of MHWS.

(5) The undertaker must ensure that any rock material used in the construction of the authorised scheme is from a recognised source, free from contaminants and containing minimal fines.

(6) In the event that any rock material used in the construction of the authorised scheme is misplaced or lost below MHWS, the undertaker must report the loss in writing to the local enforcement office within 24 hours and if the MMO, in consultation with the MCA and Trinity House, reasonably considers such material to constitute a navigation or environmental hazard (dependent on the size and nature of the material) the undertaker must, in that event, demonstrate to the MMO that reasonable attempts have been made to locate, remove or move any such material.

(7) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas must be contained to prevent run off entering the water through the freeing ports.

(8) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 11(1)(d)(i).

(a) S.I. 2016/765.

(9) Debris or dropped objects which are considered a danger or hazard to navigation must be reported as soon as reasonably practicable but no later than six hours from the undertaker becoming aware of an incident, to the relevant HM Coastguard Maritime Rescue Co-ordination Centre by telephone (0344 382 0580), and the UK Hydrographic Office email: navwarnings@btconnect.com.

(10) All dropped objects including those in sub-paragraph (9) must be reported to the MMO using the Dropped Object Procedure Form (including any updated form as provided by the MMO) as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident, unless otherwise agreed in writing by the MMO.

(11) On receipt of notification or the Dropped Object Procedure Form the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the marine environment at the undertaker's expense if reasonable to do so.

Force majeure

10. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

Pre-construction plans and documentation

11.—(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO, in consultation with Trinity House, the MCA, the relevant statutory nature conservation body and UKHO as appropriate—

- (a) A layout plan setting out proposed details of the authorised scheme, including the:
 - (i) proposed layout of all cables;
 - (ii) location and specification of all other aspects of the authorised scheme; and
 - (iii) any exclusion zones or micro-siting requirements identified pursuant to 11(1)(e)(iv) or relating to any habitats of principal importance, Annex I subtidal habitat or surficial deposits of glacial till identified as part of surveys undertaken in accordance with condition 14;to ensure conformity with the description of Work Nos. 5A and 7A and compliance with condition 1;
- (b) a construction programme and monitoring plan (which accords with the in principle monitoring plan) which, save in respect information submitted pursuant to sub-paragraph (b)(iii)(aa), is to be submitted to the MMO at least six months prior to commencement of licensed activities and to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works;
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with conditions 16, 17 and 18 to be submitted to the MMO in accordance with the following (unless otherwise agreed in writing with the MMO)—
 - (aa) at least six months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
 - (bb) at least six months prior to construction, detail on construction monitoring; and
 - (cc) at least six months prior to commissioning, detail of post-construction (and operational) monitoring;

- (iv) an indicative written construction programme for all cables including fibre optic cables comprised in the works at Part 1 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above); and
 - (v) a monitoring plan setting out the circumstances in which monitoring will be required and the monitoring to be carried out in such circumstances;
- (c) a construction method statement (in accordance with the cable statement), including details of—
 - (i) cable burial, specification, installation and monitoring to include—
 - (aa) the technical specification of cables below MHWS;
 - (bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum;
 - (cc) in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House and the MMO in consultation with the statutory nature conservation body) to be taken to ensure existing and future safe navigation is not compromised, including updated nearshore sediment transport modelling and comparison and demonstration against the environmental statement if within the 10m depth contour and/ or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and
 - (dd) proposals for monitoring cables including cable protection until the authorised scheme is decommissioned which includes a risk-based approach to the management of unburied or shallow buried cables;
 - (ii) a scour protection plan (in accordance with the outline scour protection plan) including details of scour protection and cable protection including details of the need, type, sources, quantity and installation methods for scour protection and cable protection, with details updated and resubmitted for approval if changes to it are proposed following cable laying operations;
 - (iii) cable installation methodology, including disposal of material extracted during seabed preparation for cable installation works and having regard to any mitigation scheme pursuant to sub-paragraph (1)(a);
 - (iv) advisory safe passing distances for vessels around the sites where the licensed activities are taking place;
 - (v) contractors;
 - (vi) vessels and vessel transit corridors;
 - (vii) associated ancillary works; and
 - (viii) guard vessels to be employed;
- (d) a project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation to include details of—
 - (i) a marine pollution contingency plan to address the risks, methods and procedures to deal with any spills and collision incidents during construction and operation of the authorised scheme in relation to all activities carried out;
 - (ii) a chemical risk assessment, including information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance and standards;
 - (iii) waste management and disposal arrangements;
 - (iv) the appointment and responsibilities of a fisheries liaison officer;

- (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of commencement of licensed activities pursuant to condition 5 and to address the interaction of the licensed activities with fishing activities;
 - (vi) a code of conduct for vessel operators to reduce risk of injury to mammals; and
 - (vii) procedures, which must be adopted within vessel transit corridors to minimise disturbance to red-throated diver during the period 1 November to 31 March (inclusive), which must be in accordance with the best practice protocol for minimising disturbance to red-throated diver;
- (e) an archaeological written scheme of investigation in relation to the offshore Order limits seaward of MHWS, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body to include—
- (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
 - (v) monitoring of archaeological exclusion zones during and post construction;
 - (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the Archaeological Data Service, by submitting an OASIS ('Online Access to the Index of archaeological investigations') form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO and Historic England that the OASIS form has been submitted to the Archaeological Data Service within two weeks of submission;
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and
 - (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities;
- (f) an aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, the MCA, the Civil Aviation Authority and UKHO specifying how the undertaker will ensure compliance with condition 6 from the commencement of construction of the authorised scheme to the completion of decommissioning; and
- (g) a navigation management plan to manage crew transfer vessels (including daughter craft) during the construction and operation of the authorised scheme;
- (h) a final cable statement (in accordance with the cable statement); and
- (i) a site specific chemical risk assessment, which must be submitted no later than ten weeks prior to use of the relevant chemical, for all chemicals (with the exception of chemicals present on the OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment) that have a pathway to the marine environment used for the marine licensed activities, outside the course of normal navigation, to include—
- (i) the function of the chemical,
 - (ii) the quantities being used and the frequency of use; and
 - (iii) the physical, chemical, and ecotoxicological properties of the chemical.

(2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific outline written scheme of investigation (which must accord with the details set out in the outline written scheme of investigation (offshore)) which has been submitted to and approved by the MMO.

(3) Any sediment removed from within the Dogger Bank Special Area of Conservation during construction of the authorised scheme must be disposed of within that part of the Dogger Bank Special Area of Conservation which falls within the Order limits.

(4) Each programme, statement, plan, protocol or scheme required to be approved under condition 11 must be submitted for approval at least six months before the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(5) The MMO must determine an application for approval made under condition 11 within a period of six months commencing on the date the application is received by the MMO, unless otherwise agreed in writing with the undertaker.

(6) The licensed activities must be carried out in accordance with the programmes, statements, plans, protocols or schemes approved under condition 11 unless otherwise agreed in writing by the MMO.

(7) In sub-paragraphs 11(1)(d)(ii) and 11(1)(i) above—

- (a) “pathway to the marine environment” means open systems or closed systems that require top up;
- (b) “chemicals” comprise both substances and preparations;
- (c) “preparation” means a mixture or solution composed of two or more substances; and
- (d) “substance” means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Offshore safety management

12. Any part of the authorised scheme must not be commenced until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN654 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (or any equivalent guidance that replaces or supersedes it) and its annexes.

Reporting of engaged agents, contractors and vessels

13.—(1) The undertaker must provide the following information in writing to the MMO—

- (a) the name, function, company number (if applicable), registered or head office address (as appropriate) of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) The undertaker must notify the MMO in writing of any vessel being used to carry on any licensed activity listed in this deemed marine licence on behalf of the undertaker. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity. Notification must include the master’s name, vessel type, vessel IMO number and vessel owner or operating company

(3) Any changes to the supplied details must be notified to the MMO in writing at least 24 hours before the agent, contractor or vessel engages in the licensed activities.

Pre-construction monitoring and surveys

14.—(1) The undertaker must, in discharging condition 11(1)(b), submit a monitoring plan or plans in accordance with the in principle monitoring plan for written approval in writing by the MMO in consultation with the relevant statutory nature conservation body, which must contain details of proposed monitoring and surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report.

(2) The survey proposals submitted under sub-paragraph (1) must be in accordance with the principles set out in the in principle monitoring plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The baseline report proposals submitted under sub-paragraph (1) must ensure that the outcome of the agreed surveys, together with existing data and reports, are drawn together to present a valid statement of the pre-construction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

(4) The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, include, but not be limited to, the need to undertake—

- (a) a survey to determine the location, extent and composition of habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works; and
- (b) a swath-bathymetry survey to IHO Order 1a standard that meets the requirements MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works including an appropriate buffer around the location of each work.

(5) The undertaker must carry out the surveys specified within the monitoring plan or plans in accordance with that plan or plans, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

(6) When any surveys are carried out in accordance with sub-paragraph (5) a survey report must be submitted to the MMO following completion of the relevant survey. Any report submitted under this sub-paragraph must be submitted prior to the commencement of licensed activities for the relevant stage.

Construction monitoring and surveys

15.—(1) The undertaker must, in discharging condition 11(1)(b), for each phase of construction submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring and surveys, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) The undertaker must carry out the surveys approved under sub-paragraph (1), and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(3) The undertaker must carry out the surveys specified in the construction monitoring plan in accordance with that plan, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

Post-construction monitoring and surveys

16.—(1) The undertaker must, in discharging condition 11(1)(b), submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of proposed post-construction monitoring and surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results.

(2) The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The post-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed with the MMO, have due regard to, but not be limited to, the need to—

- (a) undertake a survey to determine any change in the location, extent and composition of any habitats of principal importance, Annex I subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey and the construction benthic surveys;
- (b) undertake, within twelve months of completion of the licensed activities, a full sea floor coverage swath-bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables (including fibre optic cables) have been buried or protected; and
- (c) undertake any monitoring required by the SIP submitted in accordance with condition 12.

(4) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the agreed reports to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.

Reporting of scour and cable protection

17.—(1) No more than four months following completion of the construction of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection and scour protection used for the authorised scheme.

(2) The report must include the following information—

- (a) the location of cable protection and scour protection;
- (b) the volume of cable protection and scour protection; and
- (c) any other information relating to the cable protection and scour protection as agreed between the MMO and the undertaker.

(3) Where any cable protection or scour protection is replenished following completion of construction the undertaker must submit an updated report in accordance with sub-paragraph (2) in writing to the MMO and the relevant statutory nature conservation bodies no more than four months following completion of the relevant replenishment being deposited.

Completion of construction

18.—(1) The undertaker must submit a close out report to the MMO, the MCA, Trinity House, UKHO and the relevant statutory nature conservation body within three months of the date of completion of construction. The close out report must confirm the date of completion of

construction and must include details of the latitude and longitude co-ordinates of the export cables, provided as Geographical Information System data referenced to WGS84 datum.

(2) Following completion of construction, no further construction activities can be undertaken under this deemed marine licence.

Collaboration

19.—(1) Where DBSEL intend to submit plans and documentation required to be submitted to the MMO for approval in accordance with conditions 12 and 13, DBSEL must provide a copy of the relevant plans and documentation to DBSWL to enable DBSWL to provide any comments on the plans and documentation to DBSEL.

(2) The plans and documentation submitted to the MMO for approval in accordance with conditions 12 and 13 must be accompanied by any comments received by the undertaker from DBSWL in accordance with sub-paragraph (1) or a statement from the undertaker confirming that no such comments were received.

Maintenance reporting

20.—(1) An annual maintenance report must be submitted to the MMO in writing within one month following the first anniversary of the date of commencement of operations, and every year thereafter until the permanent cessation of operation.

(2) The report must provide a record of the licensed activities undertaken as set out in condition 3 during the preceding year, the timing of activities and methodologies used.

(3) Every fifth year, the undertaker must submit to the MMO in writing, within one month of that date, a consolidated maintenance report, which will—

- (a) include a review of licensed activities undertaken during the preceding five years with reference to the reports submitted in accordance with condition 20 (1) of this licence.
- (b) reconfirm the applicability of the methodologies and frequencies of the licensable activities permitted by this licence for the remaining duration of this licence.

Sediment Sampling

21.—(1) The undertaker must submit a sample plan request in writing to the MMO for written approval of a sample plan.

(2) The sample plan request must be made—

- (a) for capital dredging, at least six months prior to the commencement of any capital dredging; or
- (b) for maintenance dredging, at least six months prior to the end of every third year from the date of the previous sediment sample analysis.

(3) The sample plan request must include details of—

- (a) the volume of material to be dredged;
- (b) the location of the area to be dredged;
- (c) details of the material type proposed for dredging;
- (d) the type and dredging methodology (including whether it is a capital or maintenance dredge, depth of material to be dredged and proposed programme for the dredging activities); and
- (e) the location and depth of any supporting samples.

(4) Unless otherwise agreed by the MMO, the undertaker must undertake the sampling in accordance with the approved sample plan.

Notification of works

22.—(1) The licensed activities or any phase of those activities must not be commenced until notification has been submitted to the MMO by the undertaker as to whether DBSWL intends to commence development of Work Nos. 5B and 7B.

(2) If the notification submitted under sub-paragraph (1) gives notice that DBSWL does intend to commence development of Work Nos. 5B and 7B, the undertaker must not commence any of the licensed activities.

SCHEDULE 14A

Article 35

Deemed Marine Licence 6: DBS West Project Offshore Transmission – Work Nos. 5B and 7B

PART 1

Licensed marine activities

Interpretation

1.—(1) In this deemed marine licence—

“the 2004 Act” means the Energy Act 2004;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“the 2017 Regulations” means the Conservation of Offshore Marine Habitats and Species Regulations 2017;

“Annex I subtidal habitat” means a subtidal habitat of a type listed in Annex I to Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora;

“array cable” means a cable linking the wind turbine generators to each other and to the offshore converter platforms;

“authorised deposits” means the substances and articles specified in paragraph 4 of Part 1 of this deemed marine licence;

“authorised scheme” means Work No. 5B and 7B and the further associated development described in paragraph 3 of Part 1 of this deemed marine licence or any part of that work or development;

“buoy” means any floating device used for navigational purposes or measurement purposes including LiDAR buoys, wave buoys and guard buoys;

“cable” means any offshore cable and includes direct-lay cables and cables laid in cable ducts and further includes fibre optic and other communications cables either within the cable or laid alongside;

“cable crossing” means the crossing of existing subsea cables and pipelines by the array, inter-platform or export cables authorised by the Order and forming part of the authorised scheme together with physical protection measures including cable protection;

“cable protection” means measures to protect cables forming part of the authorised scheme from physical damage and exposure due to loss of seabed sediment including, but not limited to, rock placement, concrete mattresses with or without frond devices, protective aprons or coverings, bagged solutions filled with sand, rock, grout or other materials and protective shells;

“cable statement” means the document certified by the Secretary of State as the cable statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“commence” means the first carrying out of any licensed marine activities authorised by this deemed marine licence, save for pre-construction monitoring surveys approved under this deemed marine licence, and “commenced” and “commencement” must be construed accordingly;

“condition” means a condition in Part 2 of this licence;

“DBSEL” means RWE Renewables UK Dogger Bank South (East) Limited, company number 13656240, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“DBS East” means the Dogger Bank South East Offshore Wind Farm;

“DBS East Project” means the DBS East Project offshore works and the DBS East Project onshore works;

“DBS East Project offshore works” means Work Nos. 1A to 8A and any other authorised development associated with those works;

“DBS East Project onshore works” means Work Nos. 9A to 34A and any other authorised development associated with those works;

“DBS West offshore works” means Work Nos. 1B to 8B and any authorised development associated with those works;

“DBS West Project” means the DBS West Project onshore works and the DBS West Project offshore works;

“DBS West Project onshore works” means Work Nos. 9B to 34B and any other authorised development associated with those works;

“DBSWL” means RWE Renewables UK Dogger Bank South (West) Limited, company number 13656525, whose registered office is Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, England, SN5 6PB;

“Defence Infrastructure Organisation Safeguarding” means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands, B75 7RL and any successor body to its functions;

“disposal ground 1 (DBS East)” means the site to be used for disposal of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and cable sandwave clearance for the DBS East Project offshore works as shown on the Disposal Site Plan and with MMO disposal site reference DG036;

“disposal ground 2 (DBS West)” means the site to be used for disposal of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and cable sandwave clearance for the DBS West offshore works as shown on the Disposal Site Plan and with MMO disposal site reference DG035;

“Disposal Site Plan” means the plan certified by the Secretary of State as the Disposal Site Plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Dropped Object Procedure Form” means the MMO notification proforma with reference MLDIR1 for reporting the loss or dumping of synthetic materials and other refuse at sea or any other format advised in writing by the MMO;

“environmental statement” means the document certified by the Secretary of State as the environmental statement for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“habitats of principal importance” means a habitat designated as being of principal importance in accordance with section 41 (biodiversity lists and action (England)) of the Natural Environment and Rural Communities Act 2006;

“HAT” means highest astronomical tide;

“HVAC” means high voltage alternating current;

“in principle monitoring plan” means the document certified by the Secretary of State as the in principle monitoring plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“inter-platform cable” means a cable linking the offshore converter platforms;

“intrusive activities” means activities including anchoring of vessels, jacking up of vessels, and temporary wet storage areas;

“JNCC Guidance” means the statutory nature conservation body ‘Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs’ Joint Nature Conservation Committee Report No.654, May 2020 published in June 2020 as amended, updated or superseded from time to time;

“maintain” includes inspect, upkeep, repair, adjust, alter, remove, reconstruct and replace (including replenishment of cable protection), but does not include the removal, reconstruction or replacement of foundations associated with the authorised scheme, to the extent assessed in the environmental statement; and “maintenance” must be construed accordingly;

“Marine Management Organisation” means the body created under the 2009 Act which is responsible for the regulation of this deemed marine licence or any successor of that function and “MMO” shall be construed accordingly;

“MCA” means the Maritime and Coastguard Agency, the executive agency of the Department for Transport;

“MCMS” means the Marine Case Management System web portal provided and operated by the MMO;

“MHWS” or “mean high water springs” means the average throughout the year of two successive high waters during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides);

“MLWS” or “mean low water springs” means the lowest level that spring tides reach on average over a period of time;

“offshore order limits and grid coordinates plan” means the plan certified by the Secretary of State as the offshore order limits and grid coordinates plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Order” means The Dogger Bank South East and West Offshore Wind Farms Order 20[];

“Order limits” means the limits shown on the offshore order limits and grid coordinates plans within which the authorised scheme may be carried out and the grid coordinates for Work Nos. 8A and 8B are set out in paragraph 5 of Part 1 of this deemed marine licence;

“outline fisheries liaison and co-existence plan” means the document certified by the Secretary of State as the outline fisheries liaison and co-existence plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline offshore operations and maintenance plan” means the document certified by the Secretary of State as the outline offshore operations and maintenance plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline project environmental management plan” means the document certified by the Secretary of State as the outline project environmental management plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline scour protection plan” means the document certified by the Secretary of State as the outline scour protection plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline written scheme of investigation (offshore)” means the document certified by the Secretary of State as the outline written scheme of investigation (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“scour protection” means measures to prevent loss of seabed sediment around any structure placed in or on the seabed including by the use of bagged solutions, filled with grout or other materials, protective aprons, mattresses with or without frond devices, flow energy dissipation devices and rock and gravel placement;

“statutory historic body” means Historic England or its successor in function;

“statutory nature conservation body” means a statutory nature conservation body, being the appropriate nature conservation body as defined in Regulation 5 of the Conservation of Habitats and Species Regulations 2017^(a) or its equivalent in the Conservation of Offshore Marine Habitats and Species Regulations 2017^(b);

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“UKHO” means the United Kingdom Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

“undertaker” means DBSWL;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“VHF” means very high frequency;

“wind turbine generator” means a structure comprising a tower, a rotor with three blades connected at the hub, a nacelle and ancillary electrical and other equipment which may include J-tubes, transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation;

“works plans” means the works plans (offshore) and the works plans (onshore);

“works plans (offshore)” means the plans certified by the Secretary of State as the works plans (offshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified); and

“works plans (onshore)” means the plans certified by the Secretary of State as the works plans (onshore) for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified).

(2) In this deemed marine licence, a reference to any statute, order, regulation or similar instrument is a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) In this deemed marine licence, unless otherwise indicated—

(a) all times are Greenwich Mean Time (“GMT”);

(b) all coordinates are latitude and longitude degrees and minutes to two decimal places.

(4) Unless otherwise stated or agreed with the MMO, all submissions, notifications and communications must be sent by the undertaker to the MMO using MCMS. Except where otherwise notified in writing by the relevant organisation, the addresses for correspondence for the purposes of this deemed marine licence are—

(a) Historic England
37 Tanner Road

(a) S.I 2017/1012

(b) S.I 2017/1013

- York
YO1 6WP
- (b) Marine Management Organisation
Marine Licensing Team
Lancaster House
Hampshire Court
Newcastle upon Tyne
NE4 7YH
Tel: 0300 123 1032
- (c) Marine Management Organisation (local office)
Room 13, Ground Floor
Crosskill House
Mill Lane
Beverley
HU17 9JB
Tel: 0208 026 0519
- (d) Maritime and Coastguard Agency
UK Technical Services Navigation
Spring Place
105 Commercial Road
Southampton
SO15 1EG
Tel: 020 3817 2433
Email: navigationsafety@mcga.gov.uk
- (e) Natural England
4th Floor
Foss House
1-2 Peasholme Green
York
YO1 7PX
Tel: 0300 060 4911
- (f) Trinity House
Tower Hill
London
EC3N 4DH
Tel: 020 7481 6900
- (g) United Kingdom Hydrographic Office
Admiralty Way
Taunton
Somerset
TA1 2DN
Tel: 01823 337 900

(5) Unless otherwise advised in writing by the MMO, the address for electronic communication with the MMO for the purposes of this licence is marine.consent@marinemangement.co.uk, or where contact to the Local Office of the MMO is required, beverley@marinemangement.org.uk.

Details of licensed marine activities

2. Subject to the conditions this deemed marine licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea within the Order limits seaward of MHWS of the substances and objects specified in paragraph 4 below and, when combined with the disposal authorised within disposal ground 1 (DBS East) by the deemed marine licences granted under Schedules 10, 12 and 14 of the Order, of up to 4,242,327 cubic metres (being a maximum, not an approximate upper figure) of inert material of natural origin produced during construction drilling or seabed preparation for foundation works, cable works and boulder clearance works at disposal site references to be provided to the MMO within disposal ground 1 (DBS East) and any other disposal sites approved in writing by the MMO;
- (b) the deposit at sea within the Order limits seaward of MHWS of the substances and objects specified in paragraph 4 below and, when combined with the disposal authorised within disposal ground 2 (DBS West) by the deemed marine licences granted under Schedules 11, 13 and 14 of the Order, of up to 2,258,194 cubic metres (being a maximum, not an approximate upper figure) of inert material of natural origin produced during construction drilling or seabed preparation for foundation works, cable works and boulder clearance works at disposal site references to be provided to the MMO within disposal ground 2 (DBS West);
- (c) the construction of works in or over the sea or on or under the sea bed;
- (d) dredging for the purposes of seabed preparation for foundation works or cable works;
- (e) the removal of sediment samples for the purposes of informing environmental monitoring under this deemed marine licence during pre-construction, construction and operation;
- (f) boulder clearance works by displacement ploughing or subsea grab technique or any other comparable method;
- (g) removal of static fishing equipment; and
- (h) site preparation works.

3. Such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 5B—

Up to three HVAC subsea export cables linking Work Nos. 2A and 2B providing an electrical connection between Work Nos. 1A and 1B, including cable crossings and cable protection;

Work No. 7B—

A temporary work area associated with Work Nos. 1B to 5B for vessels to carry out intrusive activities and non-intrusive activities alongside Work Nos. 1B to 5B;

In connection with such Work Nos. 5B and 7B and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence, including—

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 5B and 7B and the disposal of inert material of natural origin within the Order limits

produced during construction drilling, seabed preparation for foundation works, cable installation preparation such as sandwave clearance, and boulder clearance;

- (d) removal of static fishing equipment;
- (e) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised scheme;
- (f) creation and use of temporary laydown areas, use of cable lay vessel anchors;
- (g) lighting.

4. The substances and objects authorised for deposit at sea are—

- (a) iron, steel, copper and aluminium;
- (b) stone and rock;
- (c) concrete and grout;
- (d) sand and gravel;
- (e) cement bound sand;
- (f) natural soils;
- (g) plastic and synthetic material;
- (h) drilling fluid;
- (i) material extracted from within the Order limits during construction drilling or seabed preparation for foundation works and cable installation preparation works;
- (j) weights used for the calibration of vessels, consisting of a hessian sack, metal shackles or chains; and
- (k) marine coatings, other chemicals and timber.

5. The grid coordinates for that part of the authorised scheme comprising Work Nos. 5B and 7B are specified below—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	54° 33.7017' N	1° 20.55955' E
2	54° 33.84869' N	1° 20.16118' E
3	54° 34.09052' N	1° 19.9387' E
4	54° 42.68808' N	1° 19.11958' E
5	54° 42.89576' N	1° 19.19192' E
6	54° 43.00532' N	1° 19.2987' E
7	54° 43.10223' N	1° 19.45603' E
8	54° 44.18515' N	1° 21.7125' E
9	54° 44.28093' N	1° 22.03856' E
10	54° 44.30046' N	1° 22.32068' E
11	54° 44.26468' N	1° 22.62418' E
12	54° 39.02878' N	1° 44.92686' E
13	54° 38.84907' N	1° 45.31024' E
14	54° 38.57165' N	1° 45.4825' E
15	54° 34.74598' N	1° 58.90264' E
16	54° 34.77086' N	1° 59.72884' E
17	54° 34.67215' N	2° 0.18106' E
18	54° 34.47546' N	2° 0.46972' E
19	54° 24.47523' N	2° 8.98399' E
20	54° 24.09368' N	2° 8.92387' E
21	54° 23.82918' N	2° 8.43359' E
22	54° 21.08378' N	1° 54.2778' E

23	54° 21.0601' N	1° 53.90188' E
24	54° 21.14588' N	1° 53.48645' E
25	54° 21.33732' N	1° 53.18358' E
26	54° 29.82331' N	1° 45.86969' E
27	54° 30.75742' N	1° 40.25123' E
28	54° 31.81809' N	1° 33.61066' E
29	54° 31.68029' N	1° 33.16936' E
30	54° 31.68491' N	1° 32.6914' E

6. This deemed marine licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108, and the completion of such programme has been confirmed by the Secretary of State in writing.

7. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this deemed marine licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence apply only to a transfer not falling within article 5 (benefit of order) of the Order.

8.—(1) With respect to any condition which requires the licensed activities be carried out in accordance with the details, plans or schemes approved under this deemed marine licence, the approved details, plans or schemes are taken to include any amendments that may subsequently be approved in writing by the MMO.

(2) Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statement and approval of an amendment or variation may only be given where it has been demonstrated to the satisfaction of the MMO that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

9. Should the undertaker become aware that any of the information on which the granting of this deemed marine licence was based was materially false or misleading, the undertaker must notify the MMO of this fact in writing as soon as is reasonably practicable. The undertaker must explain in writing what information was materially false or misleading and must provide to the MMO the correct information.

PART 2

Conditions

Design parameters

Cables and cable protection

1.—(1) Within Work No. 5B the inter-platform cables must not, in total—

- (a) exceed 3 in number;
- (b) exceed 138 kilometres in length;
- (c) exceed 12 cable crossings;
- (d) have cable protection (including cable crossings) exceeding 286,808 square metres in area; or
- (e) have cable protection (including cable crossings) exceeding 260,234 cubic metres in volume.

(2) The inter-platform cables within Work No. 5B which falls within the Dogger Bank Special Area of Conservation must not have cable protection exceeding 10% of the length of such cables,

when combined with the offshore export cables, array cables and inter-platform cables authorised by the deemed marine licences granted under Schedules 11 – 14A of the Order.

Phases of authorised scheme

2.—(1) The authorised scheme must not commence until an offshore works phasing scheme setting out the phases of construction of the authorised scheme has been submitted to and approved in writing by the MMO.

(2) The authorised scheme must be submitted at least 6 months prior to the proposed commencement of the works.

(3) Any subsequent amendments to the offshore works phasing scheme submitted for approval under sub-paragraph (1) must be submitted to the MMO for approval in writing’.

(4) The offshore works phasing scheme submitted for approval under subparagraph (1) must be implemented as approved. The approved details shall be taken to include any amendment that may subsequently be approved by the MMO in accordance with sub-paragraph (3).

Maintenance of the authorised scheme

3.—(1) The undertaker may at any time maintain the authorised scheme, except to the extent that this licence or an agreement made under this licence provides otherwise.

(2) Maintenance works include but are not limited to—

- (a) Bird waste and marine growth removal;
- (b) Surveys/inspections of cables;
- (c) Cable remedial burial;
- (d) Cable protection replenishment;
- (e) Cable repairs and replacement;
- (f) Access ladder and boat landing replacement; and
- (g) J-tube repair/replacement.

(3) Operation of the licensed activities must not commence until an offshore operations and maintenance plan substantially in accordance with the outline offshore operations and maintenance plan has been submitted to and approved in writing by the MMO. The operations and maintenance plan must include, but is not limited to—

- (a) a list of maintenance activities within the marine environment that are planned for the lifetime of the licensed activities;
- (b) details of the typical construction plant, machinery and personnel requirements for each maintenance activity and any requirements for detailed method statements;
- (c) details of the typical frequency and timing of each maintenance activity; and
- (d) details of controls and mitigation that will be in place in order to protect the marine environment.

(4) The offshore operations and maintenance plan must be reviewed every three years commencing from the date on which the plan was approved, unless otherwise agreed by the MMO, to ensure the details of the maintenance activities remain accurate. The conclusions of that review must be submitted to and approved by the MMO in writing.

(5) The offshore operations and maintenance plan must be implemented as approved by the MMO.

(6) Unless otherwise agreed in writing with the MMO, the undertaker must submit—

- (a) the first offshore operations and maintenance plan at least 6 months prior to the operation of the licensed activities;
- (b) any revised offshore operations and maintenance plan submitted in accordance with subparagraph (4) at least 6 months before such revised plan is required to be put in place; and

- (c) where additional maintenance activities are identified that are not included in the approved offshore operations and maintenance plan, or any revised plan approved in accordance with sub-paragraph (4), an updated offshore operations and maintenance plan including the additional maintenance activities must be submitted to and approved by the MMO in writing as soon as possible after the need for such additional maintenance activities is identified.

Extension of time periods

4. Any time period given in this deemed marine licence to either the undertaker or the MMO may be extended with the agreement of the other party in writing, such agreement not to be unreasonably withheld or delayed.

Notifications and inspections

5.—(1) The undertaker must ensure that—

- (a) a copy of this deemed marine licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 13;
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 13; and
- (b) the undertaker must confirm in writing to the MMO within 28 days of a copy of this deemed marine licence and any subsequent amendments or revisions to it being provided to the persons listed in sub-paragraph (1)(a) that the required information has been provided.

(2) Only those persons and vessels notified to the MMO in accordance with condition 18 are permitted to carry out the licensed activities.

(3) Copies of this deemed marine licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
- (c) on board each vessel and at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.

(4) The documents referred to in sub-paragraph (1) must be available for inspection by an authorised enforcement officer at the locations set out in sub-paragraph (3).

(5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during the construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Local Office in writing at least fourteen days prior to the commencement of the licensed activities or any part of them and within five days of the completion of the licensed activity.

(7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—

- (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data;
- (b) as soon as reasonably practicable and no later than 24 hours of completion of the DBS East Project offshore works and the DBS West Project offshore works,

and confirmation of notification must be provided to the MMO within five days.

(8) The undertaker must ensure that a local notification to mariners is issued at least 14 days prior to the commencement of the authorised scheme or any part thereof advising of the start date of each of Work Nos. 5B and 7B and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(9) The undertaker must ensure that local notifications to mariners are updated and reissued at weekly intervals during construction activities and at least five days before any planned operations (unless otherwise agreed in writing by the MMO) and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme and monitoring plan approved under condition 11(1)(b). Copies of all notices must be provided to the MMO, UKHO and the MCA within five days.

(10) The undertaker must notify UKHO and the MCA of the commencement (within ten days), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical and aeronautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days of the notification.

(11) In case of damage to, or destruction or decay of, the authorised scheme or any part thereof, excluding the exposure of cables, the undertaker must as soon as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify the MMO, the MMO Local Office, MCA, Trinity House, the Kingfisher Information Service of Seafish and UKHO.

(12) In case of the exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners and inform the Kingfisher Information Service of Seafish of the location and extent of exposure. Copies of all notices must be provided to the MMO, MCA, Trinity House, and UKHO within five days.

(13) The undertaker must notify the MMO in writing a minimum of five days in advance of the commencement of each discrete incident of cable repair, replacement, or protection replenishment activity. Such a notification must include proposed timings and a description of proposed methodologies.

(14) The undertaker must ensure that the MMO, the MMO Local Office, local mariners, local fishermen's organisations and the Source Data Receipt Team at the UK Hydrographic Office, Taunton, Somerset, TA1 2DN (sdr@ukho.gov.uk) are notified within five days of completion of each instance of cable repair, replacement or protection replenishment activity.

Aids to navigation

6.—(1) The undertaker must during the whole of the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation, as Trinity House may from time to time direct.

(2) The undertaker must during the period from commencement of construction of the authorised scheme to completion of decommissioning of the authorised scheme keep Trinity House and the MMO informed of progress of the authorised scheme including—

- (a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within five days of completion of construction of the authorised scheme.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation in accordance with the frequencies set out in the aids to navigation management plan agreed pursuant to condition 11(1)(f) using the reporting system provided by Trinity House.

(4) The undertaker must during the period from commencement of the licensed activities to completion of decommissioning of the authorised scheme notify Trinity House and the MMO of any failure of the aids to navigation, and the timescales and plans for remedying such failures, as

soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 5(11) or condition 5(12) are invoked, the undertaker must lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Not used

7. NOT USED

Aviation safety

8.—(1) The undertaker must exhibit such lights, with such shape, colour and character as are required in writing by the Air Navigation Order 2016^(a) and determined necessary for aviation safety in consultation with the Defence Infrastructure Organisation Safeguarding and as directed by the Civil Aviation Authority.

(2) The undertaker must notify the Defence Infrastructure Organisation Safeguarding, the Civil Aviation Authority and the MMO, as soon as reasonably practicable and at least 14 days prior to the commencement of the authorised scheme, in writing of the following information—

- (a) the date of the commencement of construction of the authorised scheme;
- (b) the date any wind turbine generators are to be installed;
- (c) the maximum height of any construction equipment or vessels to be used;
- (d) the maximum height of each wind turbine generator to be constructed;
- (e) the latitude and longitude of each wind turbine generator to be constructed;

and the Defence Infrastructure Organisation Safeguarding and the Civil Aviation Authority must be notified of any changes to the information supplied under this paragraph and of the completion of the construction of the authorised scheme. Copies of notifications must be provided to the MMO within 5 days.

Chemicals, drilling and debris

9.—(1) The undertaker must ensure that any coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by the Health and Safety Executive and the Environment Agency Pollution Prevention Control Guidelines.

(2) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must be undertaken so as to prevent releases into the marine environment, including bunding of 110 percent of the total volume of all reservoirs and containers.

(3) The undertaker must inform the MMO in writing of the location and quantities of material disposed of each month under this deemed marine licence by submission of a disposal return by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive and must provide a null return if no activity has taken place during the reporting period.

(4) The undertaker must ensure that only inert material of natural origin, produced during pre-sweeping sandwave clearance where relevant, the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within the Order limits seaward of MHWS.

(5) The undertaker must ensure that any rock material used in the construction of the authorised scheme is from a recognised source, free from contaminants and containing minimal fines.

(6) In the event that any rock material used in the construction of the authorised scheme is misplaced or lost below MHWS, the undertaker must report the loss in writing to the local enforcement office within 24 hours and if the MMO, in consultation with the MCA and Trinity

(a) S.I. 2016/765

House, reasonably considers such material to constitute a navigation or environmental hazard (dependent on the size and nature of the material) the undertaker must, in that event, demonstrate to the MMO that reasonable attempts have been made to locate, remove or move any such material.

(7) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas must be contained to prevent run off entering the water through the freeing ports.

(8) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 11(1)(d)(i).

(9) Debris or dropped objects which are considered a danger or hazard to navigation must be reported as soon as reasonably practicable but no later than six hours from the undertaker becoming aware of an incident, to the relevant HM Coastguard Maritime Rescue Co-ordination Centre by telephone (0344 382 0580), and the UK Hydrographic Office email: navwarnings@btconnect.com.

(10) All dropped objects including those in sub-paragraph (9) must be reported to the MMO using the Dropped Object Procedure Form (including any updated form as provided by the MMO) as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident, unless otherwise agreed in writing by the MMO.

(11) On receipt of notification or the Dropped Object Procedure Form the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the marine environment at the undertaker's expense if reasonable to do so.

Force majeure

10. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

Pre-construction plans and documentation

11.—(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO, in consultation with Trinity House, the MCA, the relevant statutory nature conservation body and UKHO as appropriate—

- (a) A layout plan setting out proposed details of the authorised scheme, including the:
 - (i) proposed layout of all cables;
 - (ii) location and specification of all other aspects of the authorised scheme; and
 - (iii) any exclusion zones or micro-siting requirements identified pursuant to 11(1)(e)(iv) or relating to any habitats of principal importance, Annex I subtidal habitat or surficial deposits of glacial till identified as part of surveys undertaken in accordance with condition 14;to ensure conformity with the description of Work Nos. 5B and 7B and compliance with condition 1;
- (b) a construction programme and monitoring plan (which accords with the in principle monitoring plan) which, save in respect information submitted pursuant to sub-paragraph (b)(iii)(aa), is to be submitted to the MMO at least six months prior to commencement of licensed activities and to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works;

- (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with conditions 16, 17 and 18 to be submitted to the MMO in accordance with the following (unless otherwise agreed in writing with the MMO)—
 - (aa) at least six months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
 - (bb) at least six months prior to construction, detail on construction monitoring; and
 - (cc) at least six months prior to commissioning, detail of post-construction (and operational) monitoring;
- (iv) an indicative written construction programme for all cables including fibre optic cables comprised in the works at Part 1 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above); and
- (v) a monitoring plan setting out the circumstances in which monitoring will be required and the monitoring to be carried out in such circumstances;
- (c) a construction method statement (in accordance with the cable statement), including details of—
 - (i) cable burial, specification, installation and monitoring to include—
 - (aa) the technical specification of cables below MHWS;
 - (bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum;
 - (cc) in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House and the MMO in consultation with the statutory nature conservation body) to be taken to ensure existing and future safe navigation is not compromised, including updated nearshore sediment transport modelling and comparison and demonstration against the environmental statement if within the 10m depth contour and/ or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and
 - (dd) proposals for monitoring cables including cable protection until the authorised scheme is decommissioned which includes a risk-based approach to the management of unburied or shallow buried cables;
 - (ii) a scour protection plan (in accordance with the outline scour protection plan) including details of scour protection and cable protection including details of the need, type, sources, quantity and installation methods for scour protection and cable protection, with details updated and resubmitted for approval if changes to it are proposed following cable laying operations;
 - (iii) cable installation methodology, including disposal of material extracted during seabed preparation for cable installation works and having regard to any mitigation scheme pursuant to sub-paragraph (1)(a);
 - (iv) advisory safe passing distances for vessels around the sites where the licensed activities are taking place;
 - (v) contractors;
 - (vi) vessels and vessel transit corridors;
 - (vii) associated ancillary works; and
 - (viii) guard vessels to be employed;

- (d) a project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation to include details of—
 - (i) a marine pollution contingency plan to address the risks, methods and procedures to deal with any spills and collision incidents during construction and operation of the authorised scheme in relation to all activities carried out;
 - (ii) a chemical risk assessment, including information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance and standards;
 - (iii) waste management and disposal arrangements;
 - (iv) the appointment and responsibilities of a fisheries liaison officer;
 - (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of commencement of licensed activities pursuant to condition 5 and to address the interaction of the licensed activities with fishing activities;
 - (vi) a code of conduct for vessel operators to reduce risk of injury to mammals; and
 - (vii) procedures, which must be adopted within vessel transit corridors to minimise disturbance to red-throated diver during the period 1 November to 31 March (inclusive), which must be in accordance with the best practice protocol for minimising disturbance to red-throated diver;
- (e) an archaeological written scheme of investigation in relation to the offshore Order limits seaward of MHWS, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body to include—
 - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
 - (v) monitoring of archaeological exclusion zones during and post construction;
 - (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the Archaeological Data Service, by submitting an OASIS ('Online Access to the Index of archaeological investigations') form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO and Historic England that the OASIS form has been submitted to the Archaeological Data Service within two weeks of submission;
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and
 - (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities;
- (f) an aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, the MCA, the Civil Aviation Authority and UKHO specifying how the undertaker will ensure compliance with condition 6 from the commencement of construction of the authorised scheme to the completion of decommissioning; and

- (g) a navigation management plan to manage crew transfer vessels (including daughter craft) during the construction and operation of the authorised scheme;
- (h) a final cable statement (in accordance with the cable statement); and
- (i) a site specific chemical risk assessment, which must be submitted no later than ten weeks prior to use of the relevant chemical, for all chemicals (with the exception of chemicals present on the OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment) that have a pathway to the marine environment used for the marine licensed activities, outside the course of normal navigation, to include—
 - (i) the function of the chemical,
 - (ii) the quantities being used and the frequency of use; and
 - (iii) the physical, chemical, and ecotoxicological properties of the chemical.

(2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific outline written scheme of investigation (which must accord with the details set out in the outline written scheme of investigation (offshore)) which has been submitted to and approved by the MMO.

(3) Any sediment removed from within the Dogger Bank Special Area of Conservation during construction of the authorised scheme must be disposed of within that part of the Dogger Bank Special Area of Conservation which falls within the Order limits.

(4) Each programme, statement, plan, protocol or scheme required to be approved under condition 11 must be submitted for approval at least six months before the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(5) The MMO must determine an application for approval made under condition 11 within a period of six months commencing on the date the application is received by the MMO, unless otherwise agreed in writing with the undertaker.

(6) The licensed activities must be carried out in accordance with the programmes, statements, plans, protocols or schemes approved under condition 11 unless otherwise agreed in writing by the MMO.

(7) In sub-paragraphs 11(1)(d)(ii) and 11(1)(i) above—

- (a) “pathway to the marine environment” means open systems or closed systems that require top up;
- (b) “chemicals” comprise both substances and preparations;
- (c) “preparation” means a mixture or solution composed of two or more substances; and
- (d) “substance” means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Offshore safety management

12. Any part of the authorised scheme must not be commenced until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN654 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (or any equivalent guidance that replaces or supersedes it) and its annexes.

Reporting of engaged agents, contractors and vessels

13.—(1) The undertaker must provide the following information in writing to the MMO—

- (a) the name, function, company number (if applicable), registered or head office address (as appropriate) of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
 - (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.
- (2) The undertaker must notify the MMO in writing of any vessel being used to carry on any licensed activity listed in this deemed marine licence on behalf of the undertaker. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity. Notification must include the master's name, vessel type, vessel IMO number and vessel owner or operating company
- (3) Any changes to the supplied details must be notified to the MMO in writing at least 24 hours before the agent, contractor or vessel engages in the licensed activities.

Pre-construction monitoring and surveys

14.—(1) The undertaker must, in discharging condition 11(1)(b), submit a monitoring plan or plans in accordance with the in principle monitoring plan for written approval in writing by the MMO in consultation with the relevant statutory nature conservation body, which must contain details of proposed monitoring and surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report.

(2) The survey proposals submitted under sub-paragraph (1) must be in accordance with the principles set out in the in principle monitoring plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The baseline report proposals submitted under sub-paragraph (1) must ensure that the outcome of the agreed surveys, together with existing data and reports, are drawn together to present a valid statement of the pre-construction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

(4) The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, include, but not be limited to, the need to undertake—

- (a) a survey to determine the location, extent and composition of habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works; and
- (b) a swath-bathymetry survey to IHO Order 1a standard that meets the requirements MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works including an appropriate buffer around the location of each work.

(5) The undertaker must carry out the surveys specified within the monitoring plan or plans in accordance with that plan or plans, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

(6) When any surveys are carried out in accordance with sub-paragraph (5) a survey report must be submitted to the MMO following completion of the relevant survey. Any report submitted under this sub-paragraph must be submitted prior to the commencement of licensed activities for the relevant stage.

Construction monitoring and surveys

15.—(1) The undertaker must, in discharging condition 11(1)(b), for each phase of construction submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring and surveys, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives

and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) The undertaker must carry out the surveys approved under sub-paragraph (1), and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(3) The undertaker must carry out the surveys specified in the construction monitoring plan in accordance with that plan, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

Post-construction monitoring and surveys

16.—(1) The undertaker must, in discharging condition 11(1)(b), submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of proposed post-construction monitoring and surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results.

(2) The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(3) The post-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed with the MMO, have due regard to, but not be limited to, the need to—

- (a) undertake a survey to determine any change in the location, extent and composition of any habitats of principal importance, Annex I subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey and the construction benthic surveys;
- (b) undertake, within twelve months of completion of the licensed activities, a full sea floor coverage swath-bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables (including fibre optic cables) have been buried or protected; and
- (c) undertake any monitoring required by the SIP submitted in accordance with condition 12.

(4) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the agreed reports to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.

Reporting of scour and cable protection

17.—(1) No more than four months following completion of the construction of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection and scour protection used for the authorised scheme.

(2) The report must include the following information—

- (a) the location of cable protection and scour protection;
- (b) the volume of cable protection and scour protection; and

- (c) any other information relating to the cable protection and scour protection as agreed between the MMO and the undertaker.

(3) Where any cable protection or scour protection is replenished following completion of construction the undertaker must submit an updated report in accordance with sub-paragraph (2) in writing to the MMO and the relevant statutory nature conservation bodies no more than four months following completion of the relevant replenishment being deposited.

Completion of construction

18.—(1) The undertaker must submit a close out report to the MMO, the MCA, Trinity House, UKHO and the relevant statutory nature conservation body within three months of the date of completion of construction. The close out report must confirm the date of completion of construction and must include details of the latitude and longitude co-ordinates of the export cables, provided as Geographical Information System data referenced to WGS84 datum.

(2) Following completion of construction, no further construction activities can be undertaken under this deemed marine licence.

Collaboration

19.—(1) Where DBSWL intend to submit plans and documentation required to be submitted to the MMO for approval in accordance with conditions 12 and 13, DBSWL must provide a copy of the relevant plans and documentation to DBSEL to enable DBSEL to provide any comments on the plans and documentation to DBSWL.

(2) The plans and documentation submitted to the MMO for approval in accordance with conditions 12 and 13 must be accompanied by any comments received by the undertaker from DBSEL in accordance with sub-paragraph (1) or a statement from the undertaker confirming that no such comments were received.

Maintenance reporting

20.—(1) An annual maintenance report must be submitted to the MMO in writing within one month following the first anniversary of the date of commencement of operations, and every year thereafter until the permanent cessation of operation.

(2) The report must provide a record of the licensed activities undertaken as set out in condition 3 during the preceding year, the timing of activities and methodologies used.

(3) Every fifth year, the undertaker must submit to the MMO in writing, within one month of that date, a consolidated maintenance report, which will—

- (a) include a review of licensed activities undertaken during the preceding five years with reference to the reports submitted in accordance with condition 20 (1) of this licence.
- (b) reconfirm the applicability of the methodologies and frequencies of the licensable activities permitted by this licence for the remaining duration of this licence.

Sediment Sampling

21.—(1) The undertaker must submit a sample plan request in writing to the MMO for written approval of a sample plan.

(2) The sample plan request must be made—

- (a) for capital dredging, at least six months prior to the commencement of any capital dredging; or
- (b) for maintenance dredging, at least six months prior to the end of every third year from the date of the previous sediment sample analysis.

(3) The sample plan request must include details of—

- (a) the volume of material to be dredged;

- (b) the location of the area to be dredged;
- (c) details of the material type proposed for dredging;
- (d) the type and dredging methodology (including whether it is a capital or maintenance dredge, depth of material to be dredged and proposed programme for the dredging activities); and
- (e) the location and depth of any supporting samples.

(4) Unless otherwise agreed by the MMO, the undertaker must undertake the sampling in accordance with the approved sample plan.

Notification of works

22.—(1) The licensed activities or any phase of those activities must not be commenced until notification has been submitted to the MMO by the undertaker as to whether DBSEL intends to commence development of Work Nos. 5A and 7A.

(2) If the notification submitted under sub-paragraph (1) gives notice that DBSEL does intend to commence development of Work Nos. 5A and 7A, the undertaker must not commence any of the licensed activities.

SCHEDULE 15

Article 45

Protective provisions

PART 1

Protection of electricity, gas, water and sewerage undertakers

Application

1. The provisions of this Part have effect unless otherwise agreed in writing between the undertaker and the utility undertaker in question.

Interpretation

2. In this Part—

“alternative apparatus” means alternative apparatus adequate to enable the utility undertaker in question to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means—

- (a) in the case of a utility undertaker within paragraph (a) of the definition of that term, electric lines or electrical plant (as defined in the Electricity Act 1989^(a)), belonging to or maintained by that licence holder;
- (b) in the case of a utility undertaker within paragraph (b) of the definition of that term, any mains, pipes or other apparatus belonging to or maintained by that gas transporter within the meaning of Part 1 of the Gas Act 1986^(b) for the purposes of gas supply;
- (c) in the case of a utility undertaker within paragraph (c) of the definition of that term, mains, pipes or other apparatus belonging to or maintained by that water undertaker for the purposes of water supply; and
- (d) in the case of a utility undertaker within paragraph (d) of the definition of that term—

(a) 1989 c.29.

(b) 1986 c.44.

- (i) any drain or works vested in the sewerage undertaker under the Water Industry Act 1991^(a); and
- (ii) any sewer which is so vested or is the subject of a notice of intention to adopt given under section 102(4) (adoption of sewers and disposal works) of that Act or an agreement to adopt made under section 104 (agreements to adopt sewer, drain or sewerage disposal works, at future date) of that Act^(b),

and includes a sludge main, disposal main (within the meaning of section 219 (general interpretation) of that Act) or sewer outfall and any manholes, ventilating shafts, pumps or other accessories forming part of any such sewer, drain or works,

and includes any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus;

“functions” includes powers and duties;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over or upon land;

“plan” includes all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe the works to be executed; and

“utility undertaker” means—

- (a) any licence holder within the meaning of Part 1 of the Electricity Act 1989;
- (b) a gas transporter within the meaning of Part 1 of the Gas Act 1986;
- (c) a water undertaker within the meaning of the Water Industry Act 1991; and
- (d) a sewerage undertaker within the meaning of Part 1 of the Water Industry Act 1991,

for the area of the onshore works, and in relation to any apparatus, means the utility undertaker to whom it belongs or by whom it is maintained.

On street apparatus and offshore works

3. This Part does not apply to—

- (a) apparatus in respect of which the relations between the undertaker and the utility undertaker are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act; and
- (b) the offshore works.

Acquisition of land

4. Regardless of any provision of this Order or anything shown on the land plans, the undertaker must not acquire any apparatus otherwise than by agreement.

Removal of apparatus

5.—(1) If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in any land in which any apparatus is placed or requires that the utility undertaker’s apparatus is relocated or diverted, that apparatus must not be removed under this Part, and any right of a utility undertaker to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed and is in operation to the reasonable satisfaction of the utility undertaker in question.

(2) If, for the purpose of executing any works in, on or under any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed

(a) 1991 c.56.

(b) Section 104 was amended by section 42(3) of the Flood and Water Management Act 2010 (c.29).

in that land, the undertaker must give to the utility undertaker in question 28 days' written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed; and in that case (or if in consequence of the exercise of any of the powers conferred by this Order a utility undertaker reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), afford to the utility undertaker the necessary facilities and rights for the construction of alternative apparatus in other land of the undertaker and subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2) in the land in which the alternative apparatus or part of such apparatus is to be constructed, the utility undertaker in question must, on receipt of a written notice to that effect from the undertaker, as soon as reasonably possible use reasonable endeavours to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed.

(4) Any alternative apparatus to be constructed in land of the undertaker under this Part must be constructed in such manner and in such line or situation as may be agreed between the utility undertaker in question and the undertaker or in default of agreement settled by arbitration in accordance with article 47 (arbitration).

(5) The utility undertaker in question must, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 47 (arbitration), and after the grant to the utility undertaker of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part.

(6) Regardless of anything in sub-paragraph (5), if the undertaker gives notice in writing to the utility undertaker in question that the undertaker desires itself to execute any work, or part of any work, in connection with the construction or removal of apparatus in any land of the undertaker, that work, instead of being executed by the utility undertaker, must be executed by the undertaker without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of the utility undertaker.

(7) Nothing in sub-paragraph (6) authorises the undertaker to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within 300 millimetres of the apparatus.

Facilities and rights for alternative apparatus

6.—(1) Where, in accordance with the provisions of this Part, the undertaker affords to a utility undertaker facilities and rights for the construction and maintenance in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and the utility undertaker in question or in default of agreement settled by arbitration in accordance with article 47 (arbitration).

(2) In settling those terms and conditions in respect of alternative apparatus to be constructed in or along the authorised development, the arbitrator must—

- (a) give effect to all reasonable requirements of the undertaker for ensuring the safety and efficient operation of the authorised development and for securing any subsequent alterations or adaptations of the alternative apparatus that may be required to prevent interference with any proposed works of the undertaker; and
- (b) so far as it may be reasonable and practicable to do so in the circumstances of the particular case, give effect to the terms and conditions, if any, applicable to the apparatus constructed in or along the authorised project for which the alternative apparatus is to be substituted.

(3) If the facilities and rights to be afforded by the undertaker in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are in the opinion of the arbitrator less favourable on the whole to the utility undertaker in question than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the arbitrator must make such provision for the payment of compensation by the undertaker to that utility undertaker as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

Retained apparatus

7.—(1) Not less than 28 days before starting the execution of any works in, on or under any land purchased, held, appropriated or used under this Order that are near to, or will or may affect, any apparatus the removal of which has not been required by the undertaker under paragraph 5(2), the undertaker must submit to the utility undertaker in question a plan of the works to be executed.

(2) Those works must be executed only in accordance with the plan submitted under sub-paragraph (1) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (3) by the utility undertaker for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and the utility undertaker is entitled to watch and inspect the execution of those works.

(3) Any requirements made by a utility undertaker under sub-paragraph (2) must be made within a period of 21 days beginning with the date on which a plan under sub-paragraph (1) is submitted to it.

(4) If a utility undertaker, in accordance with sub-paragraph (3) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, the provisions of this Part apply as if the removal of the apparatus had been required by the undertaker under paragraph 5(2).

(5) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any works, a new plan instead of the plan previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan.

(6) The undertaker is not required to comply with sub-paragraph (1) in a case of emergency but in that case it must give to the utility undertaker in question notice as soon as is reasonably practicable and a plan of those works as soon as reasonably practicable subsequently and must comply with sub-paragraph (2) in so far as is reasonably practicable in the circumstances.

Expenses and costs

8.—(1) Subject to the following provisions of this paragraph, the undertaker must repay to a utility undertaker the reasonable expenses agreed with the undertaker in advance and reasonably incurred by that utility undertaker in, or in connection with, the inspection, removal, alteration or protection of any apparatus or the construction of any new apparatus which may be required in consequence of the execution of any such works as are referred to in paragraph 5(2).

(2) The value of any apparatus removed under the provisions of this Part must be deducted from any sum payable under sub-paragraph (1), that value being calculated after removal.

(3) If in accordance with the provisions of this Part—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with article 47 (arbitration) to be

necessary then, if such placing involves cost in the construction of works under this Part exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to the utility undertaker in question by virtue of sub-paragraph (1) must be reduced by the amount of that excess.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus must not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole must be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to a utility undertaker in respect of works by virtue of sub-paragraph (1) must, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the utility undertaker any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, is to be reduced by the amount which represents that benefit.

9.—(1) Subject to sub-paragraph (2), if by reason or in consequence of the construction of any such works referred to in paragraph 5(2) any damage is caused to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of a utility undertaker, or there is any interruption in any service provided, or in the supply of any goods, by any utility undertaker, the undertaker must—

- (a) bear and pay the cost reasonably incurred by that utility undertaker in making good such damage or restoring the supply; and
- (b) make reasonable compensation to that utility undertaker for any other expenses, loss, damages, penalty or costs incurred by the utility undertaker,

by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of a utility undertaker, its officers, servants, contractors or agents.

(3) A utility undertaker must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise is to be made without the consent of the undertaker and, if such consent is withheld, the undertaker has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

Miscellaneous

10. Nothing in this Part affects the provisions of any enactment or agreement regulating the relations between the undertaker and a utility undertaker in respect of any apparatus in land belonging to the undertaker on the date on which this Order is made.

PART 2

Protection for operators of electronic communications code networks

1. The provisions of this Part have effect unless otherwise agreed in writing between the undertaker and the operator in question.

2. In this Part—

“the 2003 Act” means the Communications Act 2003(a);

(a) 2003 c.21.

“electronic communications apparatus” has the same meaning as in the electronic communications code;

“the electronic communications code” has the same meaning as in section 106(a) (application of the electronic communications code) of the 2003 Act;

“electronic communications code network” means—

- (a) so much of an electronic communications network or infrastructure system provided by an electronic communications code operator as is not excluded from the application of the electronic communications code by a direction under section 106 (application of the electronic communications code) of the 2003 Act; and
- (b) an electronic communications network which the undertaker is providing or proposing to provide;

“electronic communications code operator” means a person in whose case the electronic communications code is applied by a direction under section 106 (application of the electronic communications code) of the 2003 Act;

“infrastructure system” has the same meaning as in the electronic communications code and references to providing an infrastructure system are to be construed in accordance with paragraph 7 (infrastructure system) of that code; and

“operator” means the operator of an electronic communications code network.

3. The exercise of the powers conferred by article 32 (statutory undertakers) are subject to Part 10 (undertaker’s works affecting electronic communications apparatus) of the electronic communications code.

4.—(1) Subject to sub-paragraphs (2) to (4), if as a result of the authorised development or its construction, or of any subsidence resulting from the authorised development—

- (a) any damage is caused to any electronic communications apparatus belonging to an operator (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of the authorised development), or other property of an operator; or
- (b) there is any interruption in the supply of the service provided by an operator,

the undertaker must bear and pay the cost agreed by the undertaker in advance and reasonably incurred by the operator in making good such damage or restoring the supply and make reasonable compensation to that operator for any other expenses, loss, damages, penalty or costs incurred by it by reason, or in consequence of, any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of an operator, its officers, servants, contractors or agents.

(3) The operator must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise of the claim or demand is to be made without the consent of the undertaker and, if such consent is withheld, the undertaker has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

(4) Any difference arising between the undertaker and the operator under this Part must be referred to and settled by arbitration under article 47 (arbitration).

(5) This Part does not apply to—

- (a) any apparatus in respect of which the relations between the undertaker and an operator are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act; or
- (b) any damage, or any interruption, caused by electro-magnetic interference arising from the construction or use of the authorised project.

(a) Section 106 was amended by section 4 of the Digital Economy Act 2017.

5. Nothing in this Part affects the provisions of any enactment or agreement regulating the relations between the undertaker and an operator in respect of any apparatus in land belonging to the undertaker on the date on which this Order is

PART 3

For the protection of the Environment Agency

1.—(1) The following provisions apply for the protection of the Agency unless otherwise agreed in writing between the undertaker and the Agency.

(2) In this Part of this Schedule—

“Agency” means the Environment Agency;

“construction” includes execution, placing, altering, replacing, relaying and removal and excavation and “construct” and “constructed” is construed accordingly;

“drainage work” means any main river and includes any land which provides or is expected to provide flood storage capacity for any main river and any bank, wall, embankment or other structure, or any appliance, constructed or used for land drainage, flood defence or tidal monitoring;

“emergency” means an occurrence which presents a risk of—

- (a) serious flooding
- (b) serious detrimental impact on drainage
- (c) serious harm to the environment

“fishery” means any waters containing fish and fish in, or migrating to or from, such waters and the spawn, spawning ground, habitat or food of such fish;

“main river” has the same meaning given in section 113 of the Water Resources Act 1991;

“non-tidal main river” has the meaning given in paragraph 2(1) of Part 1 of Schedule 25 to the Environmental Permitting (England and Wales) Regulations 2016;

“plans” includes plans, sections, elevations drawings, specifications, programmes, proposals, calculations, method statements and descriptions;

“remote defence” means any berm, wall or embankment that is constructed for the purposes of preventing or alleviating flooding from, or in connection with, any main river;

“sea defence” means any bank, wall, embankment (any berm, counterwall or cross-wall connected to any such bank, wall or embankment), barrier, tidal sluice and other defence, whether natural or artificial, against the inundation of land by sea water or tidal water, including natural or artificial high ground which forms part of or makes a contribution to the efficiency of the defences of the Agency’s area against flooding, but excludes any sea defence works which are for the time being maintained by a coast protection authority under the provisions of the Coast Protection Act 1949 or by any local authority or any navigation, harbour or conservancy authority;

“specified work” means so much of any work or operation authorised by this Order as is in, on, under, over or within—

- (a) 16 metres of the base of a sea defence which is likely to—
 - (i) endanger the stability of, cause damage or reduce the effectiveness of that sea defence, or
 - (ii) interfere with the Agency’s access to or along that sea defence or the Agency’s ability to undertake works to ensure the efficacy of that sea defence;
- (b) 8 metres of the base of a remote defence which is likely to—
 - (i) endanger the stability of, cause damage or reduce the effectiveness of that remote defence, or
 - (ii) interfere with the Agency’s access to or along that remote defence;

- (c) 16 metres of a drainage work involving a tidal main river;
- (d) 8 metres of a drainage work involving a non-tidal main river;
- (e) any distance of a drainage work and is otherwise likely to—
 - (i) affect any drainage work or the volumetric rate of flow of water in or flowing to or from any drainage work;
 - (ii) affect the flow, purity or quality of water in any main river or other surface waters;
 - (iii) cause obstruction to the free passage of fish or damage to any fishery;
 - (iv) affect the conservation, distribution or use of water resources.; or
 - (v) affect the conservation value of the main river and habitats in its immediate vicinity;

or

which involves:

- (f) an activity that includes dredging, raising or taking of any sand, silt, ballast, clay, gravel or other materials from or off the bed or banks of a drainage work (or causing such materials to be dredged, raised or taken), including hydrodynamic dredging or desilting; and
- (g) any quarrying or excavation within 16 metres of a drainage work which is likely to cause damage to or endanger the stability of the banks or structure of that drainage work;

“tidal main river” has the meaning given in paragraph 2(1) of Part 1 of Schedule 25 to the Environmental Permitting (England and Wales) Regulations 2016.

“watercourse” includes all rivers, streams, ditches, drains, cuts, culverts, dykes, sluices, basins, sewers and passages through which water flows except a public sewer.

Submission and approval of plans

2.—(1) Before beginning to construct any specified work, the undertaker must submit to the Agency plans of the specified work and such further particulars available to it as the Agency may within 28 days of the receipt of the plans reasonably request.

(2) Any such specified work must not be constructed except in accordance with such plans as may be approved in writing by the Agency, or determined under paragraph 12.

(3) Any approval of the Agency required under this paragraph—

- (a) must not be unreasonably withheld or delayed;
- (b) subject to sub-paragraph (5) is deemed to have been refused if it is neither given nor refused within 2 months of the submission of the plans or such later date as is agreed between the Agency and the undertaker and if further particulars have been requested pursuant to sub paragraph (1) the period between the making of this request and the provision of further particulars in response to it shall not be taken into account in the calculation of the 2 months for the purposes of this sub-paragraph; and
- (c) may be given subject to such reasonable requirements as the Agency may have for the protection of any drainage work or the fishery or for the protection of water resources, or for the prevention of flooding or pollution or for nature conservation or the preservation of environmental harm in the discharge of its environmental duties. The Agency must use its reasonable endeavours to respond to the submission of any plans before the expiration of the period mentioned in sub-paragraph (3)(b).

(4) In the case of a refusal, the Agency must provide reasons for the grounds of that refusal.

Construction of protective works

3. Without limiting paragraph 2, the requirements which the Agency may have under that paragraph include conditions requiring the undertaker at its own expense to construct such protective works, whether temporary or permanent, before or during the construction of the specified works (including the provision of flood banks, walls or embankments or other new

works and the strengthening, repair or renewal of existing banks, walls or embankments) as are reasonably necessary—

- (a) to safeguard any drainage work against damage; or
- (b) to secure that its efficiency for flood defence purposes is not impaired and that the risk of flooding is not otherwise increased,

by reason of any specified work.

Timing of works and service of notices

4.—(1) Subject to sub-paragraph (2), any specified work, and all protective works required by the Agency under paragraph 3, must be constructed—

- (a) without unreasonable delay in accordance with the plans approved under this Part of this Schedule; and
- (b) to the reasonable satisfaction of the Agency, and the Agency is entitled by its officer to watch and inspect the construction of such works.

(2) The undertaker must give to the Agency not less than 14 days' notice in writing of its intention to commence construction of any specified work and notice in writing of its completion not later than 7 days after the date on which it is completed.

(3) If the Agency reasonably requires, the undertaker must construct all or part of the protective works so that they are in place prior to the construction of any specified work to which the protective works relate.

Works not in accordance with this Schedule

5.—(1) If there is any failure by the undertaker to obtain consent or comply with conditions imposed by the Agency in accordance with these protective provisions and where the Agency acting reasonably considers it necessary to avoid any of the risks specified in sub-paragraph (2), the Agency may serve written notice requiring the undertaker to cease all or part of the specified works as may be specified within the notice within the period specified in the notice, and the undertaker must cease constructing the specified works or part thereof until such time as it has obtained the consent or complied with the condition specified within the notice served.

(2) The risks specified in sub-paragraph (1) are—

- (a) risk of flooding;
- (b) risk of harm to the environment;
- (c) risk of detrimental impact on drainage;
- (d) damage to the fishery.

(3) If any part of a specified work or any protective work required by the Agency is constructed otherwise than in accordance with the requirements of this Part of this Schedule, the Agency may by notice in writing require the undertaker at the undertaker's own expense to comply with the requirements of this Part of this Schedule or (if the undertaker so elects and the Agency in writing consents, such consent not to be unreasonably withheld or delayed) to remove, alter or pull down the work and, where removal is required, to restore the site to its former condition to such extent and within such limits as the Agency reasonably requires.

(4) Subject to sub-paragraph (6), if, within a reasonable period, being not less than 28 days beginning with the date when a notice under sub-paragraph (4) is served upon the undertaker, the undertaker has failed to begin taking steps to comply with the requirements of the notice and has not subsequently made reasonably expeditious progress towards their implementation, the Agency may execute the works specified in the notice, and any reasonable expenditure incurred by the Agency in so doing is recoverable from the undertaker.

(5) In the event of any dispute as to whether sub-paragraph (4) is properly applicable to any work in respect of which notice has been served under that sub-paragraph, or as to the reasonableness of any requirement of such a notice, the Agency must not, except in the case of an

emergency, exercise the powers conferred by sub-paragraph (4) until the dispute has been finally determined in accordance with paragraph 12.

Maintenance of works

6.—(1) Subject to sub-paragraph (5) the undertaker must from the commencement of the construction of the specified works maintain in good repair and condition and free from obstruction any drainage work which is situated within the limits of deviation and on land held by the undertaker for the purposes of or in connection with the specified works, whether or not the drainage work is constructed under the powers conferred by this Order or is already in existence.

(2) If any such drainage work which the undertaker is liable to maintain is not maintained to the reasonable satisfaction of the Agency, the Agency may by notice in writing require the undertaker to repair and restore the work, or any part of such work, or (if the undertaker so elects and the Agency in writing consents, such consent not to be unreasonably withheld or delayed), to remove the work and restore the site to its former condition, to such extent and within such limits as the Agency reasonably requires.

(3) Subject to sub-paragraph (4), if, within a reasonable period, being not less than 28 days beginning with the date on which a notice in respect of any drainage work is served under sub-paragraph (2) on the undertaker, the undertaker has failed to begin taking steps to comply with the requirements of the notice and has not subsequently made reasonably expeditious progress towards their implementation, the Agency may do what is necessary for such compliance and any reasonable expenditure incurred by the Agency in so doing is recoverable from the undertaker.

(4) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (2), the Agency must not, except in the case of an emergency, exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined in accordance with paragraph 12.

(5) This paragraph does not apply to—

- (a) drainage works which are vested in the Agency, or which the Agency or another person is liable to maintain and is not proscribed by the powers of the Order from doing so; and
- (b) any obstruction of a drainage work expressly authorised in the approval of specified works plans and carried out in accordance with the provisions of this Part provided that any obstruction is removed as soon as reasonably practicable.

Remediating impaired drainage work

7. If by reason of the construction of any specified work or of the failure of any such work, the efficiency of any drainage work for flood defence purposes is impaired, or that drainage work is otherwise damaged, such impairment or damage must be made good by the undertaker to the reasonable satisfaction of the Agency and if the undertaker fails to do so, the Agency may make good the impairment or damage and recover any expenditure incurred by the Agency in so doing from the undertaker.

Agency access

8. If by reason of the construction of any the specified work or the failure of any such work, the Agency's access to flood defences or equipment maintained for flood defence purposes is materially obstructed, the undertaker must notify the Agency immediately and provide such suitable alternative means of access that will allow the Agency to maintain the flood defence or use the equipment no less effectively than was possible before the obstruction occurred and such alternative access must be made available as soon as reasonably practicable after the undertaker becomes aware of such obstruction except in the case of an emergency in which case the undertaker must provide such alternative means of access on demand.

Free passage of fish

9.—(1) The undertaker must take all such measures as may be reasonably practicable to prevent any interruption of the free passage of fish in the fishery during the construction of any specified work.

(2) If by reason of—

- (a) the construction of any specified work; or
- (b) the failure of any such work,

damage to the fishery is caused, or the Agency has reason to expect that such damage may be caused, the Agency may serve notice on the undertaker requiring it to take such steps as may be reasonably practicable to make good the damage, or, as the case may be, to protect the fishery against such damage within the period specified in the notice.

(3) If the undertaker fails to take such steps as are described in the notice served under sub-paragraph (2), the Agency may take those steps and any reasonable expenditure incurred by the Agency in so doing is recoverable from the undertaker.

(4) In any case where immediate action by the Agency is reasonably required in order to secure that the risk of damage to the fishery is avoided or reduced, the Agency may take such steps as are reasonable for the purpose, and may recover from the undertaker any expenditure incurred in so doing provided that notice specifying those steps is served on the undertaker as soon as reasonably practicable after the Agency has taken, or commenced to take, the steps specified in the notice.

Indemnity

10. The undertaker indemnifies the Agency in respect of all costs, charges and expenses which the Agency may incur—

- (a) in the examination or approval of plans under this Part of this Schedule;
- (b) in the inspection of the construction of the specified works or any protective works required by the Agency under this Part of this Schedule; and
- (c) in the carrying out of any surveys or tests by the Agency which are reasonably required in connection with the construction of the specified works.

11.—(1) The undertaker is responsible for and indemnifies the Agency against all costs and losses, liabilities, claims and demands not otherwise provided for in this Schedule which may be reasonably incurred or suffered by the Agency by reason of, or arising out of—

- (a) the construction, operation or maintenance of any specified works comprised within the authorised development or the failure of any such works comprised within them; or
- (b) any act or omission of the undertaker, its employees, contractors or agents or others whilst engaged upon the construction, operation or maintenance of the authorised development or dealing with any failure of the authorised development.

(2) For the avoidance of doubt, in sub-paragraph (1)—

“costs” includes—

- (a) expenses and charges;
- (b) staff costs and overheads;
- (c) legal costs;

“losses” includes physical damage.

“claims” and “demands” include as applicable—

- (a) costs (within the meaning of sub-paragraph (2)) incurred in connection with any claim or demand; and
- (b) any interest element of sums claimed or demanded;

“liabilities” includes—

- (a) contractual liabilities;

- (b) tortious liabilities (including liabilities for negligence or nuisance);
- (c) liabilities to pay statutory compensation or for breach of statutory duty;
- (d) liabilities to pay statutory penalties imposed on the basis of strict liability (but does not include liabilities to pay other statutory penalties).

(3) The Agency must give to the undertaker reasonable notice of any such claim or demand, and must not settle or compromise a claim without the agreement of the undertaker and that agreement must not be unreasonably withheld or delayed.

(4) The Agency must, at all times, take reasonable steps to prevent and mitigate any such claims, demands, proceedings, costs, damages, expenses or loss.

(5) The fact that any work or thing has been executed or done by the undertaker in accordance with a plan approved by the Agency, or to its satisfaction, or in accordance with any directions or award of an arbitrator, shall not relieve the undertaker from any liability under the provisions of this Part.

(6) Nothing in this paragraph imposes any liability on the undertaker with respect to any costs, losses, claims, demands, or liabilities to the extent that they are attributable to the neglect or default of the Agency, its officers, servants, contractors or agents.

Dispute

12. Any dispute arising between the undertaker and the Agency under this Part of this Schedule must, if the parties agree, be determined by arbitration under article 47 (arbitration), but failing agreement be determined by the Secretary of State for Environment, Food and Rural Affairs or its successor and the Secretary of State for Energy Security and Net Zero or its successor acting jointly on a reference to them by the undertaker or the Agency, after notice in writing by one to the other.

PART 4

For the protection of the drainage authorities

1. The provisions of this Part have effect for the protection of a drainage authority unless otherwise agreed in writing between the undertaker and the drainage authority.

2. In this Part of this Schedule—

“construction” includes execution, placing, altering, replacing, relaying and removal and excavation and “construct” and “constructed” is to be construed accordingly;

“drainage work” means any ordinary watercourse and includes any bank, wall, embankment or other structure, or any appliance, constructed or used for land drainage or flood defence in connection with an ordinary watercourse which is the responsibility of the drainage authority;

“independent review” means a review carried out by a third party confirming the findings of the undertaker in the assessment of the impact of the proposed specified work on flood risk;

“ordinary watercourse” has the meaning given by section 72 (interpretation) of the Land Drainage Act 1991;

“plans” includes any information reasonably required by the drainage authority including location details, grid references, sections, drawings, specifications, assessments and method statements; and

“specified work” means so much of the authorised development as is in, on, under over or within 9 metres of a drainage work and is otherwise likely to affect the flow of water in any ordinary watercourse, including—

- (a) the erection of any mill, dam, weir, or other similar obstruction to the flow of an ordinary watercourse, or raising or otherwise altering any such obstruction;
- (b) the construction or installation of a bridge or other structure;

- (c) the erection of a culvert in an ordinary watercourse;
- (d) the alteration of an ordinary watercourse or a culvert or other form of drainage infrastructure in a manner that would be likely to affect the flow of an ordinary watercourse;
- (e) the introduction by means of any channel, siphon, pipeline or sluice or by any other means whatsoever any water into any ordinary watercourse within the Order limits so as to directly or indirectly increase the flow or volume of water in any ordinary watercourse within the Order limits without the previous consent of the drainage authority;
- (f) any work likely to obstruct flow or adversely affect the integrity of any embankment, wall or enclosing structure containing an ordinary watercourse.

3.—(1) Before commencing construction of a specified work, the undertaker must submit to the drainage authority plans of the specified work, including an independent review (if requested by the drainage authority) and such further particulars available to it as the drainage authority may within 14 days of the submission of the plans reasonably request.

(2) The undertaker must not commence construction of the specified work until approval, unconditionally or conditionally, has been given as provided in this paragraph.

(3) A specified work must not be constructed except in accordance with such plans as may be approved in writing by the drainage authority or determined under paragraph 12.

(4) Any approval of the drainage authority required under this paragraph—

- (a) must not be unreasonably withheld or delayed;
- (b) is deemed to have been given if it is neither given nor refused within 56 days of the submission of the plans for approval, or submission of further particulars (where required by the drainage authority under sub-paragraph (1)) whichever is the later; and
- (c) may be given subject to such reasonable requirements as the drainage authority may make for the protection of any drainage work, for the protection of any ordinary watercourse or for the prevention of flooding.

(5) Any refusal under this paragraph must be accompanied by a statement of the reasons for refusal.

4. Without limiting paragraph 3, the requirements which the drainage authority may make under that paragraph include conditions requiring the undertaker at its own expense to construct such protective works, whether temporary or permanent, during the construction of the specified work (including the provision of flood banks, walls or embankments or other new works and the strengthening, repair or renewal of existing banks, walls or embankments) as are reasonably necessary—

- (a) to safeguard any drainage work against damage by reason of any specified work; or
- (b) to secure that the efficiency of any drainage work for flood defence and land drainage purposes is not impaired, and that the risk of flooding is not otherwise increased, by reason of any specified work.

5.—(1) Subject to sub-paragraph (2), any specified work, and all protective works required by the drainage authority under paragraph 4, must be constructed—

- (a) without unreasonable delay in accordance with the plans approved or deemed to have been approved or settled under this Part of this Schedule; and
- (b) to the reasonable satisfaction of the drainage authority, and an officer of the drainage authority is entitled to watch and inspect the construction of such works.

(2) The undertaker must give to the drainage authority—

- (a) not less than 14 days' notice in writing of its intention to commence construction of any specified work; and
- (b) notice in writing of its completion not later than 7 days after the date of completion.

(3) If the drainage authority reasonably requires, the undertaker must construct all or part of the protective works so that they are in place before the construction of the specified work to which the protective works relate.

(4) If any part of a specified work or any protective work required by the drainage authority is constructed otherwise than in accordance with the requirements of this Part of this Schedule, the drainage authority may by notice in writing require the undertaker at the undertaker's expense to comply with the requirements of this Part of this Schedule or (if the undertaker so elects and the drainage authority in writing consents, such consent not to be unreasonably withheld or delayed) to remove, alter or pull down the work and, where removal is agreed, to restore the site to its former condition to such extent and within such limits as the drainage authority reasonably requires.

(5) Subject to sub-paragraph (6) and paragraphs 9 and 10, if within a reasonable period, being not less than 28 days from the date when a notice under sub-paragraph (4) is served on the undertaker, the undertaker has failed to begin taking steps to comply with the requirements of the notice and subsequently to make reasonably expeditious progress towards their implementation, the drainage authority may execute the works specified in the notice and any reasonable expenditure incurred by it in so doing is recoverable from the undertaker.

(6) In the event of any dispute as to whether sub-paragraph (4) is properly applicable to any work in respect of which notice has been served under that sub-paragraph, or as to the reasonableness of any requirement of such a notice, the drainage authority must not except in an emergency exercise the powers conferred by sub-paragraph (5) until the dispute has been finally determined in accordance with paragraph 12.

6.—(1) Subject to sub-paragraph (5), the undertaker must from the commencement of the construction of the specified work maintain in good repair and condition and free from obstruction any drainage work which is situated within the limits of deviation on land held by the undertaker for the purpose of or in connection with the specified work, whether or not the drainage work is constructed under the powers conferred by this Order or is already in existence.

(2) If any drainage work which the undertaker is liable to maintain is not maintained to the reasonable satisfaction of the drainage authority, the drainage authority may by notice in writing require the undertaker to repair and restore the work, or any part of the work, or (if the undertaker so elects and the drainage authority in writing consents, such consent not to be unreasonably withheld or delayed), to remove the specified work and restore the site to its former condition, to such extent and within such limits as the drainage authority reasonably requires.

(3) Subject to sub-paragraph (4) and paragraphs 9 and 10, if, within a reasonable period being not less than 28 days beginning with the date on which a notice in respect of any drainage work is served under sub-paragraph (2) on the undertaker, the undertaker has failed to begin taking steps to comply with the reasonable requirements of the notice and has not subsequently made reasonably expeditious progress towards their implementation, the drainage authority may do what is reasonably necessary for such compliance and may recover any reasonable expenditure reasonably incurred by it in so doing from the undertaker.

(4) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (2), the drainage authority must not except in a case of emergency exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined in accordance with paragraph 12.

(5) This paragraph does not apply to—

- (a) drainage works which are vested in the drainage authority, or which the drainage authority or another person is liable to maintain and is not prevented by this Order from so doing; and
- (b) any obstruction of a drainage work for the purpose of a work or operation authorised by this Order and carried out in accordance with the provisions of this Part of this Schedule provided that any obstruction is removed as soon as reasonably practicable.

7. Subject to paragraphs 9 and 10 and paragraph 6(5)(b), if by reason of the construction of any specified work or of the failure of any such work the efficiency of any drainage work for flood

defence purposes or land drainage is impaired, or that drainage work is otherwise damaged, such impairment or damage must be made good by the undertaker to the reasonable satisfaction of the drainage authority and, if the undertaker fails to do so, the drainage authority may make good the impairment or damage and recover from the undertaker any expenditure incurred by the drainage authority in so doing from the undertaker.

8. If by reason of the construction of the specified work the drainage authority's access to flood defences or equipment maintained for flood defence purposes is materially obstructed, the undertaker must provide such alternative means of access that will allow the drainage authority to maintain the flood defence or use the equipment no less effectively than was possible before the obstruction within 24 hours of the undertaker becoming aware of such obstruction.

9. The undertaker must make reasonable compensation for costs, charges and expenses which the drainage authority may reasonably incur—

- (a) in the examination or approval of plans under this Part of this Schedule;
- (b) in the inspection of the construction of the specified works or any protective works required by the drainage authority under this Part of this Schedule; and
- (c) in the carrying out of any surveys or tests by the drainage authority which are reasonably required in connection with the construction of the specified works.

10.—(1) The undertaker must make reasonable compensation for costs and losses which may be reasonably incurred or suffered by the drainage authority by reason of—

- (a) the construction of any specified work comprised within the authorised works; or
- (b) any act or omission of the undertaker, its employees, contractors or agents or others whilst engaged upon the construction of the specified works.

(2) In sub-paragraph (1)—

“costs” includes—

- (a) expenses and charges;
- (b) staff costs and overheads; and
- (c) legal costs; and

“losses” includes physical damage.

(3) The undertaker must make reasonable compensation for liabilities, claims and demands against the drainage authority arising out of or in connection with the specified works or otherwise out of the matters referred to in sub-paragraphs (1)(a) and (1)(b).

(4) In sub-paragraph (3)—

“claims” and “demands” include as applicable—

- (a) costs (within the meaning of sub-paragraph (2)) incurred in connection with any claim or demand; and
- (b) any interest element of sums claimed or demanded; and

“liabilities” includes—

- (a) contractual liabilities;
- (b) tortious liabilities (including liabilities for negligence or nuisance);
- (c) liabilities to pay statutory compensation or for breach of statutory duty; and
- (d) liabilities to pay statutory penalties imposed on the basis of strict liability (but does not include liabilities to pay other statutory penalties).

(5) The drainage authority must give to the undertaker notice of any such claim or demand.

(6) The undertaker may at its own expense conduct all negotiations for the settlement of the same and any litigation that may arise therefrom.

(7) The drainage authority must not compromise or settle any such claim or make any admission which might be prejudicial to the claim without the agreement of the undertaker which agreement must not be unreasonably withheld or delayed.

(8) The drainage authority must, at all times take reasonable steps to prevent and mitigate any such claims, demands, proceedings, costs, damages, expenses or loss.

(9) The drainage authority must, at the request of the undertaker, afford all reasonable assistance for the purpose of contesting any such claim or action and is entitled to be repaid its reasonable expenses reasonably incurred in so doing.

(10) Nothing in this paragraph imposes any liability on the undertaker with respect to any costs, losses, claims, demands or liabilities to the extent that they are attributable to the neglect or default of the Agency, its officers, servants, contractors or agents.

11. The fact that any work or thing has been executed or done by the undertaker in accordance with a plan approved or deemed to be approved by the drainage authority, or to its satisfaction, or in accordance with any directions or award of an arbitrator, does not relieve the undertaker from any liability under this Part of this Schedule.

12. Any dispute arising between the undertaker and the drainage authority under this Part of this Schedule, if the parties agree, is to be determined by arbitration under article 47 (arbitration), but otherwise is to be determined by the Secretary of State for Energy Security and Net Zero on a reference to them by the undertaker or the drainage authority, after notice in writing by one to the other.

PART 5

FOR THE PROTECTION OF NETWORK RAIL INFRASTRUCTURE LIMITED

1. The provisions of this Part of this Schedule have effect, unless otherwise agreed in writing between the undertaker and Network Rail and, in the case of paragraph 17 of this Part of this Schedule any other person on whom rights or obligations are conferred by that paragraph.

2. In this Part of this Schedule—

“asset protection agreement” means an agreement to regulate the construction and maintenance of the specified work in a form prescribed from time to time by Network Rail;

“construction” includes execution, placing, alteration and reconstruction and “construct” and “constructed” have corresponding meanings;

“the engineer” means an engineer appointed by Network Rail for the purposes of this Order;

“network licence” means the network licence, as the same is amended from time to time, granted to Network Rail Infrastructure Limited by the Secretary of State in exercise of their powers under section 8 (licences) of the Railways Act 1993;

“Network Rail” means Network Rail Infrastructure Limited (company number 02904587, whose registered office is at Waterloo General Office, London, SE1 8SW) and any associated company of Network Rail Infrastructure Limited which holds property for railway purposes, and for the purpose of this definition “associated company” means any company which is (within the meaning of section 1159 of the Companies Act 2006) the holding company of Network Rail Infrastructure Limited, a subsidiary of Network Rail Infrastructure Limited or another subsidiary of the holding company of Network Rail Infrastructure Limited and any successor to Network Rail Infrastructure Limited’s railway undertaking;

“plans” includes sections, designs, design data, software, drawings, specifications, soil reports, calculations, descriptions (including descriptions of methods of construction), staging proposals, programmes and details of the extent, timing and duration of any proposed occupation of railway property;

“railway operational procedures” means procedures specified under any access agreement (as defined in the Railways Act 1993) or station lease;

“railway property” means any railway belonging to Network Rail and—

- (a) any station, land, works, apparatus and equipment belonging to Network Rail or connected with any such railway; and
- (b) any easement or other property interest held or used by Network Rail or a tenant or licensee of Network Rail for the purposes of such railway or works, apparatus or equipment;

“regulatory consents” means any consent or approval required under;

- (a) the Railways Act 1993;
- (b) the network licence; and/or
- (c) any other relevant statutory or regulatory provisions;

by either the Office of Rail and Road or the Secretary of State for Transport or any other competent body including change procedures and any other consents, approvals of any access or beneficiary that may be required in relation to the authorised development;

“specified work” means so much of any of the authorised development as is situated upon, across, under, over or within 15 metres of, or may in any way adversely affect, railway property and for the avoidance of doubt, includes the maintenance of such works under the powers conferred by article 4 (maintenance of authorised project) in respect of such works;

“undertaker” has the same meaning as in article 2 (interpretation) of this Order.

3.—(1) Where under this Part of this Schedule Network Rail is required to give its consent, agreement or approval in respect of any matter, that consent, agreement or approval is subject to the condition that Network Rail complies with any relevant railway operational procedures and any obligations under its network licence or under statute.

(2) In so far as any specified work or the acquisition or use of railway property is or may be subject to railway operational procedures, Network Rail must—

- (a) co-operate with the undertaker with a view to avoiding undue delay and securing conformity as between any plans approved by the engineer and requirements emanating from those procedures; and
- (b) use their reasonable endeavours to avoid any conflict arising between the application of those procedures and the proper implementation of the authorised development pursuant to this Order.

4. (1) The undertaker must not exercise the powers conferred by—

- (a) article 3 (development consent granted by the Order);
- (b) article 4 (maintenance of authorised project);
- (c) article 16 (discharge of water);
- (d) article 18 (authority to survey and investigate the land);
- (e) article 20 (compulsory acquisition of land);
- (f) article 21 (time limit for exercise of authority to acquire land compulsorily)
- (g) article 22 (compulsory acquisition of rights);
- (h) article 23 (private rights over land)
- (i) article 25 (statutory authority to override easement and other rights)
- (j) article 26 (acquisition of subsoil and airspace only);
- (k) article 27 (compulsory acquisition of land: minerals);
- (l) article 29 (rights under or over streets)
- (m) article 30 (temporary use of land for carrying out the authorised project);
- (n) article 31 (temporary use of land for maintaining the authorised project);
- (o) article 32 statutory undertakers);
- (p) article 38 (felling or lopping of trees or shrubs);

- (q) article 39 (trees subject to tree preservation orders);
- (r) the powers conferred by section 11(3) (power of entry) of the 1965 Act;
- (s) the powers conferred by section 203 (power to override easements and rights) of the Housing and Planning Act 2016;
- (t) the powers conferred by section 172 (right to enter and survey land) of the Housing and Planning Act 2016;
- (u) any powers under in respect of the temporary possession of land under the Neighbourhood Planning Act 2017;
- (v) other provisions where the exercise of the powers under that provision would impact on railway property - to be reviewed upon receipt of draft DCO in respect of any railway property unless the exercise of such powers is with the consent of Network Rail.

(2) The undertaker must not in the exercise of the powers conferred by this Order prevent pedestrian or vehicular access to any railway property, unless preventing such access is with the consent of Network Rail.

(3) The undertaker must not exercise the powers conferred by sections 271 or 272 of the 1990 Act, article 32 (statutory undertakers), article 25 (statutory authority to override easements and other rights) or article 23 (private rights over land), in relation to any right of access of Network Rail to railway property, but such right of access may be diverted with the consent of Network Rail.

(4) The undertaker must not under the powers of this Order acquire or use or acquire new rights over, or seek to impose any restrictive covenants over, any railway property, or extinguish any existing rights of Network Rail in respect of any third party property, except with the consent of Network Rail.

(5) The undertaker must not under the powers of this Order do anything which would result in railway property being incapable of being used or maintained or which would affect the safe running of trains on the railway.

(6) Where Network Rail is asked to give its consent pursuant to this paragraph, such consent must not be unreasonably withheld but may be given subject to reasonable conditions but it shall never be unreasonable to withhold consent for reasons of operational or railway safety (such matters to be in Network Rail's absolute discretion).

(7) The undertaker must enter into an asset protection agreement prior to the carrying out of any specified work.

5.—(1) The undertaker must before commencing construction of any specified work supply to Network Rail proper and sufficient plans of that work for the reasonable approval of the engineer and the specified work must not be commenced except in accordance with such plans as have been approved in writing by the engineer or settled by arbitration under article 47 (Arbitration).

(2) The approval of the engineer under sub-paragraph (1) must not be unreasonably withheld, and if by the end of the period of 28 days beginning with the date on which such plans have been supplied to Network Rail the engineer has not intimated their disapproval of those plans and the grounds of such disapproval the undertaker may serve upon the engineer written notice requiring the engineer to intimate approval or disapproval within a further period of 28 days beginning with the date upon which the engineer receives written notice from the undertaker. If by the expiry of the further 28 days the engineer has not intimated approval or disapproval, the engineer shall be deemed to have approved the plans as submitted.

(3) If by the end of the period of 28 days beginning with the date on which written notice was served upon the engineer under sub-paragraph (2), Network Rail gives notice to the undertaker that Network Rail desires itself to construct any part of a specified work which in the opinion of the engineer will or may affect the stability of railway property or the safe operation of traffic on the railways of Network Rail then, if the undertaker desires such part of the specified work to be constructed, Network Rail must construct it without unnecessary delay on behalf of and to the reasonable satisfaction of the undertaker in accordance with the plans approved or deemed to be

approved or settled under this paragraph, and under the supervision (where appropriate and if given) of the undertaker.

(4) When signifying their approval of the plans the engineer may specify any protective works (whether temporary or permanent) which in the engineer's opinion should be carried out before the commencement of the construction of a specified work to ensure the safety or stability of railway property or the continuation of safe and efficient operation of the railways of Network Rail or the services of operators using the same (including any relocation de-commissioning and removal of works, apparatus and equipment necessitated by a specified work and the comfort and safety of passengers who may be affected by the specified works), and such protective works as may be reasonably necessary for those purposes must be constructed by Network Rail or by the undertaker, if Network Rail so desires, and such protective works must be carried out at the expense of the undertaker in either case without unnecessary delay and the undertaker must not commence the construction of the specified works until the engineer has notified the undertaker that the protective works have been completed to their reasonable satisfaction.

6.—(1) Any specified work and any protective works to be constructed by virtue of paragraph 5(4) must, when commenced, be constructed—

- (a) without unnecessary delay in accordance with the plans approved or deemed to have been approved or settled under paragraph 5;
- (b) under the supervision (where appropriate and if given) and to the reasonable satisfaction of the engineer;
- (c) in such manner as to cause as little damage as is possible to railway property; and
- (d) so far as is reasonably practicable, so as not to interfere with or obstruct the free, uninterrupted and safe use of any railway of Network Rail or the traffic thereon and the use by passengers of railway property.

(2) If any damage to railway property or any such interference or obstruction shall be caused by the carrying out of, or in consequence of the construction of a specified work, the undertaker must, notwithstanding any such approval, make good such damage and must pay to Network Rail all reasonable expenses to which Network Rail may be put and compensation for any loss which it may sustain by reason of any such damage, interference or obstruction.

(3) Nothing in this Part of this Schedule imposes any liability on the undertaker with respect to any damage, costs, expenses or loss attributable to the negligence of Network Rail or its servants, contractors or agents or any liability on Network Rail with respect of any damage, costs, expenses or loss attributable to the negligence of the undertaker or its servants, contractors or agents.

7. The undertaker must—

- (a) at all times afford reasonable facilities to the engineer for access to a specified work during its construction; and
- (b) supply the engineer with all such information as they may reasonably require with regard to a specified work or the method of constructing it.

8. Network Rail must at all times afford reasonable facilities to the undertaker and its agents for access to any works carried out by Network Rail under this Part of this Schedule during their construction and must supply the undertaker with such information as it may reasonably require with regard to such works or the method of constructing them.

9.—(1) If any permanent or temporary alterations or additions to railway property are reasonably necessary in consequence of the construction or completion of a specified work in order to ensure the safety of railway property or the continued safe operation of the railway of Network Rail, such alterations and additions may be carried out by Network Rail and if Network Rail gives to the undertaker 56 days' notice (or in the event of an emergency or safety critical issue such notice as is reasonable in the circumstances) of its intention to carry out such alterations or additions (which must be specified in the notice), the undertaker must pay to Network Rail the reasonable cost of those alterations or additions including, in respect of any such alterations and additions as are to be permanent, a capitalised sum representing the increase of the costs which

may be expected to be reasonably incurred by Network Rail in maintaining, working and, when necessary, renewing any such alterations or additions.

(2) If during the construction of a specified work by the undertaker, Network Rail gives notice to the undertaker that Network Rail desires itself to construct that part of the specified work which in the opinion of the engineer is endangering the stability of railway property or the safe operation of traffic on the railways of Network Rail then, if the undertaker decides that part of the specified work is to be constructed, Network Rail must assume construction of that part of the specified work and the undertaker must, notwithstanding any such approval of a specified work under paragraph 5(3), pay to Network Rail all reasonable expenses to which Network Rail may be put and compensation for any loss which it may suffer by reason of the execution by Network Rail of that specified.

(3) The engineer must, in respect of the capitalised sums referred to in this paragraph and paragraph 10(a) provide such details of the formula by which those sums have been calculated as the undertaker may reasonably require.

(4) If the cost of maintaining, working or renewing railway property is reduced in consequence of any such alterations or additions a capitalised sum representing such saving must be set off against any sum payable by the undertaker to Network Rail under this paragraph.

10. The undertaker must repay to Network Rail all reasonable fees, costs, charges and expenses reasonably incurred by Network Rail—

- (a) in constructing any part of a specified work on behalf of the undertaker as provided by paragraph 5(3) or in constructing any protective works under the provisions of paragraph 5(4) including, in respect of any permanent protective works, a capitalised sum representing the cost of maintaining and renewing those works;
- (b) in respect of the approval by the engineer of plans submitted by the undertaker and the supervision by the engineer of the construction of a specified work;
- (c) in respect of the employment or procurement of the services of any inspectors, signallers, watch-persons and other persons whom it shall be reasonably necessary to appoint for inspecting, signalling, watching and lighting railway property and for preventing, so far as may be reasonably practicable, interference, obstruction, danger or accident arising from the construction or failure of a specified work;
- (d) in respect of any special traffic working resulting from any speed restrictions which may in the opinion of the engineer, require to be imposed by reason or in consequence of the construction or failure of a specified work or from the substitution or diversion of services which may be reasonably necessary for the same reason; and
- (e) in respect of any additional temporary lighting of railway property in the vicinity of the specified works, being lighting made reasonably necessary by reason or in consequence of the construction or failure of a specified work.

11.—(1) In this paragraph—

“EMI” means, subject to sub-paragraph (2), electromagnetic interference with Network Rail apparatus generated by the operation of the authorised development where such interference is of a level which adversely affects the safe operation of Network Rail’s apparatus; and

“Network Rail’s apparatus” means any lines, circuits, wires, apparatus or equipment (whether or not modified or installed as part of the authorised development) which are owned or used by Network Rail for the purpose of transmitting or receiving electrical energy or of radio, telegraphic, telephonic, electric, electronic or other like means of signalling or other communications.

(2) This paragraph applies to EMI only to the extent that such EMI is not attributable to any change to Network Rail’s apparatus carried out after approval of plans under paragraph 5(1) for the relevant part of the authorised development giving rise to EMI (unless the undertaker has been given notice in writing before the approval of those plans of the intention to make such change).

(3) Subject to sub-paragraph (5), the undertaker must in the design and construction of the authorised development take all measures necessary to prevent EMI and must establish with

Network Rail (both parties acting reasonably) appropriate arrangements to verify their effectiveness.

(4) In order to facilitate the undertaker's compliance with sub-paragraph (3)—

- (a) the undertaker must consult with Network Rail as early as reasonably practicable to identify all Network Rail's apparatus which may be at risk of EMI, and thereafter must continue to consult with Network Rail (both before and after formal submission of plans under paragraph 5(1)) in order to identify all potential causes of EMI and the measures required to eliminate them;
- (b) Network Rail must make available to the undertaker all information in the possession of Network Rail reasonably requested by the undertaker in respect of Network Rail's apparatus identified pursuant to sub-paragraph (a); and
- (c) Network Rail must allow the undertaker reasonable facilities for the inspection of Network Rail's apparatus identified pursuant to sub-paragraph (a).

(5) In any case where it is established that EMI can only reasonably be prevented by modifications to Network Rail's apparatus, Network Rail must not withhold its consent unreasonably to modifications of Network Rail's apparatus, but the means of prevention and the method of their execution must be selected in the reasonable discretion of Network Rail, and in relation to such modifications paragraph 5(1) has effect subject to the sub-paragraph.

(6) Prior to the commencement of operation of the authorised development the undertaker shall test the use of the authorised development in a manner that shall first have been agreed with Network Rail and if, notwithstanding any measures adopted pursuant to sub-paragraph (3), the testing of the authorised development causes EMI then the undertaker must immediately upon receipt of notification by Network Rail of such EMI either in writing or communicated orally (such oral communication to be confirmed in writing as soon as reasonably practicable after it has been issued) forthwith cease to use (or procure the cessation of use of) the undertaker's apparatus causing such EMI until all measures necessary have been taken to remedy such EMI by way of modification to the source of such EMI or (in the circumstances, and subject to the consent, specified in sub-paragraph (5)) to Network Rail's apparatus.

(7) In the event of EMI having occurred—

- (a) the undertaker must afford reasonable facilities to Network Rail for access to the undertaker's apparatus in the investigation of such EMI;
- (b) Network Rail must afford reasonable facilities to the undertaker for access to Network Rail's apparatus in the investigation of such EMI;
- (c) Network Rail must make available to the undertaker any additional material information in its possession reasonably requested by the undertaker in respect of Network Rail's apparatus or such EMI; and
- (d) the undertaker shall not allow the use or operation of the authorised development in a manner that has caused or will cause EMI until measures have been taken in accordance with this paragraph to prevent EMI occurring.

(8) Where Network Rail approves modifications to Network Rail's apparatus pursuant to sub-paragraphs (5) or (6) –

- (a) Network Rail must allow the undertaker reasonable facilities for the inspection of the relevant part of Network Rail's apparatus;
- (b) any modifications to Network Rail's apparatus approved pursuant to those sub-paragraphs must be carried out and completed by the undertaker in accordance with paragraph 6.

(9) To the extent that it would not otherwise do so, the indemnity in paragraph 15(1) applies to the costs and expenses reasonably incurred or losses suffered by Network Rail through the implementation of the provisions of this paragraph (including costs incurred in connection with the consideration of proposals, approval of plans, supervision and inspection of works and facilitating access to Network Rail's apparatus) or in consequence of any EMI to which sub-paragraph (6) applies.

(10) For the purpose of paragraph 10(a) any modifications to Network Rail's apparatus under this paragraph shall be deemed to be protective works referred to in that paragraph.

(11) In relation to any dispute arising under this paragraph the reference in article 47 (Arbitration) to the Secretary of State shall be read as a reference to the Institution of Engineering and Technology.

12. If at any time after the completion of a specified work, not being a work vested in Network Rail, Network Rail gives notice to the undertaker informing it that the state of maintenance of any part of the specified work appears to be such as adversely affects the operation of railway property, the undertaker must, on receipt of such notice, take such steps as may be reasonably necessary to put that specified work in such state of maintenance as not to adversely affect railway property.

13. The undertaker must not provide any illumination or illuminated sign or signal on or in connection with a specified work in the vicinity of any railway belonging to Network Rail unless it has first consulted Network Rail and it must comply with Network Rail's reasonable requirements for preventing confusion between such illumination or illuminated sign or signal and any railway signal or other light used for controlling, directing or securing the safety of traffic on the railway.

14. Any additional expenses which Network Rail may reasonably incur in altering, reconstructing or maintaining railway property under any powers existing at the making of this Order by reason of the existence of a specified work must, provided that 56 days' previous notice of the commencement of such alteration, reconstruction or maintenance has been given to the undertaker, be repaid by the undertaker to Network Rail.

15.—(1) The undertaker must pay to Network Rail all reasonable costs, charges, damages and expenses not otherwise provided for in this Part of this Schedule (subject to article 51 (no double recovery)) which may be occasioned to or reasonably incurred by Network Rail—

- (a) by reason of the construction, maintenance or operation of a specified work or the failure thereof; or
- (b) by reason of any act or omission of the undertaker or of any person in its employ or of its contractors or others whilst engaged upon a specified work;
- (c) by reason of any act or omission of the undertaker or any person in its employ or of its contractors or others whilst accessing to or egressing from the authorised development;
- (d) in respect of any damage caused to or additional maintenance required to, railway property or any such interference or obstruction or delay to the operation of the railway as a result of access to or egress from the authorised development by the undertaker or any person in its employ or of its contractors or others;
- (e) in respect of costs incurred by Network Rail in complying with any railway operational procedures or obtaining any regulatory consents which procedures are required to be followed or consents obtained to facilitate the carrying out or operation of the authorised development;

and the undertaker must indemnify and keep indemnified Network Rail from and against all claims and demands arising out of or in connection with a specified work or any such failure, act or omission: and the fact that any act or thing may have been done by Network Rail on behalf of the undertaker or in accordance with plans approved by the engineer or in accordance with any requirement of the engineer or under the engineer's supervision shall not (if it was done without negligence on the part of Network Rail or of any person in its employ or of its contractors or agents) excuse the undertaker from any liability under the provisions of this sub-paragraph.

(2) Network Rail must—

- (a) give the undertaker reasonable written notice of any such claims or demands;
- (b) not make any settlement or compromise of such a claim or demand without the prior consent of the undertaker; and

(c) take such steps as are within its control and are reasonable in the circumstances to mitigate any liabilities relating to such claims or demands.

(3) The sums payable by the undertaker under sub-paragraph (1) shall if relevant include a sum equivalent to the relevant costs.

(4) Subject to the terms of any agreement between Network Rail and a train operator regarding the timing or method of payment of the relevant costs in respect of that train operator, Network Rail must promptly pay to each train operator the amount of any sums which Network Rail receives under sub-paragraph (3) which relates to the relevant costs of that train operator.

(5) The obligation under sub-paragraph (3) to pay Network Rail the relevant costs shall, in the event of default, be enforceable directly by any train operator concerned to the extent that such sums would be payable to that operator pursuant to sub-paragraph (4).

(6) In this paragraph—

“the relevant costs” means the costs, losses and expenses (including loss of revenue) reasonably incurred by each train operator as a consequence of any specified work including but not limited to any restriction of the use of Network Rail’s railway network as a result of the construction, maintenance or failure of a specified work or any such act or omission as mentioned in subparagraph (1); and

“train operator” means any person who is authorised to act as the operator of a train by a licence under section 8 of the Railways Act 1993.

16. Network Rail must, on receipt of a request from the undertaker, from time to time provide the undertaker free of charge with written estimates of the costs, charges, expenses and other liabilities for which the undertaker is or will become liable under this Part of this Schedule (including the amount of the relevant costs mentioned in paragraph 15) and with such information as may reasonably enable the undertaker to assess the reasonableness of any such estimate or claim made or to be made pursuant to this Part of this Schedule (including any claim relating to those relevant costs).

17. In the assessment of any sums payable to Network Rail under this Part of this Schedule there must not be taken into account any increase in the sums claimed that is attributable to any action taken by or any agreement entered into by Network Rail if that action or agreement was not reasonably necessary and was taken or entered into with a view to obtaining the payment of those sums by the undertaker under this Part of this Schedule or increasing the sums so payable.

18. The undertaker and Network Rail may, subject in the case of Network Rail to compliance with the terms of its network licence, enter into, and carry into effect, agreements for the transfer to the undertaker of—

- (a) any railway property shown on the works and land plans and described in the book of reference;
- (b) any lands, works or other property held in connection with any such railway property; and
- (c) any rights and obligations (whether or not statutory) of Network Rail relating to any railway property or any lands, works or other property referred to in this paragraph.

19. Nothing in this Order, or in any enactment incorporated with or applied by this Order, prejudices or affects the operation of Part I of the Railways Act 1993.

20. The undertaker must give written notice to Network Rail if any application is proposed to be made by the undertaker for the Secretary of State’s consent, under article 5 (benefit of Order) of this Order and any such notice must be given no later than 28 days before any such application is made and must describe or give (as appropriate)—

- (a) the nature of the application to be made;
- (b) the extent of the geographical area to which the application relates; and
- (c) the name and address of the person acting for the Secretary of State to whom the application is to be made.

21. The undertaker must no later than 28 days from the date that the plans submitted to and certified by the Secretary of State in accordance with article 42 (certification of plans, etc.) are certified by the Secretary of State, provide a set of those plans to Network Rail in a format specified by Network Rail.

22. In relation to any dispute arising under this Part of this Schedule (except for those disputes referred to in paragraph 11) the provisions of article 47 (Arbitration) shall not apply and any such dispute, unless otherwise provided for, must be referred to and settled by a single arbitrator to be agreed between the parties or, failing agreement, to be appointed on the application of either party (after giving notice in writing to the other) to the President of the Institution of Civil Engineers.

PART 6

FOR THE PROTECTION OF NATIONAL GAS TRANSMISSION PLC AS GAS UNDERTAKER

Application

1.—(1) For the protection of National Gas as referred to in this Part of this Schedule the following provisions have effect, unless otherwise agreed in writing between the undertaker and National Gas.

(2) Subject to sub-paragraph (3) or to the extent otherwise agreed in writing between the undertaker and National Gas, where the benefit of this Order is transferred or granted to another person under article 5 (benefit of Order) –

- (a) any agreement of the type mentioned in subparagraph (1) has effect as if it had been made between National Gas and the transferee or grantee (as the case may be); and
- (b) written notice of the transfer or grant must be given to National Gas on or before the date of that transfer or grant.

(3) Sub-paragraph (2) does not apply where the benefit of the Order is transferred or granted to National Gas (but without prejudice to 11(3)b).

Interpretation

2. In this Part of this Schedule—

“1991 Act” means the New Roads and Street Works Act 1991;

“acceptable credit provider” means a bank or financial institution with a credit rating that is not lower than: (i) “A-” if the rating is assigned by Standard & Poor’s Ratings Group or Fitch Ratings; and “A3” if the rating is assigned by Moody’s Investors Services Inc;

“acceptable insurance” means general third party liability insurance effected and maintained by the undertaker with a combined property damage and bodily injury limit of indemnity of not less than £50,000,000.00 (fifty million pounds) per occurrence or series of occurrences arising out of one event. Such insurance shall be maintained (a) during the construction period of the authorised works; and (b) after the construction period of the authorised works in respect of any use and maintenance of the authorised development by or on behalf of the undertaker which constitute specified works and arranged with an insurer whose security/credit rating meets the same requirements as an “acceptable credit provider”, such insurance shall include (without limitation):

- (a) a waiver of subrogation and an indemnity to principal clause in favour of National Gas
- (b) pollution liability for third party property damage and third party bodily damage arising from any pollution/contamination event with a (sub)limit of indemnity of not less than £10,000,000.00 (ten million pounds) per occurrence or series of occurrences arising out of one event or £20,000,000.00 (twenty million pounds) in aggregate;

“acceptable security” means either:

- (a) a parent company guarantee from a parent company in favour of National Gas to cover the undertaker's liability to National Gas to a total liability cap of £50,000,000.00 (fifty million pounds) (in a form reasonably satisfactory to National Gas and where required by National Gas, accompanied with a legal opinion confirming the due capacity and authorisation of the parent company to enter into and be bound by the terms of such guarantee); or
- (b) a bank bond or letter of credit from an acceptable credit provider in favour of National Gas to cover the undertaker's liability to National Gas for an amount of not less than £10,000,000.00 (ten million pounds) per asset per event up to a total liability cap of £50,000,000.00 (fifty million pounds) (in a form reasonably satisfactory to National Gas);

“alternative apparatus” means appropriate alternative apparatus to the satisfaction of National Gas to enable National Gas to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means gas mains, pipes or other apparatus belonging to or maintained by National Gas for the purposes of gas supply, together with any replacement apparatus and such other apparatus constructed pursuant to the Order that becomes operational apparatus of National Gas for the purposes of transmission, distribution and/or supply and includes any structure in which apparatus is or will be lodged or which gives or will give access to apparatus;

“authorised works” has the same meaning as is given to the term “authorised development” in article 2(1) (interpretation) of this Order and includes any associated development authorised by the Order and for the purposes of this Part of this Schedule includes the use and maintenance of the authorised works and construction of any works authorised by this Schedule;

“commence” and “commencement” has the same meaning as in article 2(1) (interpretation) of this Order save that for the purposes of this Part of this Schedule shall include any below ground surveys, monitoring, ground work operations or the receipt and erection of construction plant and equipment;

“deed of consent” means a deed of consent, crossing agreement, deed of variation or new deed of grant agreed between the parties acting reasonably in order to vary or replace existing easements, agreements, enactments and other such interests so as to secure land rights and interests as are necessary to carry out, maintain, operate and use the apparatus in a manner consistent with the terms of this Part of this Schedule;

“functions” includes powers and duties;

“ground mitigation scheme” means a scheme approved by National Gas (such approval not to be unreasonably withheld or delayed) setting out the necessary measures (if any) for a ground subsidence event;

“ground monitoring scheme” means a scheme for monitoring ground subsidence which sets out the apparatus which is to be subject to such monitoring, the extent of land to be monitored, the manner in which ground levels are to be monitored, the timescales of any monitoring activities and the extent of ground subsidence which, if exceeded, shall require the undertaker to submit for National Gas's approval a ground mitigation scheme;

“ground subsidence event” means any ground subsidence identified by the monitoring activities set out in the ground monitoring scheme that has exceeded the level described in the ground monitoring scheme as requiring a ground mitigation scheme;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over, across, along or upon such land;

“maintain” and “maintenance” shall include the ability and right to do any of the following in relation to any apparatus or alternative apparatus of National Gas, including to construct, use, repair, alter, inspect, renew or remove the apparatus;

“National Gas” means National Gas Transmission plc (Company Number 02006000) whose registered office is at National Grid House, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA or any successor as a gas transporter within the meaning of Part 1 of the Gas Act 1986;

“Network Code” means the network code prepared by National Gas pursuant to Standard Special Condition A11(3) of its Gas Transporter’s Licence, which incorporates the Uniform Network Code, as defined in Standard Special Condition A11(6) of National Gas’s Gas Transporters Licence, as both documents are amended from time to time;

“Network Code Claims” means any claim made against National Gas by any person or loss suffered by National Gas under the Network Code arising out of or in connection with any failure by National Gas to make gas available for off take at, or a failure to accept gas tendered for delivery from, any entry point to or exit point from the gas national transmission system as a result of the authorised works or any costs and/or expenses incurred by National Gas as a result of or in connection with, it taking action (including purchase or buy back of capacity) for the purpose of managing constraint or potential constraint on the gas national transmission system which may arise as a result of the authorised works;

“plan” or “plans” include all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe and assess the works to be executed;

“parent company” means a parent company of the undertaker acceptable to and which shall have been approved by National Gas acting reasonably;

“specified works” means any of the authorised works or activities undertaken in associated with the authorised works which:

- (a) will or may be situated over, or within 15 metres measured in any direction of any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise; and/or
- (b) may in any way adversely affect any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise; and/or
- (c) includes any of the activities that are referred to in paragraph 8 of T/SP/SSW/22 (National Gas’s policies for safe working in proximity to gas apparatus “Specification for safe working in the vicinity of National Gas, High pressure Gas pipelines and associated installation requirements for third parties”.

“undertaker” means the undertaker as defined in article 2(1) of this Order.

On Street Apparatus

3. Except for paragraphs 4 (apparatus in streets subject to temporary closure), 9 (retained apparatus: protection of National Gas as gas undertaker), 10 (expenses) and 11 (indemnity) of this Schedule which will apply in respect of the exercise of all or any powers under the Order affecting the rights and apparatus of National Gas, the other provisions of this Schedule do not apply to apparatus in respect of which the relations between the undertaker and National Gas are regulated by the provisions of Part 3 of the 1991 Act.

Apparatus of National Gas in streets subject to temporary closure

4.—(1) Where any street is stopped up under article 10 (temporary closure of streets), if National Gas has any apparatus in the street or accessed via that street National Gas has the same rights in respect of that apparatus as it enjoyed immediately before the stopping up and the undertaker must grant to National Gas, or procure the granting to National Gas of, legal easements reasonably satisfactory to National Gas in respect of such apparatus and access to it prior to the stopping up of any such street or highway but nothing in this paragraph affects any right of the undertaker or National Gas to require the removal of that apparatus under paragraph 7 or the power of the undertaker, subject to compliance with this sub-paragraph, to carry out works under paragraph 9.

(2) Notwithstanding the temporary stopping up or diversion of any highway under the powers of article 10 (temporary closure of streets), National Gas is at liberty at all times to take all necessary access across any such stopped up highway and to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the stopping up or diversion was in that highway.

Protective works to buildings

5. The undertaker, in the case of the powers conferred by article 17 (protective work to buildings), must exercise those powers so as not to obstruct or render less convenient the access to any apparatus without the written consent of National Gas.

Acquisition of land

6.—(1) Regardless of any provision in this Order or anything shown on the land plans or contained in the book of reference to the Order, the undertaker may not (a) appropriate or acquire or take temporary possession of any land or apparatus or (b) appropriate, acquire, extinguish, interfere with or override any easement, other interest or right and/or apparatus of National Gas otherwise than by agreement.

(2) As a condition of an agreement between the parties in sub-paragraph (1), prior to the carrying out of any part of the authorised works (or in such other timeframe as may be agreed between National Gas and the undertaker) that is subject to the requirements of this Part of this Schedule that will cause any conflict with or breach the terms of any easement or other legal or land interest of National Gas or affect the provisions of any enactment or agreement regulating the relations between National Gas and the undertaker in respect of any apparatus laid or erected in land belonging to or secured by the undertaker, the undertaker must as National Gas reasonably requires enter into such deeds of consent upon such terms and conditions as may be agreed between National Gas and the undertaker acting reasonably and which must be no less favourable on the whole to National Gas unless otherwise agreed by National Gas, and it will be the responsibility of the undertaker to procure and/or secure the consent and entering into of such deeds and variations by all other third parties with an interest in the land at that time who are affected by such authorised works.

(3) Save where otherwise agreed in writing between National Gas and the undertaker, the undertaker and National Gas agree that where there is any inconsistency or duplication between the provisions set out in this Part of this Schedule relating to the relocation and/or removal of apparatus/including but not limited to the payment of costs and expenses relating to such relocation and/or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Gas and/or other enactments relied upon by National Gas as of right or other use in relation to the apparatus, then the provisions in this Schedule shall prevail.

(4) Any agreement or consent granted by National Gas under paragraph 9 or any other paragraph of this Part of this Schedule, shall not be taken to constitute agreement under sub-paragraph (1).

Removal of apparatus

7.—(1) If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in or possesses temporarily any land in which any apparatus is placed, that apparatus must not be removed under this Part of this Schedule and any right of National Gas to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed, and is in operation to the reasonable satisfaction of National Gas in accordance with sub-paragraph (2) to (5).

(2) If, for the purpose of executing any works in, on, under or over any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, it must give to National Gas 56 days written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order National Gas reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), secure any necessary consents for the alternative apparatus and afford to National Gas to its satisfaction (taking into account paragraph 8(1) below) the necessary facilities and rights—

- (a) for the construction of alternative apparatus in other land of or land secured by the undertaker; and

(b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of or land secured by the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2) in the land in which the alternative apparatus or part of such apparatus is to be constructed, National Gas may in its sole discretion, on receipt of a written notice to that effect from the undertaker, take such steps as are reasonable in the circumstances to assist the undertaker to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed save that this obligation shall not extend to the requirement for National Gas to use its compulsory purchase powers to this end unless it elects to so do.

(4) Any alternative apparatus to be constructed in land of or land secured by the undertaker under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between National Gas and the.

(5) National Gas must, after the alternative apparatus to be provided or constructed has been agreed, and subject to a written diversion agreement having been entered into between the parties and the grant to National Gas of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part of this Schedule.

Facilities and rights for alternative apparatus

8.—(1) Where, in accordance with the provisions of this Part of this Schedule, the undertaker affords to or secures for National Gas facilities and rights in land for the construction, use, maintenance and protection of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and National Gas and must be no less favourable on the whole to National Gas than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless otherwise agreed by National Gas, acting reasonably.

(2) If the facilities and rights to be afforded by the undertaker in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are less favourable on the whole to National Gas than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject the matter may be referred to arbitration in accordance with paragraph 15 (arbitration) of this Part of this Schedule and the arbitrator must make such provision for the payment of compensation by the undertaker to National Gas as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

Retained apparatus: protection of gas undertaker

9.—(1) Not less than 56 days before the commencement of any specified works the undertaker must submit to National Gas a plan and, if reasonably required by National Gas, a ground monitoring scheme in respect of those works.

(2) In relation to specified works the plan to be submitted to National Gas under sub-paragraph (1) must include a method statement and describe—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation, positioning of plant etc;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus; and
- (f) any intended maintenance regimes.

(3) The undertaker must not commence any works to which sub-paragraphs (1) and (2) apply until National Gas has given written approval of the plan so submitted.

(4) Any approval of National Gas required under sub-paragraph (3)—

(a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraphs (5) or (6); and,

(b) must not be unreasonably withheld or delayed.

(5) In relation to any work to which sub-paragraphs (1) and/or (2) applies, National Gas may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its apparatus against interference or risk of damage for the provision of protective works or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(6) Works executed under sub-paragraphs (1) or (2) must be executed in accordance with the plan, submitted under sub-paragraph (1) or as relevant sub paragraph (5), as approved or as amended from time to time by agreement between the undertaker and National Gas and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (5) or (7) by National Gas for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Gas will be entitled to watch and inspect the execution of those works.

(7) Where National Gas requires any protective works to be carried out by itself or by the undertaker (whether of a temporary or permanent nature) such protective works, inclusive of any measures or schemes required and approved as part of the plan approved pursuant to this paragraph, must be carried out to National Gas's satisfaction prior to the commencement of any specified works for which protective works are required and National Gas must give notice of its requirement for such works within 42 days of the date of submission of a plan pursuant to this paragraph (except in an emergency).

(8) If National Gas in accordance with sub-paragraphs (5) or (7) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 1 to 3 and 6 to 8 apply as if the removal of the apparatus had been required by the undertaker under paragraph 7(2).

(9) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of the specified works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph will apply to and in respect of the new plan.

(10) The undertaker will not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Gas notice as soon as is reasonably practicable and a plan of those works and must comply with sub-paragraphs (6), (7) and (8) insofar as is reasonably practicable in the circumstances and comply with sub paragraph (11) at all times;

(11) At all times when carrying out any works authorised under the Order National Gas must comply with National Gas's policies for safe working in proximity to gas apparatus "Specification for safe working in the vicinity of National Gas, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW22" and HSE's "HS(~G)47 Avoiding Danger from underground services".

(12) As soon as reasonably practicable after any ground subsidence event attributable to the authorised development the undertaker shall implement an appropriate ground mitigation scheme save that National Gas retains the right to carry out any further necessary protective works for the safeguarding of its apparatus and can recover any such costs in line with paragraph 10.

Expenses

10.—(1) Save where otherwise agreed in writing between National Gas and the undertaker and subject to the following provisions of this paragraph, the undertaker must pay to National Gas within 30 days of receipt of an itemised invoice or claim from National Gas all charges, costs and expenses reasonably anticipated within the following three months or reasonably and properly

incurred by National Gas in, or in connection with, the inspection, removal, relaying or replacing, alteration or protection of any apparatus or the construction of any new or alternative apparatus which may be required in consequence of the execution of any authorised works including without limitation—

- (a) any costs reasonably incurred by or compensation properly paid by National Gas in connection with the acquisition of rights or the exercise of statutory powers for such apparatus including without limitation all costs incurred by National Gas as a consequence of National Gas;
 - (i) using its own compulsory purchase powers to acquire any necessary rights under paragraph 7(3); or
 - (ii) exercising any compulsory purchase powers in the Order transferred to or benefitting National Gas;
- (b) in connection with the cost of the carrying out of any diversion work or the provision of any alternative apparatus, where no written diversion agreement is otherwise in place;
- (c) the cutting off of any apparatus from any other apparatus or the making safe of redundant apparatus;
- (d) the approval of plans;
- (e) the carrying out of protective works, plus a capitalised sum to cover the cost of maintaining and renewing permanent protective works;
- (f) the survey of any land, apparatus or works, the inspection and monitoring of works or the installation or removal of any temporary works reasonably necessary in consequence of the execution of any such works referred to in this Part of this Schedule.

(2) There will be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part of this Schedule and which is not re-used as part of the alternative apparatus, that value being calculated after removal.

(3) If in accordance with the provisions of this Part of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with paragraph 15 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to National Gas by virtue of sub-paragraph (1) will be reduced by the amount of that excess save to the extent that it is not possible in the circumstances to obtain the existing type of apparatus at the same capacity and dimensions or place at the existing depth in which case full costs will be borne by the undertaker.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus will not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole will be treated as if it also had been agreed or had been so determined.

(5) Any amount which apart from this sub-paragraph would be payable to National Gas in respect of works by virtue of sub-paragraph (1) will, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to

confer on National Gas any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

Indemnity

11.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any works authorised by this Part of this Schedule or in consequence of the construction, use maintenance or failure of any of the authorised works by or on behalf of the undertaker or in consequence of any act or default of the undertaker (or any person employed or authorised by him) in the course of carrying out such works, including without limitation works carried out by the undertaker under this Part of this Schedule or any subsidence resulting from any of these works, any damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of the authorised works) or property of National Gas, or there is any interruption in any service provided or in the supply of any goods or energy, or National Gas becomes liable to pay any amount to any third party, the undertaker will—

- (a) bear and pay on demand accompanied by an invoice or claim from National Gas the cost reasonably and properly incurred by National Gas in making good such damage or restoring the supply; and
- (b) indemnify National Gas for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from National Gas, by reason or in consequence of any such damage or interruption or National Gas becoming liable to any third party and including Network Code Claims other than arising from any default of National Gas.

(2) The fact that any act or thing may have been done by National Gas on behalf of the undertaker or in accordance with a plan approved by National Gas or in accordance with any requirement of National Gas or under its supervision will not (unless sub-paragraph (3) applies), excuse the undertaker from liability under the provisions of this sub-paragraph (1) unless National Gas fails to carry out and execute the works properly with due care and attention and in a skilful and workman like manner or in a manner that does not accord with the approved plan.

(3) Nothing in sub-paragraph (1) shall impose any liability on the undertaker in respect of—

- (a) any damage or interruption to the extent that it is attributable to the neglect or default of National Gas, its officers, servants, contractors or agents;
- (b) any authorised works and/or any other works authorised by this Part of this Schedule carried out by National Gas as an assignee, transferee or lessee of the undertaker with the benefit of the Order pursuant to section 156 of the Planning Act 2008 or article 5 (benefit of Order) subject to the proviso that once such works become apparatus (“new apparatus”), any authorised works yet to be executed and not falling within this sub-section 3(b) will be subject to the full terms of this Part of this Schedule including this paragraph 11; and/or
- (c) any indirect or consequential loss of any third party (including but not limited to loss of use, revenue, profit, contract, production, increased cost of working or business interruption) arising from any such damage or interruption, which is not reasonably foreseeable;

(4) National Gas must give the undertaker reasonable notice of any such third party claim or demand and no settlement, admission of liability or compromise must, unless payment is required in connection with a statutory compensation scheme, be made without first consulting the undertaker and considering their representations.

(5) National Gas must, in respect of any matter covered by the indemnity given by the undertaker in this paragraph, at all times act reasonably and in the same manner as it would as if settling third party claims on its own behalf from its own funds.

(6) National Gas must use its reasonable endeavours to mitigate and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph applies where it is within National Gas’s reasonable ability and control to do so and which expressly excludes

any obligation to mitigate liability arising from third parties which is outside of National Gas's control and if reasonably requested to do so by the undertaker, National Gas must provide an explanation of how the claim has been minimised, where relevant..

(7) . Not to commence construction (and not to permit the commencement of such construction) of the authorised works on any land owned by National Gas or in respect of which National Gas has an easement or wayleave for its apparatus or any other interest or to carry out any works within 15 metres of National Gas's apparatus until the following conditions are satisfied:

- (a) unless and until National Gas is satisfied acting reasonably (but subject to all necessary regulatory constraints) that the undertaker has first provided the acceptable security (and provided evidence that it shall maintain such acceptable security for the construction period of the authorised works from the proposed date of commencement of construction of the authorised works) and National Gas has confirmed the same to the undertaker in writing; and
- (b) unless and until National Gas is satisfied acting reasonably (but subject to all necessary regulatory constraints) that the undertaker has procured acceptable insurance (and provided evidence to National Gas that it shall maintain such acceptable insurance for the construction period of the authorised works from the proposed date of commencement of construction of the authorised works) and National Gas has confirmed the same in writing to the undertaker.

(8) In the event that the undertaker fails to comply with paragraph 11(7) of this Part of this Schedule, nothing in this Part of this Schedule shall prevent National Gas from seeking injunctive relief (or any other equitable remedy) in any court of competent jurisdiction.

Enactments and agreements

12. Save to the extent provided for to the contrary elsewhere in this Part of this Schedule or by agreement in writing between National Gas and the undertaker, nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and National Gas in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

Co-operation

13.—(1) Where in consequence of the proposed construction of any part of the authorised works, the undertaker or National Gas requires the removal of apparatus under paragraph 7(2) or National Gas makes requirements for the protection or alteration of apparatus under paragraph 9, the undertaker shall use its best endeavours to co-ordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised works and taking into account the need to ensure the safe and efficient operation of National Gas's undertaking and National Gas shall use its best endeavours to co-operate with the undertaker for that purpose.

(2) For the avoidance of doubt whenever National Gas's consent, agreement or approval is required in relation to plans, documents or other information submitted by the undertaker or the taking of action by the undertaker, it must not be unreasonably withheld or delayed.

Access

14. If in consequence of the agreement reached in accordance with paragraph 6(1) or the powers granted under this Order the access to any apparatus is materially obstructed, the undertaker must provide such alternative means of access to such apparatus as will enable National Gas to maintain or use the apparatus no less effectively than was possible before such obstruction.

Arbitration

15. Save for differences or disputes arising under paragraph 7(2), 7(4), 8(1) and 9 any difference or dispute arising between the undertaker and National Gas under this Part of this Schedule must,

unless otherwise agreed in writing between the undertaker and National Gas, be determined by arbitration in accordance with article 47 (arbitration).

Notices

16. Notwithstanding article 46 (service of notices), any plans submitted to National Gas by the undertaker pursuant to paragraph 9 must be submitted using the LSBUD system (<https://lsbud.co.uk/>) or such other address as National Gas may from time to time appoint instead for that purpose and notify to the undertaker in writing.

PART 7

FOR THE PROTECTION OF NATIONAL GRID ELECTRICITY TRANSMISSION PLC AS ELECTRICITY UNDERTAKER

Application

1.—(1) For the protection of National Grid Electricity Transmission Plc as referred to in this Part of this Schedule the following provisions have effect, unless otherwise agreed in writing between the undertaker and National Grid Electricity Transmission Plc.

(2) Subject to sub-paragraph (3) or to the extent otherwise agreed in writing between the undertaker and National Grid Electricity Transmission Plc, where the benefit of this Order is transferred or granted to another person under article 5 (benefit of Order)—

- (a) any agreement of the type mentioned in subparagraph (1) has effect as if it had been made between National Grid Electricity Transmission Plc and the transferee or grantee (as the case may be); and
- (b) written notice of the transfer or grant must be given to National Grid Electricity Transmission Plc on or before the date of that transfer or grant.

(3) Sub-paragraph (2) does not apply where the benefit of the Order is transferred or granted to National Grid Electricity Transmission Plc (but without prejudice to 16(3)b).

Interpretation

2. In this Part of this Schedule—

“acceptable credit provider” means a bank or financial institution with a credit rating that is not lower than: (i) “A-” if the rating is assigned by Standard & Poor’s Ratings Group or Fitch Ratings; and “A3” if the rating is assigned by Moody’s Investors Services Inc.;

“acceptable insurance” means general third party liability insurance effected and maintained by the undertaker with a combined property damage and bodily injury limit of indemnity of not less than £50,000,000.00 (fifty million pounds) per occurrence or series of occurrences arising out of one event. Such insurance shall be maintained (a) during the construction period of the authorised works; and (b) after the construction period of the authorised works in respect of any use and maintenance of the authorised works by or on behalf of the undertaker which constitute specified works and arranged with an insurer whose security/credit rating meets the same requirements as an “acceptable credit provider”, such insurance shall include (without limitation):

- (a) a waiver of subrogation and an indemnity to principal clause in favour of National Grid Electricity Transmission Plc
- (b) pollution liability for third party property damage and third party bodily damage arising from any pollution/contamination event with a (sub)limit of indemnity of not less than £10,000,000.00 (ten million pounds) per occurrence or series of occurrences arising out of one event or £20,000,000.00 (twenty million pounds) in aggregate;

“acceptable security” means either:

(a) a parent company guarantee from a parent company in favour of National Grid Electricity Transmission Plc to cover the undertaker's liability to National Grid Electricity Transmission Plc to a total liability cap of £50,000,000.00 (fifty million pounds) (in a form reasonably satisfactory to National Grid Electricity Transmission Plc and where required by National Grid Electricity Transmission Plc, accompanied with a legal opinion confirming the due capacity and authorisation of the parent company to enter into and be bound by the terms of such guarantee); or

(b) a bank bond or letter of credit from an acceptable credit provider in favour of National Grid Electricity Transmission Plc to cover the undertaker's liability to National Grid Electricity Transmission Plc for an amount of not less than £10,000,000.00 (ten million pounds) per asset per event up to a total liability cap of £50,000,000.00 (fifty million pounds) (in a form reasonably satisfactory to National Grid Electricity Transmission Plc);

"access works" means any part of Work Nos. 33A/B, 18A/B described in Schedule 1 of this Order (authorised development);

"alternative apparatus" means appropriate alternative apparatus to the satisfaction of National Grid Electricity Transmission Plc to enable National Grid Electricity Transmission Plc to fulfil its statutory functions in a manner no less efficient than previously;

"apparatus" means:

(a) electric lines or electrical plant as defined in the 1989 Act, belonging to or maintained by National Grid Electricity Transmission Plc together with any replacement apparatus; and

(b) such other apparatus constructed pursuant to the Order that becomes operational apparatus of National Grid Electricity Transmission Plc for the purposes of transmission, distribution and/or supply and includes any structure in which apparatus is or will be lodged or which gives or will give access to apparatus; and

(c) any electrical lines or electrical plant as defined in the 1989 Act, any mains, pipes, plant or other apparatus belonging to, operated or maintained by National Grid Electricity Transmission Plc for the purposes of the construction, operation and maintenance of the Birkhill Wood Project, whether temporary or permanent, and includes, where the context so requires, apparatus constructed as part of the authorised works and intended for the beneficial use by National Grid Electricity Transmission Plc ("Birkhill Wood apparatus"); and

(d) any electrical lines or electrical plant as defined in the 1989 Act, any mains, pipes, plant or other apparatus belonging to, operated or maintained by National Grid Electricity Transmission Plc for the purposes of the construction, operation and maintenance of the North Humber to High Marnham Project, whether temporary or permanent, and includes, where the context so requires, apparatus constructed as part of the authorised works and intended for the beneficial use by National Grid Electricity Transmission Plc ("North Humber to High Marnham apparatus"); and

(e) any electrical lines or electrical plant as defined in the 1989 Act, any mains, pipes, plant or other apparatus belonging to, operated or maintained by National Grid Electricity Transmission Plc for the purposes of the construction, operation and maintenance of the Wanlass Beck Project, whether temporary or permanent, and includes, where the context so requires, apparatus constructed as part of the authorised works and intended for the beneficial use by National Grid Electricity Transmission Plc ("Wanlass Beck apparatus");

"authorised works" has the same meaning as is given to the term "authorised development" in article 2(1) (interpretation) of this Order and includes any associated development authorised by the Order and for the purposes of this Part of this Schedule includes the use and maintenance of the authorised works and construction of any works authorised by this Schedule;

"Birkhill Wood Project" means the proposed new substation to be known as Birkhill Wood Substation to be located at Creyke Beck in the East Riding of Yorkshire, construction of access road from the A1079, overhead line works, utilities and watercourse crossings and associated works to be undertaken by National Grid Electricity Transmission Plc and any temporary construction compounds and laydown areas for such works;

"Birkhill Wood Site" includes –

(a) land on which any Birkhill Wood apparatus is situated; and

(b) land on which Birkhill Wood apparatus is anticipated to be situated which is necessary for the construction, use or maintenance of the Birkhill Wood Project (in so far as the same has been notified by National Grid Electricity Transmission Plc in writing to the undertaker);

“commence” and “commencement” in this Part of this Schedule shall include any below ground surveys, monitoring, ground work operations or the receipt and erection of construction plant and equipment;

“deed of consent” means a deed of consent, crossing agreement, deed of variation or new deed of grant agreed between the parties acting reasonably in order to vary or replace existing easements, agreements, enactments and other such interests so as to secure land rights and interests as are necessary to carry out, maintain, operate and use the apparatus in a manner consistent with the terms of this Part of this Schedule;

“functions” includes powers and duties;

“ground mitigation scheme” means a scheme approved by National Grid Electricity Transmission Plc (such approval not to be unreasonably withheld or delayed) setting out the necessary measures (if any) for a ground subsidence event;

“ground monitoring scheme” means a scheme for monitoring ground subsidence which sets out the apparatus which is to be subject to such monitoring, the extent of land to be monitored, the manner in which ground levels are to be monitored, the timescales of any monitoring activities and the extent of ground subsidence which, if exceeded, shall require the undertaker to submit for National Grid Electricity Transmission Plc’s approval a ground mitigation scheme;

“ground subsidence event” means any ground subsidence identified by the monitoring activities set out in the ground monitoring scheme that has exceeded the level described in the ground monitoring scheme as requiring a ground mitigation scheme;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over, across, along or upon such land;

“Incentive Deduction” means any incentive deduction National Grid Electricity Transmission Plc Electricity Transmission plc receives under its electricity transmission licence which is caused by an event on its transmission system that causes electricity not to be supplied to a demand customer and which arises as a result of the authorised works; “maintain” and “maintenance” shall include the ability and right to do any of the following in relation to any apparatus or alternative apparatus of National Grid Electricity Transmission Plc including to construct, use, repair, alter, inspect, renew or remove the apparatus;

“National Grid Electricity Transmission Plc” means National Grid Electricity Transmission Plc (Company Number 2366977) whose registered office is at 1-3 Strand, London, WC2N 5EH or any successor as a licence holder within the meaning of Part 1 of the Electricity Act 1989;

"Dogger Bank South project works" means any part of Work Nos. 15A/B, 18A/B, 31A/B, 32A/B, 34A/B described in Schedule 1 of this Order (authorised development);

“NGESO” means as defined in the STC;

"North Humber to High Marnham Project" means the proposed new high voltage electricity transmission line and associated works between a new substation at Creyke Beck in the East Riding of Yorkshire and a new substation at High Marnham in Nottinghamshire to be undertaken by National Grid Electricity Transmission Plc;

" North Humber to High Marnham Site" includes –

(a) land on which any North Humber to High Marnham apparatus is situated; and

(b) land on which North Humber to High Marnham apparatus is anticipated to be situated which is necessary for the construction, use or maintenance of the North Humber to High Marnham Project (in so far as the same has been notified by National Grid Electricity Transmission Plc in writing to the undertaker);

“plan” or “plans” include all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe and assess the works to be executed;

“parent company” means a parent company of the undertaker acceptable to and which shall have been approved by National Grid Electricity Transmission Plc acting reasonably;

"shared area works" means:

(a) the Dogger Bank South project works;

(b) the access works; and

(c) any part of the authorised works taking place on any land associated with the Birkhill Wood Project, the North Humber to High Marnham Project, the Wanlass Beck Site and/or any access thereto;

“specified works” means any of the authorised works or activities undertaken in association with the authorised works which:

(a) will or may be situated over, or within 15 metres measured in any direction of any apparatus the removal of which has not been required by the undertaker under paragraph 6(2) or otherwise; and/or

(b) may in any way adversely affect any apparatus the removal of which has not been required by the undertaker under paragraph 6(2) or otherwise; and/or

(c) includes any of the activities that are referred to in development near overhead lines EN43-8 and HSE’s guidance note 6 “Avoidance of Danger from Overhead Lines”.

“STC” means the System Operator Transmission Owner Code prepared by the electricity Transmission Owners and NGESO as modified from time to time;

“STC Claims” means any claim made under the STC against National Grid Electricity Transmission Plc arising out of or in connection with the de-energisation (whereby no electricity can flow to or from the relevant system through the generator or interconnector’s equipment) of a generator or interconnector party solely as a result of the de-energisation of plant and apparatus forming part of National Grid Electricity Transmission Plc’s transmission system which arises as a result of the authorised works;

“Transmission Owner” means as defined in the STC;

“undertaker” means the undertaker as defined in article 2(1) of this Order;

"Wanlass Beck Project" means the proposed extension of the existing Wanlass Beck Substation, construction of access road from the A1079, overhead line works, utilities and watercourse crossings and associated works to be undertaken by National Grid Electricity Transmission Plc and any temporary construction compounds and laydown areas for such works;

"Wanlass Beck Site" includes –

(a) land on which any Wanlass Beck apparatus is situated; and

(b) land on which Wanlass Beck apparatus is anticipated to be situated which is necessary for the construction, use or maintenance of the Wanlass Beck Project (in so far as the same has been notified by National Grid Electricity Transmission Plc in writing to the undertaker).

Interaction with the North Humber to High Marnham Project, Wanlass Beck Project and/or the Birkhill Wood Project

3. Without limiting any other provision of this Part of this Schedule, the undertaker must use reasonable endeavours to avoid any conflict arising between the construction, maintenance and operation of the authorised works and the North Humber to High Marnham Project, the Wanlass Beck Project and/or the Birkhill Wood Project. For the purposes of this paragraph, "reasonable endeavours" means –

(a) undertaking consultation on the detailed design and programming of the shared area works and all works associated with or ancillary to the shared area works to ensure that

the design and programme for the Dogger Bank South project works does not unreasonably impede or interfere with the North Humber to High Marnham Project, the Wanlass Beck Project and/or the Birkhill Wood Project;

- (b) having regard to the proposed programme of works for the North Humber to High Marnham Project, the Wanlass Beck Project and/or the Birkhill Wood Project as may be made available to the undertaker by National Grid Electricity Transmission Plc and facilitating a co-ordinated approach to the programme, land assembly, and the carrying out of the shared area works and the North Humber to High Marnham Project, the Wanlass Beck Project and/or the Birkhill Wood Project;
- (c) providing a point of contact for continuing liaison and co-ordination throughout the construction and operation of the authorised works; and
- (d) keeping National Grid Electricity Transmission Plc informed on the programme of works for the authorised works.

Shared area works

4. The undertaker must not except with the prior written agreement of National Grid Electricity Transmission Plc carry out the shared area works, or any part of it.

5.—(1) Before beginning to construct any shared area works, or any part of it, the undertaker must submit to National Grid Electricity Transmission Plc plans of the relevant shared area works (or part of it) and such further particulars available to it as National Grid Electricity Transmission Plc may request within 21 days of receipt of the plans reasonably requested.

(2) Any shared area works must not be constructed except in accordance with such plans as may be approved in writing by National Grid Electricity Transmission Plc.

6.—(1) Any approval of National Grid Electricity Transmission Plc required under this Schedule—

- (a) must not be unreasonably withheld or delayed;
- (b) in the case of a refusal must be accompanied by a statement of grounds or refusal;
- (c) may be given subject to such reasonable requirements as National Grid Electricity Transmission Plc may have in connection with the safe, economic and efficient construction, commissioning, operation, maintenance and future decommissioning of the North Humber to High Marnham Project, the Wanlass Beck Project and/or the Birkhill Wood Project or otherwise for the protection of the North Humber to High Marnham apparatus, the Wanlass Beck apparatus and/or the Birkhill Wood Project apparatus;
- (d) provided always that in relation to a refusal under sub-paragraph (b) or any requirements requested pursuant to sub-paragraph (c) the undertaker shall be permitted to refer such matters to dispute resolution pursuant to paragraph 20;
- (e) National Grid Electricity Transmission Plc must employ reasonable endeavours to respond to the submission of any plans within a period of 56 days from the date of submission of the plans. If National Grid Electricity Transmission Plc require further particulars, such particulars must be requested by National Grid Electricity Transmission Plc no later than 21 days from the submission of plans and thereafter National Grid Electricity Transmission Plc must employ reasonable endeavours to respond to the submission within 56 days from receipt of the further particulars.

7.—(1) The undertaker must give to National Grid Electricity Transmission Plc not less than 14 days' notice in writing of its intention to commence construction of any shared area works and notice in writing of its completion not later than 7 days after the date on which it is completed and National Grid Electricity Transmission Plc will be entitled by its officer to watch and inspect the construction of such works.

(2) If any part of the shared area works is constructed otherwise than in accordance with paragraph 5(2) above National Grid Electricity Transmission Plc may by notice in writing identify the extent to which the shared area works do not comply with the approved details and request the

undertaker at the undertaker's own expense carry out remedial works so as to comply with the requirements of paragraph 5(2) of this Schedule or such alternative works as may be agreed with National Grid Electricity Transmission Plc or as otherwise may be agreed between the parties.

(3) Subject to sub-paragraph (4), if within a reasonable period, being not less than 28 days beginning with the date when a notice under sub-paragraph (2) is served upon the undertaker, the undertaker has failed to begin taking steps to comply with the requirements of the notice and has not subsequently made reasonably expeditious progress towards their implementation, National Grid Electricity Transmission Plc may execute the works specified in the notice and any reasonable expenditure incurred by National Grid Electricity Transmission Plc in so doing will be recoverable from the undertaker.

(4) In the event of any dispute as to whether sub-paragraph (2) is properly applicable to any work in respect of which notice has been served under that sub-paragraph, or as to the reasonableness of any requirement of such a notice, National Grid Electricity Transmission Plc will not, except in the case of an emergency, exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined in accordance with paragraph 20.

On Street Apparatus

8. Except for paragraphs 9 (apparatus of National Grid Electricity Transmission Plc in streets subject to temporary closure), 14 (retained apparatus: protection of National Grid Electricity Transmission Plc as Electricity Undertaker), 15 (expenses) and 16 (indemnity) of this Schedule which will apply in respect of the exercise of all or any powers under the Order affecting the rights and apparatus of National Grid Electricity Transmission Plc, the other provisions of this Schedule do not apply to apparatus in respect of which the relations between the undertaker and National Grid Electricity Transmission Plc are regulated by the provisions of Part 3 of the 1991 Act.

Apparatus of National Grid Electricity Transmission Plc in streets subject to temporary closure

9.—(1) Where any street is closed under article 9 (temporary closure of streets), if National Grid Electricity Transmission Plc has any apparatus in the street or accessed via that street National Grid Electricity Transmission Plc has the same rights in respect of that apparatus as it enjoyed immediately before the closure and the undertaker must grant to National Grid Electricity Transmission Plc, or procure the granting to National Grid Electricity Transmission Plc of, legal easements reasonably satisfactory to National Grid Electricity Transmission Plc in respect of such apparatus and access to it prior to the closure of any such street but nothing in this paragraph affects any right of the undertaker or National Grid Electricity Transmission Plc to require the removal of that apparatus under paragraph 11 or the power of the undertaker, subject to compliance with this sub-paragraph, to carry out works under paragraph 14.

(2) Notwithstanding the temporary closure or diversion of any street under the powers of article 10 (temporary closure of streets), National Grid Electricity Transmission Plc is at liberty at all times to take all necessary access across any such closed street and to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of closure or diversion was in that street.

Protective works to buildings

10. The undertaker, in the case of the powers conferred by article 17 (protective work to buildings), must exercise those powers so as not to obstruct or render less convenient the access to any apparatus, the Wanlass Beck Site, the North Humber to High Marnham Site or to the Birkhill Wood Site without the prior written consent of National Grid Electricity Transmission Plc (such consent not to be unreasonably withheld or delayed).

Acquisition of land

11.(1) Regardless of any provision in this Order or anything shown on the land plans or contained in the book of reference to the Order, the undertaker may not (a) appropriate or acquire or take temporary possession of any land or apparatus or (b) appropriate, acquire, extinguish, interfere with or override any easement, other interest or right and/or apparatus of National Grid Electricity Transmission Plc otherwise than by agreement.

(2) Regardless of any provision in this Order or anything shown on the land plans, the undertaker must not unless otherwise agreed in writing with National Grid Electricity Transmission Plc appropriate, acquire or take temporary possession of any land forming part of the North Humber to High Marnham Site, the Wanlass Beck Site, the Birkhill Wood Site (such agreement not to be unreasonably withheld or delayed) and/or any access thereto.

(3) As a condition of an agreement between the parties in sub-paragraph (1), prior to the carrying out of any part of the authorised works (or in such other timeframe as may be agreed between National Grid Electricity Transmission Plc and the undertaker) that is subject to the requirements of this Part of this Schedule that will cause any conflict with or breach the terms of any easement or other legal or land interest of National Grid Electricity Transmission Plc or affect the provisions of any enactment or agreement regulating the relations between National Grid Electricity Transmission Plc and the undertaker in respect of any apparatus laid or erected in land belonging to or secured by the undertaker, the undertaker must as National Grid Electricity Transmission Plc reasonably requires enter into such deeds of consent upon such terms and conditions as may be agreed between National Grid Electricity Transmission Plc and the undertaker acting reasonably and which must be no less favourable on the whole to National Grid Electricity Transmission Plc unless otherwise agreed by National Grid Electricity Transmission Plc, and it will be the responsibility of the undertaker to procure and/or secure the consent and entering into of such deeds and variations by all other third parties with an interest in the land at that time who are affected by such authorised works.

(4) Save where otherwise agreed in writing between National Grid Electricity Transmission Plc and the undertaker the undertaker and National Grid Electricity Transmission Plc agree that where there is any inconsistency or duplication between the provisions set out in this Part of this Schedule relating to the relocation and/or removal of apparatus (including but not limited to the payment of costs and expenses relating to such relocation and/or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid Electricity Transmission Plc and/or other enactments relied upon by National Grid Electricity Transmission Plc as of right or other use in relation to the apparatus, then the provisions in this Schedule shall prevail.

(5) Any agreement or consent granted by National Grid Electricity Transmission Plc under paragraph 15 or any other paragraph of this Part of this Schedule, shall not be taken to constitute agreement under sub- paragraph (1).

Removal of apparatus

12.—(1) If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in or possesses temporarily any land in which any apparatus is placed, that apparatus must not be removed under this Part of this Schedule and any right of National Grid Electricity Transmission Plc to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed, and is in operation to the reasonable satisfaction of National Grid Electricity Transmission Plc in accordance with sub-paragraph (2) to (5).

(2) If, for the purpose of executing any works in, on, under or over any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, it must give to National Grid Electricity Transmission Plc a minimum of 56 days advance written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order National Grid Electricity Transmission Plc reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), secure any necessary consents for the alternative and afford to

National Grid Electricity Transmission Plc to its satisfaction (taking into account paragraph 7(1)) the necessary facilities and rights—

- (a) for the construction of alternative apparatus in other land of or land secured by the undertaker; and
- (b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of or land secured by the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2) in the land in which the alternative apparatus or part of such apparatus is to be constructed, National Grid Electricity Transmission Plc must, on receipt of a written notice to that effect from the undertaker, take such steps as are reasonable in the circumstances to assist the undertaker to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed save that this obligation does not extend to the requirement for National Grid Electricity Transmission Plc to use its compulsory purchase powers to this end unless it elects to do so.

(4) Any alternative apparatus to be constructed in land of or land secured by the undertaker under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between National Grid Electricity Transmission Plc and the undertaker.

(5) National Grid Electricity Transmission Plc must, after the alternative apparatus to be provided or constructed has been agreed, and subject to a written diversion agreement having been entered into and the grant to National Grid Electricity Transmission Plc of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part of this Schedule.

Facilities and rights for alternative apparatus

13.—(1) Where, in accordance with the provisions of this Part of this Schedule, the undertaker affords to or secures for National Grid Electricity Transmission Plc facilities and rights in land for the construction, use, maintenance and protection of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and National Grid Electricity Transmission Plc and must be no less favourable on the whole to National Grid Electricity Transmission Plc than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless otherwise agreed by National Grid Electricity Transmission Plc.

(2) If the facilities and rights to be afforded by the undertaker in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are less favourable on the whole to National Grid Electricity Transmission Plc than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the matter may be referred to arbitration in accordance with paragraph 20 (arbitration) of this Part of this Schedule and the arbitrator must make such provision for the payment of compensation by the undertaker to National Grid Electricity Transmission Plc as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

Retained apparatus: protection of National Grid Electricity Transmission Plc as Electricity Undertaker

14.—(1) Not less than 56 days before the commencement of any specified works the undertaker must submit to National Grid Electricity Transmission Plc a plan of the works to be executed and seek from National Grid Electricity Transmission Plc details of the underground extent of their electricity assets.

(2) In relation to specified works the plan to be submitted to National Grid Electricity Transmission Plc under sub-paragraph (1) must include a method statement and describe—

- (a) the exact position of the works;

- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation, positioning of plant;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus;
- (f) any intended maintenance regimes; and
- (g) an assessment of risks of rise of earth issues.
- (h) a ground monitoring scheme, where required.

(3) In relation to any works which will or may be situated on, over, under or within 10 metres of any part of the foundations of an electricity tower or between any two or more electricity towers, the plan to be submitted under sub-paragraph (1) must, in addition to the matters set out in sub-paragraph (2), include a method statement describing—

- (a) details of any cable trench design including route, dimensions, clearance to pylon foundations;
- (b) demonstration that pylon foundations will not be affected prior to, during and post construction;
- (c) details of load bearing capacities of trenches;
- (d) details of any cable installation methodology including access arrangements, jointing bays and backfill methodology;
- (e) a written management plan for high voltage hazard during construction and ongoing maintenance of any cable route;
- (f) written details of the operations and maintenance regime for any cable, including frequency and method of access;
- (g) assessment of earth rise potential if reasonably required by National Grid Electricity Transmission Plc's engineers; and
- (h) evidence that trench bearing capacity is to be designed to support overhead line construction traffic of up to and including 26 tonnes in weight.

(4) The undertaker must not commence any works to which sub-paragraphs (2) or (3) apply until National Grid Electricity Transmission Plc has given written approval of the plan so submitted.

(5) Any approval of National Grid Electricity Transmission Plc required under sub-paragraph (4)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraphs (6) or (7) and, may be given subject to such reasonable requirements as National Grid Electricity Transmission Plc may have in connection with the safe and efficient construction, commissioning, operation and maintenance of the North Humber to High Marnham Project, the Wanlass Beck Project and/or the Birkhill Wood Project; and,
- (b) must not be unreasonably withheld or delayed.

(6) In relation to any specified works to which sub-paragraphs (2) or (3) applies, National Grid Electricity Transmission Plc may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its apparatus against interference or risk of damage for the provision of protective works or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(7) Works executed under sub-paragraphs (2) or (3) must be executed in accordance with the plan, submitted under sub-paragraph (1) or as relevant sub-paragraph (6), as approved or as amended from time to time by agreement between the undertaker and National Grid Electricity Transmission Plc and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (6) or (8) by National Grid Electricity Transmission Plc for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National

Grid Electricity Transmission Plc will be entitled to watch and inspect the execution of those works.

(8) Where National Grid Electricity Transmission Plc requires any protective works to be carried out by itself or by the undertaker (whether of a temporary or permanent nature) such protective works, inclusive of any measures or schemes required and approved as part of the plan approved pursuant to this paragraph, such protective works must be carried out to National Grid Electricity Transmission Plc's satisfaction prior to the commencement of any authorised works (or any relevant part thereof) for which protective works are required and National Grid Electricity Transmission Plc shall give notice of its requirement for such works within 42 days of the date of submission of a plan pursuant to this paragraph (except in an emergency).

(9) If National Grid Electricity Transmission Plc in accordance with sub-paragraphs (6) or (8) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 1 to 3 and 6 to 8 apply as if the removal of the apparatus had been required by the undertaker under paragraph 7(2).

(10) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of the authorised works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph shall apply to and in respect of the new plan.

(11) The undertaker will not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in section 52 of the 1991 Act but in that case it must give to National Grid Electricity Transmission Plc notice as soon as is reasonably practicable and a plan of those works and must comply with sub-paragraphs (6), (7) and (8) insofar as is reasonably practicable in the circumstances and comply with sub-paragraph 12 at all times. At all times when carrying out any works authorised under the Order, the undertaker must comply with National Grid Electricity Transmission Plc's policies for development near overhead lines EN43-8 and HSE's guidance note 6 "Avoidance of Danger from Overhead Lines".

Expenses

15.—(1) Save where otherwise agreed in writing between National Grid Electricity Transmission Plc and the undertaker and subject to the following provisions of this paragraph, the undertaker must pay to National Grid Electricity Transmission Plc within 30 days of receipt of an itemised invoice or claim from National Grid Electricity Transmission Plc all charges, costs and expenses reasonably anticipated within the following three months or reasonably and properly incurred by National Grid Electricity Transmission Plc in, or in connection with, the inspection, removal, relaying or replacing, alteration or protection of any apparatus or the construction of any new or alternative apparatus which may be required in consequence of the execution of any authorised works including without limitation—

- (a) any costs reasonably incurred by or compensation properly paid by National Grid Electricity Transmission Plc in connection with the acquisition of rights or the exercise of statutory powers for such apparatus including without limitation all costs incurred by National Grid Electricity Transmission Plc as a consequence of National Grid Electricity Transmission Plc—
 - (i) using its own compulsory purchase powers to acquire any necessary rights under paragraph 7(3); or
 - (ii) exercising any compulsory purchase powers in the Order transferred to or benefitting National Grid Electricity Transmission Plc;
- (b) in connection with the cost of the carrying out of any diversion work or the provision of any alternative apparatus, where no written diversion agreement is otherwise in place;
- (c) the cutting off of any apparatus from any other apparatus or the making safe of redundant apparatus;
- (d) the approval of plans;

- (e) the carrying out of protective works, plus a capitalised sum to cover the cost of maintaining and renewing permanent protective works;
- (f) the survey of any land, apparatus or works, the inspection and monitoring of works or the installation or removal of any temporary works reasonably necessary in consequence of the execution of any such works referred to in this Part of this Schedule.

(2) There will be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part of this Schedule and which is not re-used as part of the alternative apparatus, that value being calculated after removal.

(3) If in accordance with the provisions of this Part of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with paragraph 14 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to National Grid Electricity Transmission Plc by virtue of sub-paragraph (1) will be reduced by the amount of that excess save to the extent that it is not possible in the circumstances to obtain the existing type of apparatus at the same capacity and dimensions or place at the existing depth in which case full costs will be borne by the undertaker.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus will not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole will be treated as if it also had been agreed or had been so determined.

(5) Any amount which apart from this sub-paragraph would be payable to National Grid Electricity Transmission Plc in respect of works by virtue of sub-paragraph (1) will, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on National Grid Electricity Transmission Plc any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

Indemnity

16.—(1) Subject to sub-paragraphs (2) and (3) if by reason or in consequence of the construction of any specified works authorised by this Part of this Schedule or in consequence of the construction, use maintenance or failure of any of the specified works by or on behalf of the undertaker or in consequence of any act or default of the undertaker (or any person employed or authorised by him) in the course of carrying out such works, including without limitation works carried out by the undertaker under this Part of this Schedule, or any subsidence resulting from any of these works, any damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of the specified works) or property of National Grid Electricity Transmission Plc, or there is any interruption in any service provided by National Grid Electricity Transmission Plc, or National Grid Electricity Transmission Plc becomes liable to pay any amount to any third party, the undertaker will—

- (a) bear and pay on demand accompanied by an invoice or claim from National Grid Electricity Transmission Plc the cost reasonably and properly incurred by National Grid Electricity Transmission Plc in making good such damage or restoring the supply; and
- (b) indemnify National Grid Electricity Transmission Plc for any other expenses, loss, demands, proceedings, damages, claims, penalties or costs incurred by or recovered from National Grid Electricity Transmission Plc, by reason or in consequence of any such damage or interruption or National Grid Electricity Transmission Plc becoming liable to any third party as aforesaid other than arising from any default of National Grid Electricity Transmission Plc.

(2) The fact that any act or thing may have been done by National Grid Electricity Transmission Plc on behalf of the undertaker or in accordance with a plan approved by National Grid Electricity Transmission Plc or in accordance with any requirement of National Grid Electricity Transmission Plc or under its supervision this will not (unless sub-paragraph (3) applies), excuse the undertaker from liability under the provisions of this sub-paragraph (1) unless National Grid Electricity Transmission Plc fails to carry out and execute the works properly with due care and attention and in a skilful and workman like manner or in a manner that does not accord with the approved plan.

(3) Nothing in sub-paragraph (1) imposes any liability on the undertaker in respect of—

- (a) any damage or interruption to the extent that it is attributable to the neglect or default of National Grid Electricity Transmission Plc, its officers, servants, contractors or agents;
- (b) any indirect or consequential loss of any third party (including but not limited to loss of use, revenue, profit, contract, production, increased cost of working or business interruption) arising from any such damage or interruption, which is not reasonably foreseeable;
- (c) any specified works and/or any other works authorised by this Part of this Schedule carried out by National Grid Electricity Transmission Plc as an assignee, transferee or lessee of the undertaker with the benefit of the Order pursuant to section 156 of the Planning Act 2008 or article 5 (benefit of Order) subject to the proviso that once such works become apparatus (“new apparatus”), any specified works yet to be executed and not falling within this sub-section 3(c) will be subject to the full terms of this Part of this Schedule including this paragraph 10;

(4) National Grid Electricity Transmission Plc must give the undertaker reasonable written notice of any such third party claim or demand as soon as reasonably practicable after National Grid Electricity Transmission Plc became aware of any such claims or demands, and no settlement, admission of liability or compromise must, unless payment is required in connection with a statutory compensation scheme, be made without the prior consent of the undertaker (which, if it withholds such consent, has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand).

(5) National Grid Electricity Transmission Plc must use all reasonable steps to mitigate in whole or in part and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph applies. If requested to do so by the undertaker, National Grid Electricity Transmission Plc must provide an explanation of how the claim has been minimised. The undertaker will only be liable under this paragraph for claims reasonably and properly incurred by National Grid Electricity Transmission Plc.

(6) National Grid Electricity Transmission Plc must, in respect of any matter covered by the indemnity given by the undertaker in this paragraph, at all times act reasonably and in the same manner as it would as if settling third party claims on its own behalf from its own funds.

(7) Not to commence construction (and not to permit the commencement of such construction) of the authorised works on any land owned by National Grid Electricity Transmission Plc or in respect of which National Grid Electricity Transmission Plc has an easement or wayleave for its apparatus or any other interest or to carry out any works within 15 metres of National Grid Electricity Transmission Plc’s apparatus until the following conditions are satisfied:

- (a) unless and until National Grid Electricity Transmission Plc is satisfied acting reasonably (but subject to all necessary regulatory constraints) that the undertaker has first provided the acceptable security (and provided evidence that it shall maintain such acceptable

security for the construction period of the authorised works from the proposed date of commencement of construction of the authorised works) and National Grid Electricity Transmission Plc has confirmed the same to the undertaker in writing; and

- (b) unless and until National Grid Electricity Transmission Plc is satisfied acting reasonably (but subject to all necessary regulatory constraints) that the undertaker has procured acceptable insurance (and provided evidence to National Grid Electricity Transmission Plc that it shall maintain such acceptable insurance for the construction period of the authorised works from the proposed date of commencement of construction of the authorised works) and National Grid Electricity Transmission Plc has confirmed the same in writing to the undertaker.

(8) In the event that the undertaker fails to comply with 11(7) of this Part of this Schedule, nothing in this Part of this Schedule shall prevent National Grid Electricity Transmission Plc from seeking injunctive relief (or any other equitable remedy) in any court of competent jurisdiction.

Enactments and agreements

17. Save to the extent provided for to the contrary elsewhere in this Part of this Schedule or by agreement in writing between National Grid Electricity Transmission Plc and the undertaker, nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and National Grid Electricity Transmission Plc in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

Co-operation

18.—(1) Where in consequence of the proposed construction of any part of the authorised works, the undertaker or National Grid Electricity Transmission Plc requires the removal of apparatus under paragraph 12(2) or National Grid Electricity Transmission Plc makes requirements for the protection or alteration of apparatus under paragraph 14, the undertaker shall use its best endeavours to co-ordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised works and taking into account the need to ensure the safe and efficient operation of National Grid Electricity Transmission Plc's undertaking and National Grid Electricity Transmission Plc shall use its best endeavours to co-operate with the undertaker for that purpose.

(2) Whenever National Grid Electricity Transmission Plc's consent, agreement or approval is required in relation to plans, documents or other information submitted by the undertaker or the taking of action by the undertaker, it must not be unreasonably withheld or delayed.

Access

19. If in consequence of the agreement reached in accordance with paragraphs 11(1) and 11(2) or the powers granted under this Order the access to any apparatus, the North Humber to High Marnham Site, the Wanlass Beck Site and/or the Birkhill Wood Site is materially obstructed, the undertaker must provide such alternative means of access to such apparatus, the North Humber to High Marnham Site, the Wanlass Beck Site and/or the Birkhill Wood site as will enable National Grid Electricity Transmission Plc to access, maintain or use the apparatus, the North Humber to High Marnham Site, the Wanlass Beck Site and/or the Birkhill Wood site no less effectively than was possible before such obstruction.

Arbitration

20. Save for differences or disputes arising under paragraph 12(2), 12(4), 13(1) and 14 any difference or dispute arising between the undertaker and National Grid Electricity Transmission Plc under this Part of this Schedule must, unless otherwise agreed in writing between the undertaker and National Grid Electricity Transmission Plc, be determined by arbitration in accordance with article 47 (arbitration).

Notices

21. Any plans submitted to National Grid Electricity Transmission Plc by the undertaker pursuant to this Part must be submitted using the LSBUD system (<https://lsbud.co.uk/>) or to such other address as National Grid Electricity Transmission Plc may from time to time appoint instead for that purpose and notify to the undertaker in writing.

SCHEDULE 16

Article 47

Arbitration Rules

Primary objective

1.—(1) The primary objective of these arbitration rules is to achieve a fair, impartial, final and binding award on the substantive difference between the parties (save as to costs) within four months from the date the Arbitrator is appointed pursuant to article 47 (*arbitration*) of the Order.

(2) The Parties shall first use their reasonable endeavours to settle a dispute amicably through negotiations undertaken in good faith by the senior management of the Parties. Any dispute which is not resolved amicably by the senior management of the Parties within 20 working days of the dispute arising, or such longer period as agreed in writing by the Parties, shall be subject to arbitration in accordance with the terms of this Schedule.

(3) The Arbitration will be deemed to have commenced when a party (“the Claimant”) serves a written notice of arbitration on the other party (“the Respondent”).

Time periods

2.—(1) All time periods in these Arbitration Rules are measured in working days and this will exclude weekends, bank holidays and public holidays.

(2) Time periods are calculated from the day after the Arbitrator is appointed which is either—

- (a) the date the Arbitrator notifies the parties in writing of the Arbitrator’s acceptance of an appointment by agreement of the parties; or
- (b) the date the Arbitrator is appointed by the Secretary of State.

Timetable

3.—(1) The timetable for the Arbitration is set out in sub-paragraphs (2) to (4) below unless amended in accordance with paragraph 5(3).

(2) Within 15 days of the Arbitrator being appointed, the Claimant must provide both the Respondent and the Arbitrator with—

- (a) a written Statement of Claim which describes the nature of the difference between the parties, the legal and factual issues, the Claimant’s contentions as to those issues, and the remedy it is seeking; and
- (b) all statements of evidence and copies of all documents on which it relies, including contractual documentation, correspondence (including electronic documents), legal precedents and expert witness reports.

(3) Within 15 days of receipt of the Claimant’s statements under sub-paragraph (2) by the Arbitrator and Respondent, the Respondent must provide the Claimant and the Arbitrator with—

- (a) a written Statement of Defence responding to the Claimant’s Statement of Claim, its statement in respect of the nature of the difference, the legal and factual issues in the Claimant’s claim, its acceptance of any element(s) of the Claimant’s claim, its contentions as to those elements of the Claimant’s claim it does not accept;

- (b) all statements of evidence and copies of all documents on which it relies, including contractual documentation, correspondence (including electronic documents), legal precedents and expert witness reports; and
- (c) any objections it wishes to make to the Claimant's statements, comments on the Claimant's expert report(s) (if submitted by the Claimant) and explanations for the objections.

(4) Within 5 days of the Respondent serving its statements under sub-paragraph (3), the Claimant may make a Statement of Reply by providing both the Respondent and the Arbitrator with—

- (a) a written statement responding to the Respondent's submissions, including its reply in respect of the nature of the difference, the issues (both factual and legal) and its contentions in relation to the issues;
- (b) all statements of evidence and copies of documents in response to the Respondent's submissions;
- (c) any expert report in response to the Respondent's submissions;
- (d) any objections to the statements of evidence, expert reports or other documents submitted by the Respondent; and
- (e) its written submissions in response to the legal and factual issues involved.

Procedure

4.—(1) The Arbitrator must make an award on the substantive difference(s) based solely on the written material submitted by the parties unless the Arbitrator decides that a hearing is necessary to explain or resolve any matters.

(2) Either party may, within 2 days of delivery of the last submission, request a hearing giving specific reasons why it considers a hearing is required.

(3) Within 5 days of receiving the last submission, the Arbitrator must notify the parties whether a hearing is to be held and the length of that hearing.

(4) Within 10 days of the Arbitrator advising the parties that he is to hold a hearing, the date and venue for the hearing must be fixed by agreement with the parties, save that if there is no agreement the Arbitrator must direct a date and venue which he considers is fair and reasonable in all the circumstances. The date for the hearing must not be less than 35 days from the date of the Arbitrator's direction confirming the date and venue of the hearing.

(5) A decision must be made by the Arbitrator on whether there is any need for expert evidence to be submitted orally at the hearing. If oral expert evidence is required by the Arbitrator, then any expert(s) attending the hearing may be asked questions by the Arbitrator.

(6) There is no process of examination and cross-examination of experts, but the Arbitrator must invite the parties to ask questions of the experts by way of clarification of any answers given by the expert(s) in response to the Arbitrator's questions. Prior to the hearing the procedure for the expert(s) is—

- (a) at least 20 days before a hearing, the Arbitrator must provide a list of issues to be addressed by the expert(s);
- (b) if more than one expert is called, they are to jointly confer and produce a joint report or reports within 10 days of the issues being provided; and
- (c) the form and content of a joint report must be as directed by the Arbitrator and must be provided at least 5 days before the hearing.

(7) Within 10 days of a hearing or a decision by the Arbitrator that no hearing is to be held the Parties may by way of exchange provide the Arbitrator with a final submission in connection with the matters in dispute and any submissions on costs. The Arbitrator must take these submissions into account in the Award.

(8) The Arbitrator may make other directions or rulings as considered appropriate in order to ensure that the parties comply with the timetable and procedures to achieve an award on the

substantive difference within four months of the date on which they are appointed, unless both parties otherwise agree to an extension to the date for the award.

(9) If a party fails to comply with the timetable, procedure or any other direction then the Arbitrator may continue in the absence of a party or submission or document, and may make a decision on the information before them attaching the appropriate weight to any evidence submitted beyond any timetable or in breach of any procedure and/or direction.

(10) The Arbitrator's award must include reasons. The parties must accept that the extent to which reasons are given are proportionate to the issues in dispute and the time available to the Arbitrator to deliver the award.

Arbitrator's powers

5.—(1) The Arbitrator has all the powers of the Arbitration Act 1996(a), including the non-mandatory sections, save where modified by these Rules.

(2) There will be no discovery or disclosure, except that the Arbitrator has the power to order the parties to produce such documents as are reasonably requested by another party no later than the Statement of Reply, or by the Arbitrator, where the documents are manifestly relevant, specifically identified and the burden of production is not excessive. Any application and orders are to be made by way of a Redfern Schedule without any hearing.

(3) Any time limits fixed in accordance with this procedure or by the Arbitrator may be varied by agreement between the parties, subject to any such variation being acceptable to and approved by the Arbitrator. In the absence of agreement, the Arbitrator may vary the timescales and/or procedure—

(a) if the Arbitrator is satisfied that a variation of any fixed time limit is reasonably necessary to avoid a breach of the rules of natural justice; and then

(b) only for such a period that is necessary to achieve fairness between the parties.

(4) On the date the award is made, the Arbitrator must notify the parties that the award is completed, signed and dated, and that it is to be issued to the parties on receipt of cleared funds for the Arbitrator's fees and expenses.

Costs

6.—(1) The costs of the Arbitration must include the fees and expenses of the Arbitrator, the reasonable fees and expenses of any experts and the reasonable legal and other costs incurred by the parties for the Arbitration.

(2) Subject to sub-paragraph (3), the Arbitrator must award recoverable costs on the general principle that each party should bear its own costs.

(3) The Arbitrator may depart from the general principle in sub-paragraph (2) and make such other costs award as it considers reasonable where a party has behaved unreasonably as set out in the Planning Practice Guidance or such other guidance as may replace it.

Confidentiality

7.—(1) Subject to sub-paragraphs (2) and (3), any arbitration hearing and documentation shall be open to and accessible by the public.

(2) Where the Arbitration relates to a dispute or difference under the provisions of Schedule 18, the hearings must take place in private unless otherwise agreed between the parties and any matters, materials, documents, awards, expert reports and the like are confidential and must not be disclosed to any third party without prior written consent of the other party.

(a) 1996 c. 23.

(3) The Arbitrator may direct that the whole or part of a hearing is to be private and/or any documentation to be confidential where it is necessary in order to protect commercially sensitive information.

(4) Nothing in this paragraph shall prevent any disclosure of a document by a party pursuant to an order of a court in England and Wales or where disclosure is required under any enactment.

SCHEDULE 17

Article 38

Hedgerows

PART 1

Removal of Hedgerows

<i>(1) Area</i>	<i>(2) Reference of hedgerow</i>
East Riding of Yorkshire District	The hedgerow marked H0003b on sheet 5 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0005 on sheet 5 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0007 on sheet 6 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0008 on sheet 7 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0010 on sheet 7 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0013 on sheet 8 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0014 on sheet 9 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0015 on sheet 9 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0016 on sheet 9 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0024 on sheet 12 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0026 on sheet 12 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0027 on sheet 12 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0028 on sheet 12 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0029 on sheet 12 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0032 on sheet 13 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0034 on sheet 14 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0035 on sheet 14 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0037 on sheet 15 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0038 on sheet 15 of the Tree Preservation Order and Hedgerow Plan

East Riding of Yorkshire District	The hedgerow marked H0107 on sheet 30 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0109 on sheet 31 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0110 on sheet 31 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0111 on sheet 31 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0113a on sheet 31 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0117 on sheet 32 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0118 on sheet 33 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0125 on sheet 35 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0126 on sheet 35 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0128 on sheet 34 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0129 on sheet 35 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0134 on sheet 35 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0135 on sheet 36 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0153 on sheet 37 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0154 on sheet 37 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0158 on sheet 37 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0165 on sheet 38 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0166 on sheet 38 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0166 on sheet 38 of the Tree Preservation Order and Hedgerow Plan

PART 2

Removal of important hedgerows

<i>(1) Area</i>	<i>(2) Reference of hedgerow</i>
East Riding of Yorkshire District	The hedgerow marked H0001 on sheet 5 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0002 on sheet 5 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0009 on sheet 7 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0011 on sheet 8 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0012 on sheet 8 of the Tree

East Riding of Yorkshire District	The hedgerow marked H0159 on sheet 37 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0160 on sheet 37 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0162 on sheet 38 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0163 on sheet 38 of the Tree Preservation Order and Hedgerow Plan
East Riding of Yorkshire District	The hedgerow marked H0164 on sheet 38 of the Tree Preservation Order and Hedgerow Plan

SCHEDULE 18

Article 49

Compensation Measures

PART 1

Dogger Bank Special Area of Conservation: Delivery of measures to compensate for sandbank loss

1. In this Part—

“Defra” means the Department for Environment, Food and Rural Affairs;

“Dogger Bank SAC” means the site designated as the Dogger Bank Special Area of Conservation;

“Strategic Compensation Fund” means a marine recovery fund operated by Defra pursuant to the Offshore Wind Environmental Improvement Package of the British Energy Security Strategy (April 2022), the Energy Act 2023 or any subordinate legislation made pursuant thereto, for the implementation of strategic compensation or any equivalent strategic compensation fund established for that purpose;

“Dogger Bank CIMP” means the Dogger Bank compensation implementation and monitoring plan for the delivery of measures to compensate for impacts on sandbanks within the Dogger Bank SAC as a result of the authorised development;

“Dogger Bank compensation plan” means the document certified as the Dogger Bank compensation plan for the purposes of this Order by the Secretary of State under article 42 (certification of plans and documents etc.); and

“DBCSG” means the project level Dogger Bank compensation steering group.

2. The offshore works within the Dogger Bank SAC may not be commenced until a plan for the work of the DBCSG has been submitted to and approved by the Secretary of State. Such plan to include—

- (a) terms of reference of the DBCSG;
- (b) details of the membership of the DBCSG which must include the relevant statutory nature conservation body and, where appropriate, the MMO as core members;
- (c) details of the proposed schedule of meetings, timetable for preparation of the Dogger Bank CIMP and reporting and review periods; and
- (d) the dispute resolution mechanism.

3. Following consultation with the DBCSG, the Dogger Bank CIMP must be submitted to the Secretary of State for approval in consultation with the MMO and relevant statutory nature conservation body.

4. The Dogger Bank CIMP must be based on the strategy for compensation set out in the Dogger Bank compensation plan and must include—

- (a) details of the method and level of support provided to Defra and relevant statutory nature conservation bodies;
- (b) details of contribution(s) paid or to be paid to the Strategic Compensation Fund;
- (c) estimated timescales for completing the designation; and
- (d) details of engagement in respect of monitoring and reporting of monitoring.

5. The undertaker must implement the measures set out in the Dogger Bank CIMP approved by the Secretary of State, unless otherwise agreed in writing by the Secretary of State in consultation with the MMO and relevant statutory nature conservation body.

6. The undertaker must notify the Secretary of State of—

- (a) completion of compensation pursuant to the Dogger Bank CIMP;
- (b) payment(s) into any Strategic Compensation Fund.

7. The Dogger Bank CIMP approved under this Schedule includes any amendments that may subsequently be approved in writing by the Secretary of State. Any amendments to or variations of the approved Dogger Bank CIMP must be in accordance with the principles set out in the Dogger Bank compensation plan and may only be approved where it has been demonstrated to the satisfaction of the Secretary of State that it is unlikely to give rise to any materially new or materially different environmental effects from those considered in the Dogger Bank compensation plan.

PART 2

Flamborough and Filey Coast Special Protection Area: Kittiwake Compensation Measures

1. In this Part—

“the offshore artificial nesting measure” means the offshore nesting structure(s);

“the onshore artificial nesting structure” means the existing onshore artificial nesting structure owned by the undertaker known as the Kittiwakery and located adjacent to the south shore of the River Tyne in Gateshead (planning permission reference DC/22/01188/FUL);

“Defra” means the Department for Environment, Food and Rural Affairs;

“the FFC” means the site designated as the Flamborough and Filey Coast Special Protection Area;

“kittiwake CIMP” means the kittiwake compensation implementation and monitoring plan for the delivery of measures to compensate for the predicted loss of adult kittiwakes from the FFC as a result of the authorised development;

“kittiwake compensation plan” means the document certified as the kittiwake compensation plan by the Secretary of State for the purposes of this Order under article 42 (certification of plans and documents etc.) and referenced in Schedule 19 (documents to be certified);

“KCSG” means the Kittiwake Compensation Steering Group;

“outline kittiwake CIMP” means the document certified as the outline kittiwake compensation implementation and monitoring plan by the Secretary of State for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified); and

“the Strategic Compensation Fund” means a fund operated by Defra pursuant to the Offshore Wind Environmental Improvement Package of the British Energy Security Strategy (April 2022), the Energy Act 2023 or any subordinate legislation made pursuant thereto, for the implementation of strategic compensation or any equivalent fund established for that purpose;

2. Work No. 1A and 1B may not be commenced until a plan for the work of the KCSG has been submitted to and approved by the Secretary of State. Such plan must include—

- (a) terms of reference of the KCSG;
- (b) details of the membership of the KCSG which must include the relevant statutory nature conservation body and, where appropriate and the MMO as core members;—
- (c) details of the proposed schedule of meetings, timetable for preparation of the Kittiwake CIMP and reporting and review periods; and
- (d) the dispute resolution mechanism.

3. Following consultation with the KCSG the Kittiwake CIMP must be submitted to the Secretary of State for approval, in consultation with the relevant statutory nature conservation body and, where appropriate, the MMO.

4. The Kittiwake CIMP must be in accordance with the outline kittiwake CIMP and based on the strategy for kittiwake compensation set out in the Kittiwake Compensation Plan and include—

- (a) where the offshore artificial nesting measure is proposed to be taken forward—
 - (i) details of the location(s) where the compensation measure will be delivered and details of any relevant seabed agreement(s);
 - (ii) details of the design of the offshore artificial nesting structure(s), including the projected number of nests that will be accommodated on the structure, and how risks from avian or mammalian predation and unauthorised human access will be mitigated;
 - (iii) an implementation timetable for the delivery of the offshore artificial nesting structure(s);
 - (iv) details of the maintenance schedule for the offshore artificial nesting structure(s);
 - (v) details of the proposed ongoing monitoring and reporting on the effectiveness of the measures, including: survey methods; success criteria; adaptive management measures; timescales for the monitoring and monitoring reports to be delivered; and details of the mechanism to determine the need for any alternative compensation measures and/or adaptive management measures;
 - (vi) monitoring should include annual monitoring of the number of birds colonising the site including nesting attempts and nest productivity;
 - (vii) provision for annual reporting to the Secretary of State, to include details of the use of the offshore artificial nesting structure(s) by breeding kittiwake to identify barriers to success and target any adaptive management measures in consultation with the KCSG;
 - (viii) recording of KCSG consultations; and
 - (ix) details of the proposed use (if any) of the onshore artificial nesting structure to support the compensation to be delivered by the offshore artificial nesting structure;
- (b) where the undertaker elects to pay a contribution to the Strategic Compensation Fund wholly or partly in substitution for the offshore artificial nesting measure or as an adaptive management measure—
 - (i) the sum of the contribution, to be agreed between the undertaker and Defra or other body responsible for the operation of the Marine Recovery Fund in consultation with the KCSG.
- (c) where the undertaker elects to pay a financial contribution towards the establishment of compensation measures by another party wholly or partly in substitution for the offshore artificial nesting measure or as an adaptive management measure—
 - (i) the technical specification of the compensation measure(s) to be agreed between the undertaker and the other party in consultation with the KCSG.

- (d) where the undertaker elects to collaborate with another party in the delivery of compensation measures wholly or partly in substitution for the offshore artificial nesting measure or as an adaptive management measure—
 - (i) the technical specification of the compensation measure(s) to be agreed between the undertaker and the other party in consultation with the KCSG.

5. The undertaker must implement the measures set out in the Kittiwake CIMP approved by the Secretary of State, unless otherwise agreed in writing by the Secretary of State in consultation with the relevant statutory nature conservation body and, where appropriate, the MMO. In particular, any turbine forming part of the authorised development must not begin operation until the specified number of full breeding seasons in the approved plan following the implementation of the measures set out in the Kittiwake CIMP have elapsed. For the purposes of this paragraph each breeding season is assumed to have commenced on 1 April in each year and ended on 30 September.

6. The undertaker must notify the Secretary of State of—

- (a) completion of implementation of the offshore artificial nesting measure referred to in paragraph 4(a);
- (b) payment into the Strategic Compensation Plan referred to in paragraph 4(b);
- (c) payment of a financial contribution towards the establishment of compensation measures by another party referred to in paragraph 4(c); and
- (d) completion of implementation of collaborative measures referred to in paragraph 4(d),

7. The offshore artificial nesting measure must not be decommissioned without written approval of the Secretary of State in consultation with relevant statutory nature conservation body.

8. The Kittiwake CIMP approved under this Schedule includes any amendments that may subsequently be approved in writing by the Secretary of State. Any amendments to or variations of the approved Kittiwake CIMP must be in accordance with the principles set out in the kittiwake compensation plan and may only be approved where it has been demonstrated to the satisfaction of the Secretary of State that it is unlikely to give rise to any materially new or materially different environmental effects from those considered in the kittiwake compensation plan.

PART 3

Flamborough and Filey Coast Special Protection Area and Farne Islands Special Protection Area: Guillemot Compensation Measures

1. In this Part—

- “Defra” means the Department for Environment, Food and Rural Affairs;
- “the Farne Islands SPA” means the site designated as the Farne Islands Special Protection Area”
- “the FFC” means the site designated as the Flamborough and Filey Coast Special Protection Area;
- “GCSG” means the Guillemot Compensation Steering Group;
- “Guillemot CIMP” means the guillemot compensation implementation and monitoring plan for the delivery of measures to compensate for the predicted loss of adult guillemots from the FFC and the predicted loss of adult guillemots from the Farne Island SPA as a result of the authorised development;
- “guillemot compensation measure” means the predator eradication measure;
- “guillemot compensation plan” means the document certified as the guillemot compensation plan by the Secretary of State for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“outline guillemot CIMP” means the document certified as the outline guillemot compensation implementation and monitoring plan by the Secretary of State for the purposes of this Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);

“Strategic Compensation Fund” means a fund operated by Defra pursuant to the Offshore Wind Environmental Improvement Package of the British Energy Security Strategy (April 2022), the Energy Act 2023 or any subordinate legislation made pursuant thereto, for the implementation of strategic compensation or any equivalent fund established for that purpose;

“the predator eradication measure” means a program of predator eradication.

2. Work No. 1A and 1B may not be commenced until a plan for the work of the GCSG has been submitted to and approved by the Secretary of State. Such plan to include—

- (a) terms of reference of the GCSG;
- (b) details of the membership of the GCSG which must include the relevant statutory nature conservation body and, where appropriate, the MMO and/or the relevant planning authority as core members;
- (c) details of the proposed schedule of meetings, timetable for preparation of the Guillemot CIMP and reporting and review periods; and
- (d) the dispute resolution mechanism.

3. Following consultation with the GCSG, the Guillemot CIMP must be submitted to the Secretary of State for approval in consultation with the relevant statutory nature conservation body and, where appropriate, the MMO and/or the relevant local planning authority.

4. The Guillemot CIMP must be in accordance with the outline guillemot CIMP and based on the strategy for guillemot compensation set out in the guillemot compensation plan and include—

- (a) where the predator eradication measure is proposed to be taken forward—
 - (i) details of the location(s) where the compensation measure will be delivered;
 - (ii) details of how any necessary land access rights, licences and approvals have or will be obtained and how any biosecurity measures will be or have been secured;
 - (iii) details of the party that will carry out the measure and how this has been secured;
 - (iv) an implementation timetable for delivery of the predator eradication measure, such timetable to specify a minimum period for the commencement of the predator eradication measure prior to the installation of any tower comprised within a wind turbine generator forming part of the authorised development;
 - (v) recording of GCSG consultations;
 - (vi) details of the proposed ongoing monitoring and reporting on the effectiveness of the measures, including: survey methods; success criteria; adaptive management measures; timescales for the monitoring and monitoring reports to be delivered; details of the maintenance schedule for the measures (if any) and details of the mechanism to determine the need for any alternative compensation measures and/or adaptive management measures;
 - (vii) provision for annual reporting to the Secretary of State, to include details of the use of the location(s) by breeding guillemot to identify barriers to success and target any adaptive management measures;
- (b) where the undertaker elects to pay a contribution to the Strategic Compensation Fund wholly or partly in substitution for the guillemot compensation measure or as an adaptive management measure—
 - (i) the sum of the contribution, to be agreed between the undertaker and Defra or other body responsible for the operation of the Strategic Compensation Fund in consultation with the GCSG.

- (c) where the undertaker elects to pay a financial contribution towards the establishment of compensation measures by another party wholly or partly in substitution for the guillemot compensation measure or as an adaptive management measure—
 - (i) the technical specification of the compensation measure(s) to be agreed between the undertaker and the other party in consultation with the GCSG.
- (d) where the undertaker elects to collaborate with another party in the delivery of compensation measure wholly or partly in substitution for the guillemot compensation measures or as an adaptive management measure—
 - (i) the technical specification of the compensation measure(s) to be agreed between the undertaker and the other party in consultation with the GCSG.

5. The undertaker must implement the measures set out in the Guillemot CIMP approved by the Secretary of State, unless otherwise agreed in writing by the Secretary of State in consultation with the relevant statutory nature conservation body and where appropriate the MMO and/or the relevant local planning authority.

6. The undertaker must notify the Secretary of State of—

- (a) the completion of the predator eradication measure referred to in paragraph 4(a);
- (b) payment into the Strategic Compensation Fund referred to in paragraph 4(b);
- (c) payment of a financial contribution towards the establishment of compensation measures by another party referred to in paragraph 4(c); and
- (d) completion of implementation of collaborative measures referred to in paragraph 4(d), to the extent that such measures are set out within the Guillemot CIMP approved by the Secretary of State.

7. The Guillemot CIMP approved under this Schedule includes any amendments that may subsequently be approved in writing by the Secretary of State. Any amendments to or variations of the approved Guillemot CIMP must be in accordance with the principles set out in the guillemot compensation plan and may only be approved where it has been demonstrated to the satisfaction of the Secretary of State that it is unlikely to give rise to any materially new or materially different environmental effects from those considered in the guillemot compensation plan.

SCHEDULE 19

Article 42

Documents to be certified

The following documents are the list referred to in article 42—

PART 1

DOCUMENTS FORMING THE ENVIRONMENTAL STATEMENT TO BE CERTIFIED

<i>(1) Application Document No.</i>	<i>(2) Examination Library Reference</i>	<i>(3) Document Description</i>	<i>(4) Version</i>	<i>(5) Date</i>
7.0	REP7-022	Environmental Statement Non-Technical Summary	2	June 2025
7.1	REP7-024	Environmental Statement Chapter 1 –	2	June 2025

		Introduction		
7.2	APP-065	Environmental Statement Chapter 2 – Need for the Project	1	June 2024
7.3	REP7-027	Environmental Statement Chapter 3 – Policy and Legislative Context	2	June 2025
7.4	REP7-028	Environmental Statement Chapter 4 – Site Selection & Assessment of Alternatives	3	June 2025
7.5	REP7-032	Environmental Statement Chapter 5 – Project Description	4	June 2025
7.6	APP-076	Environmental Statement Chapter 6 – Environmental Impact Assessment Methodology	1	June 2024
7.7	APP-079	Environmental Statement Chapter 7 – Consultation	1	June 2024
7.8	REP7-035	Environmental Statement Chapter 8 – Marine Physical Environment	2	June 2025
7.9	REP7-038	Environmental Statement Chapter 9 – Benthic and Intertidal Ecology	2	June 2025
7.10	REP7-042	Environmental Statement Chapter 10 – Fish and Shellfish Ecology	2	June 2025
7.11	REP7-045	Environmental Statement Chapter 11 – Marine Mammals	2	June 2025

7.12	REP6-015	Environmental Statement Chapter 12 – Offshore Ornithology	4	June 2025
7.13	REP7-048	Environmental Statement Chapter 13 – Commercial Fisheries	2	June 2025
7.14	REP7-051	Environmental Statement Chapter 14 – Shipping and Navigation	2	June 2025
7.15	REP7-056	Environmental Statement Chapter 15 – Aviation and Radar	2	June 2025
7.16	REP7-060	Environmental Statement Chapter 16 – Infrastructure and Other Users	4	June 2025
7.17	REP7-062	Environmental Statement Chapter 17 – Offshore Archaeology and Cultural Heritage	2	June 2025
7.18	REP7-064	Environmental Statement Chapter 18 – Terrestrial Ecology and Ornithology	6	June 2025
7.19	REP6-020	Environmental Statement Chapter 19 – Geology and Land Quality	2	June 2025
7.20	REP5-018	Environmental Statement Chapter 20 – Flood Risk and Hydrology	3	May 2025
7.21	REP5-022	Environmental Statement Chapter 21 – Land Use	4	May 2025
7.22	REP7-073	Environmental Statement Chapter 22 – Onshore Archaeology and	3	June 2025

		Cultural Heritage		
7.23	REP7-090	Environmental Statement Chapter 23 – Landscape and Visual Impact Assessment	2	June 2025
7.24	REP6-025	Environmental Statement Chapter 24 – Traffic and Transport	2	June 2025
7.25	REP6-028	Environmental Statement Chapter 25 – Noise	3	June 2025
7.26	REP7-096	Environmental Statement Chapter 26 – Air Quality	2	June 2025
7.27	APP-214	Environmental Statement Chapter 27 – Human Health	1	June 2024
7.28	APP-217	Environmental Statement Chapter 28 – Socio-economics	1	June 2024
7.29	REP6-033	Environmental Statement Chapter 29 – Tourism and Recreation	2	June 2025
7.30	REP6-036	Environmental Statement Chapter 30 – Climate Change	2	June 2025
7.4.1	REP7-030	Environmental Statement Chapter 4 – Site Selection and Assessment of Alternatives - Figure 4-1 to Figure 4-37	2	June 2025
7.5.1	REP7-034	Environmental Statement Chapter 5 – Project Description - Figure 5-1 to Figure 5-4	3	June 2025
7.8.1	REP7-037	Environmental Statement Chapter 8 – Marine Physical	3	June 2025

		Environment - Figure 8-1 to Figure 8-13 - Volume 7		
7.9.1	REP7-040	Environmental Statement Chapter 9 - Benthic and Intertidal Ecology - Figure 9-1 to Figure 9-6	2	June 2025
7.10.1	REP7-044	Environmental Statement Chapter 10 – Fish and Shellfish Ecology - Figure 10-1 to Figure 10-10	2	June 2025
7.11.1	REP7-047	Environmental Statement Chapter 11 – Marine Mammals - Figure 11-1 to Figure 11-6	2	June 2025
7.12.1	REP6-017	Environmental Statement Chapter 12- Offshore Ornithology Figure 12-1 to Figure 12-3	2	June 2025
7.13.1	REP7-050	Environmental Statement Chapter 13 – Commercial Fisheries - Figure 13-1 to Figure 13-2	2	June 2025
7.14.1	REP7-053	Environmental Statement Chapter 14 – Shipping and Navigation - Figure 14-1 to Figure 14-7	2	June 2025
7.15.1	APP-126	Environmental Statement Chapter 15 – Aviation and Radar - Figure 15-1 to Figure 15-3	1	June 2024
7.16.1	REP7-060	Environmental Statement	4	June 2025

		Chapter 16 – Infrastructure and Other Users - Figure 16-1 to Figure 16-6		
7.17.1	APP-134	Environmental Statement Chapter 17 – Offshore Archaeology and Cultural Heritage - Figure 17-1 to Figure 17-3	1	June 2024
7.18.1	REP7-066	Environmental Statement Chapter 18 – Terrestrial Ecology and Ornithology - Figure 18-1 to Figure 18-6	2	June 2025
7.19.1	REP6-022	Environmental Statement Chapter 19 – Geology and Land Quality - Figure 19-1 to Figure 19-9	4	June 2025
7.20.1	REP5-019	Environmental Statement Chapter 20 – Flood Risk and Hydrology - Figure 20-1 to Figure 20-6	2	May 2025
7.21.1	REP5-024	Environmental Statement Chapter 21 – Land Use - Figure 21-1 to Figure 21-6	3	May 2025
7.22.1	REP7-075	Environmental Statement Chapter 22 – Onshore Archaeology and Cultural Heritage Figure 22-1 to Figure 22-6	2	June 2025
7.23.1	REP4-039	Environmental Statement Chapter 23 – Landscape and Visual Impact Assessment - Figure 23-1 to	4	April 2025

		Figure 23-17		
7.24.1	REP6-027	Environmental Statement Chapter 24 – Traffic and Transport - Figure 24-1 to Figure 24-5	3	June 2025
7.25.1	REP6-030	Environmental Statement Chapter 25 – Noise - Figure 25-1	2	June 2025
7.26.1	REP7-098	Environmental Statement Chapter 26 – Air Quality - Figure 26-1 to Figure 26-4	2	June 2025
7.27.1	APP-215	Environmental Statement Chapter 27 – Human Health - Figure 27-1	1	June 2024
7.29.1	REP6-035	Environmental Statement Chapter 29 – Tourism and Recreation - Figure 29-1 to Figure 29-3	2	June 2025
7.4.4.1	APP-069	Environmental Statement Appendix 4-1 - Ofgem and National Grid Electricity System Operator Holistic Network Design Statements	1	June 2024
7.4.4.2	APP-070	Environmental Statement Appendix 4-2 – Access Strategy Development	1	June 2024
7.4.4.3	REP7-031	Appendix 4-3 Onshore Substation Zone Constraints	1	June 2025
7.5.5.1	APP-073	Environmental Statement Appendix 5-1 - Project Description Consultation	1	June 2024

		Responses		
7.5.5.2	REP4-030	Environmental Statement Appendix 5-2 - Obstacle Crossing Register	4	April 2025
7.5.5.3	REP2-016	Environmental Statement Appendix 5-3 - Engineering Drawings	2	February 2025
7.6.6.1	REP3-009	Environmental Statement Appendix 6-1 - Onshore Cumulative Effects Assessment Methodology	2	March 2025
7.6.6.2	APP-078	Environmental Statement Appendix 6-2 - Offshore Cumulative Effects Assessment Methodology	1	June 2024
7.8.8.1	APP-082	Environmental Statement Appendix 8-1 - Marine Physical Environment Consultation Responses	1	June 2024
7.8.8.2	APP-082	Environmental Statement Appendix 8-2 - Met Mast Survey Analysis	1	June 2024
7.8.8.3	REP2-017	Environmental Statement Appendix 8-3 – Marine Physical Processes Modelling Technical Report	3	February 2025
7.9.9.1	APP-087	Environmental Statement Appendix 9-1 - Benthic and Intertidal Ecology Consultation Responses	1	June 2024
7.9.9.2	APP-088	Environmental	1	June 2024

		Statement Appendix 9-2 - Intertidal Survey Report		
7.9.9.3	APP-089	Environmental Statement Appendix 9-3 - Benthic Ecology Monitoring Report	1	June 2024
7.9.9.4	APP-090	Environmental Statement Appendix 9-4 - Environmental Features Report	1	June 2024
7.9.9.5	REP7-041	Appendix 9-5 Biotopes and Species of Designated Sites	1	June 2025
7.10.10.1	APP-093	Environmental Statement Appendix 10-1 - Fish and Shellfish Ecology Consultation Responses	1	June 2024
7.10.10.2	APP-094	Environmental Statement Appendix 10-2 - Fish and Shellfish Ecology Technical Appendix	1	June 2024
7.11.11.1	APP-097	Environmental Statement Appendix 11-1 - Marine Mammal Consultation Responses	1	June 2024
7.11.11.2	APP-098	Environmental Statement Appendix 11-2 – Marine Mammal Information Report	1	June 2024
7.11.11.3	AS-137	Environmental Statement Appendix 11-3 - Underwater Noise Modelling Report	2	January 2025
7.11.11.4	REP5-013	Environmental Statement Appendix 11-4	3	May 2025

		Interim Population Consequence of Disturbance Modelling (iPCoD)		
7.11.11.5	APP-101	Environmental Statement Appendix 11-5 - Cumulative Effects Assessment Screening	1	June 2024
7.11.11.6	REP3-012	Environmental Statement Appendix 11-6 - Unexploded Ordnance Clearance Information and Assessment	3	March 2025
7.12.12.1	APP-104	Environmental Statement Appendix 12-1 – Offshore Ornithology Consultation Responses	1	June 2024
7.12.12.2	APP-105	Environmental Statement Appendix 12-2 - Technical Appendix	1	June 2024
7.12.12.3	AS-060	Environmental Statement Appendix 12-3a-c - Monthly Abundance (All, Sitting, Flying)	2	November 2024
7.12.12.4	AS-062	Environmental Statement Appendix 12-4a-c - Monthly Densities (All, Sitting, Flying)	2	November 2024
7.12.12.5	AS-064	Environmental Statement Appendix 12-5a-c - Seasonal Peak Abundance (All, Sitting, Flying)	2	November 2024
7.12.12.6	AS-066	Environmental Statement Appendix 12-6a-c - Seasonal	2	November 2024

		Peak Density (All, Sitting, Flying)		
7.12.12.7	AS-068	Environmental Statement Appendix 12-7a- c - Survey Abundances (All, Sitting, Flying)	2	November 2024
7.12.12.8	AS-070	Environmental Statement Appendix 12-8a- c - Survey Densities (All, Sitting, Flying)	2	November 2024
7.12.12.9	APP-112	Environmental Statement Appendix 12-9 - Collision Risk Modelling Outputs	1	June 2024
7.12.12.10	APP-113	Environmental Statement Appendix 12-10 - Species Distribution Figures	1	June 2024
7.12.12.11	APP-114	Environmental Statement Appendix 12-11 - Review of Turbines Lighting	1	June 2024
7.12.12.12	APP-115	Environmental Statement Appendix 12-12 - Seasonal Displacement Matrices Upper Lower C.I. Abundance	1	June 2024
7.12.12.13	REP6-018	Environmental Statement Appendix 12- 13 Population Viability Analyses	3	June 2025
7.13.13.1	APP-119	Environmental Statement Appendix 13-1 - Commercial Fisheries Consultation Responses	1	June 2024
7.13.13.2	APP-120	Environmental	1	June 2024

		Statement Appendix 13-2 - Commercial Fisheries Technical Report		
7.14.14.1	APP-123	Environmental Statement Appendix 14-1 - Shipping and Navigation Consultation Responses	1	June 2024
7.14.14.2	REP7-054	Environmental Statement Appendix 14-2 - Navigational Risk Assessment	2	June 2025
7.15.15.1	APP-127	Environmental Statement Appendix 15-1 - Aviation and Radar Consultation Responses	1	June 2024
7.15.15.2	REP7-058	Environmental Statement Appendix 15-2 - Airspace Analysis and Radar Modelling	2	June 2025
7.15.15.3	REP4-036	Environmental Statement Appendix 15-3 - Helicopter Access Report	2	April 2025
7.16.16.1	APP-132	Environmental Statement Appendix 16-1 - Infrastructure and Other Users Consultation Responses	1	June 2024
7.17.17.1	APP-135	Environment Statement Appendix 17-1 - Offshore Archaeology and Cultural Heritage Consultation Responses	1	June 2024
7.17.17.2	APP-136	Environmental Statement Appendix 17-2 - Archaeological Assessment of Geophysical	1	June 2024

		Data for Environmental Impact Assessment		
7.17.17.3	APP-137	Environmental Statement Appendix 17-3 - Palaeolandscapes Assessment of 2022 Marine Geophysical Data	1	June 2024
7.17.17.4	APP-138	Environmental Statement Appendix 17-4 – Stage 1 Geoarchaeological Review of Geotechnical Data	1	June 2024
7.17.17.5	APP-139	Environmental Statement Appendix 17-5 - Gazetteer of Recorded Losses	1	June 2024
7.18.18.1	APP-142	Environmental Statement Appendix 18-1 - Terrestrial Ecology and Ornithology Consultation Responses	1	June 2024
7.18.18.2	REP7-067	Environmental Statement Appendix 18-2 - Habitat Survey Report	3	June 2025
7.18.18.3	APP-144	Environmental Statement Appendix 18-3 - Great Crested Newt Report	1	June 2024
7.18.18.4	APP-145	Environmental Statement Appendix 18-4 - Badger Report - Confidential	1	June 2024
7.18.18.5	REP7-069	Environmental Statement Appendix 18-5 - Bats Report - Ground Level Tree Assessment	3	June 2025
7.18.18.6	APP-147	Environmental Statement	1	June 2024

		Appendix 18-6 - Bats Report - Monthly Activity Transects Part 1 of 2		
7.18.18.6	APP-148	Environmental Statement Appendix 18-6 - Bats Report - Monthly Activity Transects Part 2 of 2	1	June 2024
7.18.18.7	APP-149	Environmental Statement Appendix 18-7 - Ornithology Overwintering Report Part 1 of 3	1	June 2024
7.18.18.7	APP-150	Environmental Statement Appendix 18-7 - Ornithology Overwintering Report Part 2 of 3	1	June 2024
7.18.18.7	APP-151	Environmental Statement Appendix 18-7 - Ornithology Overwintering Report Part 3 of 3	1	June 2024
7.18.18.8	APP-152	Environmental Statement Appendix 18-8 - Ornithology Breeding Bird Report Part 1 of 4	1	June 2024
7.18.18.8	APP-153	Environmental Statement Appendix 18-8 - Ornithology Breeding Bird Report Part 2 of 4	1	June 2024
7.18.18.8	APP-154	Environmental Statement Appendix 18-8 - Ornithology Breeding Bird Report Part 3 of 4	1	June 2024
17.18.18.8	APP-155	Environmental Statement	1	June 2024

		Appendix 18-8 - Ornithology Breeding Bird Report Part 4 of 4		
17.18.18.9	REP2-021	Environmental Statement Appendix 18-9 - Water Voles and Otters Report	2	February 2025
7.18.18.10	REP5-015	Environmental Statement Appendix 18-10 - Biodiversity Net Gain Strategy	2	May 2025
7.19.19.1	APP-160	Environmental Statement Appendix 19-1 - Geology and Land Quality Consultation Responses	1	June 2024
7.19.19.2	REP6-023	Environmental Statement Appendix 19-2 – Geo- Environmental Desk Study and Preliminary Risk Assessment Report	2	June 2025
7.19.19.3	APP-162	Environmental Statement Appendix 19-3 - Onshore Waste Assessment	1	June 2024
7.20.20.1	APP-165	Environmental Statement Appendix 20-1 - Flood Risk and Hydrology Consultation Responses	1	June 2024
7.20.20.2	APP-166	Environmental Statement Appendix 20-2 - Geomorphologic al Baseline Survey Technical Report	1	June 2024
7.20.20.3	REP5-020	Environmental Statement Appendix 20-3 - Water Environment	4	May 2025

		Regulations Compliance Assessment		
7.20.20.4	REP7-071	Environmental Statement Appendix 20-4 - Flood Risk Assessment	2	June 2025
7.21.21.1	APP-171	Environmental Statement Appendix 21-1 - Land Use Consultation Responses	1	June 2024
7.22.22.1	APP-174	Environmental Statement Appendix 22-1 - Onshore Archaeology and Cultural Heritage Consultation Responses	1	June 2024
7.22.22.2	APP-175	Environmental Statement Appendix 22-2 - Onshore Archaeological Desk-Based Assessment	1	June 2024
7.22.22.3	APP-176	Environmental Statement Appendix 22-3 - Assessment of Airborne and Satellite Remote Sensing Data and Map Regression Analysis for Archaeology	1	June 2024
7.22.22.4	APP-177	Environmental Statement Appendix 22-4 - Heritage Walkover Survey Report	1	June 2024
7.22.22.5	REP7-076	Environmental Statement Appendix 22-5 - Onshore Infrastructure Settings Assessment	2	June 2025
7.22.22.6	APP-179	Environmental Statement Appendix 22-6 -	1	June 2024

		Geoarchaeological Desk Based Assessment		
7.22.22.7	APP-180	Environmental Statement Appendix 22-7 - Geophysical Assessment Report Part 1 of 9	1	June 2024
7.22.22.7	APP-181	Environmental Statement Appendix 22-7 - Geophysical Assessment Report Part 2 of 9	1	June 2024
7.22.22.7	APP-182	Environmental Statement Appendix 22-7 - Geophysical Assessment Report Part 3 of 9	1	June 2024
7.22.22.7	APP-183	Environmental Statement Appendix 22-7 - Geophysical Assessment Report Part 4 of 9	1	June 2024
7.22.22.7	APP-184	Environmental Statement Appendix 22-7 - Geophysical Assessment Report Part 5 of 9	1	June 2024
7.22.22.7	APP-185	Environmental Statement Appendix 22-7 - Geophysical Assessment Report Part 6 of 9	1	June 2024
7.22.22.7	APP-186	Environmental Statement Appendix 22-7 - Geophysical Assessment Report Part 7 of 9	1	June 2024
7.22.22.7	APP-187	Environmental Statement Appendix 22-7 - Geophysical	1	June 2024

		Assessment Report Part 8 of 9		
7.22.22.7	APP-188	Environmental Statement Appendix 22-7 - Geophysical Assessment Report Part 9 of 9	1	June 2024
7.22.22.8	APP-189	Environmental Statement Appendix 22-8 - Interim Archaeological Evaluation Report	1	June 2024
7.22.22.9	APP-190	Environmental Statement Appendix 22-9 - Archaeological and Geoarchaeological Watching Brief and Deposit Model Report	1	June 2024
7.22.22.10	APP-191	Environmental Statement Appendix 22-10 - Additional Assessment of Airborne and Satellite Remote Sensing Data and Map Regression Analysis for Archaeology	1	June 2024
7.22.22.11	REP7-078	Environmental Statement Appendix 22- 11 Phase 1 Trenching Report (Part 1 of 4)	1	June 2025
7.22.22.11	REP7-079	Environmental Statement Appendix 22- 11 Phase 1 Trenching Report (Part 2 of 4)	1	June 2025
7.22.22.11	REP7-080	Environmental Statement Appendix 22- 11	1	June 2025

		Phase 1 Trenching Report (Part 3 of 4)		
7.22.22.11	REP7-081	Environmental Statement Appendix 22- 11 Phase 1 Trenching Report (Part 4 of 4)	1	June 2025
7.22.22.12	REP7-082	Environmental Statement Appendix 22- 12 Full Coverage Geophysical Assessment Report (Part 1 of 6)	1	June 2025
7.22.22.12	REP7-083	Environmental Statement Appendix 22- 12 Full Coverage Geophysical Assessment Report (Part 2 of 6)	1	June 2025
7.22.22.12	REP7-084	Environmental Statement Appendix 22- 12 Full Coverage Geophysical Assessment Report (Part 3 of 6)	1	June 2025
7.22.22.12	REP7-085	Environmental Statement Appendix 22- 12 Full Coverage Geophysical Assessment Report (Part 4 of 6)	1	June 2025
7.22.22.12	REP7-086	Environmental Statement Appendix 22- 12 Full Coverage Geophysical Assessment Report (Part 5 of 6)	1	June 2025
7.22.22.12	REP7-087	Environmental Statement Appendix 22- 12 Full Coverage Geophysical	1	June 2025

		Assessment Report (Part 6 of 6)		
7.22.22.13	REP7-088	Environmental Statement Appendix 22- 13 Phase 2 Trenching Report (Part 1 of 2)	1	June 2025
7.22.22.13	REP7-089	Environmental Statement Appendix 22- 13 Phase 2 Trenching Report (Part 2 of 2)	1	June 2025
7.23.23.1	APP-194	Environmental Statement Appendix 23-1 - Landscape and Visual Impact Assessment Consultation Responses	1	June 2024
7.24.1	REP7-092	Environmental Statement Appendix 24-2 - Transport Assessment (Revision 3) Part 1 of 2	3	June 2025
7.24.1	REP7-094	Environmental Statement Appendix 24-2 - Transport Assessment (Revision 3) Part 2 of 2	3	June 2025
7.24.24.1	APP-197	Environmental Statement Appendix 24-1 - Traffic and Transport Consultation Responses	1	June 2024
7.24.24.2	REP7-092	Environmental Statement Appendix 24-2 - Transport Assessment Part 1 of 2	3	June 2025
7.24.24.2	REP7-094	Environmental Statement Appendix 24-2 - Transport	3	June 2025

		Assessment Part 2 of 2		
7.24.24.3	APP-199	Environmental Statement Appendix 24-3 - Abnormal Indivisible Load Access Report	1	June 2024
7.24.24.4	APP-200	Environmental Statement Appendix 24-4 - Interactions Between Impacts	1	June 2024
7.25.25.1	APP-203	Environmental Statement Appendix 25-1 - Noise Consultation Responses	1	June 2024
7.25.25.2	APP-204	Environmental Statement Appendix 25-2 - Baseline Noise Monitoring	1	June 2024
7.25.25.3	REP1-021	Environmental Statement Appendix 25-3 - Construction Noise Assessment	2	January 2025
7.25.25.4	APP-206	Environmental Statement Appendix 25-4 - Construction Road Traffic Noise Assessment	1	June 2024
7.25.25.5	REP6-031	Environmental Statement Appendix 25-5 - Operational Noise Assessment	2	June 2025
7.26.26.1	APP-210	Environmental Statement Appendix 26-1 - Air Quality Consultation Responses	1	June 2024
7.26.26.2	APP-211	Environmental Statement Appendix 26-2 - Construction Dust and Fine Particulate Matter	1	June 2024

		Assessment Methodology		
7.26.26.3	APP-212	Environmental Statement Appendix 26-3 - Air Quality Assessment Traffic Data	1	June 2024
7.26.26.4	APP-213	Environmental Statement Appendix 26-4 - Air Quality Assessment - Construction Phase Road Traffic Emissions Receptor Locations	1	June 2024
7.27.27.1	APP-216	Environmental Statement Appendix 27-1 - Human Health Consultation Responses	1	June 2024
7.28.28.1	APP-218	Environmental Statement Appendix 28-1 - Socio-economics Consultation Responses	1	June 2024
7.29.29.1	APP-221	Environmental Statement Appendix 29-1 - Tourism and Recreation Consultation Responses	1	June 2024
7.30.30.1	APP-223	Environmental Statement Appendix 30-1 - Climate Change Consultation Responses	1	June 2024
7.30.30.2	REP6-038	Environmental Statement Appendix 30-2 - Greenhouse Gas Assessment Methodology	2	June 2025
70.30.30.3	APP-225	Environmental Statement Appendix 30-3 - Climate Change Resilience Assessment	1	June 2024

		Methodology		
70.30.30.4	REP6.040	Environmental Statement Appendix 30-4 - Additional Wake Loss Scenarios	1	June 2025

PART 2

OTHER DOCUMENTS TO BE CERTIFIED

<i>(1) Application Document No. (and relevant ES Chapters)</i>	<i>(2) Examination Library Reference</i>	<i>(3) Document Description</i>	<i>(4) Version</i>	<i>(5) Date</i>
2.10	REP7-004	Access to works plan	2	June 2025
4.2	REP8-010	Book of reference	7	July 2025
8.20	REP6-043	Cable statement	5	June 2025
8.6	REP9-009	Commitments register	4	July 2025
8.8	REP7-103	Design and access statement	3	June 2025
13.8	REP7-124	Disposal Site Plan	2	June 2025
6.2.3	REP7-020	Dogger Bank compensation plan	4	June 2025
6.2.2	REP6-012	Guillemot [and razorbill] compensation plan	6	June 2025
8.23	REP7-115	In principle monitoring plan	5	June 2025
8.26	REP7-119	In principle Site Integrity Plan for the Southern North Sea Special Area of Conservation	4	June 2025
6.2.1		Kittiwake compensation plan	7	July 2025
2.7	REP4-002	Land plans	4	April 2025
2.3	APP-009	Offshore order limits and grid coordinates plan	1	June 2024
2.4	REP2-003	Onshore order limits and grid coordinates plan	2	February 2025
8.9	REP7-105	Outline code of construction	5	June 2025

		practice		
8.13	REP6-041	Outline construction traffic management plan	4	June 2025
8.12	REP7-109	Outline drainage strategy	4	June 2025
8.10	REP7-107	Outline ecological management plan	6	June 2025
8.28	REP4-056	Outline fisheries liaison and co-existence plan	4	April 2025
6.2.2.1	REP4-026	Outline guillemot [and razorbill] CIMP	2	April 2025
6.2.1.2	REP4-023	Outline kittiwake CIMP	2	April 2025
8.11	REP4-044	Outline landscape management plan	4	April 2025
8.25	REP7-117	Outline marine mammal mitigation protocol	5	June 2025
8.24	REP2-045	Outline offshore operations and maintenance plan	3	February 2025
8.21	REP2-041	Outline project environmental management plan	2	February 2025
8.27	REP6-045	Outline scour protection plan	4	June 2025
8.5	APP-230	Outline skills and employment strategy	1	June 2024
8.30	REP5-029	Outline vessel traffic monitoring plan	2	May 2025
8.22	APP-246	Outline written scheme of investigation (offshore)	1	June 2024
8.14	REP4-048	Outline onshore written scheme of investigation	2	April 2025
2.11	REP7-005	Public rights of way plan	2	June 2025
2.8	REP7-003	Special category land plan	3	June 2025

2.12	REP7-006	Streets plan	2	June 2025
2.18	REP4-004	Tree preservation order and hedgerow plan	6	April 2025
2.5	REP2-004	Works plans (offshore)	4	February 2025
2.6	REP2-005	Works plans (onshore)	4	February 2025
17.8	REP9-020	Herring Spawning Plan	2	July 2025
18.5	REP8-045	Cable installation works restricted area plan	1	July 2025

EXPLANATORY NOTE

(This note is not part of the Order)

This Order grants development consent for, and authorises the construction, operation, maintenance and decommissioning of two offshore generating stations located in the North Sea approximately 100km and 122km from the East Riding of Yorkshire coast together with associated development. The Order authorises the compulsory purchase of land and rights in land and the right to use land and to override easements and other rights.

This Order also grants deemed marine licences under Part 4 of the Marine and Coastal Access Act 2009 in connection with the wind farms. The deemed marine licences impose conditions in connection with the marine licensable activities.

A copy of the plans and book of reference referred to in this Order and certified in accordance with article 42 (*certification of plans and documents, etc.*) of this Order may be inspected free of charge at the offices of East Riding of Yorkshire Council at County Hall, Beverley, East Riding of Yorkshire, HU17 9BA.