



The Planning Inspectorate Yr Arolygiaeth Gynllunio

The Planning Act 2008

Hornsea Project Two

Examining Authority's Report of Findings and Conclusions

and

**Recommendation to the
Secretary of State for Energy and Climate Change**

Examining Authority

**John Glasson
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Michael Hayes
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16 March 2016

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ExA's findings and conclusions and recommendation in respect of an application by SMart Wind Limited (Dong -Hornsea Project 2) for a Development Consent Order granting consent for the Hornsea Project Two Offshore Wind Farms and Onshore connection to the national grid.

File Ref EN010053

The application, dated 30 January 2015, was made under section 37 of the Planning Act 2008 (PA2008) and was received in full by The Planning Inspectorate (the Inspectorate) on 30 January 2015.

The Applicant is SMart Wind Limited as agent on behalf of Optimus Wind Limited and Breesea Limited. Optimus and Breesea were owned jointly by Mainstream Renewable Power and Siemens Joint Ventures. However during the Examination, on 25 August 2015, Dong Energy Power (UK) Limited (Dong Energy) acquired the entire share capital of the companies - SMart Wind, Optimus Wind and Breesea, and became the sole owner of those companies. From the 25 August 2015 SMart Wind became the agent for and on behalf of Dong Energy.

The application was accepted for Examination on 19 February 2015. The Examination of the application began on 16 June 2015 and was completed on 16 December 2015.

The development proposed comprises up to two offshore wind generating stations in the North Sea, and all offshore and onshore infrastructure necessary to connect to the national grid. The installed generating capacity has a combined output of up to 1,800MW. The western boundary of the wind turbine zone is 89 km off the coast of the East Riding of Yorkshire; the zone covers an area of approximately 462 km². The transmission cables will come ashore at Horseshoe Point in Lincolnshire, and then run for about 40km underground to the North Killingholme National Grid substation.

Summary of Recommendation:

The Examining Authority recommends that the Secretary of State should make the Order in the form attached.

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ERRATA SHEET – Hornsea Project Two Offshore Wind Farm – Ref. EN010053

Examining Authority’s Report of Findings and Conclusions and Recommendation to the Secretary of State for the Department of Business, Energy, Innovation and Strategy dated 16 August 2016

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

Page No.	Paragraph	Error	Correction
25	ExA report Table 6.2.	Incorrect reference to Kittiwake <u>displacement</u> at the Flamborough Head and Bempton Cliffs SPA.	Collision risk during the operational phase
25	ExA report Table 6.2.	Incorrect reference to Puffin <u>collision</u> at the Flamborough and Filey Coast pSPA.	Displacement during the operational phase
177	9.4.18	The term “not” is a typo which should be removed.	Twenty-seven offshore plots (1 to 15, 17, 19, 20, 22 to 29 and 32), shown on the Crown Land Offshore Plans [REP3-009] and in the BoR [APP-022], located in the foreshore and bed of the River Humber, are in the ownership of the Crown and not subject to proposals for CA in accordance with s.135 of PA2008.
199	9.5.72	Reference to the plots in which APB have an interest, has been mistakenly omitted	By the close of the Examination all other land, previously identified as being held on behalf of the Crown, save for plots 1-15, 17, 19, 20, 22-29 and 32 in which ABP have interests, was evidenced as having been taken into the ownership of organisations not being the Crown or a Crown authority.

1 INTRODUCTION TO THE REPORT

1.1 INTRODUCTION

- 1.1.1 The application, dated 30 January 2015, was made under section 37 of the Planning Act 2008 (as amended) (PA2008) and was received in full by The Planning Inspectorate (the Inspectorate) on the same day.
- 1.1.2 The Applicant is SMart Wind Limited, acting on behalf of Optimus Wind Limited and Breesea Limited. Optimus and Breesea were owned jointly by Mainstream Renewable Power and Siemens Joint Ventures. Dong Energy Power (UK) Limited (Dong Energy) acquired full ownership of the share capital of SMart Wind, Optimus and Breesea on 25 August 2015, and became the sole owner of these companies [REP2A-023]. SMart Wind Ltd continued as the Applicant but, from 25 August 2015, as the agent for Dong Energy.
- 1.1.3 The application was accepted for Examination on 19 February 2015. The Examination of the application began on 16 June 2015 and was completed on 16 December 2015.
- 1.1.4 A substantial body of documentation has been submitted to and referred to by the Panel throughout the Examination. All submitted documents have been recorded in the Panel's Examination Library found at Appendix B to this report. References to these documents are recorded in this report in square brackets. The document library in turn provides hyperlinked access to copies of the documents referred to in this report, all of which are publicly available.

1.2 APPOINTMENT OF EXAMINING AUTHORITY

- 1.2.1 On 28 April 2015 a Panel of four Examining Inspectors was appointed under section 65 of PA2008 by the Secretary of State for Communities and Local Government as the Examining Authority (ExA) for the application [PD-004]:
- Prof. John Glasson (Lead Member)
 - Philip Asquith
 - Michael Hayes CBE
 - Dr. Peter Widd

1.3 THE APPLICATION

THE PROPOSED DEVELOPMENT

- 1.3.1 The application project is a nationally significant infrastructure project (NSIP) as defined by s.14(1)(a) of PA2008. It is for a generating station of over 100MW. The application is Environmental Impact Assessment (EIA) development as defined by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (EIA Regulations). It was accompanied by an Environmental Statement

(ES) which, in the view of the Panel, met the definition given in Regulation 2(1) of these Regulations.

- 1.3.2 Hornsea Offshore Wind Farm - Project Two (HP2), is the second of a number of wind farm projects planned for the Hornsea Zone. The Hornsea Zone is located in the southern North Sea. The East Riding of Yorkshire coast lies 31km to the west; the zone's eastern boundary is 1km from the median line between the United Kingdom and Dutch waters. The first wind farm project within the Hornsea Zone, Hornsea Project One (HP1), has a capacity of 1,200MW and was granted development consent by the Secretary of State (SoS) on 10 December 2014 (SI: 2014/331 and correction order SI: 2015/1280).
- 1.3.3 HP2 has a proposed capacity up to 1,800MW. The original application as submitted had up to 360 wind turbine generators (WTG). The development comprises up to two offshore wind turbine generating stations, in an area known as Subzone 2 of the Hornsea Zone of the North Sea, and all offshore and onshore infrastructure necessary to connect to the national grid. The western boundary of Subzone 2 lies 89km off the coast of the East Riding of Yorkshire; the eastern boundary is 50km from the median line between UK and Dutch waters. From the proposed landfall at Horseshoe Point in Lincolnshire, underground onshore cables will connect the offshore wind farms to the existing National Grid (NG) substation at North Killingholme in North Lincolnshire, a distance of about 40km.
- 1.3.4 Within the context of the Rochdale Envelope, the application provides for up to two wind farms, Project A and Project B, each with its own generation and transmission infrastructure. The application also provides for different types of offshore and onshore substations, and for different high voltage current technologies [APP-026], as set out in Chapter 2.

1.4 THE EXAMINATION AND PROCEDURAL DECISIONS

RELEVANT REPRESENTATIONS

- 1.4.1 The Applicant gave notice [OD-001] under ss.56 and 59 of the PA2008 that the application had been accepted for Examination and gave those persons an opportunity to make Relevant Representations (RRs); the Applicant certified its compliance on 23 April 2015. Thirty-two RRs were subsequently received, and considered by the Panel [RR-001 to RR-032].
- 1.4.2 A list of procedural decisions [PD-001 to PD-022] made by the ExA during the Examination is provided in the Examination Library at Appendix B of this Report.

PRELIMINARY MEETING

- 1.4.3 The ExA on 15 May 2015 invited all Interested Parties (IPs), Statutory Parties, Affected Persons (APs), and Other Persons to the Preliminary Meeting [PD-004 to PD-006]. The Preliminary Meeting was held at the

Ashbourne Hotel, North Killingholme, Lincolnshire, on 16 June 2015. At this meeting those in attendance were able to make representations about how the application should be examined.

- 1.4.4 Taking account of matters raised at the Preliminary Meeting, a Procedural Decision under Rule 8 of the Infrastructure Planning (Examination Procedure) Rules 2010 (EPR), was issued to the Applicant and all other IPs, Statutory Parties and other persons on 22 June 2015 [PD-008 and PD-009]. This included the timetable for the Examination. It was accompanied by the ExA's first written questions [PD-010] and a notification of the publication of a note of the Preliminary Meeting [EV-002].

PANEL'S WRITTEN QUESTIONS

- 1.4.5 The Panel issued two rounds of written questions, the first on the 22 June 2015 [PD-010] and the second on 29 September 2015 [PD-016]. Requests for further information under Rule 17 of the EPR were issued by the Panel on 21 July 2015 to Lincolnshire Wolds AONB Joint Advisory Partnership Committee [PD-011] and Mr Wilson [PD-012]. Further requests were issued on 4 August 2015 [PD-013] to the Applicant; on the 26 November 2015 [PD-019] to the Applicant, Statutory Undertakers, ConocoPhillips (UK) Ltd, E.ON E&P Ltd, the MMO and Natural England; and on the 7 December 2015 [PD-021] to the Applicant.

- 1.4.6 The first written questions were set out using an issues-based framework derived from the initial assessment of principal issues outlined at the Preliminary Meeting. This framework was used by all parties throughout the Examination and included sets of questions on the following:

- general;
- principle and nature of development;
- general ecological issues;
- ecology offshore-ornithology;
- ecology offshore-marine mammals;
- ecology-onshore and intertidal;
- landscape and heritage;
- construction-intertidal and onshore;
- construction-offshore;
- socio-economics;
- fishing, navigation and aviation;
- compulsory acquisition; and
- draft DCO.

SITE INSPECTIONS

- 1.4.7 The Panel carried out an accompanied site inspection on 29 July 2015. The visit enabled us to inspect a number of locations noted by the Panel, Applicant and others in the Preliminary Meeting as potentially important locations in relation to possible impacts from the HP2

intertidal and onshore cable route. The Panel contained two members who had carried out site inspections associated with the examination of the application for the now made DCO for HP1 and took account of relevant observations made during site inspections carried out during that Examination.

1.4.8 Particular locations visited included:

- the foreshore area proposed for the cable landfall at Horseshoe Point (near North Coates village) to consider a range of intertidal issues;
- two crossings of watercourses (Louth Canal crossing, and Team Gate Drain crossing) to consider ecological issues;
- two cable transport route crossings, to consider relationship with other infrastructure, noise and residential amenity concerns (North Killingholme railway crossing, and A160 roundabout near Habrough); and
- the onshore substation site (North Killingholme) to consider access to the NG substation, and relationship of HP2 with other projects, in particular with the likely transmission links to the NG substation of the recently consented HP1 and the C.Gen gas-fired power station project.

1.4.9 A full itinerary of the accompanied site inspection was published for comment, prior to it taking place [EV-005].

1.4.10 The Panel also undertook a number of short unaccompanied site inspections on publically accessible land namely, the landfall, North Coates village, and views around the substation site.

HEARINGS

1.4.11 As set out in the timetable for the Examination [PD-008] as notified on 13 August 2015 through PD-014, the following hearings were held:

- Issue Specific Hearing (ISH) on the draft Development Consent Order (DCO) held on 30 July 2015;
- ISH on, but not limited to: nature of development and relationship with HP1; construction impacts: onshore, intertidal and offshore; landscape and heritage; socio-economic impacts; fishing, navigation and aviation; and ecology, held on 15 and 16 September 2015;
- Compulsory Acquisition Hearing (CAH) held on 17 September 2015;

- ISH on, but not limited to: ecology; construction; landscape and visual; socio-economics; draft DCO and Deemed Marine Licences (DML), held on 27 and 28 October 2015; and
- CAH held on 29 October 2015.

1.4.12 All relevant and important matters that arose through the hearings and site inspections have been taken into account by the ExA.

LOCAL IMPACT REPORTS (LIR)

1.4.13 Under s.60 of PA2008 an invitation was issued to the relevant local authorities to submit a Local Impact Report (LIR). The following relevant local authorities submitted LIRs:

- North Lincolnshire Council [LIR-001]
- North East Lincolnshire Council [LIR-002]
- East Lindsey District Council [LIR-003]

1.4.14 North East Lincolnshire updated its LIR at Deadline 2¹ [REP2-012].

1.4.15 Each LIR set out a number of local policies that each Council deemed relevant to the application. The Councils also identified national level policies, these reflect those identified in Chapter 3 of this Report. These have been considered as part of the planning balance in relation to each issue. The LIRs also dealt with planning history on land included within the DCO. North Lincolnshire Council is the host authority for the substation site and therefore the planning history at this site was particularly relevant as part of this Examination. The planning history at the substation site included consents under PA2008 and the Town and Country Planning Act 1990 (TCPA).

1.4.16 Specific concerns highlighted through the LIRs are set out in Chapter 3. Matters raised in the LIRs were examined and the Panel has had regard to them in the writing of this report.

HABITATS REGULATIONS ASSESSMENT

1.4.17 Under Regulation 5(2)(g) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (APFP), where required, an application must be accompanied with sufficient information to enable the SoS to meet her statutory duties as the competent authority under the Habitats and Marine Regulations relating to European Sites. A Habitats Regulations Assessment (HRA) Report [APP-0171 to APP-0175] was therefore submitted with the application. Following acceptance the Applicant submitted updated matrices [APP-0205]. The matrices were subsequently updated during the Examination [REP4-037]. Natural England (NE) also supplied information to inform the matrices [REP3-034 to 038]. The RIES

¹ Hereafter references to the Examination Deadlines are abbreviated thus: D1, D2 etc
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issued by the Panel compiles, documents and signposts the information received with the application and during its Examination [PD-020].

- 1.4.18 All IPs were invited to provide comments on the RIES by 26 November 2015. Comments were provided by the Applicant, NE and the Royal Society for the Protection of Birds (RSPB). The RIES is made available to the SoS in the online Examination Library. This information will assist the SoS to carry out an Appropriate Assessment (AA), if required, as part of her statutory duties as the competent authority.

STATEMENTS OF COMMON GROUND

- 1.4.19 At D4, the Applicant provided an update that the following SoCGs were in their final form and signed [REP4-021]:

- Civil Aviation Authority [REP1-0104]
- Danish Fishermen PO [REP1-090]
- Environment Agency [REP1-091]
- East Anglia Offshore Wind Ltd (signed letter of comfort) [REP-086]
- East Lindsey District Council [AS-008, Appendix A]
- Historic England [REP1-099]
- Highways England [REP1-089]
- Lincolnshire County Council [REP2-033]
- Lincolnshire Wildlife Trust and The Wildlife Trusts (Lincs and Yorks) [REP1-092]
- Maritime and Coastguard Agency [REP1-093]
- Marine Management Organisation [REP1-0100]
- Natural England (Ornithology) [REP6-014]
- Natural England (all other matters) [REP5-026]
- NFFO, VisNed and HFIG [REP4-031]
- North East Lincolnshire Council [REP1-098]
- North Lincolnshire Council [REP2-035]
- Project One (Heron Wind Ltd, Njord Ltd and Vi Aura Ltd) [EV-024]
- Rederscentrale [REP1-095]
- Royal Yachting Association [REP1-096]
- Trinity House [REP1-097]
- Whale and Dolphin Conservation [REP2-034]
- VPI Immingham LLP (withdrawn following agreement) [REP2-037]

- 1.4.20 The following were in progress:

- Associated British Ports. This was not received; instead REP4-021 references a letter of comfort.
- RSPB (offshore ornithology). This was updated at D3 [REP3-030] and includes several matters not agreed, as will be discussed in later Chapters of this Report.

1.5 CONSULTATION ON THE DEVELOPMENT CONSENT ORDER THROUGH THE EXAMINATION

- 1.5.1 The Panel originally timetabled within the Rule 8 letter that a draft DCO as drafted by the Panel would be consulted upon. However, on 26 November 2015 [PD-019], the Panel deemed that no significant drafting changes were required to the DCO at that stage and therefore sought comments on the Applicant's latest DCO [REP5-006].
- 1.5.2 The draft DCO was updated several times during the Examination as a result of alterations suggested by the Applicant, IPs and the Panel. In response to the submissions, written questions by the Panel and the holding of two ISHs on the DCO, the Applicant produced in total seven successive versions of the draft DCO.

1.6 OTHER CONSENTS REQUIRED

- 1.6.1 In addition to consent under PA2008, a list of other environmental consents required was provided by the Applicant, as part of the application [APP-0179]. This was updated on 15 July 2015 [REP1-059]. The final version of this document was provided on 20 October 2015 [REP4-020].
- 1.6.2 At REP7-030, 'Other Regulatory Guidance', the Applicant also set out a number of other licence-related activities which require individual approval, often, but not always, from DECC. These include both UK Continental Shelf-wide issues and block specific issues.
- 1.6.3 The Panel was not provided with any evidence during the Examination that led us to believe that these various consents and licences would be withheld. Where appropriate, these consents are discussed further in Chapters 5 and 7.

1.7 REQUESTS TO BECOME OR WITHDRAW FROM BEING AN INTERESTED PARTY (S.102A, S.102B AND S.102ZA).

- 1.7.1 No party sought Interested Party status through s.102 of PA2008. The ExA invited a number of EEA States into the Examination [PD-006] through attributing 'other person' status to assist their involvement in the Examination. One party, Mr Broekhoven, of VisNed which represents a number of Dutch Fish Producer Organisations, was provided Other Person status in recognition of a late representation [PD-005].
- 1.7.2 No party requested removal as an IP. A number of representations were withdrawn during the Examination as a result of agreements between IPs and the Applicant. These have been referenced within the Report and marked as 'withdrawn' in the Examination Library.

1.8 UNDERTAKINGS/OBLIGATIONS GIVEN TO SUPPORT THE APPLICATION

1.8.1 No planning obligations have been sought by any Local Planning Authority (LPA) or offered by the Applicant.

1.9 STRUCTURE OF REPORT

1.9.1 In the chapters below, the Report sets out, respectively, the main features of the proposal and its site, the legal and policy context, the ExA's findings and conclusions on all important and relevant issues relating to development consent (including where relevant the adequacy of the environmental assessment), conclusions on compulsory acquisition powers applied for, the DCO, and finally the ExA's overall conclusions and recommendation to the SoS.

1.9.2 The various Good Design topic areas covered in Chapter 5 are divided into offshore and onshore categories.

1.9.3 HRA issues are covered in Chapter 6. Other Biodiversity issues are brought together in Chapter 7. The consideration of issues related to offshore ornithology and marine mammals in Chapter 7 draw on some of the methodological considerations set out in Chapter 6.

1.9.4 The Order as recommended to be made by the SoS is attached as Appendix D.

1.9.5 The full list of Appendices attached to this report are:

- Appendix A - The Examination
- Appendix B - Examination Library
- Appendix C - List of abbreviations
- Appendix D - Recommended DCO

2 MAIN FEATURES OF THE PROPOSAL AND SITE

2.1 THE APPLICATION AS MADE

- 2.1.1 The application was made by SMart Wind Ltd on behalf of Optimus Wind Limited and Breesea Limited. Dong Energy acquired full ownership of SMart Wind Limited (Optimus Wind Limited and Breesea Limited) on 25 August 2015 [REP2A-023].
- 2.1.2 SMart Wind Ltd continued as the Applicant but, from 25 August 2015, as the agent for Dong Energy.
- 2.1.3 The application is for development consent to construct, operate and maintain Hornsea Project Two (HP2). This is the second development proposed within the Hornsea Zone and it comprises up to two offshore wind farms (Projects A and B), consisting in total of up to 360 wind turbine generators, together with associated infrastructure and all associated development, with an installed capacity of up to 1,800MW.
- 2.1.4 The area within the Hornsea Zone in which turbines and inter-array cabling, as well as associated infrastructure for HP2, will be placed, has been labelled 'Subzone 2'. Subzone 2 is located in the centre of the Hornsea Zone, 89 km from the coast of the East Riding of Yorkshire and 50 km from the median line between United Kingdom and Dutch waters. Subzone 2 has an area of approximately 462 km² and lies within the UK Renewable Energy Zone [APP-025, Figures 1.1 and 1.2; APP-027, Figure 3.2].
- 2.1.5 The offshore cable route corridor for HP2 would extend from the proposed landfall at Horseshoe Point, near North Coates village, in Lincolnshire, offshore in a north-easterly direction to the southern boundary of Subzone 2. The route is approximately 150km in length.
- 2.1.6 From the proposed landfall point at Horseshoe Point, onshore cables will connect the offshore wind farm to the existing NG substation at North Killingholme (400 kilovolt (kV)) in the North Lincolnshire unitary authority. The onshore cable route is approximately 40km long. The Applicant states that it is proposing to transmit the electricity generated either via high voltage cables using direct current (HVDC) or alternating current (HVAC) or a combination of the two [APP-027]. As a consequence, the proposed project may differ slightly from the details given above but falls within the works described within the DCO and assessed in the ES [APP-027, para. 1.3.10].

PRINCIPAL WORKS

- 2.1.7 The development to be authorised is described within Schedule 1 Part 1 of the draft DCO as submitted for acceptance. It is divided into the following works relating to the project:

Works 1A and 1B-

- Up to 360 wind turbine generators fixed to the seabed
- A network of subsea inter-array electrical circuits
- Up to two offshore accommodation platforms

The combined total of wind turbine generators constructed in whole or in part within Work Nos. 1A and 1B must not exceed 360.

The combined total of accommodation platforms constructed in whole or in part within Work Nos. 1A and 1B must not exceed two.

Associated Development

- 2.1.8 The DCO seeks authorisation for associated development comprising up to six offshore HVAC collector substations required to gather power from the wind turbines. In the event that the mode of transmission is HVDC it includes up to two offshore HVDC converter substations. If the mode of transmission is HVAC the associated development will also include up to two offshore reactive compensation substations which will be built to limit electrical losses. The DCO includes the following works as associated development:

Works 2A and 2B-

Up to six offshore HVAC collector substations or up to two offshore HVDC converter substations subject to paragraph 6 of Part 1 of Schedule A of the DCO.

Works 3A and 3B-

In the event that the mode of transmission is HVAC - up to two offshore HVAC reactive compensation substations.

Works 4A and 4B-

Up to eight subsea electrical circuits proceeding from the offshore HVAC collector substation (Work 2A), or up to two electrical circuits proceeding from the offshore HVDC collector substation (Work 2B) subject to paragraph 8 of Part 1 of Schedule A of the DCO. In either case, this terminates at Work No. 5A or 5B.

Works 5-10

Onshore connection to the National Grid substation; including onshore HVDC converter substation and/or onshore HVAC substation.

- 2.1.9 Paragraph 13 of Part 1 of Schedule A further sets out associated development required to support this project including scour protection, dredging, cable protection measures, the disposal of material, works to alter the position of apparatus, works to alter the course of non-navigable rivers, streams or watercourses, landscaping works, works for the benefit of land, working sites during construction,

works to secure means of access, surface water drainage systems, private roads and hardstanding, link and/or earthing boxes, jointing pits, temporary haul roads, temporary access tracks and works to enable utility services to be run through specified land. The examples of possible associated development in the Order are not exhaustive and other works falling within the scope of associated development may be carried out provided they are within the scope of the EIA.

ANCILLARY WORKS

2.1.10 Proposed ancillary works are set out in Part 2 of Schedule A of the DCO:

Works and operations within the Order limits, comprising:

- (a) temporary anchorage of vessels; and
- (b) buoys, beacons, fenders and other navigational warning or ship impact protection works.

KEY LOCATION MAPS AND PLANS

2.1.11 The original maps and plans submitted with the application included:

- Works Plans Offshore [APP-013]; Onshore [APP-014]; and Intertidal [APP-015]
- Land Plans [APP-012]

2.1.12 The Applicant submitted an update to these in its response to s.51 issued on 19 February 2015:

- Works Plans Offshore [APP-0195]; Onshore [APP-0196]; and Intertidal [APP-0197]
- Land Plans [APP-0194]
- Crown Land Plans [APP-0198]
- Project One/Project Two Interface Plan [APP-0203]
- Compensation Compounds Plan [APP-0204]

2.1.13 These were further updated following D3 -24 September 2015:

- Works Plans Offshore [REP3-006]; Onshore [REP3-007]; and; Intertidal [REP3-008]
- Land Plans [REP3-005]
- Crown Land Plans [REP3-009]
- Project One/ Project Two Interface Plan [REP3-012]

2.1.14 A full list of plans to be certified by the SoS, including those updated and added during the Examination, is provided under Schedule M of the DCO and secured through Article 40.

2.2 THE APPLICATION AT THE CLOSE OF EXAMINATION

2.2.1 The works within the DCO did change, within the Order limits, and within the scope of the ES, during the Examination. The changes are drawn upon throughout the Report.

2.2.2 The Applicant, on 24 September 2015 [REP3-004 and REP3-027], requested various changes to the project, to remove overlaps with HP1 at the substation site and in relation to one offshore cable route option, plus other corrections of identified errata in the draft DCO. These changes included:

- removal of plot 227;
- the reduction of plot 226;
- the removal of plots 382 to 387 (inclusive) and 389 to 391 (inclusive);
- the reduction in size of plot 506 and proportionate increase to plot 505; and
- the reduction in Order limits to remove one of the Project's export cable route options within the HP1 wind farm array; this reduced the amount of Crown land within the Order limits.

2.2.3 These changes were put forward as a result of limiting the amount of land required under Compulsory Acquisition (CA) following further discussions with HP1 and the securing of protective provisions.

2.2.4 The ExA considered these changes in line with the relevant legislation and guidance and accepted them into the Examination. The changes were a reduction in the land required. All changes were possible within the Order limits and within the scope of the Environmental Statement. Through a procedural decision [PD-017, question G10] these changes were brought to the attention of all IPs and views sought.

2.2.5 In addition to this change, the Applicant on 26 November 2015 requested two further changes reducing the project's design envelope, with: the removal of the 5MW wind turbine generator (WTG) option (the smallest capacity is now a 6MW WTG), and increasing the minimum blade tip height from 26m relative to lowest astronomical tide (LAT) to 29.97m relative to LAT [REP6-001, Section 4]. On 4 December 2015, the Applicant requested further changes following ongoing discussions with Natural England (NE) [AS-013]. These changes consisted of a further increase in distance between blade tip and LAT by 5m, and a reduction in the rotor diameter from 250m to 241.03m. These changes were in relation to predicted offshore

ornithological impacts and are discussed in detail in Chapter 6 of this Report.

- 2.2.6 The removal of the 5MW WTG option leaves a design envelope comprising a WTG range from 6MW - 15MW. The consequence of this is an approximate 17% reduction in the overall maximum number of turbines within the project's envelope from 360 to 300. This would not restrict the project from maintaining the maximum generation capacity of 1,800MW [REP6-001, Section 4].
- 2.2.7 The ExA considered these changes in the same manner as the first set of changes and accepted them into the Examination, notifying all parties through a Procedural Decision on 7 December 2015 [PD-021] which sought views of all IPs by 13 December 2015.
- 2.2.8 The ExA concluded that all changes were within the upper limits of the Rochdale Envelope and had impacts equal to or less than the worst case scenarios set out in the ES, and all the changes were accepted by the ExA.

2.3 RELEVANT PLANNING HISTORY

- 2.3.1 The relevant planning history is covered in several application documents including APP-025 to APP-027, and APP-0166. The LIR submitted by North Lincolnshire Council [LIR-001] also provides a planning history since 1974 of that part of the site which is within the Council's area.
- 2.3.2 This planning history notes in particular the existence of two other relevant approved DCOs. Prior to the submission of the application for HP2, the SoS had, on 10 December 2014, granted consent for HP1 (SI: 2014/331 and correction order SI: 2015/1280). This is a very similar project to that being applied for as HP2. HP1 comprises up to three offshore wind farms, with a maximum generating capacity of 1,200 MW and offshore and onshore transmission cable routes which parallel much of the proposed HP2 routes, to the same National Grid North Killingholme substation. The nature of the relationships between HP1 and HP2 was an important consideration in the Examination.
- 2.3.3 The DCO for the North Killingholme Generating Station (C.Gen) came into force on 2 October 2014 (SI: 2014/2434 and correction order SI: 2015/1829). This application sought consent for the development of an electricity generating station on land to the east of the proposed HP2 substation site. The application included a grid connection which involves development within the HP1 and proposed HP2 DCO boundaries. However, this grid connection was not consented as part of the C.Gen DCO and requires separate planning consent under the TCPA 1990.
- 2.3.4 The relationships between the proposed HP2, HP1 and C.Gen schemes, were covered in some detail by the Panel in the Examination in both written questions [PD-010, for example questions PN3, CL12

and 16, SE4, DC16], [PD-017, for example questions CL20, 21 and CS18] and in the ISHs.

- 2.3.5 The relationship with C. Gen focussed specifically on substation cable routes and access to the North Killingholme NG substation. This issue is discussed further in this Report.
- 2.3.6 The relationship with HP1 covered several issues including: overlap of Order limits for onshore temporary workings and construction compounds; connection into the NG substation; intertidal access and working areas; onshore and offshore cable routes; and offshore wind turbine layouts. These issues and some approaches to their resolution were raised in a number of representations and submissions by Dong Energy HP1 [REP1-010 to REP1-022], including a draft SoCG with the Applicant [REP1-020], and were examined in the ISHs of 15-16 September 2015.
- 2.3.7 However, following Dong Energy's acquisition of the full share capital of the HP2 companies [REP2A-023], with the HP1 undertaker then being the same as the HP2 undertaker, draft protective provisions for the benefit of HP1 were agreed with the Applicant on behalf of Dong Energy [REP2A-025]. These covered all the previously outstanding areas of disagreement in the draft SoCG [REP1-020].
- 2.3.8 The construction timing of HP1 and HP2 are independent of one another: they could be separate, they could overlap or they could be carried out at the same time.
- 2.3.9 HP1 and HP2 have a considerable extent of closely located works areas, and some shared works areas, where rights and land overlap. This is mainly in relation to onshore cable alignment and grid connection works. Dependent on works' timing, the HP2 DCO includes land and rights that may be used by it directly or in compensation for land and rights authorised for HP1 works in the made DCO, provided because if it was constructed first it would 'take' and use land and rights from the HP1 DCO area.

3 LEGAL AND POLICY CONTEXT

3.1 INTRODUCTION

- 3.1.1 The Planning Statement [APP-0166] sets out the policy position in relation to the project and therefore is the primary application document in relation to this chapter of the Report. The document includes at Table 2.1 an assessment of the project against the policy requirements of National Policy Statements (NPSs) EN-1, EN-3 and EN-5. There are no other NPSs that are deemed to be relevant to this project.
- 3.1.2 The Policy and Legislation Chapter of the ES [APP-026] also sets out the policy position, with specific focus on international obligations and the national policy context. Individual chapters of the ES provide specific policy background relating to particular topics. The LIRs [LIR-001 to 003] also include local authority positions on applicable development plan policies and other local strategies.

3.2 PLANNING ACT 2008

- 3.2.1 The application is for a NSIP, namely an offshore generating station with a gross electrical output capacity of up to 1,800 MW initially comprising up to 360 WTGs (reduced to up to 300 WTGs following the changes noted in Chapter 2).
- 3.2.2 The Panel finds that the proposal falls within the terms of s.14(1)(a) of PA2008 in that it consists of the construction of a generating station and is within s.15(3) as the capacity exceeds 100 MWs. Section 104 of PA2008 applies "*in relation to an application for an order granting development consent if a national policy statement has effect in relation to development of the description to which the application relates.*" Section 104 requires the SoS to decide the application in accordance with any relevant national policy statements that have effect in relation to this application, subject to certain exceptions as specified in subsections 104(4) to (8). Details of specific NPSs applying in this case are set out below.
- 3.2.3 Section 104(2) of PA2008 sets out the matters to which the SoS must have regard in deciding an application submitted in accordance with PA2008. In summary, the matters set out in s.104(2) include any relevant NPS, any designated marine policy statements (MPS), any LIRs and any other prescribed matters the SoS thinks are both important and relevant to the decision.
- 3.2.4 This Report sets out the Panel's findings, conclusions and recommendations taking these matters fully into account and applying the approach set out in s.104 of PA2008.

3.3 NATIONAL POLICY STATEMENTS

3.3.1 The Panel considers that the relevant NPSs, setting out Government policy on different types of national infrastructure development, which are relevant in this case are:

- EN-1: Overarching Energy
- EN-3: Renewable Energy
- EN-5: Electricity Networks

These are produced by the Department for Energy and Climate Change (DECC). These NPSs received designation by the Secretary of State for Energy and Climate Change on 19 July 2011.

NPS EN-1 (OVERARCHING NPS FOR ENERGY)

3.3.2 This NPS sets out national policy for energy infrastructure, including the role of offshore wind which is expected to provide the largest single contribution towards the 2020 renewable energy targets. Part 4 of EN-1 makes clear that the assessment of applications for energy NSIPs “*should start with a presumption in favour of granting consent*” and sets out the assessment principles to be applied. Therefore, the Panel has applied the tests set out in EN-1 as one of the primary bases for its examination of the application.

3.3.3 Section 4.2 of NPS EN-1 sets out the policy principles applicable to the use of a Rochdale Envelope approach in energy development consenting. It states:

“ ... [w]here some details [of a proposal] are still to be finalised the ES should set out, to the best of the applicant’s knowledge, what the maximum extent of the proposed development may be in terms of site and plant specifications, and assess, on that basis, the effects which the project could have to ensure that the impacts of the project as it may be constructed have been properly assessed.”

3.3.4 For development with impacts on the marine environment, decision-makers are bound by duties imposed under sections 125 and 126 of the Marine and Coastal Access Act 2009. Therefore, decision-makers must have regard to the effects of a proposal on any Marine Conservation Zone (MCZ) as may be relevant. The NPS requires decision-makers to have regard to sites that are protected nationally, regionally and locally for their biodiversity significance. The NPS also draws attention to the need to safeguard the interests of other habitats and species that have their own, sometimes individual protection, under a range of legislative provisions.

3.3.5 Further aspects of NPS EN-1 are referred to as relevant throughout this Report.

NPS EN-3 (RENEWABLE ENERGY INFRASTRUCTURE)

- 3.3.6 This NPS sets out additional policy specific to renewable energy applications, including proposed offshore wind generation stations exceeding 100MW. Section 2.6 of EN-3 sets out detailed assessment principles for offshore wind proposals, and these have been applied by the Panel as one of the primary bases for its examination of the application.
- 3.3.7 Section 2.6 of NPS EN-3 goes on to consider the implications of the Rochdale Envelope approach in the context of renewable energy development. As a matter of policy, NPS EN-3 makes clear that matters such as, but not necessarily limited to, these may not be able to be specified precisely in an application:
- precise location and configuration of turbines and associated development;
 - foundation type;
 - exact turbine tip height;
 - cable type and cable route; and
 - exact locations of offshore and/or onshore substations.
- 3.3.8 The NPS provides them as an example, but does not seek to prescribe closely which matters must be assessed precisely and which matters are capable of assessment within a more flexible Rochdale Envelope based approach.
- 3.3.9 NPS EN-3 sets out more detailed considerations relevant to offshore wind farms. In terms of generic impact, NPS EN-3 makes clear that the designation of an area as a Natura 2000 site (a European site) *"does not necessarily restrict the construction or operation of offshore wind farms in or near that area"* (para. 2.6.69). It makes clear that mitigation should be considered in terms of the careful design of the development itself and of the construction techniques employed. Ecological monitoring is likely to be appropriate, both to enable the better management of the proposal itself and also, given the lack of scientific knowledge, to provide further useful information relevant to the management of future projects.
- 3.3.10 Further aspects of NPS EN-3 are referred to as relevant throughout this Report.

NPS EN-5 (ELECTRICITY NETWORKS INFRASTRUCTURE)

- 3.3.11 This NPS (paras. 1.8.1 and 1.8.2) sets out policy relevant to electricity transmission (400kV and 275kV) and distribution systems from transmission systems to the end user (130kV to 230kV). It also covers substations and converter stations.
- 3.3.12 The NPS is therefore relevant to this application insofar as it applies to subsea interconnecting cables, subsea export cables, onshore undergrounded cables, offshore collector stations and converter stations and the onshore HVDC converter station or HVAC substation.

3.3.13 The Panel notes that NPS EN-5 paragraphs 1.8.1 and 1.8.2 indicate that this NPS does not cover the inter-array cabling that forms part of the principal development (Work nos. 1 A and B, 2 A and B, and 3 A and B in Part 1 of Schedule A of the recommended DCO). However, the Panel finds no conflict between these elements of the principal works and the provisions of NPS EN-5. The final bullet point in paragraph 12 of the Department for Communities and Local Government (DCLG) guidance on associated development applications for major infrastructure projects (April 2013) indicates that infrastructure such as substations is capable of being either integral to a project or associated development.

3.3.14 EN-5 specifically identifies electromagnetic fields (EMF) as a consideration to be taken into account, but advises in paragraph 2.10.16 that:

"Where EMF (Electromagnetic Field) exposure is within the relevant public exposure guidelines, re-routing a proposed overhead line purely on the basis of EMF exposure, or undergrounding a line solely to further reduce the level of EMF exposure are unlikely to be proportionate mitigation measures."

3.3.15 EN-5 also establishes the need for applicants to address possible issues arising from electromagnetic fields that would be created by high-tension cables.

3.3.16 The Applicant included a report on electromagnetic field effects in the ES [APP-0156].

3.4 MARINE AND COASTAL ACCESS ACT 2009

3.4.1 The Marine and Coastal Access Act 2009 introduced the production of marine plans and designation of Marine Conservation Zones (MCZ) in the United Kingdom (UK) waters as well as establishing the Marine Management Organisation (MMO). The UK Marine Policy Statement (MPS) and marine planning are dealt with below. Under the Act the Secretary of State for Environment, Food and Rural Affairs designated, on 21 November 2013, 27 MCZs around the English coast to form part of a network of Marine Protected Areas and at the close a consultation was being undertaken about designating a further 23.

3.5 UK MARINE POLICY STATEMENT

3.5.1 The UK Marine Policy Statement (MPS) was prepared and adopted for the purposes of s.44 of the Marine and Coastal Access Act 2009 and was published on 18 March 2011 by all the UK administrations as part of a new system of marine planning being introduced across UK seas. It has equivalent statutory status to NPSs.

3.5.2 The MPS is the framework for preparing Marine Plans and taking decisions affecting the marine environment. It contributes to the achievement of sustainable development in the UK marine area. The UK marine area includes the territorial seas and offshore area adjacent

to the UK, which includes the area of sea designated as the UK Exclusive Economic Zone (the Renewable Energy Zone until the Exclusive Economic Zone comes into force) and the UK sector of the continental shelf. It includes any area, submerged by seawater at mean high water spring tide, as well as the tidal extent (at mean high water spring tide) of rivers, estuaries and creeks.

3.5.3 The MPS is the framework for marine planning systems within the UK. It provides the high level policy context, within which national and sub-national Marine Plans will be developed, implemented, monitored, and amended and will ensure appropriate consistency in marine planning across the UK marine area. The MPS also sets the direction for marine licensing and other relevant authorisation systems.

3.5.4 The MPS thus provides a statutory policy context for the ExA's consideration of the application offshore works and Deemed Marine Licences (DMLs).

3.6 EAST INSHORE AND EAST OFFSHORE MARINE PLANS (EIEOMP)

3.6.1 The East Inshore and East Offshore areas are the first areas in England to be selected for the production of marine plans. The plans were adopted and published on 2 April 2014. The East Inshore area includes a coastline that stretches from Flamborough Head to Felixstowe. The offshore elements of the proposed HP2 wind farm would be entirely within the areas covered by the marine plans.

3.6.2 The Panel notes that the plans contain a number of objectives and policies that must be taken into consideration, particularly Objective 3 in paragraph 52, which states that the plan should:

"... realise sustainably the potential of renewable energy, particularly offshore wind, which is likely to be the most significant transformational economic activity over the next 20 years in the East marine plan areas, helping to achieve the UK's energy security and carbon reduction objectives".

3.6.3 Policies elaborate the ten objectives of the plans and cover economic growth and employment benefits, renewable energy, support for communities, conservation of heritage assets and seascape, conservation of the marine ecosystem, protection of and recovery of biodiversity, support for MPAs, support for climate change adaptation and mitigation and integration with other plans.

3.6.4 Under s.104 (2)(aa) of the PA2008 the SoS must have regard to '*...the appropriate marine policy documents.*' The appropriate marine policy documents are therefore the MPS and the adopted EIEOMP (para. 4.9).

3.6.5 The Applicant considered the implications of marine policy and plans in ss.3.4 and 3.5 of the HP2 Planning Statement [APP-0166].

3.7 EUROPEAN REQUIREMENTS AND RELATED UK REGULATIONS

RENEWABLE ENERGY DIRECTIVE 2009

3.7.1 The Renewable Energy Directive sets out legally binding targets for Member States with the expectation that by the year 2020, 20% of the European Union's energy mix and 10% of transport energy will be generated from renewable energy sources. The UK's contribution to the 2020 target is that by then 15% of energy will be from renewable sources. The UK Renewable Energy Strategy 2009 (Renewable Energy Strategy) sets out how the UK proposes to meet the targets.

3.7.2 This Directive is relevant and referenced in the Applicant's need case for the project.

HABITATS DIRECTIVE (COUNCIL DIRECTIVE 92/43/EEC)

3.7.3 The Habitats Directive (together with the Council Directive 79/409/EEC on the conservation of wild birds (Wild Birds Directive) (Birds Directive)) forms the cornerstone of Europe's nature conservation policy. It is built around two pillars: the Natura 2000 network of protected sites and the strict system of species protection. The Directive protects species and habitats which are of European importance.

WILD BIRDS DIRECTIVE (COUNCIL DIRECTIVE 2009/147/EC)

3.7.4 The Birds Directive is a comprehensive scheme of protection for all wild bird species naturally occurring in the European Union. The directive recognises that habitat loss and degradation are the most serious threats to the conservation of wild birds. It therefore places great emphasis on the protection of habitats for endangered as well as migratory species. It requires classification of areas as Special Protection Areas (SPAs) comprising all the most suitable territories for these species. Since 1994 all SPAs form an integral part of the Natura 2000 ecological network.

3.7.5 The Birds Directive bans activities that directly threaten birds, such as the deliberate killing or capture of birds, the destruction of their nests and taking of their eggs, and associated activities such as trading in live or dead birds. It requires Member States to take the requisite measures to maintain the population of species of wild birds at a level which corresponds, in particular, to ecological, scientific, and cultural requirements while taking account of economic and recreational requirements.

3.7.6 The engagement of these Directives by this application is set out in Chapter 6.

CONSERVATION AND SPECIES REGULATIONS 2010 (AS AMENDED) THE HABITATS REGULATIONS

CONSERVATION OF HABITATS AND SPECIES (AMENDMENT) REGULATIONS 2012

- 3.7.7 The Conservation of Habitats and Species Regulations 2010 replaced The Conservation (Natural Habitats, and c.) Regulations 1994 (as amended) in England and Wales. The Conservation of Habitats and Species Regulations 2010 (which are the principal means by which the Habitats Directive is transposed in England and Wales) update the legislation and consolidated all the many amendments which have been made to the regulations since they were first made in 1994.
- 3.7.8 The Conservation of Habitats and Species Regulations 2010 apply in the terrestrial environment and in territorial waters out to 12 nautical miles. The EU Habitats and Wild Birds Directives are transposed in UK offshore waters by separate regulations – The Offshore Marine Conservation (Natural Habitats and c.) Regulations 2007 (as amended).
- 3.7.9 The Conservation of Habitats and Species (Amendment) Regulations 2012 came into force on 16 August 2012.
- 3.7.10 These Regulations amend the Habitats Regulations. They place new duties on public bodies to take measures to preserve, maintain and re-establish habitat for wild birds. They also make a number of further amendments to the Habitats Regulations to ensure certain provisions of Directive 92/43/EEC (the Habitats Directive) and Directive 2009/147/EC (the Wild Birds Directive) are transposed clearly.
- 3.7.11 The engagement of these Regulations in this application is set out in Chapter 6.

OFFSHORE MARINE CONSERVATION (NATURAL HABITATS, ETC.) REGULATIONS 2007 (AS AMENDED) (THE 2007 OFFSHORE REGULATIONS)

OFFSHORE MARINE CONSERVATION (NATURAL HABITATS ETC.) (AMENDMENT) REGULATIONS 2012

- 3.7.12 The Offshore Marine Conservation (Natural Habitats, etc.) Regulations 2007 (as amended) transpose Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) and Council Directive 79/409/EEC on the conservation of wild birds (Wild Birds Directive) into national law. They came into force on 21 August 2007. These regulations apply to the UK's offshore marine area which covers waters beyond 12 nautical miles (nm), within British Fishery Limits and the seabed within the UK Continental Shelf Designated Area. The Habitats Regulations form the legal basis for the implementation of the Habitats Directive and Birds Directive in terrestrial areas of the UK and territorial waters out to 12 nm.

- 3.7.13 The Offshore Habitats Regulations fulfil the UK's duty to comply with European law beyond inshore waters and ensure that activities regulated by the UK that have an effect on important species and habitats in the offshore marine environment can be managed. Under the Regulations, any competent authority has a general duty, in the exercise of any of their functions, to have regard to the EU Habitats and Wild Birds Directives.
- 3.7.14 The Offshore Marine Conservation (Natural Habitats, etc.) (Amendment) Regulations 2012 came into force on 16 August 2012.
- 3.7.15 The Offshore Marine Conservation (Natural Habitats, etc.) (Amendment) Regulations amend the 2007 Offshore Regulations. They place duties on competent authorities in relation to the offshore marine area, to take steps to meet the objective of preserving, maintaining and re-establishing habitat for wild birds, and use all reasonable endeavours to avoid any pollution or deterioration of habitats for wild birds. They also provide for a duty on the Secretary of State to take such steps to encourage research and scientific work relating to the offshore marine area as s/he considers necessary for the purpose of the protection, management and use of wild bird populations.
- 3.7.16 Wherever an application for development consent has the potential to have a significant effect on the conservation objectives of a Natura 2000 site, whether directly or in-combination with other plans and projects, the 2007 Offshore Habitats Regulations require that an Appropriate Assessment (AA) is undertaken by the competent authority (Regulation 61(1) of the Habitats Regulations) prior to any decision being made. Under the Habitats Regulations, an application can only be consented where it can be demonstrated that there will be no adverse effect on the integrity of a Natura 2000 site.

3.8 WATER FRAMEWORK DIRECTIVE

- 3.8.1 On 23 October 2000, the Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy or, in short, the EU Water Framework Directive (the WFD) was adopted.
- 3.8.2 The Directive was published in the Official Journal (OJ L 327) on 22 December 2000 and entered into force the same day. Some amendments have been introduced into the Directive since 2000.
- 3.8.3 Twelve 'Water notes' which intend to give an introduction and overview of key aspects of the implementation of the Water Framework Directive are available to download.
- 3.8.4 NPS EN-1 at paragraph 5.15.3 states that an ES should describe:
- "Existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics; and any*

impacts of the proposed project on water bodies or protected areas under the Water Framework Directive.”

3.8.5 Consideration of water quality is contained in Chapter 5 of this Report.

3.9 EUROPEAN MARINE STRATEGY FRAMEWORK DIRECTIVE

3.9.1 The Marine Strategy Framework Directive forms the environmental pillar of the Integrated European Marine Policy which aims to provide a coherent legislative framework for the joined-up governance of the marine environment. It sets a primary aim of achieving a 'good environmental status' of European Seas by 2020.

3.9.2 The Directive establishes four European Marine Regions; this project is located within the Eastern Zone. As such, the Panel has had regard to the Directive in its examination of the application, particularly in relation to the matters considered in Chapters 6 and 7.

3.10 OTHER LEGAL AND POLICY PROVISIONS

UNITED NATIONS ENVIRONMENT PROGRAMME CONVENTION ON BIOLOGICAL DIVERSITY 1992

3.10.1 As required by Regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010, the ExA has had regard to this Convention in its consideration of the likely impacts of the proposed development and appropriate objectives and mechanisms for mitigation and compensation. In particular, the ExA finds that compliance with the UK provisions on environmental impact assessment and transboundary matters, referred to below, satisfies, with regard to impacts on biodiversity, the requirements of Article 14.

3.10.2 The UK Government ratified the Convention in June 1994. Responsibility for the UK contribution to the Convention lies with the Department for Environment, Food and Rural Affairs who promote the integration of biodiversity into policies, projects and programmes within Government and beyond.

3.10.3 This is of relevance to HRA and EIA matters, discussed in Chapters 6 and 7.

THE NATIONAL PARKS AND ACCESS TO THE COUNTRYSIDE ACT 1949

3.10.4 The Act provides the framework for the establishment of National Parks and Areas of Outstanding Natural Beauty (AONBs). It also establishes powers to declare National Nature Reserves (NNRs, to notify Sites of Special Scientific Interest (SSSIs) and for local authorities to establish Local Nature Reserves (LNRs).

3.10.5 A National Park and/or AONB has statutory protection in order to conserve and enhance the natural beauty of its landscape. National Parks and /or AONBs are designated for their landscape qualities. The

purpose of designating a National Park and/or AONB is to conserve and enhance their natural beauty; including landform, geology, plants, animals, landscape features and the rich pattern of human settlement over the ages.

- 3.10.6 In relation to this application, the Applicant notes the proximity of the Lincolnshire Wolds AONB. As such, the ExA has taken the impact on this designation into account, specifically with regard to landscape value and ecological matters. These matters are assessed and detailed further in Chapter 5 of this Report. Further consideration of the statutory provisions that apply in relation to AONBs is set out in the text below on the Countryside and Rights of Way Act 2000.

THE WILDLIFE AND COUNTRYSIDE ACT 1981 (AS AMENDED)

- 3.10.7 The Wildlife and Countryside Act 1981 is the primary legislation which protects animals, plants, and certain habitats in the UK. The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs). These sites are identified for their flora, fauna, geological or physiographical features by the countryside conservation bodies (in England - Natural England (NE)). The Act also contains measures for the protection and management of SSSIs.
- 3.10.8 The Act is divided into four parts: Part I relating to the protection of wildlife, Part II relating to designation of SSSIs and other designations, Part III on public rights of way and Part IV on miscellaneous provisions. If a species protected under Part I is likely to be affected by development, a protected species licence will be required from NE.
- 3.10.9 This has relevance to consideration of impacts on SSSIs and on protected species and habitats.
- 3.10.10 In relation to the application, the Applicant has, in Chapter 3 of the ES [APP-044], identified the following SSSIs as being within 5km of the cable corridor:
- Humber Estuary (which is also a Ramsar site, SPA and SAC)
 - North Killingholme Pits
 - Tetney Blow Wells

THE COUNTRYSIDE AND RIGHTS OF WAY ACT 2000

- 3.10.11 The Countryside and Rights of Way Act brought in new measures to further protect AONBs, with new duties for the boards set up to look after AONBs. These included meeting the demands of recreation, without compromising the original reasons for designation and safeguarding rural industries and local communities.
- 3.10.12 The role of local authorities was clarified, to include the preparation of management plans to set out how they will manage the AONB asset. There was also a new duty for all public bodies to have regard to the purposes of AONBs. The Act also brought in improved provisions for the protection and management of SSSIs.

This is relevant to the examination of effects on and mitigation in relation to impacts on any AONB affected by the proposed development. Paragraph 7.5.3.3 of the Applicant's 'Landscape and Visual Resources Part 1' [APP-047] states that the HVDC converter and HVAC substations lie approximately: "...14.5 km to the north of the Lincolnshire Wolds AONB...and as such the building has the potential to have a visual impact upon them."

This issue is considered in the landscape and visual impacts section of Chapter 5 of this Report.

NATURAL ENVIRONMENT AND RURAL COMMUNITIES ACT 2006

3.10.13 The Natural Environment and Rural Communities Act (NERC) made provision for bodies concerned with the natural environment and rural communities, in connection with wildlife sites, SSSIs, National Parks and the Broads. It includes a duty that every public body must, in exercising its functions, have regard so far as is consistent with the proper exercising of those functions, to the purpose of biodiversity. In complying with this, regard must be given to the United Nations Environment Programme Convention on Biological Diversity of 1992.

3.10.14 This is of relevance to biodiversity, biological environment and ecology and landscape matters in the proposed development, reported in Chapters 5, 6 and 7.

3.11 MADE DEVELOPMENT CONSENT ORDERS

3.11.1 Reference has already been made in Chapter 2 to the made DCOs for HP1 and C.Gen, and their relationships to HP2. Reference is also made later in the Report (Chapters 6 and 7) to made DCOs for other North Sea offshore wind farms, particularly in relation to offshore ornithological impacts.

3.12 TRANSBOUNDARY EFFECTS

3.12.1 Under Regulation 24 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (EIA Regulations) the SoS has undertaken two screenings. The first was undertaken on 25 January 2013 following the Applicant's request for a scoping opinion. The SoS concluded that significant effects were likely on the environment of the European Economic Area (EEA) states listed below, with regard to potential impacts on Natura 2000 sites, fishing activities and navigation. A notice was placed in the London Gazette on 25 January 2013 and the following states were notified:

- Netherlands
- Denmark
- Germany
- Iceland

- Norway
 - France; and
 - Belgium.
- 3.12.2 The Government of the Netherlands responded, confirming that it wished to participate in the HP2 Examination.
- 3.12.3 Following the submission of the application documents the SoS re-screened the project. The Applicant's HRA report considered potential adverse effects on the integrity of 39 Natura 2000 sites outside the UK. No adverse effects on the integrity of these sites were identified [APP-017]. The SoS concluded that there could be significant effects on the environment of the EEA states identified in the previous screening, in relation to effects on:
- Commercial fishing;
 - Marine mammals (which could be qualifying features of Natura 2000 sites);
 - Bird species (which could be qualifying features of Natura 2000 sites);
 - Shipping and navigation; and
 - Economies of other EEA states through the purchase of project components, equipment and sourcing of labour from companies based outside the UK.
- 3.12.4 In reaching this view, the SoS applied the precautionary approach (as explained in the Planning Inspectorate Advice Note 12 Transboundary Impacts Consultation). The states that did not respond to the previous Regulation 24 notification were re-notified. A consultation letter was sent to the Netherlands.
- 3.12.5 The Inspectorate wrote to all the EEA states listed above to offer them 'Other Person' status in the Examination [PD-006]. The Danish authorities responded at D1, confirming that they wished to participate in the Examination and stating that they would respond by 15 July 2015 if they had any comments to make [REP1-009]. The Danish Nature Agency confirmed that it had no comments to make [REP1-08]. None of the other states responded.
- 3.12.6 The ExA has had regard to responses received, and also of the ongoing duty to have regard to transboundary matters, throughout the Examination. The ExA is satisfied that with regard to Regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010, all transboundary environmental matters have been addressed and there are no matters outstanding that would argue against the Order being confirmed.

3.13 OTHER RELEVANT POLICY STATEMENTS

3.13.1 Other relevant Government policy has been taken into account by the ExA, including:

- Energy White Paper: Meeting the Challenge (May 2007);
- UK Low Carbon Transition Plan (2009);
- National Strategy for Climate and Energy (July 2009);
- UK Renewable Energy Strategy (July 2009);
- Planning our electric future: a White Paper for secure, affordable and low carbon electricity (July 2011);
- The National Infrastructure Plan 2011;
- National Planning Policy Framework 2012; and National Planning Practice Guidance 2014;
- The National Infrastructure Plan update 2012, and
- The National Infrastructure Plan 2013.

3.14 LOCAL IMPACT REPORTS (LIR)

3.14.1 Ss.104 and 105 of PA2008 state that in deciding the application the Secretary of State must have regard to any LIR within the meaning of s.60(3) of PA2008.

3.14.2 There is a requirement under s.6(2) of PA2008 to give notice in writing to each local authority falling under s.56A inviting them to submit LIRs. This notice was given on 22 June 2015 [PD-008]. LIRs have been submitted by North Lincolnshire Council [LIR-001], North East Lincolnshire Council [LIR-002] and East Lindsey District Council [LIR-003]. North East Lincolnshire provided the Examination with an updated LIR [REP2-012] at D2 on 10 August 2015. The principal matters raised in the LIRs are set out in the following paragraphs:

- East Lindsey District Council (ELDC) is primarily concerned with effects on wildlife habitats at Horseshoe Point, the effect on living conditions of residents living near the cable route, the effects on hedgerows and trees, and the issue relating to wider community benefits;
- North Lincolnshire Council (NLC) is primarily concerned with impacts on archaeology and the historic environment, along with construction impacts including those relating to habitats, highways, noise and pollution, and the effects on watercourses; and

- North East Lincolnshire Council (NELC) states that no long-term adverse effects should arise from the cable route and that other environmental concerns are considered to have a minor or negligible impact.

3.14.3 These are considered further at sections 4.2 and 4.3 of Chapter 4, and in Chapter 5, of this Report.

THE DEVELOPMENT PLAN

3.14.4 As outlined in the Applicant's Planning Statement [APP-0166] and the LIRs submitted by local authorities [LIR-001, LIR-002 and LIR-003], the following local planning policy documents are relevant to the consideration of this application:

- North Lincolnshire Local Plan (2003);
- North Lincolnshire Core Strategy (2011);
- North East Lincolnshire Local Plan (2003);
- West Lindsey Local Plan (2006);
- East Lindsey Local Plan (1993); and
- East Lindsey Local Plan Alteration (1999)

3.14.5 Issues of conformity with development plan policies are covered in Chapter 4. As stated in paragraph 4.1.5 of NPS EN-1, if there is any conflict between the above documents and a NPS then the NPS takes precedence due to the national significance of the infrastructure.

3.15 THE SECRETARY OF STATE'S POWERS TO MAKE A DCO

3.15.1 The ExA was aware of the need to consider whether changes to the application meant that the application had changed to the point where it was a different application and whether the SoS would have power therefore under s.114 of PA2008 to make a DCO having regard to the development consent applied for.

3.15.2 The SoS will be aware of the letter dated 28 November 2011 from Bob Neill MP, then Parliamentary Under-Secretary of State for Planning. The view expressed by the Government during the passage of the Localism Act was that s.114(1) places the responsibility for making a Development Consent Order on the decision-maker, and does not limit the terms in which it can be made.

3.15.3 In exercising this power the Secretary of State may wish to take into account the following conclusion of the ExA. During the course of the Examination the Applicant made a number of changes to the project, as set out in detail in Chapter 2. The ExA does not regard these changes as engaging s.114 of PA2008.

4 FINDINGS AND CONCLUSIONS IN RELATION TO POLICY AND FACTUAL ISSUES

4.1.1 This Chapter deals with the generality of issues covered in the Examination arising from the assessment of principal issues made by the ExA, written submissions and LIRs. The Chapter also covers the principles of the development and conformity with various plans, policies and regulations. Issues are dealt with more specifically in the following Chapter 5; those relating to ornithology, marine mammals and Habitats Regulation Assessment (HRA) are covered in the subsequent Chapters 6 and 7.

4.2 MAIN ISSUES IN THE EXAMINATION

INITIAL ASSESSEMENT OF PRINCIPAL ISSUES

4.2.1 The ExA made an initial assessment of the principal issues in accordance with s.88(1) of PA2008, and issued these to all IPs, together with the Rule 6 letter, giving notice of the Preliminary Meeting on 16 June 2015 [PD-004]. The principal issues are set out at Annex C of the Rule 6 letter as below:

Principal issue	Brief amplification
Nature of development and relationship with HP1	Onshore and offshore: relationship between parties involved in the development, scope of proposals and construction techniques; nature of relationships, sequencing and agreements between HP1 and HP2, and other possible projects and timetable.
Construction impacts	Onshore and offshore: onshore construction and compensation compounds, traffic, dust, noise, flooding, drainage, National Grid connection; offshore cable routes, cable cover, inter-array cable connections and works plan.
Ecology - offshore	Ornithology and marine mammals: baseline data, various elements of methodology and guidance, HRA, cumulative and in-combination issues, post-construction monitoring, trans-boundary issues.
Ecology - onshore	Intertidal and onshore cable route issues and enhancement measures.
Navigation and marine	Shipping routes, radar, marine safety issues, impacts on ports, marine archaeology, oil, gas and dredging interests and transboundary issues.
Aviation	Local airport/airstrips impacts and radar issues.
Fish and fisheries	Impacts on fish species and fishing practices, appropriate management measures, compensation issues and transboundary issues.

Socio-economic	Alternative employment scenarios, local employment and skills plan and implementation.
Landscape and Heritage	Onshore cable route impact issues and mitigation measures, intertidal area and substation connection issues.
Content of DCO	Relevant definitions, disapplication of legislative provisions, discharging Requirements, nature of Requirements, detailing in management plans, transfer requirements, position on agreements on protective provisions, audit trail for DCO revisions, and elements of project and Deemed Marine Licences (DMLs).
Monitoring , mitigation and management plans	Operation of monitoring, mitigation and management plans throughout the life of the project (e.g. ornithological monitoring during project operation) and assessment of impacts of mitigation measures.
Compulsory Acquisition (CA)	Nature, extent and scope of land, rights and powers sought by CA (including access for maintenance), compensation compounds, temporary possession powers, project funding and guarantees for compensation, human rights and consideration of alternatives. Sections 122/123/127/135/138 tests of PA2008. Book of Reference.

4.2.2 These informed the conduct of the Examination through the ExA's proposals for structuring the Examination (which were not challenged), the discussion at the Preliminary Meeting relating to possible Statements of Common Ground (SoCG), and the ExA's first written questions. The principal issues provided a structure for the topics covered in the various hearings held during the Examination, and for written questions. They are not exclusive and all important and relevant matters have been considered during the course of the Examination.

ISSUES ARISING FROM WRITTEN SUBMISSIONS

4.2.3 The matters raised by IPs in Written Representations (WR) for D1 largely built on the issues raised in their RR. The ExA was satisfied that these were covered in the scope of the issues noted above. They were explored in more detail in the ExA's first written questions.

ISSUES ARISING IN LOCAL IMPACT REPORTS

4.2.4 The matters raised by the three relevant local authorities, North Lincolnshire Council (NLC), North East Lincolnshire Council (NELC) and East Lindsey District Council (ELDC), are set out in Chapter 3.

- 4.2.5 As noted above, a limited number of issues were raised by the Councils particularly in relation to landscaping and visual impacts, archaeological trenching and the relationship with HP1. Additionally, with regard to the latter point, in further responses to written questions, NELC wished to explore the scope for both onshore cable routes of HP1 and HP2 to be installed at the same time to minimise disruption caused by the construction of the trenches and installation of the cables on local residents and users of the highway network.
- 4.2.6 The important issues in the relationship between HP1 and HP2 have been covered initially in Chapter 2 (section 2.3). These include: overlap of Order limits for onshore temporary workings and construction compounds; connection into the NG substation; intertidal access and working areas; onshore and offshore cable routes; and offshore wind turbine layouts. They are returned to again in several places in the Report, in Chapters 5, 6, 9 and 10.
- 4.2.7 The various issues raised by the Councils in the LIRs were considered by the Panel during the Examination. The findings are set out particularly in Chapter 5 of this Report, including the examination of heritage, landscape and visual, transport and socio-economic issues.

4.3 CONFORMITY WITH DEVELOPMENT PLAN POLICIES

- 4.3.1 As noted in Chapter 3, the Councils reference their local plans in their LIRs. No issues of non-conformity have been raised by the Councils, and this has not been contested by any party.
- 4.3.2 Further to the conformity of the development as a NSIP, the case for the development is summarised by the Applicant in APP-026 to APP-029, and includes:
- (a) an overarching EU policy requirement for sustainable energy supply from renewables [Directive 2009/28/EC];
 - (b) similar overarching national policy supporting energy from renewables [Energy Act 2013];
 - (c) site appraisal initiated by the Government through Offshore Energy; Strategic Environmental Assessment (SEA); site appraisal and delivery refined by The Crown Estate (TCE) through SEA and Zone Appraisal Studies (ZAP);
 - (d) SMart Wind's award of the rights to the development of the Hornsea Zone by TCE in 2009; and
 - (e) the Applicant's identification of Subzone 2 within the Hornsea Zone for development.

4.4 CONFORMITY WITH NPS, MPS AND MARINE PLANS AND OTHER KEY POLICY STATEMENTS

4.4.1 As noted in Chapters 1 and 2, the application qualifies as a NSIP by virtue of s.15 of PA2008, and is designed to meet the policy objectives specified in NPS EN-1, EN-3 and EN-5.

4.4.2 In REP1-0100, paragraph 3.2.6, the Marine Management Organisation (MMO) agrees that:

"...the Project satisfies the vision and objectives of the MPS by virtue of the Project's contribution towards renewable energy targets, thereby helping in the development of a low carbon economy, and as a sustainable economic development."

4.4.3 Furthermore in paragraph 3.2.8 of REP1-0100 the MMO agrees that:

"...factors of relevance to the Draft East Inshore and East Offshore marine plans have been included in the assessments, including marine protected areas, renewable energy developments and sustainable development of fisheries."

4.4.4 However, the examination of issues between the Applicant and E.ON E&P Ltd did have recourse to the consideration of the marine plans, and this consideration and the ExA's conclusions on the issues raised are set out in Chapter 10 of this Report.

4.4.5 No planning obligations have been sought by any LPA or offered by the Applicant.

4.4.6 With regard to the financial and technical viability of the proposed development (EN-1, para. 4.1.9), the Applicant summarised its position as follows:

"Considering Dong Energy's large capital base, established access to finance and structured approach to internal approval, the Applicant does not consider there to be any serious impediment to the Applicant achieving the necessary funding within the timescales required."

4.4.7 This matter is covered further in Chapter 9, on Compulsory Acquisition.

4.5 ENVIRONMENTAL STATEMENT (ES) AND ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

4.5.1 Section 4.2 of EN-1 sets out the need for, and the tests of, adequacy of the ES. The Applicant submitted a substantial ES [APP-023 to APP-0158 inclusive]. There were comments from various parties on the details of the ES (e.g. Environment Agency at REP1-026; MMO at REP1-032; NE at REP1-037; RSPB at REP1-047).

4.5.2 Some of the detail in the ES, particularly in relation to offshore and intertidal ornithology, was challenged by various parties, and

considerable quantities of supplementary environmental information was adduced, particularly in the form of the Applicant's clarification notes on ornithology [e.g. REP1-062; REP2A-018; REP4-038]. The ES, and all other environmental information provided during the course of the Examination, have been taken into account under the relevant topic areas in the framework of the Examination, as set out in the following Chapters. The ExA considers that the ES is sound and meets the test of adequacy.

4.6 HABITATS REGULATIONS ASSESSMENT (HRA)

- 4.6.1 Section 4.3 of EN-1 specifies the approach that needs to be taken by the decision-maker in relation to the Habitats and Species Regulations, which implement the relevant parts of the Habitats Directive and the Birds Directive in England and Wales.
- 4.6.2 HRA was engaged in the Examination by virtue of the potential impacts of the proposed development on Flamborough Head and Bempton Cliffs Special Protection Area (SPA), Flamborough Head and Filey Coast potential Special Protection Area (pSPA), Humber Estuary SPA, Humber Estuary Ramsar Site, Humber Estuary Special Area of Conservation (SAC), Greater Wash draft Special Protection Area (dSPA), and the Southern North Sea draft Special Area of Conservation (dSAC) for harbour porpoises. The Applicant submitted an HRA Assessment [APP-0171 to APP-0175]; this was updated several times during the Examination [e.g. REP4-026, to include the Southern North Sea dSAC].
- 4.6.3 HRA is considered in detail in Chapter 6 of this Report, and s.6.4 explains how agreement was reached on which European sites qualified under HRA.

4.7 CONSIDERATION OF ALTERNATIVES

- 4.7.1 Section 4.4 of EN-1 sets out the requirements to consider alternatives in relation to the ES and the Habitats Regulations.
- 4.7.2 The Habitats Regulations require the competent authority (in this case the SoS as decision-maker) before authorising a project likely to have a significant effect on a European site *"to make an appropriate assessment of the implications for that site in view of the site's conservation objectives."* Anyone applying for development consent for a NSIP must provide the competent authority with such information as may reasonably be required *"for the purposes of the assessment"* or to enable them to determine whether an appropriate assessment is required. This information normally takes the form of a HRA report.
- 4.7.3 Para 4.4.3 of EN-1 also specifies other guiding principles that the SoS should consider when deciding what weight should be given to alternatives, and in particular:

"...the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner;"

"...the (decision-maker) should be guided in considering alternative proposals by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security and climate change benefits) in the same timescale as the proposed development;"

- 4.7.4 The Applicant set out in the ES [APP-028] a multi-stage approach to the consideration of alternatives for the proposed development. The ExA's view is that the approach taken in terms of methodology and consultation is robust and sound.
- 4.7.5 During the Examination, the RSPB made a number of submissions addressing the issue of alternative solutions to the project under the Habitats Regulations, summed up in the RSPB's D7 submission [REP7-036].
- 4.7.6 It has been the Applicant's case throughout the Examination that the project would not have a significant effect on any European site and that therefore alternatives did not need to be considered in relation to the Habitats Regulations. However, as noted in Chapter 2, the Applicant decided to change the minimum size of WTGs to 6MW, raise the blade height clearance to 34.97m above lowest astronomical tide (LAT), reduce the rotor diameter from 250m to 241.03m and reduce the maximum number of WTGs from 360 to 300. The assessment has been completed on that basis. The changes were made in relation to predicted offshore ornithological impacts. HRA matters are examined fully in Chapter 6 of this Report.

4.8 MITIGATION MEASURES

- 4.8.1 Possible mitigation measures, especially in relation to intertidal and offshore works, and the substation site and environs, were considered throughout the Examination. The Applicant brought together the proposed mitigation, enhancement and monitoring measures in a table; this was updated at various stages of the Examination as a result of issues considered in the Examination [e.g. APP-068 and REP4-023].
- 4.8.2 The development of the mitigation measures and how they are secured in the recommended DCO are covered in the remainder of the Report, and are discussed in relation to the particular issues involved. For example, the origins of the mitigation measures for potential intertidal and offshore ornithological impacts are covered in Chapters 6 and 7, and DCO implications are also included in Chapter 10.

5 GOOD DESIGN

5.1 INTRODUCTION

- 5.1.1 As noted in Chapter 1 of this report, this Chapter considers both offshore and onshore aspects of Good Design.
- 5.1.2 Offshore matters considered include: the oil and gas interface; export and inter-array cabling; navigation and shipping; commercial fishing; coastal change and marine processes; the offshore historic environment; and seascape and visual impacts.
- 5.1.3 Onshore matters considered are: grid connection; the historic environment; landscape and visual impacts; socio-economic impacts; traffic and transport; climate change and flood risk; civil and military aviation and defence interests; noise and vibration; air quality, dust and other potential nuisance; health; biodiversity, biological environment and ecology; land use; water quality and resources; waste management; security considerations; and other environmental regulatory regimes.

OFFSHORE ISSUES

5.2 OIL AND GAS INTERFACE

- 5.2.1 NPS EN-1 notes that natural gas will continue to play an important part in the UK's fuel mix for many years to come. Further infrastructure, beyond that which exists or is under construction at present, will be needed in future in order to reduce supply or price risk to consumers (Section 3.8). Similarly, EN-1 states that the UK needs to ensure that it has safe and secure supplies of oil products it requires (para. 3.9.3)
- 5.2.2 NPS EN-3 paragraph 2.6.176 recognises that the scale and location of offshore wind development raises the likelihood of development being proposed in or close to areas where other offshore infrastructure is located or other activities, including oil and gas exploration/drilling, take place. The Government grants licences to explore for and develop oil and gas reserves and such activity could result in the construction of offshore infrastructure necessary for the extraction of any reserves discovered, including offshore platforms and pipelines, much of which require access for helicopters (para. 2.6.178).
- 5.2.3 EN-3 goes on to note that where a proposed wind farm potentially affects other offshore infrastructure or activity, a pragmatic approach should be taken by the decision-maker. A wind farm applicant will be expected to minimise negative impacts and reduce risks to as low as reasonably practicable (para. 2.6.183).
- 5.2.4 A principal issue within the Examination related to the potential conflict between the development of the wind farm array and the oil and gas interests of E.ON E&P Limited (and its development partner,

Bayerngas Europe Limited). This arises because part of the application site overlaps with Block 48/3 licensed for oil and gas exploration by the Oil and Gas Authority. The nature of the potential conflict and how the respective interests could successfully co-exist, having regard to possible protective provisions, is addressed in detail within Chapter 10 of this report. The ExA's conclusions on the proposed protective provisions that are included within Part 13 of Schedule L of the recommended DCO, and whether they would provide adequate and sufficient protection to E.ON's interests in the event of no commercial agreement between the Applicant and the company, are set out in Chapter 10.

- 5.2.5 Consideration of ConocoPhillips' navigational interests in relation to its gas exploitation works and the relationship with HP2 is set out in Section 5.4 below.

5.3 EXPORT AND INTER-ARRAY CABLING

- 5.3.1 Policy regarding cabling under and on the seabed is referred to in several places in EN-3:

"EMF (electromagnetic fields) during operation may be mitigated by use of armoured cable for inter-array and export cables which should be buried at sufficient depth. ...However, sufficient depth to mitigate impacts will depend on the geology of the sea bed (2.6.76).

The (decision-maker) should be satisfied that cable installation and decommissioning has been designed sensitively taking into account intertidal habitat (2.6.85).

The (decision-maker) should be satisfied that the methods of construction...are such to reasonably minimise the potential for impact on the physical environment. This could involve, for instance, the exclusion of certain foundations on the basis of their impacts minimising quantities of rock that are used to protect cables whilst taking into account other considerations such as safety (2.6.196).

Mitigation measures which the (decision-maker) should expect the applicants to have considered include the burying of cables to a necessary depth and using scour protection techniques around offshore structures to prevent scour effects around them (2.6.197)".

- 5.3.2 The export cables would be laid alongside those for HP1 from the wind farm array to the landfall at Horseshoe Point. In terms of mitigation, Condition 8(2)(f) of the Transmission and Generation Assets DMLs within the recommended DCO states that the Applicant should provide a detailed cable laying plan, including geotechnical data, cable laying techniques and a cable burial risk assessment, encompassing the identification of any cable protection which exceeds 5% of the depth at Chart Datum. This would include details of the steps to be taken where the cables cross the intertidal zone, to ensure the profile is maintained as far as reasonably practicable. Details should be

provided at least four months before construction starts, in accordance with Condition 10 of the DML.

- 5.3.3 The proposed export cables cross four pipelines and would be in the proximity of another five pipelines. The Applicant expects to conclude industry-standard crossing and in-proximity agreements with the owners of these pipelines. These would be formal agreements in that the responsibilities and obligations of both parties are agreed to allow operations to be managed safely [APP-059]. In order to protect the cables and pipelines at crossing points, cable protection would be placed on the seabed between and/or over the top of the cables and pipelines [APP-027, para. 3.2.186].
- 5.3.4 The inter-array cables would be buried to a depth of between one and three metres [APP-027, Table 3.21]. Cable protection would be needed where the cables exit the seabed and enter the 'J' tubes of the WTGs.
- 5.3.5 A burial depth below a stable seabed to a maximum of three metres is anticipated for the majority of the export cable route. Owing to sandwaves, a burial depth of five metres is anticipated for approximately 20% of the cable route length. However, where cable burial is not possible, cable protection measures would be used. As a realistic worst case this is assumed to be 25% of the cable length including up to 25% within the Humber Estuary SAC [APP-027, para. 3.2.176].
- 5.3.6 If cable protection is required within the Humber Estuary SAC subtidal area, frond mattresses would be used. However, no cable protection would be used within the Humber Estuary SAC intertidal area, this being secured by Condition 18(2) of the Transmission Assets DMLs within the recommended DCO [REP7-006].
- 5.3.7 In the intertidal area the cable would be buried to a depth of two metres below the stable seabed. The two metres is allowed to account for crossing the drainage channels across the lower tidal area and to allow for seasonal variations in levels [APP-076].
- 5.3.8 The ES predicts that electromagnetic field (EMF) emissions from the inter-array and export cables would have only a minor adverse effect on fish and shellfish receptors, and thus would not be significant in EIA terms. This is due to the localised spatial extent of the effects and the fact that emissions are not anticipated to create a barrier effect to migrating species across the Humber Estuary [APP-032]. The ES also predicts that the EMF effects on marine mammals would be negligible [APP-041].
- 5.3.9 The mitigation measures to be adopted in respect of impact of cabling on fishing activities have been detailed in the section of this Chapter on Commercial Fishing.

Agreement with the MMO

- 5.3.10 In their SoCG [REP1-0100] the Applicant and the MMO note their agreement on all matters relating to offshore cabling, including marine processes, seabed monitoring, cumulative impacts and disposal of arisings. Control over these issues through the need for the MMO's approval of a Code of Construction Practice (CoCP) is secured through Condition 8(2) of the Transmission and Generation Assets DMLs within the recommended DCO.

Conclusion

- 5.3.11 The ExA is satisfied that the application in respect of the export and inter-array cables complies satisfactorily with the requirements of EN-3.

5.4 NAVIGATION AND SHIPPING (COMMERCIAL AND RECREATIONAL)

- 5.4.1 The policy issues to be considered regarding navigation and shipping are set out in NPS EN-3 paragraphs 2.6.147 to 2.6.175, in MPS paragraph 3.4.7, and in the EIEOMP, Policies PS1 and PS2. EN-3 states in particular:

"The (decision-maker) should not grant development consent in relation to the construction or extension of an offshore wind farm if it considers that interference with the use of recognised sea lanes essential to international navigation is likely to be caused by the development (2.6.161);

The (decision-maker) should be 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 with regard to approaches to ports and to strategic routes ... and recreational users of the sea (2.6.162);

Where a proposed offshore wind farm is likely to affect less strategically important shipping routes, a pragmatic approach should be employed The (decision-maker) should expect the applicant to minimise negative impacts to as low as reasonably practicable (ALARP) (2.6.163);

The (decision-maker) should be satisfied that the scheme has been designed to minimise the effects on recreational craft and that appropriate mitigation measures ... are built into applications to allow for recreational use outside of commercial shipping routes (2.6.166);

The (decision-maker) should ... have regard to the extent and nature of any obstruction of or danger to navigation which ... is likely to be caused by the development (2.6.168); and

The (decision-maker) should ... have regard to the likely overall effect of the development in question and to any cumulative effects of other

relevant proposed, consented and operational offshore wind farms (2.6.169)".

- 5.4.2 The Applicant deals with the navigation and shipping aspects of the proposed development in Chapter 7.2.8 of the ES [APP-036] and recreational sailing and fishing in ES Chapter 7.2.11 [APP-040].
- 5.4.3 As required by EN-3 paragraph 2.6.156, a full risk assessment was carried out for Subzone 2 and the offshore cable route [APP-086] and for the offshore HVAC reactive compensation substations [APP-087].
- 5.4.4 A HP2 hazard workshop was held in October 2013 to identify hazards associated with the project. It was attended by the Royal Yachting Association (RYA), Associated British Ports (ABP), Department for Transport (DfT) and the National Federation of Fishermen's Organisations (NFFO). Trinity House (TH), Maritime and Coastguard Agency (MCA) and the Chamber of Shipping were invited but could not attend [APP-036].
- 5.4.5 A Marine Traffic Survey Validation Exercise was carried out in the summer of 2014 and the spring of 2015 by the Applicant to confirm the data used in the ES risk assessments. The Applicant notes in response to the Panel's second written questions in relation to changes in route positions and new routes:
- "Overall, it is considered that the changes are comparable with general shifts in vessel traffic routing and numbers within an open sea area; and are not considered to alter the outcomes of ... the ES or the Environmental Impact Assessment"* [REP4-006, question FNA 27].
- 5.4.6 No impacts were identified during the commissioning and decommissioning phases of the project. However, some impacts have been identified as being of significant effect during the operational and maintenance phase. These relate to the physical presence of wind turbines, HDVC converter stations, HVAC collector substations, accommodation platforms and bridge links, all of which might displace commercial shipping, fishing and recreational vessels leading to increased vessel-to-vessel collision risk and the risk of a vessel-to-structure collision (where a ship underway collides with a fixed object) [APP-036, para. 7.8.228].
- 5.4.7 Proposed mitigation designed to minimise danger to navigation during construction, operation and maintenance, and decommissioning includes Notice to Mariners, use of safety zones where applicable, and International Association of Marine Aids to Navigation and Lighthouse Authorities lighting under the direction of TH, MGN 371 Compliance, and Bridge Links [APP-036]. With these mitigation measures risks would be reduced to the status of 'as low as reasonably practicable' (ALARP). These mitigation measures are secured by Condition 3(2) in DMLs within the recommended DCO.

Commercial Shipping

- 5.4.8 P&O's regular freight ferry service between the Tees and Rotterdam will require some re-routing around the HVAC Compensation Substations [APP-087]. However, P&O has no concerns about this matter either alone or in combination with HP1 [APP-036]. Lighting and marking will be discussed with Trinity House Lighthouse Service (THLS) to ensure the structure is visible and does not become an isolated navigational hazard. This is secured by Condition 4 of the Generation and Transmission DMLs within the recommended DCO.
- 5.4.9 There have been no WRs from shipping companies or the Chamber of Shipping, but during the consultation process both DFDS and P&O stated that they had no concerns about HP2, or HP1 and HP2 in combination [APP-036].

Recreational Sailing and Fishing

- 5.4.10 Recreational sailing is principally addressed in the SoCG with the RYA but also includes kite surfing, surfing, windsurfing, kayaking and canoeing, with scuba diving largely taking place at offshore wrecks. Subzone 2 and the cable route corridor, with the exception of the very near-shore, have no particular value for kite surfing, surfing, windsurfing, kayaking and canoeing, or scuba diving (as there are no wrecks in the cable route corridor). For these reasons the above have been screened out of the ES assessment [APP-040]. The MCA reports that very few recreational fishing boats are licensed offshore to the distance of Subzone 2 but recreational fishing can take place anywhere in Subzone 2 and the cable route corridor [APP-040]. The ES assesses the impact of construction, operation and decommissioning on recreational fishing as negligible [APP-040].

Royal Yachting Association

- 5.4.11 In their SoCG [REP1-096], the RYA and the Applicant agreed on the following:
- the Applicant has adequately assessed the impacts on users of recreational vessels;
 - an Emergency Response and Co-operation Plan (ERCoP) will be agreed with the MMO and implemented for the lifetime of the project as per Condition 4 of the DMLs (now Condition 3 of the DMLs within the recommended DCO);
 - aids to navigation will be exhibited to the requirements of TH as per Condition 5(1) of the DMLs (now Condition 4(1) of the DMLs within the recommended DCO);
 - the UK Hydrographic Office (UKHO) is to be informed of the commencement, progress and completion of the project as per

Condition 7(10)(a) of the DMLs (now Condition 5(10)(a) of the DMLs within the recommended DCO);

- any debris is to be removed as per Condition 8(5) of the DMLs (now Condition 6(5) of the DMLs within the recommended DCO);
- a vessel traffic monitoring programme shall be implemented during the construction and post-construction phases of the project as per Conditions 16(5) and 17(2)(e) of the DMLs (now Conditions 14(5) and 15(2)(e) of the DMLs within the recommended DCO);
- the final turbine layout will be agreed with the MMO in consultation with TH and the MCA under Condition 10(1)(a) of the DMLs. (Within the recommended DCO final turbine layout is now covered in Condition 8(1)(a) of the Generation Assets DML and Condition 8(1)(a) of the Transmission Assets DML requires agreement of the location of the offshore HVAC collector substations, HVDC converter substations and reactive compensation substations);
- in ensuring a safe navigational depth, a cable specification and installation plan will be submitted to the MMO in compliance with Condition 10(2)(f) of the DMLs (now Condition 8(2)(f) of the DMLs within the recommended DCO); and
- 500m safety zones will be applied for during construction of the project. In addition, 500m safety zones will be applied for under the Energy Act 2004 for all platforms during the operational life of the project but there will be no application for 50m safety zones for individual WTGs during the operational phase.

5.4.12 At the end of the Examination there were no areas of disagreement between the Applicant and the RYA [REP1-096].

5.4.13 During the Examination there was engagement with and representations from the following maritime agencies and a commercial interest in relation to navigation and shipping.

Trinity House

5.4.14 In their SoCG [REP1-097] the Applicant and TH agreed various matters. Many of the topics of agreement were shared with the MCA, but the topics of particular interest to TH were:

- the mitigation measures proposed and secured in the draft DCO in relation to the project are sufficient;
- the study area used to inform the assessment of the project on shipping and navigation was appropriate;

- the maximum development of infrastructure given in ES Chapter 7 on Shipping and Navigation [APP-036] would result in a worst case collision and allision scenario for the purposes of this assessment;
- the study area of the Cumulative Impact Assessment in ES Chapter 7 is appropriate for assessing the cumulative impacts on shipping and navigational safety;
- the requirement and use of safety zones as provided for in ES Chapter 7 is agreed with TH;
- in designing the final surface structure layout, to be agreed with the MMO in consultation with TH and the MCA under Condition 10(1)(a) of DMLs (now Condition 8(1)(a) of the DMLs within the recommended DCO), the measures set out in ES Chapter 7, together with the Requirements of the DCO and DMLs, are appropriate. When applied they will reduce the impacts to ALARP;
- in ensuring the impacts are reduced to ALARP the placement of aids to navigation will be agreed with TH through compliance with Condition 5(1)(a) of the DMLs (now Condition 4(1)(a) of the DMLs within the recommended DCO);
- TH is to be notified of any injury, destruction or decay to the project as per Condition 6 of the DMLs (now Condition 5(11) of the DMLs within the recommended DCO);
- the UKHO is to be informed of the commencement, progress and completion of the project as per Condition 7(10)(a) of the DMLs (now Condition 5(10)(a) of the DMLs within the recommended DCO);
- any construction debris is to be removed within 28 days and where it cannot be removed, the MMO, TH and the MCA is to be informed as per Condition 8(5) of the DMLs (now Condition 6(5) of the DMLs within the recommended DCO); and
- despite the disagreement as to the approach taken to agreeing the standard navigation conditions, it is agreed that the conditions that are included in Version 3 of the draft DCO (and now included in the DMLs in the recommended DCO), which would be in accordance with those agreed in the 'Standard Navigation Signposting' document [REP1-084], are acceptable.

5.4.15 At the end of the Examination there were no areas of disagreement between the Applicant and TH.

Maritime and Coastguard Agency (MCA)

5.4.16 In their SoCG [REP1-093], the Applicant and the MCA agreed on the following:

- the shipping and navigational baseline environment has been accurately described in ES Chapter 7 [APP-036] and has met the standards set down in MGN 371 to inform the baseline environment;
- the risk assessment methods and characterisation information described in Subzone 2 and Offshore Cable Route Navigational Risk Assessment (NRA) [APP-086] and the Offshore HVAC Reactive Compensation NRA [APP-087] are in compliance with MGN 371 and are appropriate for informing the assessment;
- the Applicant has adequately assessed navigational safety impacts of the project on users of commercial vessels and the proposed mitigation measures are sufficient to bring risk to tolerable levels;
- the design of the final turbine layout is to be agreed with the MMO, in consultation with the MCA and TH, as per Condition 10(1)(a) of DMLs (now Condition 8(1)(a) of the DMLs within the recommended DCO);
- the requirement to produce an Emergency Response Co-operation Plan to be submitted for the approval of the MMO in consultation with the MCA, prior to any works commencing on the authorised development seaward of MHWS, is secured by Condition 4 of the DMLs (now Condition 3 of the DMLs within the recommended DCO);
- the requirement for an agreed construction plan exists as the CoCP, secured by Condition 10(2) of the DMLs (now Condition 8(2) of the DMLs within the recommended DCO);
- in ensuring safe navigational depth within coastal waters a cable specification and installation plan is to be submitted to the MMO for approval in compliance with Condition 10(2) of the DMLs (now Condition 8(2) of the DMLs within the recommended DCO). This will include a detailed cable laying plan to include geotechnical data, cable laying techniques and a cable burial risk assessment;
- aids to navigation will be exhibited to the satisfaction of TH, secured by Condition 5(1) of the DMLs (now Condition 4(1) of the DMLs within the recommended DCO);
- the UKHO is to be informed of the commencement, changes and completion of the project as secured by Condition 7(10)(a) of the DMLs (now Condition 5(10)(a) of the DMLs within the recommended DCO);

- any damage, destruction or decay to the project must be reported to the MCA, MMO, TH and the UKHO within 24 hours as per Condition 7(11) of the DMLs (now Condition 5(11) of the DMLs within the recommended DCO);
- any debris is to be removed as per Condition 8(5) of the DMLs (now Condition 6(5) of the DMLs within the recommended DCO);
- a vessel traffic monitoring programme is to be implemented for the construction and post-construction phases of the project as secured by Conditions 16(5) and 17(2)(f) of the Generation and Transmission Assets DMLs respectively (now Conditions 14 and 15(2)(e) of the DMLs within the recommended DCO); and
- 500m safety zones will be applied for during construction of the project. In addition, 500m safety zones may be applied for all above-surface platforms and substations during the lifetime of the project but there will be no application for 50m safety zones for individual WTG's during the operational phase.

5.4.17 At the end of the Examination there were no areas of disagreement between the Applicant and the MCA [REP1-093].

ConocoPhillips

5.4.18 In its RR, ConocoPhillips expressed concern that an increase in vessel re-routing in closer proximity to the Saturn, Mimas and Tethys platforms, located to the south of the project, would result in an increase in the Time to Closest Point of Approach and Closest Point of Approach alarms on the Radar Early Warning System (REWS) being triggered [RR-007].

5.4.19 In reply to the Panel's first written questions, ConocoPhillips stated that it expected the project to cause some impairment to the operational effectiveness of its REWS and expected the project owners to implement remedial measures that would return the risk to its current level. It was noted that the parties involved were in discussions to solve this problem [REP1-06, response to question FNA 18).

5.4.20 In reply to a second written question, the Applicant stated that the parties continued to work together in order to progress resolution of outstanding REWS issues [REP4-004, response to question FNA 26].

5.4.21 The Applicant delivered a 'Position Statement on the Interface between the Applicant and ConocoPhillips' on 12 November 2015 [REP5-033]. This stated:

"The Parties agree to work together to identify the extent of risk to the Collision Risk Management System (CRMS) and REWS. Once the extent of risk has been identified the parties propose to work together to implement a suitable mitigation solution to ensure the presence of

the wind turbines do not create an unacceptable impact on the CRMS and REWS. The Parties agree that a satisfactory mitigation is possible Once the trials are complete and a mitigation solution (or fallback) has been identified and agreed (if required) the Parties will work together to implement the solution to ensure that the safety performance standards of ConocoPhillips' operational assets are not in any way compromised" [REP5-033].

- 5.4.22 Before the end of the Examination the Applicant and ConocoPhillips had come to an agreement to protect ConocoPhillips' interests in relation to its REWS. The Applicant agreed to include a new Requirement in the draft DCO (now included as Requirement 27 in the recommended DCO) the wording of which is agreed by ConocoPhillips. ConocoPhillips therefore withdrew its objection [REP7-001].

Conclusion

- 5.4.23 The ExA is satisfied that the issues identified in EN-3 and raised by IPs as regards navigation and the safety of shipping have been properly assessed and satisfactorily addressed by the Applicant as at the end of the Examination. The suite of Requirements and Conditions within the recommended DCO and DMLs - Requirement 27 and Conditions 3, 4(1), 5(10)(a) and (11), 6(5), 8(1)(a) and (2), 14 and 15(2)(e) - will ensure appropriate and adequate mitigation for shipping and navigational interests.

5.5 COMMERCIAL FISHING

- 5.5.1 NPS EN-3 paragraphs 2.6.121 to 2.6.136, MPS paragraphs to 3.81-3.88, and EOIMP Policies Fish 1 and Fish 2, set out policy on commercial fisheries and fishing. In particular, EN-3 states:

"The (decision-maker) should be satisfied that the site selection process has been undertaken in a way that reasonably minimises adverse effects on fish stocks, including during peak spawning periods and the activity of fishing itself" (para. 2.6.132);

"The (decision-maker) should be satisfied that the applicant has sought to design the proposal having consulted representatives of the fishing industry with the intention of minimising the loss of fishing opportunity taking into account effects on other marine interests" (para 2.6.133);

"Any mitigation proposals should result from the applicant having detailed consultation with relevant representatives of the fishing industry" (para 2.6.134); and

"The (decision-maker) will need to consider the extent to which disruption to the fishing industry...has been mitigated where reasonably possible" (para. 2.6.136).

- 5.5.2 The Hornsea Zone has a relatively low fishing density in comparison to the surrounding areas, as set out in ES Chapter 6 [APP-035, Figure

6.5]. Nevertheless, the ES clearly identifies several nationalities of fishermen who use these waters. The key commercial fishing fleets operating within the area and the type of gear used and species caught are:

- Danish demersal/semi-pelagic trawlers targeting sandeel, sprat and herring;
- Dutch beam trawlers targeting sole and plaice;
- UK beam trawlers targeting sole and plaice;
- UK potters targeting lobster and crab;
- UK shrimpers targeting brown shrimp;
- UK dredgers targeting scallops;
- German beam trawlers targeting sole and plaice;
- German demersal/semi-pelagic trawlers targeting sandeel and herring;
- French demersal and pelagic trawlers targeting whiting;
- Belgian beam trawlers targeting sole and plaice;
- Norwegian demersal and pelagic trawlers targeting sandeel; and
- Swedish demersal and pelagic trawlers targeting sandeel [APP-035, para. 6.10.1].

5.5.3 The ES concludes that the potential impact on commercial fisheries both in the wind farm area and the export cable corridor would be of minor adverse significance for all types of fishing [APP-035, para. 6.10]. The potential environmental impacts across all phases of the project, construction, operation and decommissioning, are assessed to be minor adverse, which is not significant in EIA terms [APP-035, Table 6.17]. The ExA agrees with this assessment.

5.5.4 The Applicant consulted with all the relevant fishermen's organisations as set out in the Consultation Report [APP-05]. The ExA received RRs from the National Federation of Fishermen's Organisation (NFFO) [RR-022] and the MMO [RR-018]. The Panel also received WR [REP1-036] from the NFFO.

Danish and Belgian Fishing Organisations

5.5.5 During the Examination, the Applicant concluded SoCGs with the Danish Fishermen PO [REP1-090] and Rederscentrale (Belgian Fishermen) [REP1-095]. These two SoCGs were virtually identical and the Applicant and the organisations agreed on the following:

- there are not anticipated to be any significant cumulative impacts upon Danish or Belgian fishing vessels;
- fishing vessels cannot operate within construction safety zones;
- cables are to be installed using a best practice approach;
- a detailed cable specification and installation plan will be prepared which incorporates a burial risk assessment to ascertain suitable depths in accordance with proposed Condition 10(2)(f) of the DMLs (now Condition 8(2)(f) within the DMLs in the recommended DCO) with the objective of achieving a target depth of one metre cable burial below the stable seabed;
- guard vessels will be employed to assist in the protection of exposed cables, if deemed necessary by the Applicant, or advised by a statutory body;
- construction-related seabed debris will be removed as per Condition 8(5) of the DMLs (now Condition 6(5) of the DMLs within the recommended DCO);
- as part of good practice, pre- and post-construction monitoring of the seabed within the project site is proposed on technical and safety grounds as per Conditions 15 and 17 of the DMLs (now Conditions 13 and 15 of the DMLs within the recommended DCO);
- all commercial fishing vessels will be able to fish within the wind farm in safe conditions;
- an Emergency Response Co-operation Plan (ERCoP) will be implemented as required under Condition 4(3) of the DMLs (now Condition 3(3) of the DMLs within the recommended DCO);
- the ERCoP will include an emergency safety response plan to be implemented in the event of a fishing vessel snagging gear on foundations or cables and/or losing power and steerage;
- suitable arrangements will be established for attributable gear damages and losses in line with standard procedures, as outlined in the Fisheries Liaison with Offshore Wind and Wet Renewables Group (FLOWW) guidance, wherever possible;
- during operation, all commercial fishing vessels will be able to fish within the turbine corridors in safe conditions. This is based on the assumption that no WTG will be placed closer than 810m to its neighbour and is secured by Requirement 2(1)(a) of the recommended DCO;
- during operation, given the location of the project, the levels of fishing activity within the study area and availability of

alternative fishing grounds, there is unlikely to be a significant impact upon any commercial fishing vessels;

- as presented in ES Chapter 7 [APP-036, para. 7.13.5], shipping channels have been defined by the Applicant to allow vessel movements to continue through the Hornsea Zone in the context of shipping movements in the Southern North Sea;
- it is agreed that a Fisheries Liaison Officer (FLO), with appropriate experience of the local fishing industry, will be appointed at the start of the pre-construction phase to ensure appropriate liaison with the fishing industry as per Condition 10(2)(c) of the DMLs (now Condition 8(2)(c) of the DMLs within the recommended DCO);
- the FLO, as part of their normal duties, will develop a Fisheries Liaison Plan (FLP) to ensure that relevant fishing fleets are notified of planned and ongoing works;
- the FLP will be developed in consultation with relevant fisheries' stakeholders and in accordance with Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) recommendations;
- as part of the FLP, communication strategies and operational policies will be implemented to minimise the risk of construction and maintenance vessels interacting with static gear deployed at sea; and
- the FLP will include a co-existence plan which will be established between the Applicant and the Danish, Belgian and VisNed/NFFO fishing organisations. It will address potential issues that may arise during pre-construction, construction, operational and decommissioning activities with the aim of minimising impacts, as far as practicable. Furthermore, through the appointment of a FLO, the Applicant is committed to actively liaising with the fishing industry about any residual concerns and that both parties will work towards resolving these matters.

5.5.6 Furthermore, the MMO confirmed that it would be able to consult with any of the parties as it sees fit and, should it require advice on such issues, it may choose to consult with the NFFO prior to the discharge of these plans [REP3-031].

5.5.7 There were no outstanding areas of disagreement between the Applicant, Belgian or Danish fishermen at the close of the Examination.

Dutch and UK Fisheries Organisations

5.5.8 The Applicant entered into two joint SoCGs with the NFFO, VisNed and the Holderness Fishing Industry Group (HFIG) [REP1-094 and REP4-031], the first dated 15 July 2015, and the second of 20 October

2015. Many of the issues agreed upon were the same as those agreed between the Applicant and the Danish/Belgian fishermen. Initially there were five areas of disagreement between the Applicant and NFFO, VisNed, HFIG.

5.5.9 At the ISH on the 15 September 2015, no representatives of the fishing industry were present but the Panel sought to probe with the Applicant, the areas of disagreement. This resulted in the production of the second SoCG [REP4-031]. As noted below, this increased the number of disagreements from five to six, the new additional disagreement relating to NFFO policy to secure provisions within the DCO/DMLs for a Fishing and Co-existence Plan. At the close of the Examination these disagreements remained. The areas of disagreement were as follows:

- significance of effects on Dutch and UK fisherman as a result of the project alone: NFFO/VisNed/HFIG are unable to agree to the assumption that safe fishing conditions will prevail in order to enable fishing operations to co-exist. The Applicant is of the view that impacts on Dutch and UK fishermen are unlikely to be significant;
- significance of cumulative effects on Dutch and UK fishermen as a result of the project and other wind farms in the southern North Sea: NFFO/VisNed/HFIG are unable to agree with the assessment outcome which rests on the assumption that safe fishing conditions will prevail in order to enable fishing conditions to co-exist. The Applicant is of the view that cumulative impacts are unlikely to be significant;
- NFFO/VisNed/HFIG consider that a post-installation trawl survey is necessary to verify a lack of significant snagging hazards. The Applicant considers that there are sufficient control measures in place with respect to cable burial with pre- and post-construction monitoring of the seabed so as not to require a post-construction installation trawl survey;
- NFFO/VisNed/HFIG consider a transparent process to make up for any attributable loss of earnings and/or costs associated with relocating gear is needed. The Applicant notes that it will continue to follow the FLOWW guidance where possible and utilize the FLO to assist with the planning, scheduling, communications and the use of FLO surveys to minimise the impact on commercial fishermen to the extent that no disturbance payments would be required. With respect to any disturbance payment during construction, the standard procedures outlined in the FLOWW guidance would be followed;
- NFFO/VisNed see the need for a community benefit fund in relation to potential impacts upon the fishing industry. The Applicant is of the view that, with limited fishing activity and no

significant impacts upon that fishing, a community benefit fund is unnecessary; and

- it is current NFFO policy to secure provisions for a Fishing and Co-existence Plan within Marine Licences/DCOs. The Applicant does not consider a specific licence condition is required as Condition 10(2)(c) of the DMLs (now Condition 8(2)(c) of the DMLs within the recommended DCO) includes details of the appointment and responsibilities of a FLO.

Marine Management Organisation

5.5.10 In their SoCG [REP1-0100] the Applicant and the MMO agreed the following:

- the appropriate legislation, planning policies and guidance have been followed in relation to commercial fisheries [APP-035];
- the baseline characterisation is acceptable and that all data presented have been informed by consultation with fisheries' stakeholders and that all data limitations have been adequately acknowledged;
- the environmental impact assessment has adequately assessed the potential worst case effects of the development, both alone and cumulatively, on matters relating to commercial fisheries and that all residual impacts are acceptable; and
- the requirement for a FLO to be appointed, as set down within Condition 10(2)(c) of the DMLs (now Condition 8(2)(c) of the DMLs within the recommended DCO), is an appropriate and sufficient control in relation to commercial fisheries.

5.5.11 There were no areas of disagreement in respect of fishing matters between the Applicant and the MMO.

Conclusion

5.5.12 The ExA notes that the MMO is satisfied with the assessment of the impacts by the Applicant and the proposed control measures that would be put in place during construction, operation and de-commissioning. The ExA considers that the Applicant has responded adequately to the areas of disagreement with the NFFO, VisNed and HFIG. Therefore, having considered all the matters raised, the ExA concludes that in addressing the potential impacts on the commercial fishing sector the requirements of EN-3 paragraph 2.6.133 have been met. It agrees with the MMO that Condition 8(2)(c) of the DMLs within the recommended DCO provides sufficient control in relation to commercial fisheries.

5.6 COASTAL CHANGE AND MARINE PROCESSES

- 5.6.1 Section 5.5 of NPS EN-1 sets out the policy issues relating to coastal change and the physical change to the coastline. Matters for consideration are also set out in Section 2.6.8 of the UK MPS. NPS EN-3 para. 2.6.189 onwards considers the impacts of wind farms on the offshore physical environment.
- 5.6.2 The Applicant has assessed potential impacts in the ES [APP-030] and these are summarised in Table 1.26. In the context of the ES, 'marine processes' is a collective term for marine and seabed physical processes, geology and geomorphology, hydrodynamics, seabed sediments, bathymetry, tides and waves.
- 5.6.3 The majority of effects on marine processes are considered to be localised and short-term. The cumulative effects of the project and other operational wind farms on the wave climate and effects on the shoreline and offshore sandbanks is assessed as of minor adverse significance (not significant in EIA terms) [APP-030, para. 1.7.58]. This assessment is agreed by the MMO [REP1-0100, Appendix A: Table A1]. All other effects are assessed as either non-applicable or 'negligible (insignificant)'.
- 5.6.4 The MMO confirmed its agreement with the Applicant's conclusion that the shoreline is of minor vulnerability, with moderate to high levels of recoverability [REP3-031]. The EA's queries about intertidal cable protection have been overcome, as addressed in the section on export and inter-array cabling above and in section 5.14 below on climate change and flood risk.

Conclusion

- 5.6.5 The ExA is satisfied that there has been adequate assessment of coastal change and marine processes. Conditions in the DMLs within the recommended DCO include those requiring the agreement of a CoCP, construction monitoring, and post-construction surveys (Conditions 8, 14 and 15 of the DMLs). Through the operation of the recommended DCO there would be an appropriate regime for monitoring and managing these processes in accordance with Section 5.5 of NPS EN-1.

5.7 OFFSHORE HISTORIC ENVIRONMENT

- 5.7.1 The Applicant addresses the offshore historic environment in:
- ES Chapter 9 Marine Archaeology and Ordnance [APP-038] and Tables 9.1 and 9.2 summarise NPS EN-3 policy in terms of the Applicant's assessment and the approach to decision-making and how these aspects have been dealt with in the ES; and
 - ES Chapter 10 Seascape and Visual Resources [APP-039] sets out the requirements of NPS EN-1 and NPS EN-3 in relation to

assessment and decision-making in respect of the offshore historic environment for HP2 [Tables 10.1 to 10.4 of APP-039].

- 5.7.2 At EN-1 paragraph 5.8.8, the requirement is for the Applicant to provide a description of the significance of the heritage assets affected by the proposed development, and the contribution of their setting to that significance.
- 5.7.3 The criteria decision-makers are to apply in considering the significance and value of heritage assets and the weight to be given to their conservation in determining whether or not to approve the development consent application are set out in paragraph 5.8.14 of EN-1, which states that:
- "there should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be."*
- 5.7.4 Paragraph. 2.6.139 of EN-3 recognises that heritage assets can be affected directly by the siting of the development itself and, indirectly, by changes to the physical marine environment caused by the proposed infrastructure itself or its construction. Paragraph. 2.6.144 indicates that the decision-maker should be satisfied that offshore wind farms and associated infrastructure have been designed sensitively, taking into account known heritage assets and their status, for example features designated as protected wrecks.
- 5.7.5 The UK MPS states at paragraph 2.6.6.3:
- "The view shared by the UK Administrations is that heritage assets should be enjoyed for the quality of life they bring to this and future generations, and that they should be conserved through marine planning in a manner appropriate and proportionate to their significance. Opportunities should be taken to contribute to our knowledge and understanding of our past by capturing evidence from the historic environment and making this publically available, particularly if a heritage asset is to be lost".*
- 5.7.6 MPS paragraph 2.6.6.9 states: *"Where the loss of the whole or a material part of a heritage asset's significance is justified, the marine plan authority should identify and require suitable mitigating actions to record and advance understanding of the significance of the heritage asset before it is lost. Requirements should be based on advice from the relevant regulator and advisors"*.
- 5.7.7 Initially Historic England (HE) expressed concern in its RR [RR-016] and WR at D1 [REP1-029] concerning:
- the implementation of the Archaeological Reporting Protocol, which is required to mitigate against any impacts to sites, artefacts or features that are identified, damaged or destroyed

during the development, construction, operation and decommissioning phases of the project; and

- the Applicant's assertion that the effects of gravity base foundation installation and sandwave clearance on unknown features of archaeological interest, which cannot be avoided, will be negligible because they will have a direct not indirect impact and the magnitude of the impact cannot therefore be negligible.

5.7.8 In its response at D1 [REP1-051], the Applicant drew attention to ongoing discussions with HE and the SoCG also submitted at D1 [REP1-099], which states that only onshore matters remained not agreed between the two parties.

Conclusion

5.7.9 The ExA concludes that the Applicant has adequately addressed issues relating to the offshore historic environment and has fulfilled the requirements of NPSs EN-1 and EN-3.

5.8 SEASCAPE AND VISUAL IMPACTS

5.8.1 NPS EN-3 sets out in paragraphs 2.6.198 to 2.6.210 guidance in relation to assessing and examining the impacts of offshore wind farms in relation to seascape and visual effects including circumstances in which seascape and visual impact assessment (SVIA) is required. Further guidance in relation to impacts on seascape is provided in section 2.6.5 of the UK MPS.

5.8.2 The Applicant produced its analysis of seascape and visual resources as part of the ES [APP-039] and included within it two SVIAs. One was in relation to a 50km buffer area around the HP2 offshore site and a second 20km buffer around the HVAC Reactive Compensation Substation (Figure 10.1 Project Two location plan and SVIA study areas).

5.8.3 ES paragraph 10.5.72 states:

"Given that the wind turbines of Project Two are located approximately 90 km from the nearest coastal location, the effects of the curvature of the earth and refraction of light over the distances involved prevent any views of Project Two turbines from onshore locations" [APP-039].

5.8.4 In its WR, HE reference seascape and visual resources at section 4 and express a concern that the ES refers to visual impact in terms that regard the project's impacts as essentially temporary during the operational phase. In HE's view, given the lifespan of the project, visual impacts cannot be regarded as 'temporary' (para. 4.2) [REP1-029].

5.8.5 In its SoCG HE states at paragraph 4.10.1:

"It is agreed that the statement of baseline, methodology and impact assessment relating to the effects of the Project on the historic seascape, as presented in Volume 2, Chapter 10: Seascape and Visual Resources of the Environmental Statement confirms that the intended development at this location may lead to change in the historic seascape character and that elements of this change would be permanent" [REP1-099].

5.8.6 No further representations were received in relation to seascape and visual effects. The Panel agrees with the Applicant's concluding comments in relation to seascape and visual resources at ES Chapter 10, paragraph 10.10:

"The above assessment found that most effects arising from the development of Project Two are unlikely to be greater than moderate, which is not significant in EIA terms. However, certain medium sensitivity receptors such as sailors using the northern-most RYA cruising route, or passengers on board the diverted Newcastle to Amsterdam ferry route may experience effects that are considered to be significant in EIA terms, the degree of significance depending on the receptor's proximity to the turbine array. Any close range views of Project Two would be transitory and would only be for a small proportion of the overall length of the respective routes. The turbine array would be seen in the context of oil and gas platforms as well as commercial cargo, fishing and other vessels. At night the lights of the array, would be seen in the context of existing light sources, such as navigation aids. There will be potential additional significant effects during the construction and the decommissioning phases of the project. However, these effects will be temporary in duration. Significant effects are considered to be acceptable where they are temporary or transitory" [APP-039].

Conclusion

5.8.7 Given its agreement with the above assessment, the ExA considers there would be no significant adverse effects on historic seascape or seascape arising from the visual impact of the project. Accordingly, the requirements of paragraphs 2.6.198 to 2.6.210 of NPS EN-3 have been satisfied.

ONSHORE ISSUES

5.9 GRID CONNECTION

5.9.1 NPS EN-3 paragraph 2.6.36 onwards sets out considerations relating to grid connection infrastructure for offshore wind farms, making it clear that routes to connect to the transmission network should be subject to EIA.

5.9.2 Section 4.9 of EN-1 sets out considerations in relation to grid connections and the need for an applicant to either secure a grid

connection or explain why it is not appropriate to do so at the time of the application. Specifically, paragraph 4.9.1 states:

"... it is for the applicant to ensure that there will be necessary infrastructure and capacity within an existing or planned transmission or distribution network to accommodate the electricity generated".

- 5.9.3 The DCO would authorise two offshore wind farms; Project A and Project B. Both wind farms would have the same connection point into the national grid and would follow the same cable route. In order to connect the HVDC and/or HVAC cables to the grid from their 40km cross-country route from landfall at Horseshoe Point, a new onshore HVDC converter substation, HVAC substation or a combination of the two are required. These would be sited to the immediate northern side of the existing NG 400kV North Killingholme substation and would be adjacent to the site of the consented HP1 substation.
- 5.9.4 The previously consented C.Gen power station and HP1 would also connect to the North Killingholme NG substation. Because of the relationship of these, and the restricted area to the north of the substation, together with the existence of pylons, the Panel wanted to be assured that the substation had the capacity to accept electricity from the present project and that mutually acceptable routeing and connection of power cables was feasible, as noted in Section 2.3 of this report.
- 5.9.5 In response to second written question CL20, NG confirmed that its substation had sufficient capacity to receive power from the three sources based on the current contracted background [REP4-050]. In response to second written question CL21, the Applicant has agreed protective provisions with C.Gen and HP1 (Parts 11 and 12 of Schedule L of the recommended DCO). It has also agreed a private side agreement with NG to regulate the interface with existing/proposed infrastructure [REP4-006, question CL21]. As a consequence, the parties are comfortable that the three generating projects can be facilitated, with adequate protection provided for their interests. NG is satisfied that the design work for the cable routes can be reviewed in due course, as for C.Gen and HP1, and that an appropriate cable route for each agreed [REP4-050].
- 5.9.6 For the vast majority of its route the proposed onshore cable corridor would run contiguously and parallel with that for the consented HP1. Issues relating to noise and vibration, air quality, dust and other potential nuisance, and traffic and transport associated with the provision of the onshore cable routeing, are considered below in separate sections in this Chapter. These matters have been considered in the Applicant's ES together with inter-related impacts [APP-051, APP-052, APP-050 and APP-054].
- 5.9.7 As set out in the ES, the Applicant has carried out a cumulative impact assessment approach in relation to the potential concurrent or staggered cable installation of the proposed development and HP1.

The SoCG with North East Lincolnshire Council notes agreement that this assessment accurately reflects the worst case scenario, the assessment of cumulative impact is sufficient, and no further mitigation is necessary [REP1-051, answer to question PN4, and REP1-098, para. 3.1.10].

- 5.9.8 An Outline CoCP was submitted as part of the application and is a document to be certified by the SoS. A detailed CoCP based on the Outline CoCP would need to be submitted prior to commencement of the development. This would cover a range of issues related to the construction of the project. In terms of onshore works, the CoCP would require local planning authority approval and is secured by Requirement 7 of the recommended DCO. For the offshore components, the CoCP would require the MMO's approval and is secured by Condition 8(2) of the DMLs. There is agreement that these provide the relevant authorities and statutory advisers with sufficient control over both the approval and any necessary enforcement of commitments made by the Applicant within the Outline CoCP [REP1-051, REP1-024, REP1-033 and REP1-044 answers to question CL9(c)].
- 5.9.9 The ExA is satisfied that the worst case scenario has been assessed in terms of the construction process and for associated impacts if two potential developers adopted different technologies (i.e. HVDC and HVAC) for power transmission [REP1-051, Applicant's response to question CL4].
- 5.9.10 The Panel also explored whether there was scope for reducing the length of time that construction compounds and side accesses may remain in place given the projected five-year duration of onshore cable construction [REP1-051, question CL6]. The Applicant has noted an indicative four-phase construction programme which is designed to provide the maximum worst case extents of the Rochdale Envelope approach. Given the uncertainty about the optimum detailed design, the Applicant states that flexibility is required to install up to eight export circuits over four phases and over a possible five-year period to ensure the commercial and practical viability of the development.
- 5.9.11 Requirement 25 of the recommended DCO provides for co-operation should there be two separate wind farm undertakers. The Panel considered the importance of local planning authority involvement post-consent since it would fall to them to enforce compliance with requirements in respect of onshore works. As a consequence, the Applicant amended wording in Requirement 25 in its draft DCO to provide the ability for a local planning authority to call liaison meetings in relation to the impact of construction works and operations. This amendment has been incorporated into the Requirement within the recommended DCO.

Conclusion

- 5.9.12 In light of the above, the now common ownership of both the HP1 and HP2 projects, Requirement 27, Condition 8(2) and protective

provisions in Parts 11 and 12 of Schedule L secured within the recommended DCO, the ExA considers the requirements of EN-1 and EN-3 have been met by the application in relation to these matters.

5.10 HISTORIC ENVIRONMENT

5.10.1 Section 3 of the Infrastructure Planning (Decisions) Regulations 2010 indicates that when deciding an application for development consent the SoS must have regard to the desirability of:

- preserving any listed building or its setting or any features of special architectural or historic interest which it possesses;
- preserving or enhancing the character or appearance of a conservation area; and
- preserving any scheduled ancient monument or its setting.

5.10.2 ES Chapter 6 Historic Environment sets out the Applicant's approach to the onshore historic environment [APP-048(a)] and in Tables 6.1 and 6.2 it summarises the requirements in relation to the Applicant's assessment of the project's impact on the historic environment, the approach to decision-making outlined in section 5.8 of NPS EN-1 and how these are addressed in the ES.

5.10.3 In its LIR, North Lincolnshire Council (NLC) expressed its concern that:

"A programme of trial trenching, to complete the archaeological evaluation north of Chase Hill Road and east of Harbrough Road, has not yet been proposed or undertaken. Until this work is completed and reported on the statement in 6.5.53 of the ES that 'The comprehensive approach to field evaluation means that other assets of medium importance are unlikely to be discovered during construction' cannot be confirmed, nor indeed assets of high importance. As such it is not possible to agree whether or not the mitigation measures are appropriate or satisfactory in relation to national and local planning policies" [LIR-001].

5.10.4 In its LIR, North East Lincolnshire Council (NELC) expressed support for the proposal and made no comment in relation to heritage matters [LIR-002], as was the case with East Lindsey District Council (ELDC) [LIR-003].

5.10.5 HE's RR expressed concern about the setting impacts of the proposed transmission/substation(s) at North Killingholme and *"any significant issues arising from the presence of non-designated archaeological remains along the pipeline route"* [RR-016]. There was also concern at the narrow definition of setting used in the Applicant's analysis which, HE opined, emphasised the visual over other potential impacts. These concerns were repeated in its WR at D1 [REP1-029] in which HE advised that particular note be taken of the comments of the local authorities' historic environment services in assessing the approach being taken to onshore archaeological remains.

- 5.10.6 The SoCG between HE and the Applicant submitted at D1 [REP1-099], indicated that the matters not agreed were:
- (i) the setting impacts of the converter/substation at the end of the cable route at North Killingholme;
 - (ii) any significant issues arising from the presence of non-designated archaeological remains along the pipeline route; and
 - (iii) the definition of setting with respect to the individual assessments of impact on designated assets is often drawn too narrowly and focused upon exclusively visual relationships. It does not appreciate the potential for broadly contemporaneous heritage assets to make a positive contribution to setting and hence significance even if they cannot be identified to be directly historically related.
- 5.10.7 At D2, the Applicant submitted a SoCG with Lincolnshire County Council (LCC) in relation to Onshore Heritage [REP2-033]. There was one matter not agreed: *"LCC believes that the agreed programme of archaeological trial trenching evaluation should be completed in order to fully understand and characterize underlying archaeological impact"*.

The Examination

- 5.10.8 The Panel explored these issues through written questions, Rule 17 requests, at hearings and on its accompanied site inspection:
- (i) first and second written questions LH2 to LH14 [PD-010] and LH15 to LH20 [PD-017] which addressed a range of heritage and visual impact issues;
 - (ii) following the accompanied site inspection on 29 July 2015 [EV-005], the ExA issued a Rule 17 letter [PD-013] and requested further photomontages of the cumulative impact of the worst case visual impact scenarios for the proposed HP2 and HP1 substation developments combined (i.e. 2 no. HVDC converter stations for each project) during the operational phase from a number of locations, including heritage assets;
 - (iii) during the accompanied site inspection, the Panel assessed the visual impact of the proposed HVDC converter stations from a number of locations, including the Gatehouse arch at Thornton Abbey (a Scheduled Ancient Monument, with the Gatehouse and Wing Walls, Precinct Walls and Barbican also being Grade 1 listed buildings); and
 - (iv) historic environment issues were discussed at both the ISHs on 15 September 2015 [EV-010 and REP3-013] and on 27 October 2015 [EV-034a and REP5-008].

- 5.10.9 In its response to second written question LH15 [REP4-052], NLC listed a number of plots where:

"there has been no evaluation, either geophysical survey and/or trial trenching, along the cable route" and concluded: "In the event of remains of national significance being identified post-determination of the DCO it is difficult to see how the requirements of the DCO could accommodate a potential redesign to secure in situ preservation of such remains within the order limits. Where the evaluation revealed remains of less than national importance and preservation by record was considered appropriate, the local authority would wish to have this information to agree the details of the mitigation prior to the determination. It is important that sufficient time is allowed within the pre-construction programme for the recording works to be carried out to an adequate standard without causing delay to the construction; if the location and extent of these works is not known pre-determination, this provision will be difficult for the local authority to enforce".

- 5.10.10 In its response to question LH17 [PD-017], NLC supported the possibility of screen planting mitigating the visual impact of the proposed transmission/substation buildings at North Killingholme when viewed from Manor Farm Moated site (Scheduled Ancient Monument - the associated house is listed Grade II* and the stables and granaries listed Grade II) and Thornton Abbey [REP4-052] and suggested that Humber Industry Nature Conservation Association was an appropriate organisation to carry this out.

- 5.10.11 In its response to the Panel's second written questions, HE [REP4-057] largely deferred to the advice from the local authorities; but stated in response to question LH15(b):

"we would comment that in our view it is extremely important with schemes of this nature to ensure that the investigation and evaluation programme can provide a robust understanding of the archaeological resource preserved throughout the development zone, on which basis decisions can be made regarding opportunities to avoid, minimise or mitigate impacts on that resource. Without such a baseline understanding across the development zone of the significance of the archaeological remains it will not in our view be possible to determine whether there is a need to consider options other than mitigation. We refer you to the advice of the local authority archaeologists as to whether the work conducted to date has been sufficient in this regard".

- 5.10.12 In response to question LH17(a), HE stated that whilst it was "aware of the degradation of the historic setting of the nationally designated heritage assets in this area resulting from the location of the oil refinery and other existing industrial development, and the implications this has for the assessment of the impact of the proposed development" it was important that mitigation measures continued to

be explored, including a planting scheme at Thornton Abbey [REP4-057].

Visual impact and archaeology

- 5.10.13 In all its responses to the two outstanding issues in relation to the historic environment i.e. (a) the assessment of setting impacts in relation to the onshore HVDC converter/HVAC substation at North Killingholme and (b) impacts on non-designated archaeological remains along the cable route, the Applicant maintained the position expressed in the ES [APP-048a] that:
- (i) the impact on scheduled ancient monuments and listed buildings of the proposed HVDC converter/HVAC substation at North Killingholme would be of minor adverse significance to none; and
 - (ii) that, in the circumstances, additional fieldwork in relation to potential non-statutory archaeological remains in the vicinity of the cable corridor was unnecessary and that the protection provided by Requirement 6 (Archaeology landward of mean low water springs) in the draft DCO [APP-010] was adequate [REP1-051].
- 5.10.14 The Panel examined the issues around the potential impact of the proposed transmission/substations, which in the worst case scenario could be 40m high, on the setting of heritage assets in some detail; this included the feasibility of providing off-site planting to ameliorate the visual impact of the proposal, particularly in relation to Manor Farm Moated site and Thornton Abbey. It concludes that both the scope for and the value of off-site planting is limited.
- 5.10.15 There is no doubt that in the worst case, the visual impact of the transmission/substation(s) on heritage assets in the vicinity will be detrimental; however, in the context of both the existing industrial and power generation developments around North Killingholme and those approved, but not yet implemented, the effect of the HP2 development on heritage assets is likely to be less than significant and that any harmful impacts are outweighed by the public benefit of making a significant addition to the nation's supply of renewable energy. The more general aspects of visual impacts in relation to landscape are discussed later.
- 5.10.16 In responding to WRs and responses to the Panel's first written questions, the Applicant states in relation to non-designated heritage assets:
- "The Applicant maintains its position that the assessment undertaken to date is enough to properly assess the heritage interest. The Applicant has committed, in Table 6.22 of Volume 3, Chapter 6 of the ES, to include the recording as appropriate of those areas of archaeology not previously subject to trial trenching prior to construction as part of a WSI, secured by Requirement 6 of the draft*

DCO The Applicant notes that it is normal practice in terms of onshore archaeology to submit Written Schemes of Investigation following the grant of consent and notes, for instance, that the consented Hornsea Project One was undertaken in this way" [REP2-016].

5.10.17 The remaining historic environment issues were discussed in some detail at the ISH on 15 September 2015 [EV-014] with comments from ELDC, HE and expert advice on behalf of the Applicant. The Applicant explained that trial trenching work for both HP1 and HP2 had been agreed with the local authorities and the majority of this work had been completed. There were now very few gaps and a robust mitigation strategy similar to that adopted for HP1 was in place. HE re-emphasised its position that it was important for information to be obtained ahead of final decisions being made in respect of the location of cables and the transmission/substations and that the local authority requirements should be met.

5.10.18 In its summary of oral case following the ISH on 15 September 2015 [REP3-013] resulting from questioning by the Panel, the Applicant notes, in relation to non-designated archaeological assets that it:

"considers that the trial trenching undertaken to date, combined with the various non-intrusive surveys (described below), has sufficiently characterised the archaeology of the proposed onshore cable route and is adequate to fully assess the impact of the proposed development on heritage interests and to outline appropriate mitigation. This mitigation will be secured in a Written Scheme of Investigation (WSI) which will be submitted to and approved by the local planning authority prior to the commencement of the Project (pursuant to Requirement 6 of the draft DCO). The WSI (informed by the trial trenches carried out to date) will identify areas where field work and/or a watching brief are required, and the measures to be taken to protect, record or preserve any significant archaeological remains that may be found".

5.10.19 It further opined that more recent investigations in connection with A160 improvements and HP1 are consistent with the view taken in the HP2 ES.

5.10.20 Following a request from the Panel, the Applicant submitted, at D4, plans illustrating the extent of heritage surveys carried out for both HP1 and HP2 [REP4-028]. At D5 a further plan was submitted showing the trial trench plan for the URSA Glass Wool Plant site located immediately to the north of the HP1 and HP2 transmission/substation sites and the access route to the west [REP5-028].

5.10.21 The remaining historic environment issues were the subject of further discussion at the ISH on 27 October 2015 [EV-034a]. NLC emphasised the need for further baseline information in order that judgements about significance could be made. It emphasised the point that a key issue was to have the information in sufficient time ahead of the

project to enable proper assessments to be made and mitigation strategies devised [EV-036].

5.10.22 During the discussion the Applicant stated that:

- a significant amount of survey work has been undertaken to inform the baseline characterisation of the project;
- the scope of work undertaken is greater than that undertaken to inform the determination of similar planning/DCO applications (a summary of which was provided in Table 1);
- significant controls to safeguard heritage are included in the draft DCO, specifically Requirement 6 of the draft DCO which requires that no part of the authorised development, landward of Mean Low Water Springs (MLWS), is to commence until a written scheme for the investigation of areas of archaeological interest has been submitted to and approved by the local planning authority. The scheme for the investigation of archaeology will identify areas where field work and/or a watching brief are required and the measures to be taken to protect, record or preserve any significant archaeological remains that may be found;
- the survey work was not completed because (a) the archaeology of the project area was fully and adequately characterised and therefore the baseline was fully understood; and (b) access to undertake the remaining fieldwork was very difficult (due to landowner issues related to ongoing agricultural practices within those fields), it took a very long time to undertake the trial trenching and it was becoming disproportionately difficult to undertake further work;
- as a great deal of archaeological survey and assessment has been undertaken to characterise the onshore cable route corridor it was unlikely that there would be any survival of remains of national significance within those areas where the trial trenching did not occur;
- no part of the route has escaped some level of characterisation and in the unlikely event that such remains are uncovered the mitigation already in place (pursuant to Requirement 6 of the draft DCO) is sufficient to protect and preserve such remains; and
- it had drawn attention to the results of trial trenching at the URSA Glass Wool Plant site located immediately to the north of the HP1 and HP2 transmission/substation sites [REP5-028], the access route to the west and the Able Humber Ports Facility immediately to the west of the transmission/substation site; both of which had been granted permission prior to the non-designated archaeological remains being surveyed through trial

trenches. On this basis the Applicant considers that the archaeology in the area in question to the north of Chase Hill Road has been characterised, both through desk-based and field assessment for other projects and through the work undertaken by the Applicant to inform the project baseline environment [EV-036 and REP5-008].

5.10.23 NPS EN-1 paragraph 5.8.9 requires that:

"...where a development site includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation."

5.10.24 The Panel was faced throughout the Examination with a serious professional disagreement between the Applicant and particularly NLC, supported by HE, as to whether or not the evidence that had been assembled in relation to non-designated archaeological assets was sufficient for the purpose of properly assessing the significance of those potential assets, particularly to the north of Chase Hill Road and to the east of Habrough Road. The Panel went to considerable lengths to understand this disagreement.

5.10.25 It is the Panel's view that considerable fieldwork data needs to be assembled to allow appropriate judgements around significance and mitigation to be made; but, for the reasons set out above, doubts remain in relation to those areas not yet subject to field trials. The important point made by NLC is that data need to be assembled in time for proper assessment to be made and any mitigation strategy implemented.

5.10.26 The Applicant points to Requirement 6 in the submitted DCO [APP-0181] (now amended to Requirement 5 in the recommended DCO) to provide the protections that the local authority and HE require. However, although based on a model requirement, Requirement 5, (which ensures that the local planning authority's approval to a WSI is necessary before any part of the development commences), does not specify a time-period within which approval to the WSI must be obtained in advance of the development commencing to allow for evaluation of the results and the implementation of any mitigation strategies. No mechanism for resolving this impasse was proposed by the parties during the Examination.

ExA recommendation

5.10.27 After careful consideration, the ExA proposes that to deal with this anomaly and to address the specific concerns in relation to HP2, the SoS may wish to consult the Applicant, HE and NLC on the following proposal to amend Requirement 5 by the alteration of paragraph 5(4) to read:

- (4) Any archaeological works or watching brief must be carried out in accordance with the approved scheme and a report of any measures taken to protect, record or preserve any significant archaeological remains that are found must be submitted to and approved by the local planning authority before the commencement of any works that would affect those remains.

5.10.28 This simple proposed amendment leaves the undertaker in charge of timing and able to prioritise archaeological works and responses to them in its programme as necessary. It ensures that the conservation outcomes sought by IPs are delivered in a manner that is accountable to the LPA, before the commencement of works that would affect any assets that might be found, but does not delay the rest of the scheme.

Conclusion

5.10.29 The ExA concludes that, with the addition of the proposed amendment to Requirement 5 of the recommended DCO, the proposal for HP2 as amended meets the tests set out in NPS EN-1 and NPS EN-3 in respect of the historic environment.

5.11 LANDSCAPE AND VISUAL IMPACT

5.11.1 NPS EN-1 sets out requirements for both applicants and decision-makers in relation to landscape and visual impacts of energy projects in section 5.9. Applicants are to carry out a landscape and visual assessment; assess the effects during construction and post-completion; and *"include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include light pollution effects, including on local amenity and nature conservation."*

5.11.2 The Applicant provided the results of its EIA assessment of the onshore elements of HP2 in relation to landscape and visual resources during the construction, operation and decommissioning phases, including the potential for cumulative effects alongside other energy-related and logistics proposals in close proximity to the site, in its ES [APP-046, APP-047 and APP-048]. The assessment sets out the relevant planning policy context and establishes a baseline position to enable impacts of HP2 alone, cumulative impacts, transboundary effects and inter-related effects to be assessed in relation to effects on landscape character and visual effects on a range of receptors. The assessment includes a series of views of the cable landfall and cable corridor and both existing and worst case photomontage images of the proposed onshore HVDC converter/HVAC substation buildings from a number of distant, mid-range and close-range viewpoints.

5.11.3 The EIA in relation to landscape and visual resources is summarised in Table 5.19 and the conclusion of the assessment makes the following points:

- (i) *"...designated landscapes will experience distant, indirect Negligible to Minor effects during the construction phase. During the operation and maintenance phase of the development it is unlikely that the onshore HVDC converter stations or the HVDC converter station and HVAC substation will be visible from designated landscapes behind the industrial development on the south bank of the Humber. However, if parts of the buildings are visible, they will be seen in the context of this development there would not be any significant effects during the operation and maintenance phase. During the decommissioning phase of the onshore converter stations or HVDC converter station and HVAC substation, there will be distant, indirect Negligible to Minor effects"* (para. 5.11.2) [APP-047];
- (ii) *"The integrity of the landscape and the objectives of the designation of the Lincolnshire Wolds AONB and the other designated areas are not compromised by the proposed development during the construction, operational and maintenance, or decommissioning phases"* (para. 5.11.3) [APP-047];
- (iii) *"For the majority of the undesignated landscape and seascape resources there will be no significant effects (major and above)"* apart from the construction and decommissioning phases when there will be *"direct, localised temporary impacts on those areas of undesignated landscape resources where there is land take for the onshore HVDC converter stations or the HVDC converter station and HVAC substation, cable route and associated development of temporary construction access roads, compounds and haul roads."* Although significant in EIA terms these effects will be of a short-term nature (para. 5.11.4) [APP-047];
- (iv) *"During the construction and decommissioning phases there will be significant (visual) effects, arising from the construction of the cable route and the onshore HVDC converter stations or the HVDC converter station and HVAC substation, experienced by residential receptors and a number of PRow, where these have been temporarily closed or diverted. However, these are local, temporary effects. Mitigation through landscape screening is not possible due to the short timescale of the construction and decommissioning periods"* (para. 5.11.8) [APP-047];
- (v) *"There will be one residential receptor that will experience a significant effect at Year 1, of the operation and maintenance phase of the onshore HVDC converter stations or HVDC converter station and HVAC substation. The effect will reduce as the planting matures, but it would remain a significant effect"* (para. 5.11.9) [APP-047];

- (vi) in relation to potential cumulative effects on the landscape and visual receptors the one area of concern is North Lincolnshire Landscape Character Area (LCA) Humber Estuary: Flat Open Farmland and LCA Humber Estuary: Open Undulating Farmland where: *"The proposed developments in these character areas would permanently change the overarching farmland character to one of business and industry. The proposed developments (excluding the Project Two onshore HVDC converter stations or HVDC converter station and HVAC substation) would bring built development closer to the village of East Halton and the C.GEN development would impede views to the Humber Estuary, causing significant cumulative effects on landscape resources and visual receptors. The proposed Project Two development would not tip the balance from a non-significant to a significant effect and would only cause a small incremental impact on the landscape resources and visual receptors"* (para 5.11.13) [APP-047]; and
- (vii) in relation to the cumulative impact of HP1 and HP2 the study concludes that there will be *"significant effects on the immediate landscape and the closest visual receptors" in all phases (paras 5.11.14 to 5.11.16) [APP-047].*

5.11.4 In its LIR, North Lincolnshire Council recognised that:

"The electrical transmission station will be the single largest change to the North Lincolnshire landscape. This element of the development will be visible over long distance views as depicted in the photomontages produced and submitted with the ES. It will result in direct, long-term and continuous impacts on high sensitivity receptors. It will result in up to a high magnitude of impact upon commercial/industrial operators and Public Rights of Way, whilst also having up to a medium impact on residential, community and dynamic receptors".

5.11.5 It further stated:

"Longer-term adverse impacts include the visual intrusion caused by the electrical transmission stations and the loss of agricultural land. These long-term adverse impacts must be considered in the context of the site's current allocation for employment uses"; and "Given that the substation will be constructed in a location which is allocated for industrial development and the cable route will have a temporary visual impact, it is considered that the generation of jobs and industry is an aim of local planning policy."

5.11.6 It concluded by recommending to members of the Council that they support the principle of the proposed development [LIR-001].

5.11.7 North East Lincolnshire Council supported the proposal and made no substantive comment on landscape and visual impact in either its LIR

[LIR-002] or updated LIR [REP2-012]. East Lindsey District Council made no reference to landscape and visual impact [LIR-003].

5.11.8 SoCGs were completed with a number of IPs and in each case there was agreement that the ES had accurately assessed the project's visual impacts in relation to landscape and that the mitigation proposed in the DCO was adequate:

- paragraphs 3.1.21 to 3.1.23 of the SoCG with North Lincolnshire Council [REP1-0102 and REP2-035];
- para. 3.1.5 of the SoCG with North East Lincolnshire Council [REP1-098];
- Lincolnshire County Council agreed that there were no areas of disagreement in relation to the visual impact of the project on either landscape or the historic environment [REP1-0106 and REP2-033]; and
- the SoCG with HE raised no issues in relation to the visual impact of the project on the historic landscape environment [REP1-099].

The Examination

5.11.9 The Panel sought to examine issues around the visual impact of the proposal on the landscape through formal written questions and Rule 17 requests for further information, and from observations on its accompanied site inspection [EV-005] and at ISHs.

5.11.10 No issues of concern arose from the Panel's first written questions [PD-010] in which seven questions directly related to visual impact were asked.

5.11.11 At the accompanied site inspection the Panel examined the potential visual impact of the proposed onshore HVDC converter/HVAC substation at North Killingholme from near, mid-range and distant viewpoints. The worst case scenario for the height of these buildings is described in the draft DCO as not exceeding 40m in height [Requirement 2(11)(a), APP-0180]. Particular attention was paid to the potential impact of views from the eastern boundaries of the village of East Halton. Following the site inspection, the ExA issued a Rule 17 request for further information [PD-013] and asked the Applicant to submit:

- (i) a number of additional photomontages of the proposed HVDC converter/HVAC substation in the worst case scenario and in combination with HP1 submitted at D2A [REP2A-011]; and
- (ii) information on the planning permissions granted in the vicinity of the proposed HVDC converter/HVAC substation site, including the Able Logistics Park, which is located immediately adjoining the

HP2 site and between it and East Halton, submitted at D2A [REP2A-008 to REP2A-010].

- 5.11.12 At question LH17 of its second written questions [PD-017] the Panel asked IPs if they wished to comment on the additional images submitted at D2A [REP2A-011]. None of the IPs raised any further issues in relation to visual impact on the landscape.
- 5.11.13 In response to LH18 of the second written questions [PD-017], the Panel asked for an explanation of the maximum height of the proposed HVDC converter station (i.e. 40m). In its response the Applicant drew attention to: the much larger capacity of HP2 over HP1 (1.8GW as opposed to 1.2GW); the need to present the worst case in the ES; that the final outcome might be buildings of varying heights; and that mitigation is provided by Requirement 15 of the draft DCO in the form of a 'skyscraping' colouration that is to be approved by North Lincolnshire Council [REP4-006].
- 5.11.14 The Panel expressly asked the Lincolnshire Wolds AONB (which had not registered as an IP) to comment on question LH17 of its second round questions [PD-017] via a Rule 17 request [PD-011]. No response was received.
- 5.11.15 Paragraph 5.7.426 of Volume 3, Chapter 5 of the ES acknowledges that there will be high visual impact of major significance on the residents of Fairfield, a property on Dean Street, south of Brick Lane, situated to the west of the converter/substation site and the closest residence to it, which has open views of the onshore converter/substation development [APP-047] during all three phases. However, the view of the onshore converter/substation would be in the context of the adjoining E.ON and Centrica power stations, the NG substation at North Killingholme and the Killingholme tanks and oil refineries [APP-047 para. 5.7.420] and the view of the building(s) would be somewhat softened by the planting proposed in the Outline Landscape Scheme and Management Plan [APP-0178]. Requirement 8 of the recommended DCO requires local planning authority agreement of a written landscaping scheme which must include the provisions of the Outline Landscape Scheme and Management Plan.
- 5.11.16 In question LH12 of its first written questions the Panel asked the Applicant to outline any discussions that had taken place with the owner/occupier of Fairfield [PD-010]. The Applicant explained in its response that the owner/occupier of Fairfield had been included in the consultations that had taken place but:

"The owner/occupier of Fairfield did not attend any of the public consultation events for the Project. No representations have been received from the owner/occupier of Fairfield during the pre-application consultation process, or subsequently following acceptance of the Application for Examination".

- 5.11.17 Further, the Applicant pointed out that, if it proceeds, the access road/spine road and associated landscape bunds for Able Logistics Park would be located immediately to the east of Fairfield and:

"The bund between Fairfield and the spine road will be 2.5m high with a 2m high acoustic fence on the top and will be planted. Residents of Fairfield will have no views of the HVDC converter buildings from ground floor rooms once the bund and acoustic barrier are constructed. The existing views from the first floor of Fairfield are of the refineries and power stations, the onshore HVDC converter/HVAC substation will be seen in the context of this industrial landscape. The granting of planning consent for the Able project and the associated granting of DCO consent for the Able Marine Energy Park will mean that the spine road is likely to be constructed in advance of the potential programme of construction of the Project; however, the Applicant cannot influence the Able Logistics Park development and construction programme" [REP1-051].

- 5.11.18 By way of a Rule 17 request Mr Ray Wilson, a resident of East Halton, who had been involved in pre-application consultations, but not registered as an IP, was asked if he wished to comment on question LH7 of the Panel's first written questions [PD-010 and PD-012]. No response was received.

Conclusion

- 5.11.19 In the ExA's opinion there is no doubt that, if constructed to the limit of the DCO design parameters, the proposed onshore HVDC converter building(s) at North Killingholme would be a significant visual intrusion into the landscape, particularly when viewed from the west. Nevertheless, the buildings would be located in close proximity to existing and proposed energy infrastructure and industrial/commercial developments, themselves of significant size. Visual impact would be within a largely flat landscape that has been and will continue to be in transition from agricultural to a major energy generation/industrial agglomeration.
- 5.11.20 The ExA welcomes the positive proposals for the mitigation proposed in its recommended DCO through selection of the colour of the cladding of the building (Requirement 14) and landscaping to the western boundary of the site secured through Requirements 8 (Landscaping) and 9 (Implementation and maintenance of landscaping) and Schedule M (Outline landscape scheme and management plan).
- 5.11.21 Overall the ExA concludes that there are no significant adverse visual impacts in relation to the landscape or historic landscape and that, in relation to the visual impact of the onshore elements of the project, bearing in mind the over-arching imperative of increasing the nation's supply of renewable energy, there are no adverse impacts of sufficient significance that would mean that development consent should not be

granted. The proposal would accord with the requirements of NPS EN-1 and EN3.

5.12 SOCIO-ECONOMIC IMPACTS

5.12.1 Section 4.1 of NPS EN-1 sets the context and section 5.12 of EN-1 deals specifically with the potential regional and local socio-economic impacts of energy NSIPs. The proposed HP2 would contribute to meeting a nationally recognised need for renewable energy; it could also have significant positive socio-economic impacts at the regional and local levels as a result of the construction and subsequent operation and maintenance (O&M) stages of the project. There would be implications for employment, supply chains and a range of community services. Consequently, the consideration of socio-economic impacts was a significant concern in the Examination of the proposed development.

5.12.2 Paragraph 4.1.3 of EN-1 notes that the decision-maker should take into account both the potential benefits of the proposed development in contributing to meeting the need for energy infrastructure, job creation and any long-term or wider benefits, and also any potentially adverse impacts. Paragraph 5.12.3 of EN-1 identifies the following considerations as relevant socio-economic impacts:

- *"the creation of jobs and training opportunities;*
- *the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities;*
- *the effects on tourism;*
- *the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development, and;*
- *cumulative effects-if development consent were to be granted for a number of projects within a region and these were developed in a similar timeframe, there could be some short term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region."*

The Applicant's socio-economic impact assessment

5.12.3 The Applicant undertook a socio-economic assessment as part of the ES [APP-053]. The focus was on a Local Impact Area (LIA) made up of six local authority areas which immediately border the coastline adjacent to the HP2 development area and which surround the Humber Estuary. The LIA contains the entirety of the Humber Local Economic Partnership (LEP) area. A much wider UK Impact Area is also used to enable the national significance of effects to be assessed.

5.12.4 The assessment of the baseline shows that the LIA faces many socio-economic challenges. It has higher unemployment rates and lower skill levels than the UK national average; the level of earnings of those in employment and the level of Gross Value Added (GVA) per head are also both substantially lower than the national average. However, the assessment of the policy context also reflects on the changing industrial structure of the area, and on the potential opportunities provided by the renewable energy sector. For example:

"The Humber LEP's strategic plan (Humber LEP, 2012) points towards an anticipation that renewable energy will play a central role in the economic development of the area. The Humber LEP notes that taking advantage of major growth opportunities such as renewable energy will be critical to realising the true potential of the Humber Estuary."

5.12.5 The Applicant's assessment of potential impacts, further detailed in a Socio-Economic Annex [APP-0158], considered three impact scenarios (low, medium and high impact) across the construction and O&M stages of the project. There was considerable uncertainty attached to the relative likelihood of the scenarios. This was partly caused by the inability of the Applicant to offer much clarification on the key issue of the likely main port(s) to be used for the construction and O&M stages of the project, and partly by the approach used in the assessment. In general, the initial position of the Applicant on the potential socio-economic impact scenarios for the LIA appeared to be low for the construction stage and low/medium for the O&M stage.

Responses of other parties

5.12.6 A review of the strategic aims of local authorities in the LIA shows strong support for initiatives to boost the local economy, increasing employment and skills, plus a clear recognition of the importance of the renewable energy sector in delivering economic development objectives [APP-053, para 11.3.12]. Further support is contained in the LIRs produced by various local authorities; for example, North Lincolnshire Council states [LIR-001]:

"...the generation of employment is a strategic aim of North Lincolnshire Council in this location and the benefits associated with this clearly outweigh the negative impact on tourism and public rights of way resulting in an overall moderate positive impact.... This development will have long-term beneficial economic impacts in terms

of job creation and inward investment into North Lincolnshire and the UK."

5.12.7 Similarly, North East Lincolnshire Council notes in its LIR [LIR-002]:

"The further potential for investment and jobs created in Grimsby is welcomed fitting within the overall regeneration/economic development targets of the Council Partnership with renewables a key sector for development and growth."

5.12.8 Evidence of further local support was set out by the Applicant in its response to Rule 6 [AS-008], where copies of letters of support, primarily on socio-economic grounds, were provided from; the Humber LEP, the Humber University Technical College, the Humberside Engineering Training Association, the Green Party North Lincolnshire, the Energy Development Group, Grimsby Job Centre Plus, Hornsea School and Language College, and North Lindsey College.

5.12.9 In its letter of support [AS-008, Appendix B], the Humber LEP notes:

"The Humber Local Enterprise Partnership supports the DCO application by Smart Wind for the Hornsea Project 2 offshore wind farm. The Humber Estuary is developing as a national centre for energy with a primary focus on the offshore wind sector. The project fits within the overall priority sectors which have been identified by the Humber Local Enterprise, where Energy and Renewables is the most important sector in delivering local growth through investment and new employment. Energy and Renewables has been the primary focus for strategy and funding applications by the Humber Local Enterprise Partnership."

5.12.10 The Humber LEP also noted the importance of relevant supply chain and skills-based plans, as secured in the draft DCO by Requirement 18 - employment and skills plan (now Requirement 17 of the recommended DCO).

Key issues

5.12.11 Key socio-economic issues identified by the Panel included the following:

- further consideration of the most likely socio-economic impact scenarios for both construction and O&M stages;
- determinants of the most likely port(s) to be used for HP2;
- developing the scope, and implementation stage, of Requirement 18 (now 17) (employment and skills plan) of the draft DCO;
- provision for the monitoring of the local socio-economic impacts (especially supply chain and employment take-up) of the project; and

- plans for the introduction of a Community Benefits Fund.

5.12.12 These issues were examined via two rounds of written questions, and in two ISHs. The Applicant provided additional documentation on socio-economic assessment in support of responses to questions [in particular, REP3-013, REP4-039, REP5-008 (section 5) and REP5-021].

Local socio-economic impact scenarios and use of local ports

5.12.13 The Applicant's socio-economic impact assessment left great uncertainty in relation to the potential benefits of the project to the local economy, as it was unable to differentiate between potential low, medium and high local impact scenarios for both the construction and O&M stages of the project. The Applicant advanced the following factors as explanations for such uncertainty/absence of information on: main tier one and two supplier location; port selection and functions; and supply chain and labour market adjustment the potential for the range and expertise of suppliers and workers to be increased or enhanced prior to the construction or operation of the project.

5.12.14 The Panel probed these issues over the two ISHs on 15 September and 27 October 2015 and the Applicant provided additional information, as noted above, which helped to clarify some of the issues. This included an outline of the significant technical and commercial determinants likely to influence port location. Included in the commercial determinants was the enthusiasm from the ports to attract offshore wind energy work, and the Applicant noted [REP3-013]:

"...the Humberside Ports have shown enthusiasm for undertaking offshore wind energy work, including for Dong Energy, and are well located for the Project, hence would be in a strong starting position to win construction work.

...(for the O&M stage) Dong Energy has already selected a Humberside port, Grimsby Royal Dock, for the Westermost Rough O&M facilities, hence Humberside would be in a strong starting position."

5.12.15 Based on such port determinants, recent supply initiatives in the LIA such as the Siemens investment at Alexandra Dock, and the growth of renewal energy targeted training initiatives in the area, there was a small shift in the Applicant's position during the Examination on likely local socio-economic impact scenario outcomes. This included a shift towards a medium/low socio-economic impact scenario for the construction stage, and a medium socio-economic impact scenario for the O&M stage.

Employment and Skills Plan: scope and implementation

- 5.12.16 The Applicant included provision for an Employment and Skills Plan as a DCO Requirement (now Requirement 17 of the recommended DCO), building on the initiative used in HP1. During the Examination the Panel explored the possibilities for extending the scope of the plan, particularly in relation to apprenticeships and support for disadvantaged groups. The Panel also sought clarification on the approach to implementing the plan.
- 5.12.17 In the second ISH on 27 October 2015 [REP5-008, section 5], the Applicant presented a more detailed version of the approach, set out in an Outline Plan [REP5-021]. The Employment and Skills Plan at Requirement 17 of the DCO now includes reference to this Outline Plan. The Applicant also noted an intention to explore the potential role for apprenticeships (during the O&M stage) as part of the development of the plan. Principal contractors have previously employed apprenticeships on contracts that Dong Energy has let, and Dong Energy supported this approach. The requirement for particular activities aimed at disadvantaged groups will also be considered as part of the preparation of the plan. The Applicant noted that it has already engaged with activities aimed at disadvantaged groups including working with Scunthorpe and Grimsby Job Centres [REP5-021 Table 1.2 and EV-036].

Monitoring of the local socio-economic impacts

- 5.12.18 In response to the Panel's questioning on the benefits of monitoring the local socio-economic impacts, the Applicant recognised the potential benefits associated with provisions to monitor both the scale and nature of local economic impacts. The Applicant is proposing to monitor the local economic benefits secured through both the construction and O&M stages of HP2 [EV-036].
- 5.12.19 The monitoring approach is set out in the Outline Plan [REP-021] and is expected to have two elements, which would provide the basis for a periodic analysis of local impacts and which would be included in the Employment and Skills Plan:
- "(i) Use of Dong Energy's supply chain and employment records to capture direct employment and supply chain impacts; and*
- (ii) Collection of additional supply chain and employment information from Tier 1 and Tier 2 supply chain companies to provide information on the geography of the first three tiers of the construction and operation and maintenance supply chain."*
- 5.12.20 The Applicant's commitment to monitoring, and to local socio-economic benefits, was reinforced late in the Examination, with the submission to the Panel of a report by Dong Energy [REP5-027]. This report was completed as an aside to the HP2 application but provides very useful contextual information on past and potential future benefits that Dong Energy has brought to the Humber region as a

result of the growth and development of the offshore wind industry. For example, the report estimates that Dong offshore wind investments in the region will support an average of 1,600 jobs pa over the period 2015-2020, and up to 500 long-term jobs in O&M activities from 2020 onwards.

Community Benefits Fund

- 5.12.21 The Applicant is considering a Community Benefits Fund for HP2, and this was welcomed by the local authorities. Such a fund has been introduced for HP1 and is regarded as working well by the local authorities [EV-036].

Conclusions

- 5.12.22 The Panel was concerned to gain more clarity on the most likely scenarios for local socio-economic impacts for both the construction and O&M stages of HP2, which it did through the ISHs and written questions. This was seen as particularly important in terms of achieving some of the local benefits noted in EN-1 for a local area which has faced significant economic challenges over recent decades with loss of manufacturing, high unemployment, weak skill levels and low population growth. The Panel was also concerned to explore initiatives which could be taken and which were partly in the hands of the developer.
- 5.12.23 As discussed above, there was further clarification during the Examination on key determinants of local impacts, and on the more likely impact scenarios - medium/low for the construction stage, and medium for the O&M stage. The Panel appreciates that socio-economic assessment is a less precise 'soft' field of assessment than other more 'hard' technical areas, but still believes the Applicant could have taken the analysis further in terms of providing broad estimates of potential local employment benefits.
- 5.12.24 The Panel welcomed the use of an Employment and Skills Plan as a vehicle for achieving some local benefits. The detailing of this plan for implementation was further welcomed, as was the inclusion of socio-economic impact monitoring provisions, and consideration of apprenticeships and particular activities aimed at disadvantaged groups.
- 5.12.25 The use of the Employment and Skills Plan approach was welcomed by many local agencies, including the Humber LEP, as an important vehicle for a collaborative approach in the LIA. This initiative can build on other strategic wind farm investments in the area and the growth of renewal energy targeted training.
- 5.12.26 In conclusion, the ExA is satisfied that, with the enhancement and monitoring provisions in the Employment and Skills Plan, the project adequately meets the socio-economic considerations set out in NPS EN-1.

5.13 TRAFFIC AND TRANSPORT

5.13.1 Sections 5.13.1/2 of NPS EN-1 set out the context for traffic and transport impacts arising from energy NSIPs, stating that:

"The transport of materials, goods and personnel to and from a development during all project phases can have a variety of impacts on the surrounding transport infrastructure and potentially on connecting transport networks, for example through increased congestion. Impacts may include economic, social and environmental effects. Environmental impacts may result particularly from increases in noise and emissions from road transport (para. 5.13.1).

The consideration and mitigation of transport impacts is an essential part of Government's wider policy objectives for sustainable development..."(para. 5.13.2).

5.13.2 For HP2, the main traffic issues arise from onshore construction traffic, to and from the chosen port and for the project's construction compounds. As noted in the discussion of socio-economic impacts above, the Applicant was unable to offer much clarification on the key issue of the likely main port(s) to be used for the construction and O&M stages of the project, although Dong Energy has already selected a Humberside port, Grimsby Royal Dock, for its Westernmost Rough project O&M facilities. As such, it is not possible to assess any impacts that might arise in relation to traffic to and from any such port. Requirement 16 of the recommended DCO does, however, oblige the Applicant to develop a port traffic management plan for any port that is the 'selected base port', or one of several such ports.

5.13.3 The Applicant's assessment of the likely traffic and transport environmental impacts of HP2, alone and cumulatively with other projects, is set out in the ES chapter on Traffic and Transport [APP-050]. There is a particular focus on the HGV movements forecast as being needed to serve the construction stage of the project. These movements relate to the network of construction compounds required for the installation of the transmission cables along the 40km onshore route. A number of moderate and minor adverse effects are identified. For example, there is a moderate adverse effect, in terms of accidents and road safety, on the A18 between the A46 and the B1203; there is a moderate adverse effect, in terms of severance, and a minor adverse effect, in terms of fear and intimidation, caused by the passage of HGVs through North Thoresby and Tetney.

5.13.4 However, in most cases the effects are short-lived, and various restrictions are proposed to mitigate adverse effects (for example, HGV time restrictions to avoid school opening and closing periods). Horizontal Directional Drilling (HDD) is to be used in most cases for the cable crossing of roads, and the impacts on traffic would be negligible.

5.13.5 There was little concern from statutory consultees or IPs and the Applicant's assessment was not challenged. The Panel did raise a number of concerns in relation to the assessment with questions, for example, on the potential impact of construction HGV traffic on the A18 for HP2 alone, and cumulatively with HP1 [PD-010, question CL13-5]; and on traffic movements for each compound [PD-010, question CL3; PD-016, question CL23]. With regard to the latter, the Panel was concerned that the Applicant could only provide traffic flows for route sections, rather than for individual compounds. However, overall the Panel is satisfied that the assessment is as accurate as could reasonably be made at this stage, in advance of any contracts being let and local ports identified.

5.13.6 Requirement 7(2) of the recommended DCO requires the Applicant to submit to the relevant local planning authority, in consultation where required with the relevant highway authority, and Highways England, a construction traffic management plan (CTMP), and a travel plan for the construction workforce, both as part of the CoCP. The travel plan is to include details of:

- (i) expected means of travel to and from the construction sites;
- (ii) numbers of construction staff, working hours and modal split;
- (iii) details of the number of car parking spaces to be provided on sites and if appropriate a car park management plan;
- (iv) specification of measures to encourage sustainable travel to and from the construction sites for construction staff;
- (v) responsibility and timescales for implementing proposed measures;
- (vi) targets for vehicle trips and modal splits;
- (vii) formal monitoring regime for those targets; and
- (viii) details of mess/canteen facilities for staff.

Conclusion

5.13.7 The ExA is satisfied that, with the mitigation proposals included in the Outline CoCP, the traffic and transport impacts of HP2 construction, alone and cumulatively with other plans and projects, would be managed appropriately and in a manner that supports the Government's sustainable transport objectives. During operation the traffic and transport impacts would be negligible. The ExA considers the requirements of NPS EN-1 would be met.

5.14 CLIMATE CHANGE AND FLOOD RISK

5.14.1 Section 4.8 of NPS EN-1 sets out matters to be considered in addressing the impacts of climate change and the resilience of projects to this. Specifically there should be satisfaction that:

"...applicants for new energy infrastructure have taken into account the potential impacts of climate change using the latest UK Climate Projections available at the time the ES was prepared to ensure they have identified appropriate mitigation or adaptation measures. This should cover the estimated lifetime of the new infrastructure. Should a new set of UK Climate Projections become available after the preparation of the ES, (the decision-maker) should consider whether they need to request further information from the applicant" (EN-1, para 4.8.6).

5.14.2 A principal concern in this case related to climate change is flood risk, which is also addressed in Section 5.7 of EN-1. A Flood Risk Assessment (FRA) was undertaken for the proposed onshore HVDC converter/HVAC substation in accordance with guidance in EN-1 and the FRA Practice Guidance ID7 for Flood Risk and Coastal Change. This is detailed in the ES chapter on Hydrology and Flood Risk [APP-043]. The supporting data for the FRA used climate change predictions in accordance with the National Planning Policy Framework (NPPF) and associated PPG, which follows the UK Climate Predictions Report (UKCP02). The scope of the assessment was agreed with the EA, which considered it fit for purpose [REP1-091].

5.14.3 The FRA included consideration of the in-combination effects with HP1, and indicates at Table 2.18 that assessment of risk ranges from negligible to minor with the implementation of proposed designed-in mitigation measures, which are set out in ES Table 2.15 [APP-043]. The EA is satisfied that the detailed design for surface water management associated with the HVDC converter/HVAC substation, including maintenance arrangements for the lifetime of the development, can be secured by Requirement 13 of the recommended DCO [REP1-091].

5.14.4 Having regard to other aspects of climate change, the EA raised concerns about the apparent datedness of some information used by the Applicant in assessment. This was in relation to tidal model sensitivity to climate change and the implications for intertidal cable protection. The EA suggested that clarification should be provided to demonstrate how the assessment had considered the impacts of climate change, especially in relation to coastal and seabed erosion in the near-shore area [RR-012].

5.14.5 The Applicant assessed cables remaining in situ for the life of the wind farm and also their removal on decommissioning. The EA considered that cable removal may not represent the worst case scenario. Rather, if cables were to remain in situ it may be possible for them to become exposed in the years following decommissioning. Such exposure would

have the potential to impact on marine processes and, in turn, impact on flood defence assets protecting the Lincolnshire coast [REP2-007]. The Applicant provided clarification in the SoCG with EA [REP1-091] on how climate change had been considered within the model, and within a further clarification note [attached to REP2-007].

- 5.14.6 Condition 17 of the Transmission Assets DMLs within the recommended DCO provides for consultation with the EA by the MMO before the start of any decommissioning activities. This would provide the opportunity for advice using the best available information at the time and when there is a likelihood of a better understanding of the long-term impacts of climate change on marine processes and flood defence assets. Subject to this condition, the EA has no outstanding concerns relating to this issue [REP2-007].

Conclusion

- 5.14.7 The ExA is satisfied that the application has addressed adequately the potential impacts of climate change in accordance with NPS EN-1, Section 4.8.

5.15 CIVIL AND MILITARY AVIATION AND DEFENCE INTEREST

- 5.15.1 Section 5.4 of EN-1 notes the need to protect the interests of civil and military aviation and other onshore and offshore defence interests.
- 5.15.2 The Defence Infrastructure Organisation (DIO) registered as an IP and noted that the Ministry of Defence (MoD) had conducted an assessment of HP2. As a result of the assessment, the MoD has not raised an objection to the wind farm and associated works in its current format [RR-008].
- 5.15.3 However, the Donna Nook Danger Area (D307) overlaps with part of the cable route corridor near the landfall point [APP-086, Fig 11.11]. Live firing, bombing and demolition activities occur in this area. Following consultation, the DIO requested that the MoD be briefed on the nature and timing of any cable laying operations that will occur within the boundary of D307. Compliance with this [APP-037, para. 8.6.19] is secured through Condition 5(9) of the Transmission Assets DMLs.
- 5.15.4 Although North Coates Airfield, which lies close to the cable landfall, [APP-0142, Fig 1] did not register as an IP, nor make a RR, the Applicant has included Requirement 23 within the recommended DCO to protect the airfield's interests.
- 5.15.5 Both NATS (En-Route Plc) (formerly National Air Traffic Services Ltd) [APP-037] and the Civil Aviation Authority (CAA) [REP1-0104] state that they have no objections to the development.

Conclusion

- 5.15.6 The ExA considers the application addresses adequately civil and military aviation and defence interests in accordance with NPS EN-1, Section 5.4.

5.16 NOISE AND VIBRATION

- 5.16.1 The Applicant presented its consideration of noise and vibration impacts in the construction, operational and decommissioning phases in Chapter 9 of the ES [APP-051] and four annexes:

- Construction noise model [APP-0152]
- Operational noise model [APP-0153]
- Operational noise assessment [APP-0154]; and
- Cumulative noise assessment [APP-0155].

- 5.16.2 Chapter 9 of the ES [APP-051] sets out how the Applicant has addressed the requirements of NPS EN-1 Section 5.11, which is the principal policy statement in respect of noise and vibration.

- 5.16.3 Paragraph 9.5.1 of ES chapter 9 explains how the relationship with HP1 was addressed:

"The proposed onshore infrastructure (both the indicative onshore cable route and the HVDC converter/HVAC substation site at North Killingholme) for Project Two is immediately adjacent to Project One. The synergies were identified at an early stage and the environmental surveys to inform the baseline were designed to inform the EIA for both Project One and Project Two. The agreed representative sound levels are considered to still be representative of the current noise environment and no additional noise or vibration surveys, beyond those for Project One, have been undertaken. The baseline condition is that which would occur without Project One" [APP-051].

- 5.16.4 Baseline assessments were taken at Kettlebridge Farm and Patham Cottage, East Halton as the properties representative of the closest residential receptors to the HVDC converter/HVAC substation site at North Killingholme.

- 5.16.5 Chapter 9 of the ES concludes the Applicant's assessment at paragraphs 9.10.3 to 9.10.5 as follows:

- *"the project includes measures to control construction noise impacts, including the implementation of an Outline Code of Construction Practice (SMart Wind, 2014). Taking these measures into account, the results of the noise and vibration assessment indicate that the significance of noise and vibration effects from the construction of the cable route, HDD works and the four HVDC converter/HVAC substation options would be negligible to moderate;*

- *detailed modelling of the four HVDC converter/HVAC substation options indicates that the significance of noise and vibration effects due to the operation of the project would be negligible to minor; and*
- *during decommissioning, effects would be limited to activities at the transition joint bays and at the HVDC converter/HVAC substation site. It has been assumed that effects arising along the cable route may be similar to those during construction. Taking this into account, the results of the noise and vibration assessment indicate that the significance of noise and vibration effects from decommissioning of the cable route and the HVDC converter/ HVAC substation would be negligible to minor."*

5.16.6 The Outline CoCP [APP-0169], which is secured by Requirement 8 (Code of Construction Practice), Article 40 (Certification of plans, etc.) and Schedule M (Documents to be certified) of the recommended DCO contains, at paragraphs 4.2.20 to 4.2.21, an outline of the objectives and management measures to be deployed to ensure noise and vibration effects are minimised during construction. Requirement 8 was supported by East Lindsey District Council in its SoCG [AS-008] and North East Lincolnshire Council in its SoCG [REP1-098].

5.16.7 In its LIR, North Lincolnshire Council expressed satisfaction with Requirement 8 as a mechanism to control noise and vibration effects during construction and proposed a further draft Requirement to control operational noise [LIR-001]. The 'Control of noise during operational phase' proposed Requirement was accepted by the Applicant in version 2 of the DCO [APP-0181] and is included in the recommended DCO at Requirement 24.

The Examination

5.16.8 In response to question CL23 of the Panel's second written questions [PD-017], the Applicant explained the steps taken to mitigate construction noise and vibration from cable laying and HDD:

"The Applicant notes that distance buffers (radii) from trenchless activities, such as HDD, and noise sensitive receptors are shown on Figure 12.1 (sheets 1 to 12) of Volume 3, Chapter 12: Inter-related Effects (Onshore) of the ES [APP-054]. The impact of cable installation (including duct installation) on receptors sensitive to noise or vibration are assessed in paragraph 9.6.39 to 9.6.52 of Volume 3, Chapter 9: Noise and Vibration of the ES [APP-051]. Designed-in mitigation measures in respect of noise and vibration effects (including noise barriers) are set out at paragraph 9.6.28 and Table 9.15 of Volume 3, Chapter 9 of the ES. These are to use Best Practicable Means and a Written Scheme for Noise Management and Monitoring Measures."

5.16.9 In order to test the effectiveness of the ES built-in mitigation measures to a range of effects, including noise and vibration, in a specific location, the Panel asked the Applicant in question CL24 of its

second written questions [PD-017] to outline how mitigation measures would work at the point where the cable corridor is located in close proximity to the houses in Top Road (see Works Plan sheet 24 of 27 provided as Appendix C at D3 [REP3-007]). The Applicant's response indicated a full range of designed-in mitigation measures to deal with the full range of potential negative impacts in accordance with current standards [REP4-006].

Conclusion

5.16.10 In the light of its Examination, the ExA concludes that the tests of NPS EN-1, paragraph 5.11.9, have been met satisfactorily. Namely that the proposal:

- avoids significant adverse impacts on health and quality of life from noise;
- mitigates and minimises other adverse impacts on health and quality of life from noise; and
- where possible, contributes to the improvements to health and quality of life through the effective management and control of noise.

5.17 AIR QUALITY, DUST AND OTHER POTENTIAL NUISANCE

5.17.1 Section 5.2 of EN-1 sets out the parameters for the assessment and management of air quality and emissions. It notes:

"The construction, operation and decommissioning phases can involve emissions to air which could lead to adverse impacts on health, on protected species and habitats, or on the wider countryside".

5.17.2 The Applicant has assessed, within the ES, the impact of the onshore components of the proposed development on air quality for all three stages of the project [APP-052]. During the construction stage the main potential air quality impact is likely to be from dust-generating activities such as movement of plant and vehicles on and around work sites. Construction traffic would result in vehicle emissions on the local road network and in the vicinity of works, including nitrogen dioxide and particulate matter, but these would be localised and temporary. Cumulative impact arising from the simultaneous construction of the project with HP1 has also been assessed.

5.17.3 There would be no significant sources of atmospheric pollutant releases during the operation and maintenance stage. With designed-in mitigation, assessment indicates there would be no significance of effect at either construction or decommissioning stages, as summarised in Table 10.50 of APP-052. There has been no challenge to this assessment during the Examination and the Panel considers it to have been robust.

Conclusion

- 5.17.4 Mitigation would be secured through Requirement 7 of the recommended DCO. This requires the approval of a CoCP which, in turn, must include air quality and dust monitoring and management measures. In the ExA's view, this would address adequately the need for mitigation and there would be accordance with NPS EN-1, Section 5.2.

5.18 HEALTH

- 5.18.1 EN-1 Section 4.13 deals with potential health impacts. In addition to air quality (considered above) the Applicant's ES assesses the potential health impact of effects from electromagnetic fields (EMF) from the transmission cables and the HVDC converter station/HVAC substation when operational [APP-052]. The assessment includes cumulative impacts with the operation of HP1.
- 5.18.2 The ES concludes that the proposed development would comply with EMF exposure guidelines advised in NPS EN-5 and by the former Health Protection Agency at the Scoping Opinion stage [APP-052, para. 10.7.134]. Based on current scientific evidence and Government guidance, the proposed infrastructure would comply with guidance set to protect health and have no measurable human health impact due to EMF exposure from the proposed electricity transmission infrastructure. This applies to the cumulative impact with the operation of HP1 [APP-052, para. 10.8.71]. The overall effects from EMF from the onshore transmission infrastructure are assessed as negligible.

Conclusion

- 5.18.3 The ExA considers that the proposal addresses adequately health impacts in accordance with EN-1, Section 4.13.

5.19 BIODIVERSITY, BIOLOGICAL ENVIRONMENT AND ECOLOGY

- 5.19.1 These matters are covered in Chapter 7 of this report.

5.20 LAND USE

- 5.20.1 NPS EN-1 sets out in Section 5.10 considerations to be taken into account in considering the potential impacts of an energy generating project on land use including open space, green infrastructure and Green Belt.
- 5.20.2 The Applicant set out its analysis in relation to land use in ES Chapter 7 Land Use, Agriculture and Recreation [APP-049].
- 5.20.3 No issues in respect of Green Belt, open space and recreation were raised in the Examination and in its conclusion to ES Chapter 7 [APP-049] the Applicant concludes in Section 7.10 in relation to agricultural land use that:

- only a small area of predominantly grade 3a land with small areas of grade 2 land, (both assessed to be of medium sensitivity), would be permanently lost to the onshore HVDC converter/HVAC substation, transition jointing bays (TJBs) and link boxes and that *"this permanent loss of agricultural land quality is considered to be of minor adverse significance"*;
- a temporary loss of a larger area of grades 2 and 3a 'best and most versatile' land would occur in relation to the cable route during the construction period and *"this loss is considered to be of temporary moderate adverse significance"*;
- a permanent loss of land from a single farm holding arising from the development of the onshore HVDC converter/HVAC substation development would occur, together with losses of small areas of land from a large number of arable holdings arising from the construction of the link boxes and TJBs. *"The significance of these effects, based predominantly on the loss of the land for the onshore HVDC converter/HVAC substation site is assessed to be minor adverse"*; and
- there would be a temporary loss of land from a number of predominantly large arable farming enterprises and other potential short-term effects on the local farming framework during the construction period, *"which is considered to be of minor adverse significance."*

5.20.4 In consideration of recreation the Applicant concludes in ES Section 7.10 [APP-049] that:

- *"The temporary impacts on wildfowling at the landfall location and the Laceby Manor Golf Driving Range during the construction phase are considered to have effects of minor adverse significance. There would be no significant effects on the recreational use of the grass air strip at North Coates Airfield. There would be no significant permanent effects on these receptors"*; and
- *"The temporary effects on PRow will vary between minor to moderate adverse but there would be no significant permanent effects on these receptors."*

Conclusion

5.20.5 The ExA concludes that there would be no adverse impacts of sufficient weight to land use, including open space, green infrastructure and Green Belt, to justify consent for HP2 as amended being withheld. As a consequence there would be no conflict with NPS EN-1, Section 5.10.

5.21 WATER QUALITY AND RESOURCES

- 5.21.1 NPS EN-1 Section 5.15 sets out requirements relating to water quality and resources, specifying:

"...the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the ES or equivalent" (para. 5.15.2).

- 5.21.2 The ES considers hydrology and flood risk [APP-043]. Flood risk is considered earlier in this chapter. The baseline environment is described for the landfall, cable route and the HVDC converter/HVAC substation at ES Section 2.5, with impacts assessed at Section 2.6.
- 5.21.3 The cable route corridor and construction side access tracks would cross a number of drains and tributaries that are located within the watershed of several surface water catchments and these are identified. Whilst proposed crossing techniques are tabled, the ES notes that these will be discussed and agreed with the relevant stakeholders prior to works commencing. Information on discharges, pollution incidents and water quality has been provided. Impacts are assessed in Section 2.6. Impacts on Groundwater Source Protection Zones are considered separately within the ES [APP-042]. In terms of hydrology, the ES assessment indicates no significant effects following the implementation of proposed mitigation measures.
- 5.21.4 As part of the ES, the Applicant carried out a Water Framework Directive (WFD) Assessment, which draws on relevant information contained in other ES chapters [APP-080]. Consideration of the WFD² is required for any DCO application in coastal and estuarine areas which has the potential to cause deterioration in the ecological and chemical status of a water body or to compromise improvements which might otherwise lead to a water body meeting its WFD objectives [APP-080, para. 1.1.1].
- 5.21.5 The assessment studies the implications of the HP2 export cable for those areas designated for WFD consideration, in this case the export cable installation within one nautical mile of the coast, at landfall and landward to the grid connection point. It considers the potential of the project to have a non-temporary effect on WFD parameters that is significant at water body level. Five relevant water bodies upon which the export cable installation could have a potential effect were considered [APP-080, para. 1.3 and following]. The EA, as the competent authority for the purposes of the WFD, expressed initial concern within its RR about insufficiency of information within the WFD assessment [RR-012]. The points raised were followed up in the Panel's first written questions [PD-010, question EL1]. Following

² (200/60/EC)

discussions with the Applicant, the EA advised that the points raised had been resolved [REP1-025 and REP1-051, p73].

5.21.6 A SoCG between the EA and the Applicant records the EA's agreement as to: the relevance of the water bodies identified; their characterisation; the acceptability of the methodology of the WFD; the adequacy of assessment of the worst case effects of the development (both alone and at a cumulative level) on matters relating to the relevant water bodies; and that all residual impacts are acceptable (in the context of the WFD) [REP1-091, Section 3.2]. The EA's position that the project should not lead to any significant effects on water quality, surface and groundwater, and designated water bodies was confirmed at the ISH on 16 September 2015 [REP3-001].

5.21.7 EN-1, paragraph 5.15.7 states that:

"(The decision-maker) should consider whether appropriate requirements should be attached to any development consent and/or planning obligations entered into to mitigate adverse effects on the water environment."

5.21.8 The SoCG notes the EA's agreement as to the appropriateness of Requirements in the Applicant's draft DCO. The relevant Requirements as now contained within the recommended DCO are: Requirements 6 (need for agreement of an ecological management plan), 7 (need for agreement of a CoCP), 12 (need for the agreement of a written scheme to deal with any land contamination), and the Transmission Assets DMLs Condition 8 (need for agreement of pre-construction plans and documentation). These would afford the EA the opportunity to raise any concerns on the content of the plans and schemes prior to construction [REP1-091, Section 3.2].

Conclusion

5.21.9 The ExA is satisfied that the project would meet the requirements of NPS EN-1 Section 5.15 in terms of adequate protection of water quality and resources and compliance with the WFD.

5.22 WASTE MANAGEMENT

5.22.1 As required by paragraph 5.14.6 of NPS EN-1, the Applicant has assessed the likely waste arising from the project, which would be primarily during construction, and has prepared a Site Waste Management Plan [APP-057]. There has been no challenge to this assessment.

5.22.2 Requirement 7(2)(d) of the recommended DCO requires the agreement of a CoCP and this must include a site waste management plan detailing sustainable site waste management measures.

Conclusion

- 5.22.3 The ExA considers that the inclusion of the above Requirement in the recommended DCO fulfils adequately the requirements of NPS EN-1.

5.23 SECURITY CONSIDERATIONS

- 5.23.1 The need to consider security implications is set out in section 4.15 of NPS EN-1. There were no security issues raised either prior to or during the Examination.

5.24 OTHER ENVIRONMENTAL REGULATORY REGIMES

- 5.24.1 The Applicant produced a Consents Management Plan [REP4-020] to help to manage the key environmental consents required for the development which may lie outside the DCO. The Plan captures key activities, milestones and checkpoints associated with the consents considered relevant to HP2.
- 5.24.2 At REP7-030, 'Other Regulatory Guidance', the Applicant also set out a number of other licence-related activities which require individual approval, often, but not always, from DECC. These include both UK Continental Shelf-wide issues and block-specific issues. The ExA is content that the Applicant is aware of and has considered such additional consents and licences.

Following chapters of the report

- 5.24.3 Having considered various topics under the umbrella of Good Design above, the following Chapters of this Report address findings and conclusions in relation to the Habitats Regulations (Chapter 6), and biodiversity, biological environment and ecology (Chapter 7), before setting out the ExA's conclusion on the case for development consent in Chapter 8. Compulsory acquisition and related matters are then considered in Chapter 9, and the draft DCO and related matters at Chapter 10. Chapter 11 provides a summary of the ExA's findings and conclusions.

6 FINDINGS AND CONCLUSIONS IN RELATION TO HABITATS REGULATIONS

6.1 INTRODUCTION

- 6.1.1 The ExA's consideration of issues related to environmentally protected habitats and species includes a review of the effects of the HP2 proposal on European sites with a view to ensuring that the enabling competent authority will have sufficient evidence available to carry out any necessary Appropriate Assessment (AA).
- 6.1.2 The Applicant is required by section 5(2)(g) of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (as amended) (APFP Regulations) to provide sufficient information to enable the competent authority to make an AA of the implications for the European sites (if required). The ExA is not the competent authority for the purposes of the HRA; the Secretary of State for Energy and Climate Change (SoS) is the decision-maker and performs this role. The function of this chapter of the Report is to (i) place the SoS in a position where all the information necessary to the carrying out of her duties as competent authority has been complied with and placed in a clear analytical framework; and (ii) identify and respond to the relevant issues raised throughout the Examination.
- 6.1.3 After a clarification of relevant policy and legislation, project location and potentially affected European sites, the likelihood of significant effects, and a summary of principal issues, the chapter sets out the approach to and findings of the Examination for three categories of habitats and species: offshore ornithology, intertidal habitats and species, and offshore marine mammals. A review of the proposals on other protected species and sites follows in Chapter 7.

6.2 BACKGROUND, NPS-EN1 AND HRA AND EXAMINATION APPROACH

- 6.2.1 In NPS EN-1 the decision-maker is enjoined, in paragraphs 5.3.7 to 5.3.8, to:
- "avoid significant harm to biodiversity", whilst ensuring that "appropriate weight is attached to designated sites of international, national and local importance; protected species; habitats and other species of principal importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment."*
- 6.2.2 The NPS is clear in this regard that the most important tier of biodiversity sites are those identified through the means of international conventions and European Directives. Decision-makers are also enjoined to afford the same level of protection to potential Special Protection Areas (pSPAs), and to listed Ramsar sites. The NPS also requires decision-makers to have regard to sites that are

protected nationally, regionally and locally for their biodiversity significance.

- 6.2.3 As noted in Chapter 4, section 4.3 of NPS EN-1 specifies the approach that needs to be taken by the decision-maker in relation to the Habitats Regulations, which implement the relevant parts of the Habitats and Birds Directives in England and Wales.
- 6.2.4 In response to the requirements of section 5(2)(g) of the APFP Regulations, the Applicant provided an HRA Report [APP-0171 to APP-0175]. The information provided within this report was determined to be sufficient to accept the HP2 application for examination.
- 6.2.5 During the Examination, some of the information and assessment provided in the HRA Report [APP-0171 to APP-0175] was the subject of dispute, principally between the Applicant, Natural England (NE), the Royal Society for the Protection of Birds (RSPB) and The Wildlife Trusts (TWT). Questions from the ExA sought to clarify various disputed issues as the Examination progressed, through two rounds of written questions and in two ISH on ornithology and other biodiversity issues. These resulted in the various parties submitting several new documents to support and clarify their positions. These documents are noted below in the paragraphs on representations and principal issues.
- 6.2.6 The Applicant also submitted many updated versions of clarification notes and SoCGs for ornithological and other biodiversity impacts during the Examination. The evolving position of the Applicant is summarised in the Environmental Information Signposting Document, the final one being Version 6, submitted for D7 [REP7-016]. The additional documentation, submitted in particular by NE and the RSPB, is as set out in the paragraphs below. The various parties also submitted a number of SoCGs, as also noted below. The ExA considered this information in detail in developing its lines of examination and in making its recommendations.
- 6.2.7 In addition, the ExA sought further information under Rule 17, which included requests on offshore ornithological and marine mammal issues [PD-019].

6.3 PROJECT LOCATION AND DESIGNATED OR POTENTIAL EUROPEAN SITES

- 6.3.1 The western boundary of the WTG sub-zone element of the project is located approximately 90km off the coast of the East Riding of Yorkshire; the transmission element comes ashore in the Humber Estuary, to be connected by a 40km onshore route to a substation at North Killingholme.
- 6.3.2 The ExA, with the support of the Planning Inspectorate (the Inspectorate) produced a 'Report on the Implications for European Sites' (RIES) [PD-020]. The report was compiled from relevant material throughout the Examination, including initial material

produced by the Applicant, up to Examination D6 when the RIES was released for consultation.

- 6.3.3 The RIES [PD-020] sought to reflect the evolving material and the positions of various parties on the main issues considered within the HRA process. It identifies the European sites, the likely ornithological and other biodiversity impacts of the HP2 proposal on those sites, and mitigation measures as proposed up to the point that the RIES was released for consultation. The completed report was made available to IPs for comment, and responses were received from the Applicant [REP7-017], NE [REP7-034] and the RSPB [REP8-005]. These are dealt with in subsequent sections of this Report.
- 6.3.4 The Applicant's original HRA [APP-0171 to APP-0175] showed that the offshore wind farm element of the proposal would not physically affect any European site. It did however identify ecological connections to European sites because of the species recorded in the wind farm site and surrounding buffer zone, in particular the Flamborough and Filey Coast (FFC) pSPA. Some of the transmission elements have a direct physical connection with European sites as they would be constructed within the Humber Estuary SPA, SAC and Ramsar sites.
- 6.3.5 During the Examination, two other potential European sites were introduced with potential for physical connection with the project. These are the Greater Wash dSPA and the Southern North Sea dSAC. The HRA was updated several times during the Examination [e.g. REP4-026], to include the Southern North Sea dSAC.
- 6.3.6 NE wrote to the ExA on 10 September 2015 [EV-021] to draw its attention to the informal consultation that had begun on 7 September 2015 on the Greater Wash draft SPA. Part of the cable route for the application would run through the boundaries of the draft SPA as currently proposed. Although noting that the site would not become a material consideration for this application until formal consultation begins, NE recommended that the potential impacts should be considered in a draft HRA to 'future proof' against the risk of any permission being reviewed after the SPA has been classified. The Applicant provided a shadow HRA screening for the possible Greater Wash SPA at Examination D4 [REP4-041].
- 6.3.7 In its RR, NE also highlighted the possibility of a forthcoming formal consultation on SACs designated for harbour porpoise, advising that once the formal consultation had begun, impacts on the proposed features of sites would become a material consideration in relation to the HRA of the application [RR-021].
- 6.3.8 At the ISH on 16 September 2015 NE advised that the consultation was expected in Autumn 2015 but no specific timing had been confirmed [REP3-033, para. 1.63]. In response to a question from the ExA, drawing the Applicant's attention to the approach taken by the SoS on Dogger Bank Teesside A and B wind farm [PD-016], the

Applicant submitted a HRA Addendum for the Southern North Sea dSAC [REP4-026].

- 6.3.9 No other UK European sites or site features were identified for inclusion in the HRA in the RRs from NE, the RSPB, TWT, Lincolnshire Wildlife Trust (LWT) or any other interested party. In response to a question from the ExA at the ISH on 16 September 2015, NE confirmed that it was satisfied that all the relevant designated sites and features had been sufficiently considered in the Applicant's assessment [REP3-033].

6.4 HRA IMPLICATIONS OF PROJECT

- 6.4.1 During the Examination, issues about the potential effects of HP2 on environmentally protected species, habitats and sites arose in representations from (but not limited to): NE [RR-021, EV-021, REP1-037 to REP1-041, REP2-009 to REP2-010, REP3-032 to REP3-038, REP4-048, REP5-036, REP6-017, REP7-034, REP8-003], the RSPB [RR-028, REP1-047 to REP1-049, REP2-015, REP4-053 to REP4-054, REP5-037, REP6-018, REP7-035 to REP7-036, REP8-004 to REP8-006, OD-007], TWT [RR-029, REP1-0109, REP3-042, REP5-038, REP7-038], the Lincolnshire Wildlife Trust (LWT) [RR-017], Whale and Dolphin Conservation (WDC) [RR-032, REP1-0110, REP7-041], the EA [RR-012, REP1-025, REP2-006 to REP2-007] and the local authorities [LIR-001, LIR-002 and LIR-003].

- 6.4.2 SoCGs and Memoranda of Understanding (MoUs) were signed by the Applicant, NE and others [REP1-0103, REP2-036, REP3-029 to REP3-030, REP5-026, REP5-030, REP6-014 and REP7-021].

- 6.4.3 The principal biodiversity issues raised during the Examination included the following:

- (a) The effects of HP2 on the populations of kittiwake, razorbill, guillemot, gannet and puffin (as a non-listed component of the assemblage feature) associated, as appropriate, with the FFC pSPA, and the Flamborough head and Bempton Cliffs (FHBC) SPA. Concerns were expressed by NE and the RSPB about the Applicant's approach to assessing effects on these seabird populations. Key points of dispute relate to the data and methodological considerations which underpin the Applicant's offshore ornithological assessments within the HRA and the EIA. These include, in particular:
- baseline data collection and analysis methodology;
 - population estimates for baseline populations;
 - the proportion of birds at potential collision height (PCH);
 - choice of avoidance rate (AR) for collision risk modelling (CRM);
 - which Band model option should be used to model collision risk mortality;
 - extent of the buffer area around the application site which should be considered in the assessment of displacement effects;

- appropriate mortality levels for displaced birds;
 - whether displacement effects should be estimated on a monthly or annual basis;
 - apportionment of effects to individual SPA colonies; and
 - use of Population Viability Analysis (PVA) rather than Potential Biological Removal (PBR) and the relative merits of density-dependence and density-independence approaches.
- (b) In-combination and cumulative assessments in relation to the Applicant's offshore ornithological assessments, including the approach to which projects to include and their tiering in the assessments;
- (c) Assessment of the impacts of HP2, alone and cumulatively with other developments, on EIA offshore ornithological populations, including kittiwake, gannet, lesser black-backed gull, greater black-backed gull, guillemot, razorbill and puffin (covered in Chapter 7);
- (d) With regard to the Humber Estuary SPA and Ramsar, concerns were expressed by the RSPB about the potential for disturbance of waders and waterfowl during cable laying and future maintenance, of HP2 alone and in combination with other plans and projects, in particular with HP1. NE also expressed concerns about disturbance during maintenance;
- (e) NE also expressed concerns about the potential effects of access for maintenance on terrestrial Annex I habitat features (embryonic shifting dunes and shifting dunes along the shoreline with *Ammophila arenaria*) of the Humber Estuary SAC;
- (f) NE and the RSPB raised concerns about possible impacts on rafting red-throated diver and common scoter from increased vessel movements in the Greater Wash dSPA leading to disturbance and displacement;
- (g) Potential effects of HP2 on marine mammals, including seals, porpoises and whales. Particular concerns were raised during the Examination, by TWT, WDC, NE and RSPB about the potential impact on the potential European site of the Southern North Sea possible SAC for harbour porpoise.

Table 6.1 below provides a summary of issues and the extent of agreement and differences between the positions of the Applicant and NE in relation to both ornithological and non-ornithological site features.

European site	Effects on relevant species and habitats leading to a potential adverse effect on site integrity	Extent of agreement and any remaining differences
Berwickshire and North Northumberland Coast Special Area of Conservation (SAC)	Grey seal	No comments from relevant Statutory Nature Conservation Bodies (SNCBs) or other IPs
Flamborough and Filey Coast pSPA	Kittiwake - migratory (breeding) and assemblage	NE do not accept much of the Applicant's analysis but, using their preferred approach to assessing impacts on this species, they have been able to reach a conclusion of no adverse effect on integrity alone and in combination, as a result of mitigation agreed by the Applicant.
	Gannet- migratory (breeding) and assemblage	Agreement that adverse integrity effects can be discounted for the project alone, and in-combination with other projects.
	Razorbill and guillemot - migratory (breeding) and assemblage	Agreement that adverse integrity effects can be discounted for the project alone, and in-combination with other projects.
	Assemblage (breeding): Puffin, and fulmar	Agreement that adverse integrity effects can be discounted for the project alone, and in-combination with other projects.

Flamborough Head and Bempton Cliffs SPA	Kittiwake - migratory (breeding) and assemblage	See above
Forth Islands SPA	Assemblage feature: Fulmar	No comments from relevant SNCB or other IPs
Fowlsheugh SPA	Assemblage feature: Fulmar	No comments from relevant SNCB or other IPs
Humber Estuary Ramsar	Internationally important assemblage of waterfowl during the non-breeding season. Internationally important populations of breeding, wintering and on passage waders and waterfowl Migrating river lamprey and sea lamprey	NE expressed concerns over potential disturbance to wintering birds from maintenance; these have now been resolved, with appropriate mitigation measures.
	Coastal habitats and estuarine waters	No comments from relevant SNCB or other IPs
		Further to the provision of intertidal mitigation measures, NE has agreed that there will be no adverse effects on integrity of the habitats and species alone or in combination with other plans or projects.
	Grey seal	NE concerns about the impacts of construction activity on the seal population have been resolved with mitigation secured through the DCO/DMLs.
Humber Estuary SAC	Annex I habitats	Further to the provision of intertidal mitigation measures, NE has agreed that there will be no adverse effects on integrity of the habitats and species alone or in combination with other plans or projects.
	Migrating river lamprey and sea lamprey	No comments from relevant SNCB or other IPs
	Grey seal	NE concerns about the impacts of construction activity on the seal population have been resolved with mitigation secured through the DCO/DMLs.

Humber Estuary SPA	Assemblage: including dark-bellied brent goose, sanderling, dunlin, knot, ringed plover, oystercatcher, bar-tailed godwit, golden plover, grey plover, teal, wigeon, mallard, turnstone, pochard, greater scaup, bittern, goldeneye, black-tailed godwit, curlew, whimbrel, ruff, avocet, greenshank and lapwing and redshank.	NE expressed concerns over potential disturbance to wintering birds from maintenance; these have now been resolved.
River Derwent SAC	River lamprey and sea lamprey	No comments from relevant SNCB or other IPs
The Wash and North Norfolk Coast SAC	Harbour seal	No comments from relevant SNCB or other IPs

6.5 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS RESULTING FROM THE PROJECT, ALONE AND IN COMBINATION

- 6.5.1 The screening assessment undertaken by the Applicant considered numerous European sites within the UK and other European Union Member States. The Applicant's HRA Report identified 77 European sites for which the UK is responsible for inclusion within the assessment [APP-0171 to APP-0175 and PD-020]. Two additional potential European sites were subsequently added into the Examination. These are the Southern North Sea dSAC [REP4-026] and the Greater Wash dSPA [REP4-041]
- 6.5.2 The Applicant described how it has determined what could constitute a 'significant effect' within its HRA Report [APP-0171]. This follows EC guidance on habitats assessment (EC Guidance document: 'Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (2000)' and EC Guidance document: 'Assessment of plans and projects significantly affecting Natura 2000 sites (2001)').
- 6.5.3 Of the sites screened, the Applicant concluded that significant effects were likely for nine European sites and their qualifying features (Table 6.2 of this report). During the ISH on 16 September 2015 the view of the Applicant and IPs was that the outstanding issues related to effects on the FFC pSPA and the FHBC SPA for offshore ornithological impacts, and the Humber Estuary SPA also for ornithological impacts, and the Humber Estuary SAC and Ramsar Site for impacts on various habitats and species [EV-015]. The Applicant also identified likely significant effects for the Southern North Sea draft SAC for harbour porpoise. The Applicant's conclusions with regard to this site and the sites listed in Table 6.2 were broadly accepted by the other IPs. NE also advised that displacement effects on auks should be considered during the construction phase as well as the operational phase for the FFC pSPA [REP7-034].
- 6.5.4 The Applicant concluded that likely significant effects could be excluded for the Greater Wash draft SPA alone and in combination with other plans or projects provided best practice and good practice protocols are implemented to avoid disturbance to birds from vessel movements [REP4-041]. NE and the RSPB raised concerns about possible impacts on rafting red-throated diver and common scoter from increased vessel movements [REP3-033].
- 6.5.5 NE appears to imply in its comments on the RIES that it does not agree with the conclusion of no likely significant effect on these species [REP7-034] but has agreed with the Applicant that adverse effects on integrity could be avoided through appropriate management of vessel traffic, which could be secured through a Port Traffic Management Plan [REP6-014]. NE advised that it would not be appropriate to apply a condition to the DCO at this stage as there is, at present, no guarantee that the Greater Wash SPA will be classified [REP3-033]. The Applicant's position is that as there is yet to be formal consultation on this site it does not constitute a material

planning consideration. It has, however, provided the information in case formal consultation begins before the decision-making process has been completed [REP7-017]. The RSPB remains concerned however that the disturbance caused by regular vessel movements would effectively displace red-throated divers and possibly common scoter from a wide corridor within the possible SPA [REP5-037 and REP8-005].

- 6.5.6 The ExA concluded that, with appropriate mitigation secured through a Port Traffic Management Plan, adverse effects on the integrity of the Greater Wash draft SPA could be avoided.

Table 6.2: European sites where the project is likely to give rise to significant effects (LSE), either alone or in-combination with plans or projects on the listed qualifying features.

European site	Features for which Applicant concluded LSE alone or in-combination	Impact type
Berwickshire and North Northumberland Coast Special Area of Conservation (SAC)	Grey seal	Disturbance from underwater piling noise during construction
Flamborough and Filey Coast pSPA NB The pSPA extends the Flamborough Head and Bampton Cliffs SPA boundary and list of qualifying bird features	Kittiwake - migratory (breeding) and assemblage	Collision risk during the operational phase
	Gannet - migratory (breeding) and assemblage	Collision risk and displacement during the operational phase
	Razorbill and guillemot - migratory (breeding) and assemblage	Displacement during the operational phase
Flamborough Head and Bampton Cliffs SPA	Assemblage (breeding): Puffin	Collision risk and displacement during the operational phase
	Kittiwake - migratory (breeding) and assemblage	Collision risk and displacement during the operational phase
	Assemblage feature: Fulmar	Collision risk during the operational phase
Fowlsheugh SPA	Assemblage feature: Fulmar	Collision risk and displacement during the operational phase
Humber Estuary Ramsar	Internationally important assemblage of waterfowl during the non-breeding season Internationally important populations of breeding, wintering and on passage waders and waterfowl	Disturbance to birds using the intertidal zone during construction and decommissioning

	Coastal habitats and estuarine waters	Disturbance during construction Changes to water quality during construction from increased suspended sediment concentrations and sediment deposition
	Migrating river lamprey and sea lamprey	Changes to water quality during construction from increase sediment concentrations and sediment deposition
	Grey seal	Electro-magnetic fields during operation
	Grey seal	Disturbance from underwater piling noise during construction
Humber Estuary SAC	Annex I coastal habitats and estuaries	Disturbance during construction Changes to water quality during construction from increased suspended sediment concentrations and sediment deposition
	Migrating river lamprey and sea lamprey	Changes to water quality during construction from increase sediment concentrations and sediment deposition
	Grey seal	Electro-magnetic fields (EMF) during operation
	Grey seal	Disturbance from underwater piling noise during construction
Humber Estuary SPA	Article 4.1 qualification Breeding: Avocet and marsh harrier Winter: Bar-tailed godwit, hen harrier, avocet and golden plover Passage: Ruff Article 4.2 qualification (migratory species)	Disturbance to birds using the intertidal zone during construction and decommissioning

	<p>Over-winter: Dunlin, knot, and redshank</p> <p>On passage: Dunlin, knot, black-tailed godwit and redshank</p> <p>Assemblage: Including dark-bellied brent goose, sanderling, dunlin, knot, ringed plover, oystercatcher, bar-tailed godwit, golden plover, grey plover, teal, wigeon, mallard, turnstone, pochard, greater scaup, bittern, goldeneye, black-tailed godwit, curlew, whimbrel, ruff, avocet, greenshank and lapwing and redshank</p>	
River Derwent SAC	River lamprey and sea lamprey	<p>Changes to water quality during construction from increased sediment concentrations and sediment deposition</p> <p>Electro-Magnetic Fields (EMF) during operation</p> <p>Disturbance from underwater piling noise during collision</p>
The Wash and North Norfolk Coast SAC	Harbour seal	

6.6 CONSERVATION OBJECTIVES

- 6.6.1 The conservation objectives [REP1-037] have been provided by NE and the Applicant and are discussed in more detail in the following sections in relation to particular sites.
- 6.6.2 The conservation objectives for the European sites assessed by the Applicant prior to submission of the DCO application were included within the Applicant's HRA Report [APP-0171 and APP-0172]. NE also provided links to conservation objectives for sites within England in its WRs [REP1-037], other than the FFC pSPA. Draft conservation objectives for this site were provided by NE in its response at D6. The two potential European sites, the Greater Wash possible SPA and the Southern North Sea draft SAC, did not have published conservation objectives as at the time of the Examination they had yet to go out to formal consultation.
- 6.6.3 Differences in the positions between the Applicant and various parties were investigated; this was particularly in relation to ornithological effects and between the Applicant, NE and the RSPB. During the Examination the differences between NE and the Applicant, with regard to the outcome of the assessment of impacts on site and species integrity, did narrow. The narrowing in differences was much less between the positions of the Applicant and the RSPB.

6.7 FINDINGS IN RELATION TO ADVERSE EFFECTS ON THE INTEGRITY OF EUROPEAN SITES

FLAMBOROUGH HEAD AND BEMPTON CLIFFS SPA AND FLAMBOROUGH AND FILEY COAST POTENTIAL SPA

Site and conservation objectives

- 6.7.1 The FHBC SPA is located on the central Yorkshire coast of eastern England. It was designated under Article 4(2) of the Birds Directive as a SPA in 1993 due to the presence of over 80,000 pairs of black-legged kittiwake. In 2001 the UK SPA Review found that it also qualified under Article 4(2) as a site regularly supporting an assemblage of over 300,000 individual seabirds including: puffin, razorbill, guillemot, herring gull, gannet and kittiwake. The site holds the only mainland breeding colony of gannet in the UK, plus 2.6% of the breeding East Atlantic population of kittiwake (based on 1987 estimates).
- 6.7.2 The FFC pSPA is a (Defra) proposal to extend the FHBC SPA. Formal consultation on the pSPA was completed on 14 April 2014; the site is currently in the process of being classified as a SPA under the provisions of the Birds Directive [REP1-037]. NE published draft conservation objectives for the site in November 2015 [REP6-017]. The proposals for the FFC SPA comprise changes to the FHBC site boundary; the FFC pSPA covers 8,039.60ha across areas in the East Riding of Yorkshire, North Yorkshire and Scarborough, of which the marine extension covers 7,471.78ha. The proposals also include

changes to the qualifying species such that the qualifying features would now be:

(i) In the breeding season:

- Black-legged kittiwake
- Northern gannet
- Common guillemot
- Razorbill

(ii) Seabird assemblage in the breeding season of 215,750 birds including black-legged kittiwake, northern gannet, common guillemot, razorbill, northern fulmar, great cormorant, European shag, herring gull and Atlantic puffin [REP1-037].

6.7.3 The conservation objectives for FHBC were updated in June 2014 [REP1-037]. They apply to the qualifying feature (black-legged kittiwake):

"Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- *The extent and distribution of the habitats of the qualifying features;*
- *The structure and function of the habitats of the qualifying features;*
- *The supporting processes on which the habitats of the qualifying features rely;*
- *The population of each of the qualifying features; and*
- *The distribution of the qualifying features within the site."*

6.7.4 NE published draft conservation objectives in November 2015 for the FFC pSPA. The wording of these conservation objectives are the same as the conservation objectives for FHBC SPA but applies to the new qualifying features. The ExA notes that NE stated in its RRs that the advice provided on the FFC pSPA also applies to the FHBC SPA [RR-021]. The Applicant also advised that its assessment and conclusions about effects on FFC pSPA also apply to FHBC SPA [REP3-014]. The ExA has considered the implications for these sites in view of both the draft conservation objectives for FFC pSPA and FHBC SPA.

Methods used and nature of evidence

Overview

6.7.5 Much of the examination of the likely offshore ornithological impacts of the proposed HP2 focused on the relative merits of alternative methodological approaches to the assessment of those impacts.

These, and the evolving findings from their application in relation to potential adverse effects on particular species, were examined through written questions and in ISHs in September and October 2015. The Panel was assisted in the Examination by the evolving sets of responses, in particular from the Applicant, NE and the RSPB, to its questions for the various stages and deadlines in the process, as detailed in previous paragraphs. The ornithological SoCGs, MoUs and Updates/Summaries were particularly helpful in clarifying the extent of agreement, and remaining differences, between the various parties.

6.7.6 At the start of the ISH on Ecology on 16 September 2015, the Panel noted the complexity of the assessment of the ornithological impacts of offshore wind farm developments. Whilst progress was being made to better model the potential impacts, there remained many sources of uncertainty in such modelling, to which Band (2012) 'Using a collision risk model to assess bird collision risks for offshore wind farms', SOSS-02), and others since, have drawn attention. The Panel also noted that the evidence on the ornithological impacts of offshore wind farms is limited as the industry is still relatively new; there is a lack of monitoring evidence, this is a point returned to in a later section of this chapter, and especially in Chapter 7.

6.7.7 As such, the Panel stressed the importance of building a sensitivity analysis approach into the assessment of potential ornithological impacts. This involved assessing impacts across a range of Band model options, avoidance rates (AR), displacement rates etc., and examining their relative significance and the implications for the HRA for particular species, for HP2 alone, and in combination with other projects, in relevant European sites.

6.7.8 Notwithstanding the uncertainties and complexities involved in the predictive modelling and assessment of the impacts of offshore wind farms on bird species, the Panel wishes to acknowledge the considerable value to its Examination of the efforts and outputs which were devoted to several rounds of the task to further refine and clarify offshore ornithological issues. These were contributed by the Applicant, and tested by NE and the RSPB (see paragraphs above for key references). The key parties sought to explore and progress key issues through agreed stages in an 'Ornithological Road Map' contained in the offshore ornithology SoCG between the Applicant and NE. The road map was updated at D2 and D3 [REP1-0103, REP2-036 and REP3-029]. Subsequent progress was recorded in updates to the offshore ornithology submitted at Examination D4 to D6 [REP4-039, REP4-040, REP5-030, REP6-06, REP6-07 and REP6-014].

6.7.9 Key data and methodological issues covered in the Examination include the following:

- Baseline data
- Collision Risk Modelling
- Bird displacement rates
- PBR and PVA sustainability assessment

- Apportionment of effects to individual SPA colonies
- Tiering and relevant projects for in-combination and cumulative assessment

Baseline data

- 6.7.10 Ornithological data issues were raised by both NE and the RSPB in their early submissions and in subsequent updates. There was eventual agreement between NE and the Applicant on many of these, including:
- (a) Methods used to derive population estimates with, inter alia, an explanation of the reasons for the differences between the species counts data for HP1 and HP2;
 - (b) Treatment of incomplete and missing survey data (e.g. for the month of December) and contributions of more recent surveys, subsequent to those completed in 2013, including aerial surveys; and
 - (c) Clarification of treatment of unidentified species and their apportioning to various species categories [REP2-009].
- 6.7.11 Although, because of some remaining concerns, NE concluded that the baseline data were adequate for the purposes of the HRA "*...subject to adequate consideration of variability and uncertainty in the data*" [REP7-034]. The RSPB agreed that the baseline data were adequate, but remained concerned that survey coverage had been inadequate for the purposes of displacement analysis [REP8-005].
- 6.7.12 The current methodological standard for collision risk modelling (CRM) in the UK is the Band model (Band 2000, 'Wind farms and Birds: calculating a theoretical collision risk assuming no avoiding action' Scottish Natural Heritage; Band et al 2007 'Developing field and analytical methods to assess avian collision risk at wind farms' in 'Birds and Wind Power', and Band 2012 'Using a collision risk model to assess bird collision risks for offshore wind farms'). It requires several input parameters: turbine details (e.g. number and size); bird details (eg anatomy and flight speed); bird survey information (e.g. flight height distribution); and bird behaviour (e.g. avoidance and attraction). Band identified many sources of uncertainty in the approach, but added that "*...for the foreseeable future, it seems likely that the uncertainties surrounding bird avoidance behaviour are likely to dwarf the other errors and uncertainties arising from an inexact collision model or variability in survey data*" (Band 2012, para. 88). This uncertainty was recognised by the IPs in the Examination.
- 6.7.13 There are two versions of the Band model, Basic and Extended. There are two options for each version of the model, giving four possible approaches to CRM. There appears to be a degree of uncertainty associated with the outputs from all the Band model options which results from the difficulties associated with collecting data from

offshore wind farms which could be used to validate the options [REP1-047 and APP-0171].

- 6.7.14 The Basic Band model assumes flight heights are uniformly distributed within the zone of risk for the birds; it has two options. Option 1 assumes a uniform distribution of flight height between the lowest and highest levels of the rotors, and uses the proportion of birds at risk height as derived from site surveys. Option 2 uses the proportion of birds at risk height as derived from generic flight height information drawn from Johnston et al (2014) [APP-0171]. The Extended Band model (Band 2012) takes account of the fact that seabirds at sea do not show a uniform distribution of flight heights; there are also two versions to the model, known as Options 3 and 4. Option 3 also uses the generic flight height information in Johnston et al (2014) but assigns birds to 1m height intervals [APP-0171]. Cook et al (2012) caution the use of such data, as they may not be typical of the particular site under consideration [REP1-064]. Option 4 uses site-specific survey information to generate a flight height distribution. Band (2012, para. 61) [APP-034] argues that it is worth using an extended analysis taking account of flight heights, if the data are available. He also argues for 'best estimate' rather than 'worst case' (which can lead to an overly pessimistic result), and for a sensitivity approach to assess the implications of variations around the best estimate (Band, 2012).
- 6.7.15 Throughout the Examination there was a major, and unresolved, disagreement between the Applicant, on the one hand, and NE and the RSPB on the other, on what was the most appropriate Band model option to be used for the CRM for HP2. In the ES ornithology chapter [APP-034], the Applicant deemed that there was enough site-specific data, using boat-based observations, to justify the use of the Extended Band model Option 4 for the most numerous species likely to be at risk of collision (kittiwake, gannet, lesser black-backed gull (LBBG) and greater black-backed gull (GBBG)). The flying heights of birds were recorded in 5-metre categories, which were divided evenly to provide height distributions at 1-metre intervals. For all other species, including the auk species (razorbill, guillemot and puffin), the Applicant used the Band model Option 1, which assumes equal mean collision probability for all flights at rotor height. Initially NE and the RSPB advocated the use of the Basic Band models (Options 1 and 2) for all the species, but then moved to advising the use of Band model Option 2 which uses generic flight height data. This was largely because of concerns about the accuracy of the Applicant's flight height data.
- 6.7.16 The Examination considered the accuracy of boat-based observations of Percentage of birds at Collision Height (PCH) collected at fine scale resolution, approaches to account for uncertainty in flight height data, plus the use of site-specific data rather than more generic data sources (e.g. Cook et al 2012). The Applicant's position was that much of its approach was in line with standard industry guidance and that there was little consistency between wind farm projects on the choice

of flight height bands for recording [REP3-014 and REP3-016]. In its view the combination of the Extended version of the model with site-specific flight height data produces as accurate a prediction of the risk to seabirds as is possible with current information and risk assessment tools. Both NE and the RSPB disputed the accuracy of the observations made during the boat-based surveys and the way the data were then manipulated to estimate the proportion of birds at collision height. Despite the disagreement, at the request of the ExA, the Applicant presented a range of collision risk modelling outputs using all versions of the Band (2012) model at a range of avoidance rates. These figures were revised several times during the Examination in response to comments from NE. The final set of collision risk modelling outputs was presented in the offshore ornithology SoCG with NE [REP6-014].

6.7.17 As noted previously, of critical importance in CRM, is the avoidance rate (AR) used. Unlike the HP1 Examination, this HP2 Examination had the benefit of the findings of the Marine Scotland Science (MSS) report (Cook et al, 2014) commissioned to provide a review of the evidence used to determine ARs in CRM for five priority species (kittiwakes, gannets, herring gulls, LBBG and GBBG), and to make appropriate recommendations as to which AR was appropriate for use with different options of the Band model. The SNCBs largely supported the conclusions of the report on a range of ARs for Band model Options 1 and 2, with the exception of kittiwakes where a slightly lower rate was supported; they also supported ARs for use with the Band Extended model Options 3 and 4 for LBBG and GBBG [REP1-076].

6.7.18 The Applicant considers that the application of a 98% AR is suitably precautionary for use in the Extended model to determine collision risk mortality for gannet and kittiwake (Table 6.3), whereas NE and the RSPB, in line with the recommendations from MSS, do not agree that there are any appropriate ARs to use with the Extended model for these species.

Table 6.3 Comparison of positions on preferred ARs

Preferred avoidance rates			
Species	Marine Scotland Science (MSS) (Cook et al 2014)	SNCBs	Applicant
Gannet	98.9% with Basic Band model. No recommended AR for use with Extended model	Agree with MSS	98% for use with Extended model (Option 4).
Kittiwake	99.2% with Basic Band model. No recommended AR for use with Extended model	98.9% with Basic Band model. No recommended AR for use with Extended model	98% for use with Extended model (Option 4).

Lesser black-backed gull	99.5% with Basic Band model; 98.9% with Extended model	Agree with MSS	98.9% for use with Extended model (4)
Great black-backed gull	99.5% with Basic model 98.9 with Extended model	Agree with MSS	98.9% for use with Extended model (4)

Bird displacement rates

- 6.7.19 Displacement arises when there is a significant reduction in the density of birds, compared to the baseline, within the actual wind farm area and the surrounding buffer zone. The displacement methodology employed by the Applicant followed NE/JNCC guidance in presenting displacement matrices for relevant species across the full range of displacement and mortality percentages for the project site, plus a 2km buffer. The Applicant also presented an assessment of predicted mortality based on the more precautionary end of the range advised by NE (displacement rate of 70% and mortality rate of 10% for auk species) to be used as a worst case scenario for the assessment of displacement impacts. This approach was welcomed by NE. The RSPB, however, did not agree with the choice of displacement rate, viewing 70% as a reasonable estimate rather than a maximum. It also felt that the Applicant had not presented sufficient reasons to justify a choice of 10% mortality for auk species.
- 6.7.20 There were further areas of disagreement between NE, the RSPB and the Applicant on two other displacement issues: seasonal or annual estimates of displacement, and the summing of mortality estimates from both collision risk and displacement analyses. The Applicant remained wedded to the views that (i) it was not appropriate to sum seasonal estimates of displacement, as this assumes that the populations from which the birds derive are discrete, which is unlikely to be the case; and (ii) displacement and collision risk are not independent, as collision risk analysis includes birds in flight and displacement analysis includes both birds in flight and on the water, and, as such their summing will include double counting [REP3-014].
- 6.7.21 In contrast, NE and the RSPB support annual estimates of mortality and the summing of mortality estimates from both collision risk and displacement analyses for gannet. NE argues that summing mortality estimates across biologically defined seasons can be used to produce an annual figure to assess the population impact through modelling at the appropriate scale [REP3-033]. The RSPB's view is that mortality resulting from displacement may occur throughout the year so seasonal mortality figures should also be combined to give an annual figure [REP3-041]. With regard to summing displacement and collision related mortalities for gannet, NE agrees that collision risk assesses birds in flight, while displacement is looking at all birds in the area, both in flight and on the water. NE also argues, however, that by

aligning displacement rates to avoidance rates double counting can be minimised [REP3-033].

Apportionment of effects to individual SPA colonies

6.7.22 In paragraphs 36-38 of Appendix I of RRs [RR-021], NE raised a number of issues regarding the Applicant's assumptions about the apportioning of predicted impacts on various species in the HP2 OWF area, during the breeding and non-breeding seasons, back to individual SPAs, including in particular the FFC pSPA. The Applicant responded with a set of five clarification notes, for five species, for D2A [REP2A-016 to REP2A-020]. For each species, these included, inter alia: species phenology—definition of seasonal extents, breeding season apportioning-HP2 alone, pre-and post-breeding season apportioning-HP2 alone, displacement and apportioning, annual predicted mortality apportioning to FFC pSPA-HP2 alone, and assessment of predicted mortality from HP2 in combination with other plans or projects. These clarification notes were useful in setting out details of the Applicant's considered position and deemed implications for the FFC pSPA, in addition to the position of NE and, as relevant, a clarification of where differences between the Applicant and NE occurred. The issue of apportioning birds to the pSPA during the breeding season was not agreed by the various parties during the Examination.

Potential Biological Removal and Population Viability Analysis sustainability assessment

6.7.23 Once the impacts of the offshore wind farm on the various bird species has been estimated, the next step is to determine what impact that will have on the species population on a recurring annual basis. Two principal methods are available for this: (i) Potential Biological Removal (PBR) and (ii) Population Viability Analysis (PVA). PBR calculations provide a means of estimating the number of additional bird mortalities that a given population can sustain. It can be used to identify sustainable harvest rates that would maintain populations at, or above, maximum net productivity level (MNPL) or maximum sustained yield. PVA calculations use simulation modelling of population processes and population size. They can use density dependent (DD) and density independent (DI) approaches (based on surrogate populations of the same species elsewhere or ecologically similar species).

6.7.24 In the ornithological chapter of the ES [APP-034], the Applicant uses a PBR approach. This was the predominant approach used in the assessment of the ornithological impacts of HP1, although NE did advise the use of PVA where good data were available, and RSPB strongly supported the use of PVA. In their relevant and written representations for HP2, both NE and RSPB advocated the use of PVA. In response, for Deadline 2A, the Applicant produced a comprehensive PVA Report [REP2A-015]:

"This report provides details of population viability analysis (PVA) for five populations of seabirds (gannet, kittiwake, guillemot, razorbill and puffin) which breed at the colonies which comprise the Flamborough and Filey Coast (FFC) pSPA. The population models were developed using two alternative sets of demographic rates; the first were obtained from a review of the literature for these species (and used previously for modelling these populations (MacArthur Green 2014) and the second were taken from a review conducted by the British Trust for Ornithology (BTO; Horswill and Robinson 2015), combined with productivity data collected by the RSPB (Aitken et al. 2014)."

6.7.25 Whilst this report was welcomed by IPs, and facilitated the adoption of a PVA appraisal for all the key HRA ornithological species, some disagreements still remained. For example, there was a significant difference between the Applicant's preference for the DD approach on the grounds that *"Populations subject to density dependence regulation are effectively buffered against potentially negative effects which do not impinge on the limiting resource"* [REP2A-015] and the DI approach preferred by other parties, and especially by the RSPB. NE and the RSPB preferred the DI approach because they do not feel the Applicant's data were sufficiently robust to apply DD in PVA modelling [REP3-033, REP4-054].

Tiering and relevant projects for in-combination and cumulative assessment

6.7.26 In the Ornithological chapter of the ES [APP-034], and in the HRA Report [APP-0171 to APP-0175], the Applicant used a two-tiered approach to the identification of other projects to be considered cumulatively (EIA) and in-combination (HRA) with HP2, as follows:

- *"Tier 1: Project Two considered alongside other projects/plans currently under construction and/or those consented but not yet implemented, and/or those submitted but not yet determined and/or those currently operational that were not operational when baseline data was collected, and/or those that are operational but have an ongoing impact; and*
- *Tier 2: All projects/plans included in Tier 1, as well as those on relevant plans and programmes that are likely to come forward (the PINS Programme of Projects being the source most relevant for this assessment), but have not yet submitted an application for consent. Specifically, this Tier includes all projects where the developer has advised PINS in writing that they intend to submit an application in the future, or where only a scoping report or PEI is available."*

6.7.27 The specific projects are set out in Table 6.4. Whilst NE/JNCC advises a six-tiered approach for such assessments, at the first ISH in September 2015 NE and RSPB indicated that they had no objection to the Applicant's approach. Indeed, the view of the Panel was that, with the sub-sections within Tier 1, the tiers in the NE approach were

broadly covered. NE also noted that it was broadly content with the list of projects and species that have been included by the Applicant; it also noted that the projects are different for different species as you are looking at different population scales [REP3-033]. Both NE and RSPB were concerned that the Applicant had reduced its predicted collisions for several projects (e.g. Dudgeon, Beatrice, Moray Firth and East Anglia One) on the basis that they will not build out to full capacity. Whilst appreciating the logic of the approach, NE advised that reductions in collision impacts should only apply in cases where the reduction in project capacity is reduced in the actual consent for the project. In response, at the Ecology ISH on 16 September 2015 [REP3-014], the Applicant confirmed that it had now used the full consented capacity figure for each of the projects within the in-combination assessment, notwithstanding any confirmation from the relevant developers that less than the consented amount will be built out.

Table 6.4 Projects identified by the Applicant for cumulative and in-combination assessment (the projects in italics are not for in-combination assessment)

Tier	Description of tier	Agreed list of projects in tier
1	Built and operational projects	<p><i>Belwind-Phase 1, and Demonstration</i></p> <p><i>Egmond aan Zee</i></p> <p>Greater Gabbard</p> <p>Gunfleet Sands</p> <p>Kentish Flats</p> <p>Lincs</p> <p>London Array</p> <p>Lynn and Inner Dowsing</p> <p>Sheringham Shoal</p> <p>Teesside</p> <p>Thanet</p> <p><i>Thornton Bank</i></p>
	Projects under construction	<p>Humber Gateway</p> <p><i>Northwind</i></p> <p>Beatrice</p> <p><i>Belwind - Phase 2</i></p> <p>Blyth</p>
2	Consented or submitted applications	<p>Aberdeen European Offshore Wind Deployment Centre</p> <p><i>Breeveertien</i></p> <p>Dogger Creyke Beck A and B</p> <p>Dudgeon</p> <p>East Anglia One</p> <p>Firth of Forth Phase 1</p> <p>Seagreen Alpha</p> <p>Seagreen Bravo</p> <p>Galloper</p> <p>Hornsea Project One</p> <p>Inch Cape</p> <p>Kentish Flats Extension</p> <p>Moray Firth Project 1</p> <p>Neart na Gaoithe</p> <p><i>Norther</i></p> <p>Race Bank</p> <p>Rentel</p> <p>Triton Knoll</p> <p>Westermost Rough</p> <p>Dogger Teesside Projects A and B</p>

Configuration of WTGs and ornithological implications

6.7.28 As noted previously, one of the several input parameters for the Band models is the turbine details of the wind farm project (e.g. number and size). In the context of the Rochdale Envelope approach, the Applicant adopted in the ES a 'worst case' scenario of 360 turbines x 5MW, and the main assessment of ornithological impacts was based on this case [APP-034]. The Panel questioned the Applicant on several occasions in the Examination as to whether further attention was being given to the active consideration of alternative configurations in the Rochdale Envelope approach, partly as a means of reducing the number of bird collisions [for example at PD-010 and EV-037]. The Applicant noted [REP1-051] that:

"In order to leave open the opportunity for further development of technology and installation techniques in the offshore wind industry (such as with wind turbines, foundations and transmission technology) and to benefit from competition within the supply chain (including the advent of new suppliers) design and technology options are likely to remain open during the procurement and contracting phase. This allows contractors to optimise the design specifications proposed and facilitate the most economic and efficient final design of the Project at financial close."

6.7.29 Then, towards the end of the Examination, for D5 and D6 [REP5-001 and REP6-001], the Applicant advised that, in order to reduce ornithological collision impacts, in particular on the kittiwake population, there would be a reduction in the project's design envelope, specifically: (i) the removal of the 5MW WTG option (the smallest capacity is now a 6MW WTG); and (ii) an increase in the minimum blade tip height from 26m relative to lowest astronomical tide (LAT) to 29.97m relative to LAT. NE welcomed the commitment by the Applicant to the new configuration.

6.7.30 In a move to further mitigate the ornithological impacts of HP2, in particular on the predicted kittiwake in-combination impacts, on 4 December 2015, the Applicant made a new commitment to further increase the minimum blade tip height from 26m to 34.97m relative to LAT, and to reduce the rotor diameter from 250m to 241.03m [AS-013]. The ExA sought views on the underpinning assessment of the potential implications for offshore ornithology of these changes, and any other implications in two Rule 17 requests [PD-019 and PD-021]. The Applicant further noted that the maximum worst case number of WTGs would now be 300, rather than 360. The Applicant had previously sought various changes in the project [REP3-027] which are described in Chapter 2 of this report. These were considered by the ExA and accepted into the Examination on 26 November 2015 [PD-019]. In the ExA's view, the changes are non-material and would not affect the outcome of the Applicant's HRA.

6.7.31 The implications of the examination of these various methodological issues (Band model, ARs, PCH, Displacement Rates and Population

Level Effects - PBR and PVA), in-combination/cumulative assessment and project configuration factors, are now discussed for specific bird species, in relation to the integrity of the FFC pSPA.

Findings in relation to adverse effects: Kittiwake

Key examination issues

- 6.7.32 As noted in Table 6.2, a likely significant effect upon the kittiwake interest feature was identified because of the potential for HP2, both alone and in combination with other plans and projects, to increase the risk of collision mortality and displacement. There was considerable discussion during the Examination about the potential impacts upon kittiwakes from the FFC pSPA and the evolving positions of the Applicant, NE and the RSPB were reflected in the extent of agreement, or otherwise, in various clarification notes, SoCGs and MoUs requested by the Panel.
- 6.7.33 Key Examination issues included the various parameters to be included in CRM (Band models, PCH, ARs), PVA approaches, apportionment, and the size of the kittiwake population at the FFC pSPA. Through the Examination the Panel requested the testing of the relative sensitivity of the potential impacts on the kittiwake population to the use of a range of Band models and parameters (e.g. various ARs). Although there was not agreement on all the underpinning calculations, and both NE and RSPB did not accept much of the Applicant's analysis, this approach provided a very useful common set of evolving information for the participants on the handling of uncertainty in CRM and on the variability in the data [REP1-061, REP2A-016 to REP2A-020 and REP3-029].
- 6.7.34 NE and the RSPB highlighted particular concerns about the percentage of kittiwake calculated as being at potential collision height, with the percentage lying outside the confidence intervals associated with the PCH values in Johnson et al (2014) and being much lower than the PCH used for kittiwake in the assessment of the Dogger Bank Creyke Beck wind farm [REP5-036 and REP6-018]. The Applicant maintained its position that the values used in its assessment fall with the ranges used by other offshore wind projects [REP4-040] and that the use of site-specific flight data is entirely appropriate [REP6-005].
- 6.7.35 As noted above, the Applicant prefers the use of Option 4 of the Extended Band model. Although the MSS report [REP1-075] did not recommend an AR for use with the Extended model, a 2013 review by SMart Wind and Forewind [REP1-077] concluded that an AR of 98% was sufficiently precautionary. Both NE and the RSPB support a Basic Band model, and they did not consider that the generic avoidance rate of 98% was appropriate to use with the Extended model. For the Basic model, they support the SNCB's AR figure of 98.9%, rather than the MSS report figure of 99.2%, on the grounds that the MSS report classes kittiwake as a small gull. The 'small gull' data are based on species that use coastal habitats rather than the open ocean that

kittiwake mainly use [REP3-033 and REP6-018]. The Applicant's position is that kittiwake is a small gull in terms of flight speed and physical agility. The difference in terms of habitat use is likely to lead to higher rates of avoidance than that recorded for kittiwake in the MSS report [REP4-040].

- 6.7.36 In a 'Clarification Note - Apportioning of predicted kittiwake mortality to the FFC pSPA' [REP2A-018], the Applicant, in response to queries raised by NE and the RSPB in their Relevant and Written Representations, sets out the assumptions made regarding the spatial and numerical distribution of non-breeding (including immature) birds during the breeding season and the foraging ranges of breeding adults from the FFC pSPA. The note shows agreement between NE and the Applicant on some issues, for example on a kittiwake foraging range, but not on others, for example the proportion of adult birds from the FFC pSPA at the HP2 site during the breeding season. It also shows, in conclusion, higher figures for predicted mortality on the basis of NE assumptions compared with the assumptions used by the Applicant.
- 6.7.37 Another issue considered in the Examination was the element of uncertainty about how the kittiwake population at Flamborough Head had changed since the 1970s, when it was argued that the population may have been higher than it is now. Population levels and trends are important in determining the sustainability of the species at the FFC pSPA site. NE and the RSPB noted that the kittiwake population had decreased from c 85,000 pairs in 1987 to c 45,000 pairs (2008-11 mean used to classify the FFC pSPA), thereby indicating that the population had undergone a significant decline of at least 4% pa. NE provided an extract of the original Bempton Cliffs 1987 annual report which discusses the survey activity that had been undertaken and state that the JNCC is satisfied that the 1987 count was accurate [REP6-017]. This trend was seen as in line with the national population trend for kittiwake as well as the trend at many of the other larger kittiwake colonies in the UK [REP4-048, section B and REP4-054]. NE concluded that there was no evidence to suggest that the population across the FFC pSPA as a whole had increased since 2008, and that the current trend is most likely to be either stable or a continued decline in line with the national trend. A condition assessment of the underpinning triple SSSI states that the site is in unfavourable-declining condition [REP4-048].
- 6.7.38 Drawing on a number of sources, the Applicant disputed the NE analysis [REP4-040], noting a concern that the 1987 population was based on a count of adult kittiwakes, not pairs. The PVA report, for the Applicant, by MacArthur Green (2015) [REP2A-015] suggests that, if the disputed data from 1987 are excluded, the data on the breeding colonies at Bempton and Filey less clearly indicate a supposed decline:

"Although there is some uncertainty about how the kittiwake population at Bempton has changed since the 1970s, it seems likely that the population has remained around 40,000 pairs for much of that time. This is close to the maximum size for colonies of this

species, suggesting strong competition for resources and colony size limitation by density-dependence."

Kittiwake: project alone

- 6.7.39 Table 6.5 provides a summary of the positions of NE and the Applicant on kittiwake collision risk estimates for HP2 alone, including changes in those estimates over the latter period of the Examination as a result of the two stages of mitigation submitted by the Applicant. Throughout the Examination the Applicant advocated the Extended Band model Option 4 at 98% AR giving a D7 collision risk estimate of 0.8 for HP2 alone; but if Band Option 2 with 98.9% AR is used as the default (as advocated by NE), then the final mitigated risk estimate is 48.1. The RSPB calculated a final risk estimate of 52 [REP8-006].
- 6.7.40 The Applicant believes that the positions of NE and the RSPB are over-precautionary in terms of several factors including the version of the Band model, AR, use of the DI model in the PVA, adding of seasons, population trends and apportionment to the pSPA. Agreement was not reached on these points between NE, the RSPB and the Applicant during the Examination.
- 6.7.41 Following the Applicant’s proposal of mitigation at D6, NE was able to agree that, using its preferred approach to analysis, it could conclude that there would be no adverse effect on the integrity of the pSPA with regard to the kittiwake feature [REP6-014]. This conclusion was made further to the Applicant’s provision of a PVA assessment which showed that all the HP2 project alone estimates represented magnitudes of effect that were less than 1% of the background mortality of the kittiwake population and were therefore not significant [REP2A-015 and REP2A-018]. NE’s preferred approach to PVA assessment used a DI approach which was considered more precautionary than the Applicant’s preferred DD approach. The RSPB was unable to reach a conclusion of no adverse effect on the integrity of the FFC pSPA.

Table 6.5 Annual kittiwake collision risk estimates attributable to the FFC pSPA for HP2 alone, for original and subsequent mitigated project configurations

HP2 configuration	Basic Option 2 (NE position)	Extended Option 4 (Applicant position)
Original Application: 5MW x 360 turbines; minimum blade tip height from 26m relative to LAT [REP2A-018]	104.6	6.2
Mitigation 1: 6MW x 300 turbines; minimum blade tip height from 29.97m relative to LAT [REP6-007]	49	2.6

Mitigation 2: 6MW x 300 turbines; minimum blade tip height from 34.97m relative to LAT; reduction in the maximum rotor diameter from 250m to 241.03m [REP7-021]	48.1 (range 26.1 to 82.8)	0.8 (range 0.4 to 1.4)
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Kittiwake: in-combination

- 6.7.42 Table 6.6 provides a summary of the positions of NE and the Applicant on kittiwake collision risk estimates for HP2 in combination with other plans and projects, including changes in those estimates over the latter period of the Examination as a result of the two stages of mitigation submitted by the Applicant. The kittiwake in-combination collision risk estimates were the most debated ornithological impacts throughout the Examination. In the ExA's view the level of disagreements between the Applicant, on the one hand, and NE and the RSPB on the other, was instrumental in the Applicant's two stages of mitigation to the OWF configuration in an attempt to reduce the estimated kittiwake collision risk impacts, and thereby to resolve the differences.
- 6.7.43 Both the original annual in-combination estimates of the Applicant and of NE surpassed the 1% threshold of baseline mortality for kittiwake and further modelling was undertaken using PVA. The Applicant's PVA modelling [REP2A-015] indicated that the additional collision mortality predicted to arise from HP2 in-combination with other projects (at the level predicted by the Applicant, 146 individuals pa, or at the level predicted by NE, 485 pa) would not result in a decline of this population below the pSPA citation of c 45,000 pairs. NE and the RSPB disagreed with this conclusion. There were many elements of disagreement between the parties. For example, the Applicant has commented on the consistency of NE's advice compared with other recent OWF Examinations, where additional mortality of 500 birds does not increase the probability of population decline significantly [REP4-040]. NE does not agree with the way the Applicant has used tracking data to assess connectivity between the SPA and the project and the way breeding season collisions have been apportioned [REP5-036].
- 6.7.44 In addition to questions during the two ISHs on 16 September and 27 October 2015, the ExA also used Rule 17 requests [PD-019 and PD-021] to seek further clarification from NE on (i) the reasons for the differences in its assessment of project impacts, in combination, on kittiwakes, between HP1 and HP2, and (ii) a level of kittiwake mortality in-combination which it could accept would not have an adverse effect on the integrity of the FFC pSPA and the FHBC SPA. NE responded [REP8-003] noting that:

"...for a proposal affecting a designated population, the factors requiring consideration could include the characteristics of the qualifying feature (for example, population trends at various scales, demographic structure, vulnerability to potential change), the nature of the impact (including its severity and longevity), the function the impacted area provides to the feature in terms of its ecological requirements, and the location of the impacted area with respect to the location of the site... A further important consideration, particularly with respect to impacts on species, is the level of certainty that can be ascribed to impact assessments."

- 6.7.45 However, further to the second stage of mitigation, NE and the Applicant were able to reach agreement on in-combination impacts for kittiwake, as set out in an MoU, with NE concluding no adverse effect on integrity [REP7-021] and noting:

"Whilst NE consider that they cannot rule out an adverse effect as a result of plans and projects in combination, on the basis of the further Project mitigation, NE consider that the effect of the additional predicted mortality from the Project alone (14.2 based on NE's calculations) is so small it will not materially alter the overall in-combination mortality figure or the likelihood of an adverse effect on the integrity of the SPA or pSPA arising from such an in-combination level of mortality."

- 6.7.46 This was further reinforced in REP7-034 where NE:

"... would like to highlight it was able to reach a conclusion of no adverse effect on integrity, alone and in-combination, on the kittiwake feature of the Flamborough Head and Bempton Cliffs SPA and Flamborough and Filey Coast pSPA, subject to the mitigation submitted by the Applicant at Deadline 5 and on 04 December 2015".

- 6.7.47 The RSPB was unable to accept the agreement noted in the paragraph above, on the basis of various factors, many set out throughout the Examination, and others latterly in REP7-035 and REP8-004. These latter factors included a very clear position on the vulnerability of the FFC pSPA and FHBC SPA kittiwake population, noting that the latest update (December 2015) to the Birds of Conservation Concern shows that the breeding population of kittiwake is now on the Red List of conservation concern. Other factors included; different approaches to the use of Counterfactual of Population in the PVA approach, with RSPB preference for the Counterfactual of Population Size (CPS), which is the percentage difference between median population sizes with and without the development, after 25 years; compared with the NE preference for the Counterfactual of Population Growth Rate (CPGR), which is the change in median population growth rate. RSPB was also concerned about the adequacy of data provided late in the day by the Applicant on the ornithological implications of the two mitigation stages of the OWF configuration. The RSPB estimate of annual collisions attributed to the FFC pSPA for HP2 in combination, for the second stage mitigation configuration was 356 [REP8-004].

Table 6.6 Annual kittiwake collision risk estimates attributable to the FFC pSPA, for HP2 in-combination with other plans and projects, for the original and subsequent mitigated project configurations

HP2 configuration	Collision risk number of birds	
	Basic Option 2 (NE position)	Extended Option 4 (Applicant position)
Original Application: 5MW x 360 turbines; minimum blade tip height from 26m relative to LAT [REP2A-018]	484.9	145.8
Mitigation 1: 6MW x 300 turbines; minimum blade tip height from 29.97m relative to LAT [REP6-007]	349	110
Mitigation 2: 6MW x 300 turbines; minimum blade tip height from 34.97m relative to LAT; reduction in the maximum rotor diameter from 250m to 241.03m [REP7-021]	314	108

Conclusions

6.7.48 The ExA has taken into account the many and various arguments advocated, and the data provided, by the Applicant, NE and the RSPB during the Examination. It notes the disagreement on a wide range of issues and has given them due consideration. It also notes the level of uncertainty in relation to collision risk estimates resulting from many factors, but welcomes the provision of estimates across a range of models and approaches, and agreement on some approaches, including the use of PVA. The ExA does have some concern that some parties are being over-precautionary, particularly in relation to: the appropriate AR to use for the Basic Band model, where the SNCBs do not fully accept the findings of the MSS report; DD versus DI PVA approaches; approaches to apportionment; inclusion of the full build-out of all projects in the in-combination assessment, when several are highly unlikely to be fully built-out; and some residual questions on the stability or otherwise of trends in the pSPA kittiwake population.

6.7.49 On the basis of its Examination and objective scientific evidence, and the summary advice of NE subsequent to the two stages of mitigation submitted by the Applicant, the ExA concludes that there is no adverse

effect for the kittiwake species on the integrity of the FFC pSPA of HP2 alone, and in combination with other plans and projects.

Findings in relation to adverse effects: gannet

Key examination issues

- 6.7.50 As for kittiwake, and as noted in Table 6.2, a likely significant effect upon the gannet interest feature was identified because of the potential for HP2, both alone and in combination with other plans and projects, to increase risk of collision-related mortality and displacement. Again the evolving positions of the Applicant, NE and the RSPB were reflected in the extent of agreement, or otherwise, in various clarification notes, SoCGs and MoUs requested by the Panel, and estimates of potential collision risk and displacement impacts were provided across a range of Band models and parameters [REP1-061].
- 6.7.51 The NE and RSPB's concerns over the possible impacts to gannets is in part due to the FFC pSPA being the only gannetry (breeding colony) in England, supporting c12,500 occupied nests [HRA Report Part 2, APP-0172]. This pSPA population accounts for approximately 3.3% of the North Atlantic biogeographic population. The Bempton Cliffs colony has been increasing since the 1980s, with a growth rate of 10.5% pa between 1986 and 2012, and 12.8% pa between 2004 and 2012. However the RSPB takes the view that the growth of the UK population is likely to be man-made because of the availability of discards from fishing vessels. It argues that as discards are likely to disappear in future this could lead to reduced population growth [REP8-004].
- 6.7.52 'Clarification Note - Apportioning of predicted gannet mortality to the FFC pSPA' [REP2A-016], produced by the Applicant in response to queries raised by NE and the RSPB in Relevant and Written Representations, shows agreement between NE and the Applicant on several issues, for example on seasonal definitions, foraging range, proportion of breeding adults, but not on the application of Options and ARs within the Band model. In a SoCG for D3 [REP3-030], the RSPB and the Applicant also agreed on a number of issues, including the Applicant's provision of appropriate information on the assessment of impacts on gannet including: the choice of Band model options and ARs; PVA, apportioning; displacement assessment and buffer areas. However there was again not agreement on the use of site-specific flight height data and the extended Band model, nor on the summing of seasonal mortality estimates to produce an overall annual mortality.
- 6.7.53 Later in the Examination another perspective on the PCH issue was provided by the consideration of a recent article by Cleasby et al (2015) [REP7-022]. This research, combining GPS tracks of gannets breeding at the Scottish Bass Rock colony with data from bird-borne pressure loggers, identified a distinction between average flight height of gannets when commuting (12m) and when foraging (27m). From these findings implications were drawn by the researchers of much

higher OWF mortality rates for gannets than previously estimated from earlier studies. In the second ISH on 27 October 2015, all IPs welcomed this further research, but with varying interpretations on its significance for current CRM. The Applicant [REP5-009] drew attention, for example, to the very small sample of birds on which the results draw, issues of extrapolating results across seasons, and varying bird densities between near shore and much further offshore locations. NE had similar views [REP5-036] concluding that; *"...there are a number of points in relation to the methodology used that need to be addressed in order to validate conclusions about the extent to which use of generic flight height data might be underestimating collision mortality."*

- 6.7.54 The RSPB [REP5-037] considered that the research findings demonstrated that collision estimates for gannet, and probably for other species, based on flight height derived from boat surveys, are likely to seriously underestimate collision risk. It disagreed with the Applicant and NE [REP8-004] concluding that:

"...the paper still points out a major discrepancy between flight heights measured by boat-based observers and those obtained using a scientifically robust and validated method...Both the applicant and NE are critical of the collision risk assessment carried out by Cleasby et al., (2015), but that assessment is not the key part of that paper, rather it was used as an illustrative example. The key point of relevance to HP2 is that boat based estimates of flight altitude are likely to be significant underestimates and subsequent collision mortalities will therefore also be underestimates."

- 6.7.55 The Panel notes that the study indicates a flight height for gannet while foraging of 27m which is now substantially less than the minimum blade tip height relative to LAT of 34.97m agreed in mitigation for HP2.

Gannet: project alone

- 6.7.56 Drawing on their own assessments [REP3-035] and those of the Applicant [REP1-061; REP2A-016], NE advised in the first ISH on 16 September 2015 [REP3-014 and REP3-033] that it could conclude no adverse effects on the integrity of the FFC pSPA for gannet from the impacts of HP2 alone. Whilst NE was broadly content with the Applicant's apportioning approach for FFC pSPA during the breeding and non-breeding season, it did not agree with the use of the Extended Band model, and based its own collision risk assessment on the Basic Band model Option 2 (Table 6.7). NE believed the gannet impact to be approximately 17 adults per annum alone; this could vary between 6-37 birds based upon variability in baseline site densities, with an additional mortality of up to 20 birds from displacement. The NE conclusions drew on a PVA DI approach which considered that predicted mortalities for HP2 alone would not exceed a level whereby the growth rate of the population would be reduced by

0.45% pa, a current colony growth rate of 12.8% pa, plus some evidence that the colony will continue to grow.

6.7.57 In addition to the concerns described above, the RSPB also disagreed with the use of the Extended Band model and the Applicant’s choice of AR. It takes the view that an AR of 98% (compared with the 98.9% AR recommended by NE) is appropriate [REP1-047]. As previously noted it does not agree with NE’s position on displacement mortality and choice of PVA metric. The RSPB also interpreted the Applicant’s PVA as indicating a high net immigration from the Bass Rock gannetry which may be affected by increased mortality caused by other wind farms [REP8-004]. It was unable to reach a conclusion of no adverse effect on integrity in regard to gannet.

Table 6.7 Annual gannet collision risk estimates attributable to the FFC pSPA for HP2 alone, for original project configuration [REP3-029]

Basic Option 2 (NE position, AR 98.9)	Extended Option 4 (Applicant position, AR 98)
17 (plus up to 20 from displacement)	15 (Applicant’s view is that addition of displacement leads to double counting)

Gannet: in-combination

6.7.58 The NE position relating to the in-combination impact is 190 adults/pa, with no in-combination displacement element to the assessment (Table 6.8). The somewhat higher levels of collision estimated through the Extended Model are mostly due to the risk reported for the Dogger Bank projects (Creyke Beck A and B/Teesside A and B). With a DI PVA approach, the population growth rate is predicted to fall by 0.91% pa and the population size would be 19% lower at 25 years than an un-impacted population size. However, as noted above, the colony is currently growing at 12.8% pa. While the colony is not predicted to maintain this growth rate indefinitely, productivity rates at the colony remain high. On the basis that the colony is predicted to grow at a rate considerably higher than the 1.79% per annum predicted by the PVA model, NE concluded no adverse effects on site integrity for an additional mortality of 190 [REP3-029 and REP3-035]. The RSPB did not agree with the projects identified by the Applicant for their in-combination assessment, stating that East Anglia 3 and Beatrice offshore wind farms should have been included [REP8-005]. In view of this concern, in addition to the others discussed above, the RSPB maintained its position that adverse effects on integrity in combination with other plans or projects cannot be excluded [REP5-037 and REP8-004]. The RSPB estimate of gannet collisions attributed to the FFC pSPA for HP2 in combination was 252 [REP8-004].

Table 6.8 Annual gannet collision risk estimates attributable to the FFC pSPA for HP2 in-combination with other plans and projects, for the original project configuration

Basic Option 2 (NE position)	Extended Option 4 (Applicant's position)
190	215

Conclusions

- 6.7.59 The ExA has taken into account the arguments advocated, and the data provided, by the Applicant, NE and the RSPB. It again notes the Applicant's position that the other parties are being over-precautionary, welcomes the provision of estimates for Basic and Extended Band models, and agreement on some approaches, including the use of PVA. The ExA also notes the current high growth rates of the gannet colony, but the caution of the RSPB that there may be temporary circumstances for such growth. Factors considered by the Panel, where there is less agreement include, for example: the appropriate AR to use for the Basic Band model, where the RSPB does not accept the findings of Cook et al (2014); DI versus DD PVA approaches; and inclusion of the full build-out of all projects in the in-combination assessment, when several are highly unlikely to be fully built-out.
- 6.7.60 Although there are some differences in approach by the Applicant and NE, the predicted differences in impacts on the gannet species for both the project alone and in-combination with other projects and plans are not considered to be significant (Tables 6.7 and 6.8 in this report). In conclusion, the ExA agrees with the Applicant and NE that, on the basis of its Examination and of objective scientific evidence, there is no adverse impact for the gannet species on the integrity of the FFC pSPA of the project alone, and in combination.

Findings in relation to adverse effects: auk species

Key examination issues

- 6.7.61 As for the previously discussed species, the evolving positions of the Applicant, NE and RSPB on the potential impacts on the FFC pSPA of the auk populations (guillemots, razorbills and puffins) were reflected during the Examination by the extent of agreement, or otherwise, in various SoCGs requested by the Panel. The Examination again focused on testing the relative sensitivity of the potential impacts on the auk populations of the FFC pSPA to a range of factors (e.g. nature of relevant populations; PVA approaches) and model parameters (e.g. various displacement and mortality rates).
- 6.7.62 The Applicant set out its initial key data on the auk populations in the HRA report [APP-0172]. The latest counts (revised citation provided by

NE: 2008-2011) of species at the FFC pSPA were: guillemot 83,214; razorbill 21,140 and puffin 1,960. This was reinforced with clarification notes on apportioning at D2A [REP2A-017, REP2A-019 and REP2A-020]. There was some level of agreement between NE and the Applicant on a number of apportioning issues, including for example, auk species seasonal definitions and foraging ranges, but disagreements on the proportion of breeding adult birds derived from HP2 specific data (for example for puffin 6% (the Applicant) compared with 38% (NE)).

- 6.7.63 There was also disagreement on adding seasonal displacement mortality and preferred mortality rates, with NE advocating a range between 30-70% displacement (10-70% for puffin) and an 1-10% mortality for breeding birds, compared with the Applicant's preference for displacement/mortality rates of 30/10% for breeding guillemot, and 40/10% for breeding razorbill and puffin. As noted previously, the RSPB does not agree with NE's position on displacement levels and does not feel the Applicant has provided sufficient justification for the mortality levels it has used.

Auk species: project alone

Table 6.9 Annual auk species displacement mortality estimates attributable to the FFC pSPA for HP2 alone, for original project configuration

Auk species	NE position	Applicant's position
Guillemot	12-291	29
Razorbill	4-100	39
Puffin	0-13	1

- 6.7.64 The differences between NE and the Applicant on the auk species displacement estimates attributable to the FFC pSPA, for HP2 alone, for the original project configuration, are set out in REP3-029, and are summarised in Table 6.9 above. These are annual figures, and include a summary of various breeding stages as appropriate for each species. NE uses a range based on its preferred displacement/mortality rates; the Applicant in contrast uses a mean figure. The Applicant preferred a DD PVA approach, compared with the DI approach preferred by NE and the RSPB; the DD approach predicts smaller declines in species growth rates. Notwithstanding the differences in approach and in estimates, NE advised in the first ISH on 16 September 2015 and in submissions [REP3-014, REP3-033, REP3-036, REP3-037 and REP3-038] that it could conclude no adverse effects on the integrity of the FFC pSPA for guillemot, razorbill and puffin from the impacts of HP2 alone. In contrast, the RSPB maintained its objection to HP2 for these species, both alone and in-combination. The RSPB disagreed with NE on the best model output for the PVA DD model, preferring the CPS approach rather than the CPGR used by NE. It also raised concerns about the conservation status of auk species, noting that the

International Union for Conservation and Nature (IUCN Red List, updated on 29 October 2015, has changed the criteria for puffin to 'vulnerable' and for razorbill to 'near threatened'.

- 6.7.65 For *guillemot*, NE noted that the DI PVA model predicted a population growth rate of 4.42% pa over the next 25 years. The FFC pSPA colony increased by 2.8% pa between 1987 and 2008. When the conservation objectives are set for the FFC SPA there is likely to be a 'maintain' objective for the guillemot feature. Based on the current population trend for the colony and on the basis of predicted displacement mortality for the project alone resulting in a decline in growth rate of no more than 0.3%, NE considered that there would be no adverse impact on site integrity [REP3-036].
- 6.7.66 For *razorbill* NE noted that the DI PVA model predicted a population growth rate of 6.89% pa over the next 25 years. The FFC pSPA colony increased by 2.8% pa between 1987 and 2008. When the conservation objectives are set for the FFC SPA there is likely to be a 'maintain' objective for the razorbill feature. Based on the current population trend for the colony and on the basis of predicted displacement mortality for the project alone resulting in a decline in growth rate of no more than 0.5%, NE considered that there would be no adverse impact on site integrity [REP3-037].
- 6.7.67 For *puffin*, NE noted that the DI PVA model predicted a population decline of 0.77% pa over the next 25 years, although there is some methodological difficulty in surveying puffin population trends. It is not expected that the mortality from displacement will exceed a level where the population growth rate would decline by more than 0.25% pa. As such, NE concluded that there is no indication that the predicted potential decline in the growth rate of the puffin population would mean that either the abundance or richness of the breeding seabird assemblage would be reduced to the extent that it would cause an adverse effect on site integrity [REP3-038].

Auk species: in-combination

Table 6.10 Annual auk species displacement mortality estimates attributable to the FFC pSPA for HP2 in-combination with other plans and projects for the original project configuration

Auk species	NE position	Applicant's position
Guillemot	61-1,416	298
Razorbill	16-364	59
Puffin	1-54	9

- 6.7.68 The differences between the NE and the Applicant on the auk species displacement estimates attributable to the FFC pSPA, for HP2 in-combination with other plans and projects, for the original project configuration, are set out in REP3-029, and are summarised in Table 6.10 above. These are annual figures, and include a summary of

various breeding stages as appropriate for each species. NE uses a range based on its preferred displacement/mortality rates; the Applicant in contrast uses a mean figure. The Applicant preferred a DD PVA approach, compared with the DI approach used by NE; the DD approach predicts smaller declines in species growth rates. Notwithstanding the differences in approach and in estimates, NE advised in the first ISH on 16 September 2015 [REP3-014, REP3-033, REP3-036, REP3-037 and REP3-038] that it could conclude no adverse effects on the integrity of the FFC pSPA for guillemot, razorbill and puffin from the impacts of HP2 in-combination with other plans and projects.

- 6.7.69 For *guillemot*, NE notes [REP3-036] that, on the basis that the projects that have been scoped into the assessment lie in areas of the North Sea that represent low to medium levels of guillemot density, it is not expected that mortality rates will be at the top end of the range considered and will not exceed a level where the population growth rate would decline by more than c 0.4% pa. Based on the current population trend for the colony noted above, and on the basis of predicted decline in growth rate of no more than 0.4% pa, NE considers that there would be no adverse effects on the integrity of the FFC pSPA for guillemot from the impacts of HP2 in combination with other plans and projects.
- 6.7.70 For *razorbill*, NE notes [REP3-037] that on the basis, that HP2 does not lie in an area of the North Sea that supports high densities of razorbill during the breeding or non-breeding season, mortality rates at the top end of the considered range are not expected. Even accounting for variability in the baseline population estimates NE does not expect the mortality from displacement to exceed a level where the population growth rate would decline by more than 0.5% pa. Based on the current population trend noted above, and on the basis of the predicted decline in the growth rate of 0.5% pa, NE considers that there would be no adverse effects on the integrity of the FFC pSPA for razorbill from the impacts of HP2 in combination with other plans and projects.
- 6.7.71 For *puffin*, NE notes [REP3-038] that puffin is a non-listed component of the breeding seabird assemblage of the FFC pSPA. It does not consider that a predicted potential decline in colony growth rate of 0.25% per annum would significantly alter the richness or size of the seabird assemblage feature of the FFC pSPA and puffin would still be predicted to be a viable component of the assemblage. As a result, NE considers that there would be no adverse effects on the integrity of puffin as a component of the seabird assemblage feature of the FFC pSPA from the impacts of HP2 in-combination with other plans and projects.

Conclusions

- 6.7.72 The ExA has taken into account the arguments advocated, and the data provided, by the Applicant, NE and the RSPB. It again notes the

Applicant's position that the other parties are being over-precautionary, for example, on the use of the PVA DD approach, and on the range of displacement/mortality rates. Having taken a balanced view of the sensitivity of the mortality displacement impacts to the methodology used and to the levels of precaution built into the process, the ExA agrees that, on the basis of its examination and of objective scientific evidence, there are no adverse impacts for the various auk species on the integrity of the FFC pSPA of the project alone, and in combination.

Findings in relation to assemblage species

Table 6.11 Assemblage species - Applicant's displacement mortality estimates attributable to the FFC pSPA for HP2 alone and in-combination with other plans and projects, for the original project configuration

Other HRA species	HP2 alone (breeding and non-breeding seasons)	HP2 in combination (breeding and non-breeding seasons)
Fulmar	9	17

Key examination issues

6.7.73 The fulmar population of the FFC pSPA is estimated as being 2,894 (2008-11 count); it is designated as part of the breeding bird assemblage of the FFC pSPA and is potentially at risk from HP2. Herring gulls are also part of the assemblage, but it was agreed between the Applicant and NE that HP2 lies beyond the maximum foraging distance of herring gulls (92km, Thaxter et al 2012 'Seabirds foraging ranges as a preliminary tool for identifying Marine Protected Areas, 2012) [APP-034] and that it is unlikely that any of the predicted mortality will be herring gulls from the FFC pSPA. NE also points out in its comments on the RIES that European shag and great cormorant, which it refers to as non-listed assemblage species, were also species for which it was concluded no LSE. As such, the focus below is on the fulmar population.

Fulmar: project alone

6.7.74 Table 6.11 provides a summary of the Applicant's findings in relation to adverse effects on other species, in this case on fulmar. No comments on effects on fulmar have been made by any IP. Based on a worst case assumption of 100% of the birds originating from the FFC pSPA, displacement analysis predicted a mortality of 8 fulmar during the breeding season [APP-0171], based on a displacement rate of 30% and mortality rate of 2%. This represents 0.0032% of the pSPA assemblage feature. For the other seasons the predicted mortality is 1, giving a total of 9. In the Applicant's view the small number of mortalities predicted as a result of displacement and the precautionary nature of the assessment during the breeding season means it is

unlikely there would be an adverse effect on the fulmar component of the FFC pSPA assemblage feature.

Fulmar: in-combination

- 6.7.75 In the Applicant's view, using a precautionary breeding season predicted cumulative mortality of 15 birds (0.07% of the assemblage feature numbers), any increase in baseline mortality is likely to be sustainable. Outside of the breeding season, a mortality of 2 birds represents less than 0.02% of the assemblage feature of the pSPA and therefore no adverse effect is predicted [APP-0171]. No comments on fulmar have been made by any IP.
- 6.7.76 The Applicant and NE agreed that there would be no adverse effect on the integrity of the seabird assemblage features of gannet, guillemot, razorbill or puffin [REP6-014]. Following the Applicant's proposal of mitigation NE was also able to agree that there would be no adverse effect on integrity resulting from effects on kittiwake [REP7-021]. No other comments were made by NE on unlisted assemblage features other than those noted above relating to herring gull, great cormorant and European shag. The RSPB remained concerned that it was not possible to rule out an adverse effect on the integrity of the seabird assemblage feature [REP8-004].

Conclusions

- 6.7.77 On the basis of the evidence discussed above, it is clear that the analyses undertaken by the Applicant and NE, although differing in detailed approach, have allowed both parties to reach a conclusion of no adverse effect on the integrity of the FFC pSPA. The ExA notes the RSPB's outstanding concerns, but agrees with the conclusion reached by the Applicant and NE.

Flamborough Head and Bempton Cliffs SPA

- 6.7.78 The assessment of the effects of HP2, alone and in-combination, on the FFC pSPA, has considered, in detail, all the impacts expected to affect the kittiwake interest feature for the original FHBC SPA. As such, given the overlap in the interest features of the two sites, the assessment is not repeated and the reader is referred to the previous sections of Chapter 6. On the basis of the previous assessments and conclusions, the ExA is satisfied that HP2, alone and in-combination with other plans and projects, will not have an adverse effect upon the integrity of the FHBC SPA.

INTERTIDAL HABITATS AND SPECIES: FINDINGS IN RELATION TO THE HUMBER ESTUARY SPA, HUMBER ESTUARY RAMSAR SITE AND HUMBER ESTUARY SAC ALONE AND IN COMBINATION

- 6.7.79 The proposed offshore wind farm is located outside of the Humber Estuary SPA, Ramsar and SAC sites, but the landfall export cable passes through the sites. It should be noted that the designations

largely cover the same area of the estuary. The HP2 export cable corridor will converge to a landfall at Horseshoe Point, Lincolnshire [Figure 3.4, APP-027]. Each of the European sites is approximately 37,000 ha in extent. Together they provide a representative example of a near-natural estuary with a range of component habitats, including dune systems, coastal lagoons, salt marshes, mudflats and sandflats, and a wide variety of bird and mammal species.

Humber Estuary SPA and Ramsar site (bird features)

Conservation objectives

6.7.80 The Humber Estuary SPA was first classified under the provisions of the Birds Directive in 2007 as it is used regularly by 1% or more of the British populations of great bittern, Eurasian marsh harrier, pied avocet and little tern in the breeding season; great bittern, hen harrier, bar-tailed godwit, European golden plover, and pied avocet over winter; and ruff on passage (Article 4.1). It also supports populations of dunlin, red knot, black-tailed godwit, common shelduck and common redshank over winter and on passage (Article 4.2); as well as a waterbird assemblage species. The conservation objectives for this site have been considered by the Panel and are as follows:

"Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- *The extent and distribution of the habitats of the qualifying feature;*
- *The structure and function of the habitats of the qualifying features;*
- *The supporting processes on which the habitats of the qualifying features rely;*
- *The populations of each of qualifying features; and*
- *The distribution of the qualifying features within the site."*

6.7.81 The Humber Estuary Ramsar site was designated in 2007 under the Convention on Wetlands of International Importance, because of its importance for wetland habitats, threatened ecological communities and species and waterbirds. The bird species and assemblages are largely as for the SPA.

6.7.82 A LSE of HP2 upon the Humber Estuary SPA and Ramsar site was identified because of the potential for construction works, where the export transmission cable comes ashore, to cause disturbance and displacement of bird species as well as potentially affecting their supporting habitats [APP-0171].

The Applicant's assessment

- 6.7.83 In its HRA report [APP-0171], the Applicant considered the potential effects of the installation of the export cable through the Humber Estuary intertidal area for HP2 alone, and in combination with other plans and projects. The assessment [APP-0171] evaluated the importance to waterbirds of the area within approximately 1km south and 1km north of the cable route at the sea defences crossing point, extending inland for 1km inland and from the foreshore down to the low water mark; this is termed the 'cable landfall survey area'. Information to characterise intertidal ornithology for HP2 was obtained through a combination of desktop studies and the results of site-specific surveys. NE had raised concerns that the findings of the original intertidal waterbird surveys may no longer be applicable due to changes to habitats and communities resulting from a tidal surge in December 2013. The Applicant subsequently undertook further surveys in September 2014 [APP-045 and APP-0116]; no evidence was found that use of the 2011-2012 Intertidal Waterbird Surveys would under-estimate the existing importance to waterbirds of the cable landfall survey area.
- 6.7.84 In the HRA [APP-0171], the Applicant assessed the potential effects for the cable installation and operational stages of the project on the various bird species and assemblages of the Humber Estuary SPA, considering habitat loss, disturbance and indirect effects. No important habitat areas (eg roost sites) were predicted to be significantly affected over a prolonged period, with recovery expected to occur between project stages; as such, no adverse effects on SPA qualifying features were predicted as a result of habitat loss.
- 6.7.85 Similarly, temporary disturbance from construction was seen as species-specific and dependent on physical conditions (e.g. tidal state), but no adverse effects on the SPA species were predicted. Mitigation measures will be adopted by the Applicant to ensure that disturbance related adverse effects on the SPA populations will be limited. Of particular importance is a seasonal restriction on cable installation to avoid periods when abundances of ornithological features are highest (i.e. during passage and mid-winter peaks). The Applicant proposed that the undertaking of all construction works in the intertidal area should be within the period of 1 April to 30 September each year.
- 6.7.86 The in-combination assessment included the following projects: Phillips 66 Replacement Pipeline; Able Marine Energy Park; Killingholme (quay and wind turbine manufacturing factory); Grimsby Docks Flood Risk Management Scheme; Bishopsthorpe Farm (8 wind turbine development); Green Port Hull; and HP1. Based on the Applicant's assessment, all projects identified for potential in-combination/cumulative impacts in relation to birds at the export cable landfall for HP2 were screened out, largely on the basis of no temporal overlap with HP2, with the exception of the HP1. Three potential HP1 and HP2 scenarios were assessed. It was concluded that cumulative

construction stage effects could result from the simultaneous cable installation at the landfall from both projects, comprising trenchless duct installation at the sea wall in a single phase and installation of cables through the intertidal area in up to four phases. This may result in increased disturbance and displacement of wintering and migratory birds, including foraging and roosting sites, but the Applicant's assessment of these effects for individual species concluded there were no adverse effects.

- 6.7.87 In conclusion, the Applicant considered that the potential effects on qualifying features of the Humber Estuary SPA due to disturbance during the period of construction of HP2, either alone or in combination with other plans or projects, are not of significance; as such, the Applicant concluded that there was no indication of adverse effects on the integrity of the Humber Estuary SPA and Ramsar bird features.

Examination issues: impact of the project alone and in-combination

- 6.7.88 The ExA asked a number of questions about the potential impact on bird species in the sensitive intertidal area [PD-010]. There was agreement between the Applicant and NE that Table 39d of the HRA screening and integrity matrices [REP4-037] fully captures the features of the Humber Estuary SPA and also on the outputs of Table 39d of the Screening [REP4-006 and REP4-048]. However, during the Examination NE raised concerns about the potential for bird disturbance to be caused by access for cable installation, and for maintenance during the winter months [RR-021 and REP1-037]; the RSPB shared these concerns particularly about the potential for disturbance of waders and waterfowl during cable laying and future maintenance, alone and in combination with other plans and projects [REP1-047].
- 6.7.89 Following the provision of additional information by the Applicant in an Intertidal Clarification Note [REP4-027] and amendments to the DCO, NE confirmed that it was satisfied that there would be no adverse effect on the integrity of the SPA alone or in combination with other plans or projects [REP5-026 and REP5-036]. In the Intertidal Clarification Note, the Applicant has committed to prepare an Intertidal Access Management Plan that shall be submitted for approval by the local planning authority in consultation with NE prior to the commencement of works. This is secured as an additional Requirement (26) of the recommended DCO, as follows:
- (1) *"No part of the authorised development within the intertidal area is to commence until a written intertidal access management plan setting out details of the access route(s) to the intertidal, the methods for accessing the intertidal, expected number of vehicles that will be accessing the intertidal and the expected number of vehicle trips to the intertidal required in relation to that part of the authorised development has been submitted to and approved*

by the local planning authority in consultation with Natural England.

- (2) *The undertaker must not exercise the power to maintain under Article 7 of the Order in the intertidal area until a written intertidal access management plan setting out details of the access route(s) to the intertidal, the methods for accessing the intertidal, expected number of vehicles that will be accessing the intertidal and the expected number of vehicle trips to the intertidal required for such maintenance activities has been submitted to and approved by the local planning authority in consultation with Natural England.*
- (3) *If the local planning authority fails to notify the undertaker of its decision on whether to give approval within two months of receiving an intertidal access management plan for approval that local planning authority is deemed to have given approval.*
- (4) *The intertidal access management plan must be implemented as approved, unless otherwise agreed in writing with the local planning authority."*

6.7.90 The RSPB considered that the Applicant's proposals would lead to an adverse effect on the integrity of the SPA both alone and in combination with HP1 because the intertidal construction period may be up to 5 years and combined with HP1 this could extend to 7 years [REP1-047, REP2-015, Appendix 1 and REP3-041]. In response to the ExA's second written questions [PD-016 and PD-017], the RSPB also highlighted the proximity of the cable landfall route to important high tide roosts [REP4-053, question EL20] although the Applicant disputed this [REP4-006, question EL20].

6.7.91 The RSPB suggested that some intertidal impact issues could be dealt with through an appropriate tidal height-related working restriction and also by further reducing impacts through a reduction in the length of the cable installation working window [REP2-015, Appendix 1, REP3-041, REP4-053, question EL20 and REP4-054]. It proposed a reduction in the tidal height used to restrict working within 1km of the seaward side of the sea wall from 7.7m to 6.5m above Chart Datum (CD) over the construction period, and a reduction in the annual intertidal construction works period to 3 months (June to August) pa to minimise intertidal ornithological impacts. NE also sought restrictions on working during high tides [REP3-033]. The Applicant considered that additional restrictions on the months that intertidal works can be carried out would not be feasible [REP3-013], but proposed revisions to the Transmission Assets DMLs A2 and B2 with regard to tidal height-related working restrictions, as follows:

"The undertaker must not construct or install those licensable activities comprised in Work Nos. [4A/4B] and [5A/5B] in the intertidal area within 500 metres seaward of the seawall during the period of time commencing two hours before a high tide predicted to be greater

than 6.5 metres Chart Datum and ending two hours after a high tide predicted to be greater than 6.5 metres Chart Datum between 1 April and 31 May (inclusive) and 1 August to 30 September (inclusive), unless provided for in the construction and monitoring programme submitted and approved under Condition 10(2)(a) or the construction method statement submitted and approved under Condition 10(2)(b) or unless otherwise agreed in writing by the MMO, in consultation with Natural England."

- 6.7.92 NE agreed that these revisions provided sufficient protection to rule out adverse effects on the integrity of the SPA [REP5-026 and REP5-036]. The RSPB welcomed the Applicant's confirmation that the tide height working restriction would now be 6.5m CD, but was concerned with the introduction of the rider:

"...unless provided for in the construction and monitoring programme submitted and approved under Condition 8(2)(a) or the construction method statement submitted and approved under Condition 8(2)(b) (Condition 18(3), DMLs A2 and B2, Schedules I and K), before the tailpiece of the original provision:...unless otherwise agreed in writing by the MMO, in consultation with Natural England."

- 6.7.93 This, the RSPB argued, has the scope to entirely negate the tidal restriction that the modified provision introduces; the original tailpiece was preferred by the RSPB. It advised further alterations to this Requirement including the removal of the rider discussed above [REP8-004].

- 6.7.94 The RSPB was concerned about Condition 20(3) of the Transmission Assets DMLs in the DCO submitted with the application [APP-010], which restricts working during the winter months unless otherwise agreed with NE and the MMO [REP2-015, Appendix 1 and REP3-041]. The Applicant's position is that condition 18(2) in the Transmission Assets DMLs would not allow the approval of any works not in accordance with the ES and it needs the flexibility provided by this wording [REP3-013, REP4-006, question EL17, REP5-001, question EL19 and REP6-004]. The MMO has confirmed that it is content with the current wording of the condition but notes that if such a proposal is likely then it would be more beneficial if this could be resolved prior to determination [REP4-006, question EL17]. NE has also agreed the wording of this condition [REP1-0101].

- 6.7.95 Another intertidal issue considered in the Examination related to the timing of the cable ducting at the landfall [PD-010, question CL1]. There was concern about the potential long duration of the process of installation of the ducts, lasting potentially up to five sequential years, the relationship between the HP2 A and B proposals, and the possibility of multi-phase installation. The Panel explored what scope there was for substantially reducing the duration of the intertidal ducting work. In response, the Applicant referred the Examination to the original project description [APP-027]:

"It has been recognised given the sensitive nature of the intertidal area that phasing of installation at this location will need to account for this. In the event that the project is installed over four phases it is envisaged that the first phase would install all of the ducts underneath the sea defences."

- 6.7.96 The RSPB remained concerned about the degree of flexibility sought by the Applicant [REP7-036] and proposed that restricting ducting to the first phase of intertidal works should be included in the DCO [REP8-004].
- 6.7.97 NE raised concerns relating to the potential impacts of disturbance to over-wintering features of the Humber Estuary SPA during routine scheduled maintenance and inspections of the cable route in the intertidal area, for HP2 alone. The Applicant's initial proposals for such activities would involve 2-3 people accessing the intertidal on foot or via small four wheel drive vehicles on an annual basis and would last approximately 2-3 weeks. In addition, NE noted that consideration needed to be given to in-combination impacts with other plans and projects, in particular with HP1. The agreed outcome between NE and the Applicant was a restriction on over-wintering access to no more than five people for no more than two days [REP5-026 and REP7-034].

Conclusions

- 6.7.98 Having considered the evidence put forward during the Examination and taking into account relevant mitigation measures, particularly on the timing of intertidal works, on tidal height, and on the provision of an Intertidal Access Management Plan, the ExA was able to agree with NE conclusions that, on the basis of objective scientific evidence, adverse integrity effects can be discounted for the project alone. The ExA has reached the same conclusion with regard to in-combination effects, but wishes to highlight that, given the fact that now Dong Energy has ownership for both HP2 and HP1, any opportunities for sharing work in the intertidal area (for example, in relation to ducting activities) would hopefully be taken to minimise intertidal impacts.

Humber Estuary SAC and Ramsar site (coastal habitats and species)

Conservation objectives

- 6.7.99 The Humber Estuary SAC was first classified by the UK Government under the provisions of the EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora in 2009. Important habitats include: Atlantic salt meadows, coastal lagoons, fixed and shifting dunes, mudflats, and *Salicornia* and other annuals colonizing mud and sand. The site is also designated for its use by grey seals, and river and sea lamprey. The conservation objectives for this site have been considered by the Panel and are as follows:

"Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving favourable Conservation Status of each of the qualifying features.

Subject to natural change, ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features by maintaining or restoring:

- *The extent and distribution of qualifying natural habitats and habitats of qualifying features;*
- *The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying features;*
- *The supporting processes on which the qualifying natural habitats and habitats of qualifying features rely;*
- *The populations of qualifying species; and*
- *The distribution of qualifying species within the site."*

6.7.100 A LSE upon the Humber Estuary SAC site was identified because of the potential for HP2 to have a negative impact upon a range of SAC habitats where the transmission export cables comes ashore. The potential to affect SAC species was also considered to represent a LSE [APP-0171].

The Applicant's assessment

6.7.101 In its HRA report [APP-0171] the Applicant considered the potential effects of the cable installation through the Humber Estuary intertidal area for HP1 alone, and in combination with other projects, including HP1, the Phillips 66 Replacement Pipeline; and Able Marine Energy Park, Killingholme (quay and wind turbine manufacturing factory).

6.7.102 Baseline information on the Annex I habitat features of the Humber Estuary SAC and Ramsar was gathered through a combination of desktop studies and site-specific surveys (updated in June 2014). The Estuary habitats considered included: Atlantic salt meadows and *Salicornia* beds, subtidal banks, extensive intertidal mudflats and sandflats, sand dunes and coastal lagoons. Habitat loss was summarised as temporary. The largest temporary habitat impact was predicted to be on *Salicornia* and mudflats and sandflats (4.62% and 1.83% of this habitat within the SAC for the project alone and in-combination, respectively). The Applicant has proposed mitigation measures to minimise impacts, and also due to the small proportion of qualifying habitats predicted to be affected by cable installation, and the high recovery potential of this habitat (estimated to be within one year of cable installation for the project alone or in-combination), no

adverse effects were predicted on the integrity of the SAC (and Ramsar).

- 6.7.103 The screening stage of the HRA process identified potential for LSEs on Annex II migratory fish species of the Humber Estuary SAC (and Ramsar) associated with increased suspended sediment concentrations and deposition during construction and EMF-related effects during operation and maintenance. The species included sea and river lamprey. The Applicant considered the potential implications of increased suspended sediment concentrations and deposition during cable installation, and of EMF during project operation. Any potential impacts associated with EMFs were seen as highly localised being limited to the immediate vicinity of the cables. The export cables would be buried to a target minimum burial depth of 2m in the intertidal area. The Applicant concluded that impacts in terms of significant disturbance, effects to the population level and/or changes in the distribution of river and sea lamprey within the sites in the long term are not to be expected. As such, significant impacts are not anticipated on the river and sea lamprey populations of the Humber Estuary SAC (and Ramsar) as a result of HP2 alone and in-combination with other plans or projects.
- 6.7.104 The Applicant also assessed the potential impact of HP2 alone and in combination on marine mammals, including the grey seal, harbour seal and harbour porpoise. Baseline information on the Annex II marine mammals features was gathered through a combination of desktop studies and the results of site specific surveys carried out as part of marine mammals characterisation, presented in full in the ES (Volume 2, Chapter 4: Marine Mammals) [APP-033].
- 6.7.105 The Humber Estuary SAC supports the second largest breeding grey seal colony in England at Donna Nook on the Lincolnshire coast and is the furthest south breeding colony on the east coast. The primary source of underwater noise that may impact marine mammals during construction is that arising from pile driving activities during foundation installation. A number of mitigation measures are proposed at all piling locations, including a soft-start of 30 minutes, where the hammer energy applied would be 20% of the total hammer energy. The Applicant modelled underwater sound propagation at several locations to assess dose-response relationships. The Applicant concluded no adverse effects of the project, alone or in combination, associated with construction noise (piling), on the grey seal at a population level or as a feature of the SAC and Ramsar. The same conclusion was drawn for harbour seal and harbour porpoise in relation to the Wash and North Norfolk Coast SAC.

Examination issues: impacts of project alone and in-combination

- 6.7.106 The Panel asked a number of questions about the potential impact on habitats and species in the sensitive intertidal area [PD-010]. There was agreement between the Applicant and NE that Matrices 39 a-c of

the HRA screening and integrity matrices [REP4-037] fully capture the features of the Humber Estuary SAC and Ramsar, and also agreement on the outputs of Matrices 39 a-c of the screening [REP4-006 and REP4-048].

- 6.7.107 In its RR [RR-021] NE questioned whether trailer suction hopper dredgers (TSHD) would be used for cable burial and specifically whether this would occur within the Humber Estuary SAC. NE welcomed the confirmation by the Applicant that use of TSHD was not proposed as a method for cable burial and would not be used within the Humber Estuary SAC. This satisfied NE that the use of TSHDs would not potentially affect the features of the Humber Estuary SAC [REP1-073].
- 6.7.108 In its written response to D2 [REP2-009], NE queried the feasibility of proposed methods for accessing the intertidal area (crossing the Annex I sand dune habitats within the SAC during project construction). In particular, NE was concerned that following the December 2013/January 2014 storms, the topography of the sand dunes present at the landfall is such that the proposed methodology for accessing the intertidal may not be feasible from an engineering perspective, and more permanent structures might be required to provide the necessary gradient for the access trackway, with implications for long-term habitat loss. The Applicant set out responses to such concerns in the Intertidal Clarification Note [REP4 - 027], including the inclusion of an Intertidal Access Management Plan, as noted above.
- 6.7.109 The Wildlife Trusts (TWT) in their RR requested that more explicit mitigation for impacts on grey seals should be specified in the outline CoCP [RR-029]. NE is satisfied with the proposed mitigation measures that would be secured through the DMLs. Condition 18 of the recommended Transmission Assets DMLs would ensure that construction works in the intertidal area would avoid the main pupping season. In addition, NE notes that the area of the SAC used by the breeding grey seal population is located within an active bombing range and therefore some acclimatisation to loud noises should be expected. Condition 8 of both the Transmission and Generation Assets DMLs requires the approval of a CoCP and this would serve to minimise risks from collision with shipping during construction. On the above basis, NE considers that there would be no LSE on the grey seal qualifying feature, either alone or in combination [REP1-040, REP1-0101 and REP3-033].
- 6.7.110 For D5 [REP5-026], NE confirmed its agreement that, based on the clarifications provided and commitments made by the Applicant throughout the course of the Examination to date, both parties were now in a position to agree that there will be no adverse effect either alone or in-combination on the Humber Estuary SAC and Ramsar features.

Conclusions

- 6.7.111 The ExA's conclusion for impacts on the Humber Estuary SAC and Ramsar (coastal habitats and species) are as for the Humber Estuary SPA. From the Examination, and taking into account relevant mitigation measures, the ExA agrees with NE conclusions that, on the basis of objective scientific evidence, adverse integrity effects can be discounted for the project alone. The ExA has reached the same conclusion with regard to in-combination effects, but wishes to highlight that, given that Dong Energy are now in ownership for both HP2 and HP1, any opportunities for sharing work in the intertidal area would hopefully be taken to minimise intertidal impacts on coastal habitats and species.

Findings in relation to other SACs

- 6.7.112 For the River Derwent SAC and the Wash and North Norfolk Coast SAC, the Applicant concluded there was no adverse effect on integrity. None of the IPs raised any issues about these so they were not considered further in the Examination.

Monitoring and management

- 6.7.113 The importance of monitoring and management of impacts on European sites has already been noted. In the Examination a number of issues were raised about the adequacy of the monitoring provision in relation to intertidal ornithological impacts. The RSPB has highlighted concerns about the detail contained in the outline CoCP and suggested that the role of the Ecological Clerk of Works should be described in it (ECOW). It also suggested that the ECOW's role should include the ability to request a temporary suspension of work if significant disturbance was anticipated [REP2-015, REP3-041 and REP4-053].
- 6.7.114 NE has confirmed that it is satisfied with the scope of content of the outline CoCP [REP4-048]. The MMO has also confirmed that it is satisfied with the scope of the outline CoCP [REP4-047]. Towards the close of the Examination the RSPB suggested a number of other amendments to various clauses of the DCO/DMLs, in relation to the monitoring of intertidal issues [REP8-004]. Whilst recognising the sentiment behind such proposals, the ExA agrees with the conclusions of NE and MMO that they are satisfied with the provisions already in place in the DCO/DMLs for the monitoring and management of intertidal impacts.

MARINE MAMMALS - FINDINGS IN RELATION TO SOUTHERN NORTH SEA DRAFT SAC ALONE AND IN COMBINATION

- 6.7.115 There is a suite of sites across UK waters currently under consideration by JNCC that may be recommended as draft SACs (dSAC) specifically for harbour porpoise. No date for consultation on these has yet been fixed, though NE notes that this is likely to start in January 2016 [REP7-034]. These sites include the Southern North Sea

dSAC. NE has advised that once formal consultation starts, the impacts on the proposed designated features would become a material consideration with regards to the HRA for the project [RR-021].

6.7.116 In considering the application for the NSIP Dogger Bank Teesside A and B Wind Farm (hereafter referred to as Teesside A and B), the SoS's HRA noted that the suite of harbour porpoise dSACs was:

"...still at the early stages of consideration for possible future designation with approvals and formal consultation to follow. The SoS has decided to consider this in this HRA as she does not wish to take a decision on the Project without first satisfying herself that it would not damage the possibility of future cSAC designation" [REP4-026].

6.7.117 Against this background, and in the continued absence of information on the suite of dSACs for harbour porpoise, the Panel suggested that this approach of undertaking a shadow HRA in relation to the Southern North Sea dSAC would be relevant for HP2 [REP4-026]. NE, in response to the Applicant, indicated that it was content with the proposed approach as a sensible way to address the question in the absence of formal material on dSACs, but with the potential requirement for updates to the assessment once formal consultation on the dSACs has started [REP4-026 and REP7-034]. As a consequence, the Applicant prepared an Addendum to its HRA following the approach undertaken by the SoS for Teesside A and B.

6.7.118 In terms of understanding the baseline and potential for LSE and Adverse Effect on Integrity (AEoI), the Addendum takes account of the information available in the Applicant's original HRA as relevant to harbour porpoise (both in terms of existing baseline but also the potential for impact, the latter with reference to the worst case scenario based on the HP2 Rochdale Envelope) [REP4-026].

6.7.119 Given the preliminary stage of consideration of dSACs, no detail describing the dSAC was available during the Examination. The Addendum HRA notes that it is not possible to present figures depicting the location or the anticipated location of the dSAC. Nor are there any defined conservation objectives or any agreed specific conditions for Favourable Conservation Status (FCS).

6.7.120 The identification of potential LSE for harbour porpoise is discussed in the Applicant's HRA Screening Report [APP-0174]. The conclusion drawn is that the possibility of LSE for the harbour porpoise population of the North Sea relates to the potential for behavioural disturbance associated with underwater noise arising from piling activity during construction only. The Applicant notes that this conclusion aligns with that of the SoS's Appropriate Assessment for Teesside A and B [REP4-026].

6.7.121 The assessment of LSE was made at the North Sea population level (mirroring the Management Unit level approach taken by the SoS in the Teesside A and B HRA). It is based on the worst case scenario and

includes consideration of embedded project mitigation. As such, the assessment takes account of the potential for direct and indirect impact and the highly mobile nature of the species, together with the extent of the overall population Management Unit and the long-term focus behind points used to define FCS.

Assessment of impact alone

- 6.7.122 The Applicant's HRA Report assesses AEOI for marine mammals alone [APP-0171, Section 5.7]. This considers the potential for underwater noise from piling activity during construction to lead to AEOI to grey seal, harbour seal and harbour porpoise at designated sites across the North Sea. Although the sites considered did not include the Southern North Sea dSAC (given the lack of information available when the assessment was made), the Applicant considers that the assessment for harbour porpoise is relevant and applicable to the dSAC as:
- Harbour porpoise are a mobile population across the North Sea with the potential for individuals from each designated site considered to form part of the overall mobile population.
 - The description of the potential for impact is based on a worst case scenario that remains unchanged.
 - The assessment of potential impact follows a highly precautionary worst case approach, with NE agreeing that the quantification of effects is likely to be less than those described within the ES, with the assessment of significance based on worst case effects.
 - Although the DEPONS³ study (a large study investigating the effects of piling noise on harbour porpoise across the North Sea) has yet to publish final results, the interim findings do not appear to contradict the conclusions of the HP2 HRA [REP4-026, Section 4].
- 6.7.123 In light of the above, the Addendum HRA suggests that the existing assessment of potential for AEOI from the HP2 to harbour porpoise across the North Sea applies to the assessment being made for the Southern North Sea dSAC [REP4-026, Section 2]. Further, the population-level assessment mirrors the approach by the SoS for Teesside A and B and is therefore consistent with that HRA.
- 6.7.124 The key point discussed within the existing HRA [APP-0171, section 5.7] in terms of impact relates to the potential for Temporary Threshold Shift and the possibility that harbour porpoise will avoid a defined area. The assessment includes consideration of the number of harbour porpoise that may be affected for the maximum duration of construction (a maximum of 1.32 years of piling activity, spread over

³ Disturbance Effects on Harbour Porpoise Population in the North Sea
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a total period of up to five years). The results estimate a worst case displacement (including likely and possible avoidance) of up to approximately 3.46% (individual piling) or 5% (concurrent piling) of the North Sea population. This displacement impact assumes a 100% response and is considered precautionary. In the Applicant's view a more realistic assessment, taking account of dose-response relationship, found the potential for displacement to be smaller (up to 1.68% for individual piling or 2.89% for concurrent piling of the North Sea population) [REP4-026].

- 6.7.125 The Applicant's HRA conclusion is that, although there is potential for disturbance to lead to displacement, since harbour porpoise may range over large distances it can be assumed that because of the extent of similar habitat throughout the North Sea it is unlikely that displacement would lead to any population-level effects. Also, following cessation of piling, prey stocks would recover rapidly and be available for harbour porpoise returning to the area following disturbance. With regards to potential for AEOI for the dSAC, as assessed against the definition of FCS, given the long-term effects of the project on the overall harbour porpoise population, the lack of any long-term change in natural range of harbour porpoise as a result of the project, and lack of any significant effect on the availability of habitat, the HRA concluded that there would not be the potential to lead to AEOI to the dSAC alone.

Assessment of impact in-combination

- 6.7.126 The original HRA identifies the potential for LSE in-combination to relate to the impact of piling noise during construction only and this is considered relevant to the Addendum HRA. The conclusion of the original HRA is that:

"...significant impacts associated with construction noise (piling) are not anticipated to occur on the harbour porpoise populations of the European sites included in this assessment as a result of Project Two in-combination with other plans or projects."

- 6.7.127 NE expressed satisfaction that the cumulative impact assessment of noise impacts on marine mammals had been carried out using the best available information [REP1-037]. For comparison with the SoS's Appropriate Assessment for Teesside A and B, the same suite of projects from within the North Sea Management Unit, where they can be shown to overlap temporally with the HP2 construction, was included in the Addendum HRA. The same methodology as taken in the Teesside A and B HRA has been applied to the HP2 project in relation to assessment of the dSAC, with the list of considered projects revisited and updated. NE agrees with the list of wind farms assessed, whilst noting that if dSACs are formally consulted upon an updated HRA will need to take into account planned seismic surveys [REP7-034].

- 6.7.128 For the Teesside A and B Appropriate Assessment the worst case in-combination spatial footprint of disturbance was given to be between 5% and 11% between 2015 and 2018. It was concluded that as at least 89% of available foraging habitat remained, after which a greater foraging area would be undisturbed and available, the combined risk of mortality and subsequent impact to the population in the long-term would be negligible. The SoS concluded that the construction and operation of the Project in combination with other plans and projects would not impact harbour porpoise populations [REP4-026].
- 6.7.129 The Applicant updated the list of projects included in the in-combination assessments to reflect changes since the Teesside A and B assessment was completed. Applying the updated list of considered projects reduces the maximum area of the southern North Sea anticipated to be affected in-combination at any one time from 11% (in the Teesside A and B HRA) to a maximum of 8.84% (in 2017). The Applicant considers that, given the reduction in area potentially affected, the SoS's conclusion of no AEOI in-combination for Teesside A and B remains valid and robust for HP2; there would therefore be no adverse effect on the integrity of the harbour porpoise population across the North Sea resulting from HP2 in combination with other plans or projects and therefore no in-combination AEOI on the FCS of the dSAC [REP4-026].

Views expressed relating to assessment

- 6.7.130 TWT consider that, in relation to consideration of the dSAC, the Addendum HRA is not adequate to be able to conclude 'no adverse impact on integrity' [REP5-038]. They consider on the basis of EC Guidance that it is fundamentally incorrect to assess the effect on site integrity by predicting whether the impact will affect the whole North Sea population [REP5-038]. Furthermore, there is enough doubt and uncertainty as to what are the population consequences of disturbance resulting from pile driving with no guaranteed mitigation at source that, at either a site or population level, it would not be possible to conclude 'no adverse effect on integrity' [REP5-038]. WDC is in agreement with TWT's position that it is not possible to conclude no adverse impact on integrity [REP7-038].
- 6.7.131 NE comments that, in the absence of conservation objectives and site documentation on harbour porpoise dSACs, it is not possible to undertake a robust HRA or therefore conclude on site integrity; if possible sites for SAC designation are formally consulted upon, an updated HRA will need to be undertaken which considers the conservation objectives and impacts at a site level, in consultation with the SNCBs. As it has not been possible to conduct a robust HRA at the site level in the absence of site documentation, it is also impossible to assess site integrity at any other scale than at the Management Unit level [REP7-034].

6.7.132 NE has noted how work at a strategic level using the DEPONS project and Population Consequences of Disturbance (PCoD) model will help to assess the consequences of disturbance due to pile driving in the North Sea, at a population level [RR-021 and REP1-037]. Outputs from these are expected in spring/summer 2016. Furthermore, results from PCoD will help to inform any mitigation and monitoring options that may be required at the project site as part of the Marine Mammals Mitigation Protocol (MMMP) [REP7-034]. The provision of a MMMP is secured by Conditions 8(2)(e) of the DMLs within the recommended DCO, requiring approval by the MMO and following current best practice as advised by the SNCBs. Monitoring and surveying at pre-construction, construction and post-construction stages are secured by DML Conditions 15, 16 and 17. NE advised that, having regards to the levels of impact that would result from the scenario of pile driving with no guaranteed mitigation of reduction of noise at source, this will depend on the Conservation Objectives of the site and what they would term as an adverse effect. This issue will also be capable of being informed by the outputs of the DEPONS and PCoD models [REP7-034].

Grey seal feature of the Humber Estuary SAC and Ramsar site

6.7.133 The examination of the grey seal, as a qualifying feature of the Humber Estuary SAC and Ramsar site, is covered in the section on the Humber Estuary SAC.

Conclusions

6.7.134 In the absence of documentation regarding conservation objectives or defined limits for a Southern North Sea dSAC for harbour porpoise being made available during the time period of the Examination, the ExA accepts that it is not possible for a robust HRA to be carried out and therefore conclude definitively on site integrity. The Applicant has done as much as can reasonably be expected in terms of producing a shadow HRA for the dSAC, following the lead taken by the SoS in the Teesside A and B NSIP project, and the Panel's suggestion. Whilst the Applicant's shadow HRA concludes that there would be likely to be no adverse effect on integrity of the Southern North Sea dSAC, there has been challenge to this conclusion by both TWT and WDC.

6.7.135 It appears that publication of documentation relating to dSACs is likely shortly after the close of the Examination. Similarly, it is possible that further outputs from DEPONS and PCoD may be available to inform any further assessment. In light of this, the ExA anticipates that the SoS will wish to instigate a specific HRA to inform whether Appropriate Assessment in relation to dSACs for harbour porpoise is necessary.

6.8 HRA CONCLUSIONS

- 6.8.1 The ExA has carefully considered all the information presented before and during the Examination, including the Applicant's ES and HRA, the RIES, and representations made by IPs. The Examination included two ISHs when the HRA issues were examined in some depth.
- 6.8.2 Further to the Applicant's initial screening, it was considered that HP2 either alone, or in combination with other projects or plans, has the potential to give rise to likely significant effects on the listed qualifying features of the following five European sites:
- Flamborough and Filey Coast pSPA
 - Flamborough Head and Bempton Cliffs SPA
 - Humber Estuary SPA
 - Humber Estuary Ramsar site
 - Humber Estuary SAC
- 6.8.3 During the Examination the Applicant prepared an Addendum to the HRA; this constituted a shadow HRA in relation to the Southern North Sea dSAC. The Applicant also provided a shadow HRA screening for the Greater Wash pSPA.
- 6.8.4 The ExA has undertaken a robust assessment of HRA issues, using all of the information made available, including the views of various interested parties. Having considered that information, and taken into account the mitigation measures secured within the DCO and DMLs, the ExA was able to agree with NE conclusions that, on the basis of objective scientific evidence, adverse integrity effects on the five sites considered can be discounted for the project alone. The ExA has reached the same conclusion with regard to in-combination effects.
- 6.8.5 In relation to the two potential European sites (the Southern North Sea dSAC and the Greater Wash pSPA), the conclusions of the ExA are set out in the previous sections.
- 6.8.6 The ExA's conclusion on the position reached at the end of the Examination, including the Applicant's decision to change the minimum size of the WTGs to 6MW, raise the blade tip height to 34.97m above LAT, reduce the rotor diameter to 241.03m, and reduce the maximum number of turbines to 300, is that the SoS should be able to conclude, after making an Appropriate Assessment, that there will be no significant adverse effects on any European site.

7 BIODIVERSITY, BIOLOGICAL ENVIRONMENT AND ECOLOGY

7.1 INTRODUCTION

7.1.1 Section 5.3 of NPS EN-1 sets out the importance of biodiversity as follows:

"Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and complex ecosystems of which they are a part."

7.1.2 The primary biodiversity issues in relation to HP2 are the potential impacts of the offshore wind farm (wind turbines, their foundations and cable connections) on offshore and intertidal ornithology. Effects on European sites are dealt with in Chapter 6. This chapter of the report considers other protected sites, species and biodiversity issues.

7.2 OFFSHORE ORNITHOLOGY

7.2.1 Key issues that were considered during the Examination were:

- the population scales used by the Applicant for the assessment of impact;
- the metrics used to assess when population level effects would be significant;
- the projects considered in the cumulative impact assessment; and
- the Applicant's approach to the assessment of effects on migratory bird species.

7.2.2 The Panel examined these issues through written questions and in the two ISHs on 16 September and 27 October 2015. The concerns expressed by NE and the RSPB in relation to the Applicant's baseline data and approach to assessing collision-related and displacement mortality discussed in Chapter 6 also apply to the consideration of effects on the EIA species. These matters have been fully covered in Chapter 6 and are not repeated here.

7.2.3 NE initially raised concerns about effects in the EIA on herring gull [RR-021], puffin, kittiwake, guillemot, razorbill, gannet, lesser black-backed gull (LBBG) and greater black-backed gull (GBBG) [REP1-037]. However it was agreed early in the Examination that herring gull could be excluded as a 'Valued Ornithological Receptor' (VOR) for the EIA assessment [REP1-037 and REP1-0103]. NE also raised queries about the Applicant's migratory bird analysis in relation to Arctic skua, great skua, Arctic tern, common tern and little gull [RR-021].

7.2.4 The Applicant set out the assessment of the potential collision risk and displacement mortality impact estimates of HP2 alone and in-combination in the ornithology chapter of the ES [APP-034]. The estimates included the Applicant's preferred position using the Extended Band model (where available for the cumulative assessment) and the Basic Band model preferred by NE. These estimates were further refined during the Examination, in particular in the Applicant's Clarification Note: EIA for Offshore Ornithological Receptors [REP4-038] for D4. They were clarified further, in particular with regard to NE's position in subsequent SoCGs [REP5-030 and REP6-014]. Table 7.1 summarises the collision risk mortality estimates from the SoCG between the Applicant and NE as at D6. Table 7.2 summarises the displacement risk mortality at D6 [REP6-014].

Table 7.1: The potential collision risk mortality estimates for LBBG, GBBG, gannet and kittiwake for HP2, alone and cumulatively, showing the Applicant's and NE's preferred positions and PBR thresholds and associated f-values. (Numbers indicate total number of birds. Mortality estimates are based on the original project configuration of 5MW x 360 WTGs.)

		LBBG	GBBG	Gannet	Kittiwake
HP2 alone	Applicant (Band Extended model: AR 98.9% for LBBG and GBBG, 98% for gannet and kittiwake)	2	30	63	12
	NE (Basic Band model: AR 99.5% for LBBG and GBBG, 98.9% for gannet and 98.2% for kittiwake)	7	38	72	72
HP2 cumulatively	Applicant (Band Extended model, where available)	439	574	2,615	1,385
	NE (Basic Band model)	475	679	3,021	3,6161
	1% threshold of baseline mortality	240	64	333	1,231
	PBR threshold	3,242	1,180		
	f-value	0.3	0.3	0.5	0.2

Table 7.2: The potential displacement mortality for HP2 alone and cumulatively, showing the Applicant's and NE's preferred positions and PBR thresholds and associated f-values. (Numbers indicate total number of birds. Mortality estimates are based on the original project configuration of 5MW x 360 WTGs.)

	Gannet	Guillemot	Razorbill	Puffin
HP2 alone Applicant	Breeding: 5 (% birds displaced/mortality of 70%/2%) Post-breeding: 5 (displacement/mortality: 70%/1%) Pre-breeding: 1 (displacement/mortality: 70%/1%)	Breeding: 232 (% birds displaced/mortality of 30%/10%) Non-breeding: 40 (displacement/mortality: 30%/1%)	Breeding: 100 (% birds displaced/mortality of 40%/10%) Post-breeding: 34 (displacement/mortality: 40%/2%) Non-breeding: 3 (displacement/mortality: 30%/1%) Pre-breeding: 13 (displacement/mortality: 40%/2%)	Breeding: 19 (% birds displaced/mortality of 40%/10%) Non-breeding: 8 (displacement/mortality: 40%/1%)
NE	Annual: 4-88 (displacement/mortality: 30%/1% - 70%/10%)	Annual: 63-1,463 (displacement/mortality: 30%/1% - 70%/10%)	Annual: 27-638 (displacement/mortality: 30%/1% - 70%/10%)	Annual: 3-175 (displacement/mortality: 10%/1% - 70%/10%)
HP2 cumulatively Applicant	-	Displacement/mortality ratios as for project alone. Breeding: 1,094.4 Non-breeding: 189.3	Displacement/mortality ratios as for project alone Breeding: 107.4 Post-breeding: 211 Non-breeding: 52 Pre-breeding: 162.3	Displacement/mortality ratios as for project alone Breeding: 67 Non-breeding: 52.9
NE		Displacement/mortality ratios as for project alone Annual: 515 - 12,032	Displacement/mortality ratios as for project alone Annual: 235 - 5,473	Displacement/mortality ratios as for project alone Annual: 39 - 2,737

1% threshold of baseline mortality	19 (breeding) 333 (post-breeding) 183 (pre-breeding)	420 (breeding) 990 (non-breeding)	60 (breeding) 623 (post-breeding) 230 (non-breeding) 623 (pre-breeding)	32 (breeding) 218 (non-breeding)
PBR threshold				
f - value for UK population considered appropriate by the Applicant	0.5	0.4	0.5 (project alone) 0.2 (cumulative impacts)	0.2

- 7.2.5 In its RR, NE stated that as defined populations are not 'entirely discrete populations' any assessment should be made against the largest Biologically Defined Minimum Population Scale (BDMPS). In its D4 Clarification Note, the Applicant identified the highest seasonal BDMPS for LBBG as 209,007 and for GBBG as 91,399 [REP4-038]. NE [RR-021] notes that there have been substantial declines in several of the species under consideration (e.g. LBBG population with a 48% decline 2000 – 2013, and the GBBG population with a 24% decline over the same period). In order to determine if population modelling is required to assess an impact, the Applicant compared annual collision risk mortality or seasonal displacement impacts to a 1% threshold of baseline mortality of the relevant BDMPS population. If the annual mortality exceeded the 1% threshold of baseline mortality further investigation incorporating Potential Biological Removal (PBR) analysis is conducted.
- 7.2.6 As noted in Chapter 6, these calculations provide a means of estimating the number of additional bird mortalities that a population can sustain. They use an 'f-value' which can range from 0.1 to 1.0. For example, an f-value of 0.1 would be used if the aim is to be very precautionary, in terms of generating a threshold of additional mortality that would theoretically allow a population to reach the same population level as would be achieved in a no-harvest scenario and with minimal delay. The 1% baseline mortality was estimated as 240 for LBBG and 64 for GBBG [REP4-038]. It should be noted that NE considers that where there are available PVA models at an appropriate scale, they can form a useful addition to an EIA assessment. However, NE agreed that there are no suitable PVA models for the HP2 assessment to use for these species, other than for gannet [REP1-037]. It advised that for gannet the Strategic Ornithological Offshore Services (SOSS) PVA model should be used. The RSPB maintained the position that PVA modelling should be used [REP3-030] and stated that it was unable to reach a conclusion on the results of the EIA in the absence of a PVA [REP5-037].
- 7.2.7 The collision risk estimates from HP2 alone do not surpass the 1% threshold of baseline mortality for any of the four species considered for both the Basic and Extended Band models. Further analysis incorporating PBR is not therefore required for the assessment of effects from HP2 alone. However, the cumulative collision risk estimates for all four species exceed the 1% threshold of baseline mortality using both the Extended and Basic model scenarios (Table 7.1). As such, PBR is required. The Applicant concluded that the f-values calculated for each of the four species were well below the f-values that were considered sustainable for the UK populations so the predicted mortality rates would not lead to significant cumulative impacts for any of the four species.
- 7.2.8 Of the four species for which displacement mortality risk was assessed, only razorbill exceeded the 1% baseline mortality threshold for the project alone and required PBR. The Applicant concluded that the f-value calculated for razorbill (0.04) was below the appropriate

value for the population. With regard to cumulative impacts, PBR was undertaken for the breeding populations of guillemot, razorbill and puffin. The predicted displacement mortality gives f-values which are below the f-values the Applicant considers appropriate to the relevant populations.

- 7.2.9 NE confirmed that it agreed that there would be no significant effects on kittiwake, guillemot, razorbill, puffin, LBBG and GBBG from the project alone or cumulatively. It also agreed that there would be no effects on gannet from the project alone. NE disputes the Applicant's interpretation of the SOSS gannet PVA model and concludes that a significant effect on the North Sea population of gannets cannot be excluded based on its predicted calculation of around 3,000 collisions [REP6-017].
- 7.2.10 NE asked for clarification about the Applicant's approach to modelling migratory collision risk as it was concerned about the appropriateness of the model chosen for species such as skuas and terns [RR-021]. The Applicant provided additional information at D5 [REP5-023]; NE confirmed that it had no further concerns at the following Examination deadline [REP6-014].
- 7.2.11 Notwithstanding the recent population trends, and differences in position between the Applicant and NE on the choice of CRM models, outputs and methodologies, it was agreed, in the D6 SoCG [REP6-014] that the following conclusions could be drawn: there would be no significant effect in EIA terms on kittiwake, guillemot, razorbill, puffin, LBBG and GBBG for HP2 alone and cumulatively. The ExA also supports these conclusions for HP2 alone, and cumulatively with other plans and projects.
- 7.2.12 NE was also able to agree that there would be no significant effects on North Sea gannet populations from the project alone, but did not agree that a cumulative effect would be avoided. However, following the Applicant's submission of updated modelling figures on 4 December 2015 [AS-015], which reflected the updated collision risk figure, NE concluded that the annual predicted mortality was so small that it would not materially affect the overall cumulative mortality figure: *"While a significant effect on the North Sea gannet population still cannot be excluded, NE advises that the project's contribution to the cumulative total is so small that it does not contribute to the effect in a meaningful way"* [REP7-021].
- 7.2.13 The ExA considered this updated position, plus the issues raised previously in this Report about the role for sensitivity analysis in the assessment, including in relation to the use of Band models and ARs, and also concerns about the relative treatment of projects in the various cumulative assessment tiers, all of which may give rise to a level of over-precaution, and concluded that there would be no significant effect in EIA terms on North Sea gannet alone, and cumulatively with other plans and projects.

7.3 ORNITHOLOGY: MONITORING AND MANAGEMENT

7.3.1 As indicated in Chapter 6, the Panel noted that the evidence on the ornithological impacts of offshore wind farms is limited as the industry is still relatively new. There is a dire lack of monitoring evidence, and a high level of uncertainty about collision risk and displacement modelling in the absence of such evidence that verifies the modelling outputs. NPS EN-3 (para. 2.6.51) notes the importance of monitoring for offshore wind farm developments:

"Owing to the relatively new and complex nature of offshore wind development, the IPC (now SoS) should consider requiring the applicant to undertake monitoring prior to and during construction and during its operation in order to measure and document the effects of the development. This enables an assessment of the accuracy of the original predictions and may inform the scope of future EIAs."

7.3.2 NPS EN-3 (para. 2.6.71) stresses that:

"Ecological monitoring is likely to be appropriate, both to enable the better management of the project itself and also, given the lack of scientific knowledge, to provide further information, relevant to the management of future projects."

7.3.3 In response to an ExA first written question on the subject of offshore ornithological monitoring [PD-010, question EOO12] the Applicant explained that an offshore ornithological monitoring programme (OMP) will include monitoring to test key predictions made within the ES and/or, where more appropriate, contribute to wider strategic studies to address key knowledge gaps relating to species of relevance to HP2. The commitment was provided for during both pre-construction and post-construction phases of HP2 as initially secured in Conditions 15(2)(b) and 17(2)(a) of Schedules H and J of the draft DCO (generation assets DMLs) (now Conditions 13(2)(b) and 15(2)(a) of the DMLs within the recommended DCO). The precise detail of the monitoring will be agreed with relevant SNCBs and the MMO during the drafting of the OMP. However, the Applicant agreed to submit an in-principle monitoring plan (IPMP) during the course of the Examination that would set out the guiding principles for any future monitoring [REP1-051].

7.3.4 In its WR [REP1-037], NE considered that a condition committing to a strategic bird monitoring programme should be included within the DCO. This programme would be required by several consented offshore wind farms to validate assumptions used in the collision risk modelling and displacement assessments as well as the potential consequences of collision and displacement at a population level. At the request of the Panel, NE submitted to the Examination [REP3-032] a note on a NE/Renewables UK Post-Consent Monitoring Seminar on 18 March 2015. NE good practice recommendations for both project-specific and strategic ornithological monitoring include, inter alia, [REP2-009 and REP3-032]:

- ensuring licence conditions are clearly linked to the monitoring of impacts predicted in the ESs (and supporting technical reports), with species-specific objectives focusing on impacts which are predicted to have high significance, or the resolution of uncertainty in potential impacts (e.g. those assessed more qualitatively or which are dependent on particular assumptions, e.g. bird densities, flight height behaviour and ARs);
- monitoring should not necessarily only focus on the development site, but should also consider monitoring impacts of effects at protected sites if this would reduce the uncertainty in predictions;
- survey design and methodology - ensuring that data on the numbers of birds using the site (and, depending on survey design, wider areas around this or control sites) are collected in a manner that allows adequate statistical comparisons to be made between baseline, during construction and post-construction periods; and
- incorporating existing data from sites nearby to inform baselines, ESs and licence conditions where appropriate will improve understanding of the site prior to construction – for example, if ecological conditions are similar, impacts are also likely to be similar.

7.3.5 The RSPB in its response to the ExA's second written questions [REP4-053] also strongly supported both project-specific and strategic level monitoring, and indicated the importance of a national level lead on implementation:

"It is the RSPB's view that Government should ultimately hold responsibility but that an independent body should lead and facilitate the establishment of consistent approaches across projects and monitoring activities. A scientific steering group should be established as early as possible, and input from the Marine Renewables Ornithologists Group sought. In many ways, this process will have similarities with that of the ORJIP (Offshore Renewables Joint Industry Programme) projects and reference should be made to lessons learnt through that process."

7.3.6 The RSPB also raised concerns about the absence of a commitment by the Applicant to data collection during construction [REP6-018]; such data could be helpful to identify whether construction per se is the cause of observed change and whether effects persist during the operational phase. In addition, RSPB considered that post-construction studies need to be of sufficient duration to permit the distinction between short-term and longer-term effects attributable to the presence of the wind farm [REP4-053].

7.3.7 In the context of the requirements of NPS EN-3, the Panel shared many of the concerns on offshore ornithological monitoring raised by NE and the RSPB. It strongly recommends a full life cycle approach to

offshore ornithological monitoring and, as such, it has included a change to Condition 14(1) of Generation Assets DMLs to include construction stage monitoring, additional to the Applicant's provision for pre- and post-construction stage monitoring in Conditions 13 and 15. A full life cycle approach also requires post-construction monitoring to be of sufficient duration to identify both short- and longer-term effects, as noted in the paragraph above.

- 7.3.8 The ExA also strongly supports the need for strategic level ornithological monitoring for North Sea offshore wind farms and recommends that the SoS progress this as a high priority with the offshore renewables industry. In this context, the Offshore Marine Conservation (Natural Habitats etc.) Regulations 2007 (as amended), noted in Chapter 3 of this Report, provide for the SoS to take steps to encourage research and scientific work relating to the offshore marine area. As a minimum, a strategic approach to ornithological monitoring should include HP1 and HP2, and this could be facilitated by the common ownership of both projects by Dong Energy.

7.4 MARINE MAMMALS

- 7.4.1 Chapter 4 of the ES considers the impact of the proposal on marine mammals during construction, operation and decommissioning phases [APP-033]. This was updated by a Marine Mammals Decommissioning Clarification Note following the discovery of a discrepancy in the number of predicted vessel movements during the decommissioning stage [APP-0209]. Although there would be an uplift in number of movements (2,956 compared with 739), the Clarification Note records that the overall conclusion presented in the ES would be unchanged; the effects on marine mammals from disturbance or collision risk from vessel movement, with mitigation, would be of minor adverse significance, which would not be significant in EIA terms.
- 7.4.2 The key species identified as valued ecological receptors within the ES study area include harbour porpoise, white-beaked dolphin, minke whale, grey seal and harbour seal. The overall conclusions of the ES are that, with successful mitigation, the majority of impacts from the project alone would be of minor adverse significance or less [APP-033, s.4.10]. The reduction in the project's design envelope to remove the 5MW turbine option does not increase the maximum adverse scenario assessed in the ES and therefore does not alter the conclusions of the assessment [REP7-022].
- 7.4.3 The exception to the above ES conclusions would be the potential impact of piling noise on harbour porpoise and minke whale during the construction phase. This could result in effects of moderate adverse significance on these species in the short- to medium-term. However, given that the effects from piling noise are likely to be short- to medium-term in nature (1.32 years phased over a five-year piling construction programme), with the potential for recovery to baseline levels following cessation of piling, the Applicant does not consider that long-term effects would be significant [APP-033, section 4.10].

The cumulative impacts of piling noise from the project and other offshore wind farms in the North Sea are predicted to have effects of moderate adverse significance in the short- to medium-term for harbour porpoise and minke whale. With recovery to baseline levels following the cessation of piling there would be no predicted significant long-term effects. Cumulative noise impacts on grey seal and harbour seal are predicted to have minor or moderate adverse effects in the medium-term but with no significant long-term effects [APP-033].

Comments of Natural England, the Wildlife Trusts and Whale and Dolphin Conservation

7.4.4 In its RR, NE advised that there were several issues relating to impact on marine mammals arising out of the assessment in the ES that required attention [RR-021]. From its conclusion that construction noise from the project would be the primary source of impact on marine mammals it suggested that:

- consideration should be given to the use of the Population Consequences of Disturbance Model (PCoD);
- the use of noise-reduction-at-source to mitigate piling level noise impacts; and
- concurrent piling of several wind farms is possible and this was not fully described in the ES.

7.4.5 The PCoD approach provides a means of assessing and quantifying the potential consequences for marine mammals of any disturbance and/or injury that may result from the construction and operation of offshore energy developments such as wind farms [APP-033].

7.4.6 Other matters of concern included: a need for a broader assessment of cumulative impacts; possible impacts from vessel disturbance; and entanglement of marine mammals with anchored monopiles.

7.4.7 Both the TWT and WDC raised concerns about the impact of the project, particularly in relation to underwater noise from construction, both in their RR and WR [RR-029, RR-032, REP1-0109 and REP1-0110]. Concerns highlighted:

- this area of the North Sea is very important for cetaceans, in particular harbour porpoise and minke whales, as revealed by the Applicant's site surveys;
- additional mitigation measures, alternative foundation types and/or piling restrictions should be required. WDC strongly objects to pile driving for construction due to the noise levels generated;

- noise pollution has the potential to displace animals and populations, interfering with normal behaviour and, at very high intensities, being physically damaging;
- taking into account the potential impact ranges from pile driving, the importance of the site for cetaceans, and limitations of the Applicant's noise modelling, the ES conclusions on sensitivity to pile driving are not adequate, particularly for harbour porpoise;
- the list of projects screened into the cumulative impact assessment should be broadened, specifically to include wind farms in Scottish waters;
- research shows the potential for pile driving to be audible to harbour porpoise over a wide area resulting in behavioural changes, the significance of which is not understood;
- the DEPONS (Disturbance Effects on the Harbour Porpoise in the North Sea) project, which aims to address the uncertainty of population consequences of disturbance, is not currently advanced enough to draw meaningful conclusions; and
- there are insufficient and precise data on which to base impact assessments on cetaceans, therefore leading to inaccurate and potentially misleading results.

7.4.8 These matters were addressed during the Examination through the Panel's written questions and during an ISH on 16 September 2015.

7.4.9 Within RRs and WRs NE, TWT and WDC drew attention to the likelihood of the designation of SACs for harbour porpoise in the southern North Sea and which could encompass the application site [REP1-037, REP1-0109 and REP1-0110]. This matter was explored further during the Examination and is considered in detail within Chapter 6 of this Report.

7.4.10 Discussions on the production of a SoCG led NE to conclude in its WR that all issues within its RR had been satisfactorily addressed. This was on the basis that the Marine Mammals Monitoring Plan (MMMP) was updated to ensure that, where appropriate, consideration is given to the use of noise-reduction-at-source technologies [REP1-037].

7.4.11 The SoCG with NE notes that:

- assessment of significance was based on the worst case effects;
- all potential cumulative impacts have been considered and the outcome of the cumulative assessment is accurate;

- a precautionary approach to underwater noise assessment has been adopted and this has been a very conservative approach; and
- the quantification of effects is likely to be less than those described in the ES.

7.4.12 The SoCG notes specifically that the assessment of underwater noise was informed by site-specific modelling and was adequate to assess the range of potential impacts. The adopted precautionary approach to underwater noise assessment is viewed as appropriate given the level of uncertainty associated with the assessment of potential impacts of underwater noise on marine mammals and to noise modelling. It is agreed that increased noise from vessel traffic has been assessed adequately [REP1-0101].

7.4.13 NE, in its WR, raised concern about tipping points in terms of vessel disturbance and reduced harbour porpoise foraging. However, it is recognised that this is an issue that is not specific to wind farms but is part of a wider concern regarding the effects of vessel disturbance on marine mammals. A recent study relating to bottlenose dolphins in the inner Moray Firth (Pirotta et al, 2015) [REP3-021] notes that, whilst vessel movement may affect foraging behaviour, this species quickly resumed feeding once vessels had moved away. This suggests that the potential impact of vessel disturbance is likely to be a series of short-term intermittent effects that are reversible. NE's position is that the Applicant need not do any further assessment of vessel disturbance [REP3-014].

7.4.14 SoCGs with both TWT and WDC agree that: there is a level of uncertainty associated with the assessment of potential impacts of underwater noise on marine mammals, resulting in the adoption of a precautionary approach; that the impact assessment has provided a conservative approach; and that assessment of significance was based on the worst case effects [REP1-092 and REP2-034].

7.4.15 TWT believe there is considerable uncertainty as to the baseline population estimates of marine mammals [REP3-042]. However, the extent and appropriateness of data collection has been agreed with NE in a SoCG [REP1-0101 and REP3-014]. In the Applicant's view, layers of precaution have been built into the assessment to account for uncertainty in the consequences of disturbance impacts to marine mammals. These were adopted at each stage of assessment from conservative assumptions built into the noise modelling through to quantification of the numbers of marine mammals likely to be affected [REP3-014].

7.4.16 TWT consider that, as neither the next report from the DEPONS project nor the outcome of work on the Interim PCoD model would be available to inform the Examination, there is still considerable uncertainty about the consequences of behavioural disturbance from underwater noise. Whilst accepting that the ES conclusion of a

moderate adverse impact is a precautionary one (both for the project alone and in cumulative impact assessment terms), the TWT believe that further mitigation should be guaranteed if monopiles are to be the permitted foundation option [REP3-042].

- 7.4.17 The Applicant noted that the DEPONS model is currently being updated, the next report being due in early 2016, a similar situation with the next PCoD update (and therefore after the close of the Examination). These would provide more information for the marine mammals monitoring plan to draw upon [REP3-014 and REP1-037].

European protected species (EPS) licence

- 7.4.18 Should piling be required to install foundations, an application for an EPS licence would be required to ensure no offence is committed pursuant to Regulation 39 of the Offshore Marine Conservation (Natural Habitats etc.) Regulations 2007 (as amended). An application for an EPS licence authorising Licensable Construction Operations (i.e. piling) would, however, only be made in the event that HP2 consents had been granted and it had been determined that Licensable Construction Operations are necessary. Key species for which a licence would be required are harbour porpoise, minke whale and white-beaked dolphin.
- 7.4.19 The Applicant's Consents Management Plan [APP-0179] notes that this licence would be progressed outside of consideration of the DCO because of the timescales over which a licence is valid (one year from the date of issue) [REP3-014, para. 4.42]. However, to inform consideration of the DCO application, the Applicant requested that the MMO provide a 'letter of comfort' on the proposed approach to the development and whether the relevant criteria for approval for an EPS licence would be met.
- 7.4.20 The Applicant has provided a draft EPS Licence Method Statement and Supporting Information (Offshore) document. This provides evidence to inform the MMO's considerations relevant to the 'purpose' and 'no satisfactory alternatives test' [APP-0167]. The MMO provided a letter of comfort confirming that, based on the information in the draft ES at the section 42 consultation stage, an EPS licence would be required (should piling be undertaken) and that it is reasonable to expect such a licence would be granted by the MMO [APP-0167, Appendix A]. However, the MMO highlighted that this could not be guaranteed at that stage because of the potential for future changes in the project.
- 7.4.21 TWT consider that there are alternative foundation types available to piling, with the possibility of other options becoming available by the time of consideration of an EPS licence. They argue that, even if pile driving without adequate mitigation for disturbance impacts remains an option, there would not be a strong enough justification for its use to fulfil the criterion of 'no satisfactory alternative' and so an EPS licence could not be granted [REP1-0109].

7.4.22 In light of TWT's comments, the Panel asked the MMO at the ISH on 16 September 2015 whether it was still satisfied that an EPS licence would be likely to be granted. The MMO confirmed that this was a matter that would be addressed after a marine mammal mitigation protocol had been further refined and approved. An EPS licence would be required if, after mitigation, there is a residual risk of injury or disturbance to cetaceans. The MMO also confirmed that the Applicant had submitted a shadow EPS application in respect of which it had issued a letter of comfort [REP3-014, and REP3-031].

Mitigation and monitoring

7.4.23 Condition 8(2)(e) of the recommended DMLs provides for the submission to and approval of the MMO of a MMMP in advance of works commencing, and this is to be implemented during construction (in accordance with Condition 12). This is in the event of driven or part-driven foundations being proposed. The MMMP, following best practice as advised by the statutory nature conservation agencies, would detail mitigation measures and would be part of an agreed CoCP. These may include 'soft-start' piling in the event of driven or part-driven pile foundations, identification of a marine mammal mitigation zone and/or detailed methods to be employed within such a zone. NE agrees that this mitigation is sufficient in relation to reducing injurious effects or permanent auditory injury to marine mammals [REP1-0101, Section 7].

7.4.24 The MMO and NE requested that the Applicant produce an IPMP in order to agree the objectives of any monitoring required by the DMLs. This would enable all parties to have clarity on the rationale associated with relevant monitoring requirements and provide greater certainty on the limitations and deliverability of any monitoring. It is intended that this would provide the basis for further discussions with the MMO and relevant SNCBs to agree the exact detail of the monitoring that is required by the conditions of the DMLs. Such an IPMP has been produced and its contents agreed between the Applicant, NE and the MMO [REP5-032 and REP6-002].

7.4.25 Condition 8(2)(h) of the DMLs within the recommended DCO requires the agreement of a plan for marine mammal monitoring. Conditions 13, 14 and 15 (pre-construction monitoring and surveys, construction monitoring and post-construction) require all surveys and monitoring to be in general accordance with the principles set out in the IPMP. WDC considers that there are no proven mitigation methods for reducing noise generated during pile driving, including 'soft-start'. This is echoed by TWT [REP3-042]. WDC's view is that until mitigation measures to reduce noise from pile driving are tested for effectiveness, the best method is to avoid pile driving altogether and to use alternative foundations [REP1-0110].

7.4.26 The Applicant confirmed that noise-reduction-methods-at-source will be considered where appropriate as part of the overall suite of measures to mitigate for injurious effects to marine mammals.

Condition 8(2)(e) of the DMLs allows flexibility to consider the best available techniques at the time of construction. The Applicant notes that such measures, if appropriate, can only be determined following further geotechnical work to refine construction techniques and understand the proposed wind turbine location and associated foundation site-specific design [REP3-014]. Although TWT welcome this condition, they consider that this still does not guarantee that such mitigation will be used [REP3-042]. The ExA considers, however, that the requirement for an MMMP to be approved by the MMO, following current best practice as advised by the SNCBs, would help to ensure an appropriate level of mitigation at the time of construction.

- 7.4.27 Although initially raised as a concern in their RR [RR-021] NE agreed that the use of taut steel moorings would represent a low risk of entanglement for marine mammals [REP1-0101]. Condition 8(2)(b) of the recommended DMLs requires the submission to and approval by the MMO of a Construction Method Statement within which details of any anchoring method would be included. This would provide sufficient control to ensure the use of appropriate moorings [REP3-014].
- 7.4.28 Condition 8(2)(a) of the recommended DMLs requires the submission of a construction and monitoring programme for the MMO's approval in consultation with the relevant SNCBs. NE is satisfied that this would allow best practice methods incorporating the latest published guidance to be agreed in order to minimise the risk of corkscrew injuries to seals from interaction with ships' propellers [REP1-0101 and Appendix 4].
- 7.4.29 The MMO recommended that additional conditions should be added to the DMLs requiring the submission of data to the Defra Marine Noise Registry [REP1-031]. Condition 5(12) and (13) provides for this and is welcomed by TWT [REP3-042].
- 7.4.30 Levels of uncertainty, particularly relating to displacement and behavioural responses of marine mammals exist. However, the ES assessment has considerable levels of precaution built in and the short- to medium-term assessment of moderate adverse effect may be pessimistic. Both NE and the MMO are satisfied that the proposed DML conditions would provide for adequate mitigation and monitoring.
- 7.4.31 The ExA considers that with such conditions in place, and with the ability of ongoing modelling and research through PCoD and DEPONS to feed into and inform measures, there would be no long-term detrimental impact on marine mammals arising from the project.

7.5 ONSHORE BIODIVERSITY ISSUES

- 7.5.1 The Applicant's approach to biodiversity and onshore ecology is considered in the ES chapter on Ecology and Nature Conservation [APP-044]. The ES shows that the onshore infrastructure for the project (substation and cable route) will result in some impacts on sites designated for their ecological and nature conservation value, on

species including bats, badgers, otters, water voles and great crested newts (APP-044, Table 3.20). However, with appropriate mitigation measures, the Applicant is confident that for most onshore ecological and nature conservation features, the overall significance of effects will be no greater than minor adverse.

7.5.2 In its first written questions the Panel sought, in line with NPS EN-1 paragraph 5.3.18, to explore the Applicant's approach to mitigation measures, including questions on best practice, habitats to be subject to specific restoration programmes, habitats identified as subject to specific enhancement measures, and what if any new habitats might be created [PD-010, question EL7].

7.5.3 The Panel also sought particular clarification on the nature and management of potential impacts on hedgerows resulting from trenching for the cable corridor, and on the potential cumulative ecological impacts resulting from consecutive or simultaneous construction of both HP1 and HP2 [PD-010, questions EL6 and EL9]. The examination of the Applicant's approach to the Hedgerow Regulations is covered in Chapter 10 on the draft DCO.

7.5.4 With regard to mitigation and enhancement, the Applicant referred [REP1-051, question EL7] to:

- various measures set out in the outline CoCP and the outline Ecological Management Plan (EMP);
- restoration programmes (for example for the reinstatement of watercourses crossed by open-cut trench cable installation);
- habitats subject to specific enhancement measures after the completion of construction (for example, the enhancement of the species diversity of grassland habitat around the HVDC converter/HVAC substation site by sowing an appropriate species-diverse native meadow seed mix); and
- habitats to be created (for example, long-lasting bat roost boxes, suitable for the species of bats recorded in the area).

7.5.5 The EMP was subsequently developed by the Applicant as that which is now Requirement 6 of the recommended DCO [REP5-006], and in the ExA's judgement this is sufficient to provide the necessary protection for biodiversity and onshore ecology.

7.6 OTHER DESIGNATED SITES

7.6.1 In addition to the Humber Estuary SPA, SAC and Ramsar sites discussed in Chapter 6, the Applicant's ES [APP-044] identified a number of ecologically designated sites at national, regional and local levels. In particular, there are three Sites of Special Scientific Interest (SSSI), one National Nature Reserve (NNR) and one Local Nature

Reserve (LNR) all within 5km of the cable route corridor, identified by the Applicant as follows:

- Humber Estuary SSSI
- North Killingholme Haven Pits SSSI
- Tetney Blow Wells SSSI
- Donna Nook NNR
- Bradley Wood LNR

7.6.2 For all these sites the impacts on features were assessed by the Applicant as negligible to nil.

7.6.3 Several coastal SSSIs were also screened into the ES with regard to ornithological features, and impacts were assessed by the Applicant as, at most, minor to negligible adverse. The following sites were assessed:

- Flamborough Head SSSI
- Overstrand Cliffs SSSI
- Weybourne Cliffs SSSI
- Hunstanton Cliffs SSSI
- Durham Coast SSSI
- Castle Point to Cullernose Point SSSI
- Dover to Kingsdown Cliffs SSSI
- Whiting Ness to Ethie Haven SSSI

7.6.4 NE raised concerns about the potential impacts on the Humber Estuary SSSI from intertidal access for the purposes of cable installation and maintenance during the construction and O&M stages of the project [REP1-037]. These points are discussed in more detail with regard to the Humber Estuary SPA, SAC and Ramsar site in Chapter 6. The Applicant undertook to produce an Intertidal Access Management Plan, secured through Requirement 26 of the draft DCO and to undertake the monitoring of sand dune features during maintenance through the EMP. NE agreed that this provided a suitable control mechanism to avoid harm to the SSSI [REP5-026].

7.7 THE EXA'S CONCLUSIONS

7.7.1 The ExA concludes that, with the implementation of the agreed mitigation referred to above, there would be no conflict with development plan policies aimed at the protection and enhancement of habitats and their biodiversity, as noted in the LIRs [LIR-001 to LIR-003 and REP2-012]. The ExA also concludes that there would be compliance with the biodiversity requirements of NPS EN-1. In light of the requirements of NPS EN-3, the ExA strongly supports the need for offshore ornithological monitoring and has proposed alterations to Conditions in the Generation Assets DMLs to ensure such monitoring is carried out.

8 THE EXA'S CONCLUSION ON THE CASE FOR DEVELOPMENT CONSENT

8.1 INTRODUCTION

- 8.1.1 The Panel has considered the issues that were examined during the hearings and also those raised by IPs in their various representations. The policy context and the ExA findings on individual matters are set out in the preceding Chapters 4 to 7. The overall planning balance is summarised below.
- 8.1.2 In relation to the granting of development consent, the ExA has reached a number of conclusions, as set out in the following sections.

8.2 CONCLUSIONS ON EXAMINATION OF OFFSHORE AND INTER-TIDAL ISSUES

- 8.2.1 For the reasons given in Chapter 5, there are no outstanding significant issues relating to the offshore construction and O&M effects of the project that would justify not recommending the DCO to be made. The ExA is satisfied that the proposal in respect of the export and inter-array cables is in accordance with NPS EN-3. The ExA has included protective provisions in the DCO to support a co-existence relationship between the interests of the HP2 wind farm proposal and the oil and gas interests of E.ON E&P Limited.
- 8.2.2 For the reasons given in Chapter 5, including the provision of a Fisheries Liaison Plan, and the appointment of a Fisheries Liaison Officer, there are no outstanding significant issues relating to commercial fisheries, and the proposal complies with the requirements of NPS EN-3, the MPS and the EIEOMP.
- 8.2.3 Also for the reasons given in Chapter 5, there are no outstanding significant navigation, aviation, radar and search and rescue issues. The proposal is in accordance with NPS EN-3.
- 8.2.4 With regard to coastal changes and marine processes reported in Chapter 5, including the Conditions in the DMLs within the recommended DCO, the ExA is content that the proposal complies with the requirements of both NPSs EN-1 and NPS EN-3.
- 8.2.5 For the reasons set out in Chapter 5, the ExA considers the project would comply with NPSs EN-1 and EN-3 in relation to the offshore historic environment and seascape.
- 8.2.6 As set out in Chapter 6, including the mitigation provided by changes to the project configuration, there would be no Adverse Effect on Integrity (AEoI) from the project alone, and in-combination with other plans and projects, in respect of the kittiwake population of the Flamborough and Filey Coast pSPA and the Flamborough Head and Bempton Cliffs SPA. The ExA is satisfied that the proposal is in

accordance with the requirements of NPS EN-1 and the Habitats Regulations.

- 8.2.7 Similarly, for the reasons set out in Chapter 6, there would be no AEOI from the project alone, and in-combination with other plans and projects, in respect of the other qualifying ornithological features of the Flamborough and Filey Coast pSPA. The proposal complies with NPS EN-1 and the Habitats Regulations.
- 8.2.8 With the additions in the DCO of a Requirement for an Intertidal Access Management Plan plus other mitigation measures, including a Code of Construction Practice (CoCP), the ExA is satisfied that there would be no AEOI from the project alone, and in-combination with other plans and projects, in respect of the qualifying features of the Humber Estuary SAC, SPA and Ramsar sites. The ExA is content that the proposal complies with the requirements of NPS EN-1 and the Habitats Regulations.
- 8.2.9 For harbour porpoises, as reported in Chapter 6, in the absence of relevant documentation for a southern North Sea dSAC being made available during the time period of the Examination, the ExA accepts that it is not possible for a robust HRA to be carried out and therefore to conclude definitively on site integrity. The ExA anticipates that the SoS will wish to instigate a specific HRA to inform whether Appropriate Assessment (AA) for harbour porpoises is necessary, when further information becomes available.
- 8.2.10 For the reasons set out in Chapter 7, in respect of EIA, there would be no predicted outstanding significant impacts on other ornithological and mammal species or sites that would prevent the SoS from making the Order. The ExA is satisfied that the proposal complies with the requirements of NPS EN-1.
- 8.2.11 It is accepted that European Protected Species licences would be necessary for cetacean species. However, the MMO confirmed that, on the basis of evidence presented so far, it would be reasonable to assume that licences would be issued.

8.3 CONCLUSIONS ON EXAMINATION OF ONSHORE ISSUES

- 8.3.1 For the reasons set out in Chapter 5, Construction and Grid Connection, there are no outstanding significant issues relating to the onshore construction and O&M effects of the project that would justify not recommending the DCO be made. The ExA is satisfied that grid connections can be facilitated for the project at the NG North Killingholme substation, and that the worst case scenario has been assessed in terms of the construction process and for associated impacts if two potential developers adopted different technologies (i.e: HVDC and HVAC) for power transmission. The ExA considers that the requirements of NPSs EN-1 and EN-3 have been met by the proposal.
- 8.3.2 For the reasons set out in Chapter 5, including appropriate mitigation measures, as set out in Requirements 8, 9 and 14, plus Schedule M

(outline landscape scheme and management plan), there would be no significant impact on landscape that would preclude making the DCO. As such, the ExA is content that the requirements of both NPS EN-1 and EN-3 have been met.

- 8.3.3 The ExA concludes that, with the addition of the proposed amendment to Requirement 5 of the recommended DCO, the proposal for HP2 meets the tests set out in both NPSs EN-1 and EN-3 in respect of the historic and archaeological environments.
- 8.3.4 There are no socio-economic reasons why the DCO should not be made, and the ExA is content that the requirements on socio-economic considerations of NPS EN-1 have been met. As reported in Chapter 5, the ExA welcomes the use of an Employment and Skills Plan (Requirement 17 of the recommended DCO) as a vehicle for achieving some local benefits from the construction and O&M stages of the project.
- 8.3.5 As set out in Chapter 5, the ExA is satisfied that, with the mitigation proposals included in the CoCP, the traffic and transport impacts of the project construction, alone and cumulatively with other plans and projects, would be managed appropriately and in a manner that supports the Government's sustainable transport objectives. During operation the traffic and transport impacts would be negligible. The ExA is satisfied that the proposal is in accordance with the requirements of NPS EN-1.
- 8.3.6 The ExA is satisfied that the proposal has addressed adequately the potential impacts of climate change, as reported in Chapter 5, and that the requirements of NPS EN-1 have been met.
- 8.3.7 Similarly, the ExA considers that the proposal addresses adequately civil and military aviation and defence interests, as set out in Chapter 5, thereby meeting the requirements of NPS EN-1.
- 8.3.8 In light of the Examination, reported in Chapter 5, the ExA concludes that the relevant requirements of NPS EN-1 in relation to noise and vibration; air quality, dust and other potential nuisance; and health have, with appropriate mitigation measures, been addressed satisfactorily.
- 8.3.9 The ExA concludes, as set out in Chapter 5, that there would be no adverse impacts of sufficient weight to land use to justify consent for HP2 being withheld. The ExA further concludes that the proposal meets satisfactorily the requirements of NPS EN-1.
- 8.3.10 As set out in Chapter 5, the ExA is satisfied that the proposal would meet the requirements of NPS EN-1 in terms of adequate protection of water quality and resources, and compliance with the WFD.
- 8.3.11 Further, the ExA considers that, with Requirement 7 of the recommended DCO requiring the agreement of a CoCP, containing a

site waste management plan, the proposal is in accordance with NPS EN-1 in relation to waste management.

- 8.3.12 As reported in Chapter 7, with the mitigation measures secured through the recommended DCO, there would be no significant residual impacts on terrestrial ecology, and the ExA is satisfied that the proposal would be in compliance with the biodiversity requirements of NPS EN-1.
- 8.3.13 No security issues were raised either prior to or during the Examination in relation to HP2.

8.4 CONCLUSIONS: THE PLANNING BALANCE

- 8.4.1 The ExA concludes that, for the reasons set out in the preceding chapters and summarised above, development consent should be granted, subject to the incorporation of the changes it has made to the DCO as discussed in Chapter 10 below.

9 COMPULSORY ACQUISITION AND RELATED MATTERS

9.1 INTRODUCTION

9.1.1 This chapter sets out:

- the Applicant's request for powers of compulsory acquisition (CA) to be granted as part of the development consent order;
- the purpose and extent of the powers being sought in relation to the CA of land, the acquisition of existing and new rights over land; and temporary possession;
- the way in which the proposals for CA powers were examined, including issues in relation to statutory undertaker (SU) land and Crown land;
- the objections and representations made in respect of the CA proposals and conclusions as to their validity;
- the Applicant's proposals for funding the project and the compensation requirements resulting from the request for CA powers;
- considerations in respect of the Human Rights Act 1998;
- whether, in each particular case, the tests set out in PA2008 in respect of CA of land and rights, Crown land and SU land and apparatus have been met;
- whether the documentation submitted as part of the application meets the requirements of the appropriate regulations and guidance; and
- the circumstances under which any procedural decisions were issued by the ExA.

9.1.2 A number of specific issues arose during the Examination, including:

- clarification of the rights being sought;
- the extent to which powers of CA applied;
- confirmation that all the land included within the Order is required for the delivery of the project, has a clearly identified purpose and meets the tests set out in statute;
- that powers of temporary possession sought, including in respect of land that may be required for 'compensation compounds' for HP1, are no more than is reasonably necessary;

- the use of the word 'completion' in the DCO;
- whether the Book of Reference (BoR) [APP-018 to APP-022] adequately described (a) Crown land and (b) the powers being sought in relation to individual plots; and
- ensuring that, if consent is granted, the CA powers and protective provisions are sufficient to enable the undertakers to construct the projects, particularly around the site of the transmission station/substation, which is in close proximity to the HP1 transmission station and its cable corridor, and where a number of SUs are seeking access to the North Killingholme NG substation through a restricted and complex area.

9.2 THE REQUEST FOR COMPULSORY ACQUISITION POWERS

- 9.2.1 The draft DCO [APP-010] sought CA powers for a combination of freehold land and the creation of new rights and the extinguishment of existing rights over land, on both a permanent and temporary basis, outlined in the Statement of Reasons (SoR) [APP-016]. It included rights granted to both Optimus Wind Ltd in respect of Project A and Breesea Ltd in respect of Project B to install onshore cables and transition bays from the landfall site at Horseshoe Point close to North Coates in Lincolnshire to connect the offshore wind farms to the existing NG substation at North Killingholme in the North Lincolnshire District Council's area, a distance of approximately 40 km in total. In order to connect the High Voltage Direct Current (HVDC) and/or High Voltage Alternating Current (HVAC) cables to the national grid network, a new onshore HVDC converter substation, HVAC substation, or a combination of the two will be required in the vicinity of the existing North Killingholme National Grid Substation [APP-027].
- 9.2.2 Section 4 of the Applicant's SoR [APP-016] summarises the four main components of the onshore works as:
- (i) Cable landfall point, which is the junction between the offshore and onshore cable, and the transition pit;
 - (ii) Onshore HVDC and/or HVAC cable route which consists of underground HVDC and/or HVAC cables from the landfall to the onshore substation;
 - (iii) Onshore substation which could comprise up to two electrical transmission stations on the substation site utilising HVDC and/or HVAC technology; and
 - (iv) Cables connecting the onshore substation to the existing NG substation.

- 9.2.3 The cable route is primarily through an open agricultural landscape. It crosses a number of small watercourses: the Louth Canal; a number of public rights of way; and land in which SUs have an interest, including apparatus and infrastructure, for which further detail is provided in the Onshore Crossing Schedule [APP-058].
- 9.2.4 Along with the DCO [APP-010] and SoR [APP-016] the Applicant submitted:
- (i) a Draft DCO Explanatory Memorandum (EM) [APP-011], which was replaced at D7 by a revised version [REP7-008] to reflect the changes made to the DCO during the Examination and the changed circumstances of the Applicant following acquisition by Dong Energy Ltd;
 - (ii) a Book of Reference - [APP-018 to APP-022] which was updated on three occasions. Version 2 was provided as a post-submission update [APP-0184 to 0188]; Version 3 at D4 [REP4-011 to 014] and Version 4 at D7 [REP7-010 to 013] to reflect new information in relation to the status of the land; plots deemed no longer to be required for the projects; and amendments, particularly in relation to the rights being sought, in response to questions by the Panel;
 - (iii) Land Plans [APP-012] updated as a post-submission update [APP-0194] and further revisions at D3 [REP3-005]; and
 - (iv) a Funding Statement [APP-017] updated by submission following the compulsory acquisition hearing (CAH) on 17 September 2015 [EV-026], to reflect changes consequent upon the HP2 project being acquired by Dong Energy Ltd, and a composite update at D5 [REP5-014].
- 9.2.5 The Applicant seeks CA powers within the Draft DCO [APP-010] through the following articles:
- 4 - Guarantees in respect of payment of compensation;
 - 18 - Compulsory acquisition of land;
 - 19 - Compulsory acquisition of rights;
 - 20 - Time limit for exercise of authority to acquire land compulsorily;
 - 21 - Private rights;
 - 22 - Application of the Compulsory Purchase (Vesting Declaration) Act 1981;
 - 23 - Acquisition of subsoil or airspace only;
 - 24 - Acquisition of part of certain properties;

28 - Exercise of powers in relation to SUs' land, rights and apparatus subject to Schedule L (Protective Provisions); and

39 - Rights in relation to Crown land.

9.2.6 Power to use land on a temporary basis for carrying out the authorised project, including the use of 'compensation compounds', is sought in Article 26 and the temporary use of land for maintaining the authorised project in Article 27 [APP-010].

9.2.7 Additionally, Schedule F seeks to modify a number of compensation and compulsory purchase enactments to ensure they operate effectively for the creation of new rights and imposition of restrictive covenants as well as for the acquisition of land, and Schedule L contains proposed protective provisions [APP-010].

9.3 THE REQUIREMENTS OF THE PLANNING ACT 2008

9.3.1 Compulsory acquisition powers can only be granted if the conditions set out in sections 122 and 123 of PA2008 are met.

9.3.2 S.122(2) provides that the land must be required for the development to which the development consent relates or is required to facilitate or is incidental to the development. In respect of land required for the development, guidance suggests that the land to be taken must be no more than is reasonably required and be proportionate⁴.

9.3.3 S.122(3) requires that there must be a compelling case in the public interest which means that the public benefit 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. But this does not mean that the CA proposal can be considered in isolation from the wider consideration of the merits of the project. There must be a need for the project to be carried out and there must be consistency and coherency in the decision-making process.

9.3.4 S.123 requires that the SoS must be satisfied that one of the conditions in subsections (2) to (4) is met before granting a DCO including provisions authorising the CA of land: The conditions are:

- subsection (2) provides that the application for the order includes a request for CA of land to be authorised;
- subsection (3) provides that all persons with an interest in the land consent to the inclusion of the provision; and
- subsection (4) provides that the prescribed procedure has been followed in relation to the land.

⁴ Guidance related to procedures for compulsory acquisition, para. 11, DCLG February 2013
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- 9.3.5 In this case, the ExA is satisfied that the condition in subsection (2) of s.123 is met because the application for the DCO included a request for CA of the land to be authorised.
- 9.3.6 A number of other considerations also have to be addressed either as a result of following applicable guidance or in accordance with legal duties on decision-makers:
- (i) all reasonable alternatives to CA must be explored⁵;
 - (ii) the Applicant must have a clear idea of how it intends to use the land and to demonstrate funds are available⁶; and
 - (iii) the decision-maker must be satisfied that the purposes stated for the acquisition are legitimate and sufficiently justify the inevitable interference with the human rights of those affected⁷.

9.4 THE PURPOSES FOR WHICH THE LAND IS REQUIRED

PERMANENT ACQUISITION OF LAND AND RIGHTS

- 9.4.1 In its SoR [APP-016], the Applicant set out the purposes for which the land subject of the Order is required and states in paragraph 5.2.1: "*The Order necessarily contains powers to enable the acquisition of the land and the rights that are required to construct and operate Project Two.*" It is made clear in the SoR that CA powers are being sought in relation to all land interests; but they will only be exercised where there has been a failure to agree acquisition of land and rights by private treaty; where the terms of any agreement have been breached; or where the right or interest in the land is vested in a person other than the landowner/or occupier in question.

Acquisition of land and rights by voluntary agreement

- 9.4.2 The Applicant makes it clear in the SoR [APP-016] that its first objective is to secure the land and rights required by agreement if at all possible. At the point of submission Optimus Wind Ltd had successfully concluded commercial negotiations and exchanged Deeds of Consent and Options for Lease with 48 land owners and 30 tenants, covering approximately 36km of the proposed underground cable route and the land required for the converter station/substation site, on behalf of HP2 (para. 5.2.1).
- 9.4.3 In its first written questions [PD-010] the Panel requested at question G2 regular updates on the progress of private treaty negotiations throughout the Examination. These were provided on four occasions at Deadlines 1, 3, 4 and 5 [REP1-060, REP3-023, REP4-033 and REP5-

⁵ Ibid, para. 8

⁶ Ibid, para. 9

⁷ Ibid, para. 10

016]. Dong - Hornsea Project 2 - Update on Land Agreements and Protective Provisions reported on negotiations with 16 landowners at D5 [REP5-016] that were underway but where agreement had not been reached. Six were not expected to be agreed before the end of the Examination:

- Associated British Ports - 26 plots within the Humber Estuary;
- Highways England - six plots;
- Able Humber Ports Ltd - 17 plots;
- Total Lindsay Oil Refinery Ltd - 22 plots;
- Darrington Quarries Ltd - one plot; and
- E.ON UK plc - 11 plots

9.4.4 In the case of eight landowners the Applicant was hopeful of reaching voluntary agreement before the end of the Examination and in two further cases the Applicant was of the view that it was possible a voluntary agreement would be reached before the end of the Examination.

9.4.5 A further limited update in respect of VPI Immingham LLP and Centrica KPS Limited at D6 [REP6-001] indicated that in both cases agreement over protective provisions had been reached.

PRINCIPAL COMPULSORY ACQUISITION POWERS

9.4.6 The principal CA powers are contained in Articles 18 and 19 of the Order. Article 18 relates to power to CA land and Article 19 to power to CA rights or impose restrictive covenants, by creating new rights as well as by acquiring rights already in existence.

Article 18

9.4.7 Article 18 grants the undertakers for both Project A and Project B power to acquire so much of the land as is required for the works, subject to Article 19(3) (compulsory acquisition of rights) and paragraph 10 of Article 26 (temporary use of land for carrying out the project). The land required for CA in accordance with this Article comprises the land coloured orange on Version 2 of the submitted Land Plans Onshore [APP-0194] and consists of two plots - 500 and 506 - shown on Page 27 of 27. This land is needed for the construction of HVDC converter substation(s) and/or HVAC substation(s), together with associated landscaping and the permanent diversion of a footpath [APP-016, para.5.2.4].

9.4.8 Note that the original submitted Land Plan Page 27 of 27 [APP-012] incorrectly showed plot 506 as 508. This error was corrected by the Applicant in subsequent submissions of the Land Plans Onshore (Version 2) submitted at Appendix F to the Applicant's submission of 27 April 2015 [APP-0194] and the land described in the BoR (Version 2) submitted at Appendix D to the Applicant's submission of 27 April 2015 [APP-0184 to APP-0188] and referenced in the Applicant's response to question CA1 of the Panel's first written questions [REP1-051]. The error was only in respect of the plot number. The land area,

persons affected and powers/rights sought remained unchanged from the submitted application; although, subsequently, the boundary of the plot was changed - see paragraph 9.4.30 below.

Article 19

- 9.4.9 Article 19 grants the undertakers for both Project A and Project B "*power to acquire 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 18 (compulsory purchase of land), by creating them as well as by acquiring rights already in existence*" [APP-010]. Schedule E of the draft DCO [APP-010] sets out the 224 plots subject to Article 19, which are coloured blue on the Land Plans, and the purposes for which rights may be acquired. Article 19(3) makes it clear that the powers of CA for those plots listed in Schedule E are limited to the acquisition of new rights or the imposition of restrictive covenants as may be required for the purposes specified in relation to that land in the Schedule. Article 26(10) as amended at D4 [REP4-007] prevents the acquisition of rights or the imposition of restrictive covenants in respect of those plots shown in Schedule G (land in which temporary possession may be taken) unless the land is also shown in column 1 of Schedule E.
- 9.4.10 The consequence of the restrictions in Article 19(3) and Article 26(10) is to ensure that the CA of the freehold of land in the Order is limited to two plots not included in either Schedule - i.e. plots 500 and 506 - and the implementation of all the 'below ground' onshore works is to be achieved by the acquisition of rights and imposition of restrictive covenants only (in those cases where rights have not been obtained by voluntary agreement).

POWER TO MAKE TEMPORARY USE OF LAND

- 9.4.11 Power to make temporary use of land in order to (a) carry out the authorised project is sought in Article 26 of the draft DCO and to (b) maintain the authorised project in Article 27 [APP-010].
- 9.4.12 Article 26(1)(a)(i) and (ii) enables the undertaker(s) to enter on and take temporary possession of the Order land specified in Part 1(a) and Part 1(b) of Schedule G for the purposes set out in the Schedule; Article 26 (1)(a)(iii) grants temporary possession powers over all the land referred to in Articles 18 and 19 providing that the formal compulsory acquisition process for that land has not commenced. The Applicant explains in paragraph 27.1 of the EM that Article 26 (1)(a)(iii) is required because: "*it allows greater flexibility in the event that following further detailed design of the works it is decided that only temporary occupation rather than permanent occupation of land is required*" [REP7-009]. The Applicant further expands on this in the SoR at paragraphs 7.2.5 to 7.2.6 explaining that: "*The exact location of the cables will not be fixed but will instead be the subject of further discussion with affected landowners and following additional surveys*

and ground investigations prior to the commencement of the laying of the cables." [REP4-017].

- 9.4.13 Article 26(1)(b)(c) and (d) provides for entering on and taking temporary possession of that land; removing any buildings or vegetation from that land; constructing temporary works and buildings; and constructing or carrying out any works or operations in relation to that land specified in column 3 of Part 1 of Schedule G, or any other mitigation works or operations.
- 9.4.14 Article 26(2) enables the undertaker to make temporary use of access routes over the land specified in Part 2(a) of Schedule G for the purpose of obtaining access to construct the authorised project and to carry out any works necessary to improve those access routes. Article 26(3) enables the undertaker to make temporary use of and undertake works to improve access routes over the land specified in Part 2(b) of Schedule G for the purpose of obtaining access to the compensation compounds.
- 9.4.15 Schedule G of the draft DCO [APP-010] sets out the 309 plots subject to the power of temporary use and is divided into four parts specified in Article 26:
- (a) Part 1(a) - land over which temporary possession may be taken for the purpose of constructing the authorised project coloured blue on the Land Plans, Article 26(1)(a)(i) [APP-012] (219 plots);
 - (b) Part 1(b) - land over which temporary possession may be taken for the purpose of compensating HP1 [REP1-013] in the event that some of the construction compounds and work areas authorised by the Hornsea One Offshore Wind Farm Order 2014 will be prevented or restricted by the construction or operation of HP2, Article 26(1)(a)(ii) [APP-016, para. 5.2.6]. This land, referred to in the rest of the chapter as 'compensation compounds', is coloured green on the compensation compounds plan [APP-069] (47 plots). The compensation compounds plan was resubmitted as Version 2 [APP-0204] as a post-submission update;
 - (c) Part 2(a) - land required for temporary use for access routes to construct the authorised project in common with other persons enjoying rights over that land, Article 26(2)(a) [APP-010] (42 plots) - coloured purple on the Land Plans; and
 - (d) Part 2(b) - land required for temporary use to provide access to the compensation compounds in common with other persons enjoying rights over that land, Article 26(3)(a) [APP-010] (1 plot - 240) coloured purple on the Land Plans.

9.4.16 Article 26 as originally proposed in the draft DCO [APP-010] raised a number of issues that are discussed later in the chapter:

- the justification for compensation compounds - see paras 9.5.34 and following;
- the extent of the powers being sought for temporary use of land through Article 26(10) - see paras 9.5.39 and following; and
- the use of the word 'completion' - see paras. 9.5.42 to 9.5.45 below.

CROWN LAND

9.4.17 Section 9.2 of the SoR [APP-016], sets out the Applicant's approach to Crown Land, which is described in Part 4 of the BoR [APP-022] and shown on the Crown Plans [APP-0161 to APP-0163].

9.4.18 Twenty-seven offshore plots (1 to 15, 17, 19, 20, 22 to 29 and 32), shown on the Crown Land Offshore Plans [REP3-009] and in the BoR [APP-022], located in the foreshore and bed of the River Humber, are in the ownership of the Crown and not subject to proposals for CA in accordance with s.135 of PA2008.

9.4.19 During the Examination there was considerable change in the status of onshore land originally identified as land in which the Crown held an interest. The Applicant set out the original position in Version 2 of the BoR Part 4 to 5 [APP-0188], which identified 44 onshore plots in which there was a Crown interest; of these:

- (A) The Secretary of State for Defence was (and remains) the owner of the Crown interest in 11 plots (34 to 44);
- (B) The Secretary of State for Transport c/o the Highways Agency jointly had ownership rights and/or interests on behalf of the Crown in respect of 31 plots (175 to 176, 178 to 179, 181 to 187, 272, 377 to 378, 388, 392 to 399, 404 to 409, 437 and 441). All these plots register the owner of the Crown interest as both the Highways Agency and Highways England on behalf of the SoS for Transport. In its response to first written question CA14(a) [REP1-051] the Applicant explains the situation thus:
 - (i) the plots in which the Secretary of State for Transport c/o the Highways Agency has been identified as having an interest are plots 175, 176, 178, 179, 181 to 187, 272, 377, 378, 388, 392 to 399, 404 to 409 and 437 and 441;
 - (ii) Highways England Company Limited was appointed as highway authority by the Secretary of State under the provisions of the Infrastructure Act 2015;

- (iii) Highways England Company Limited is a private limited company, incorporated in England and Wales in December 2014 (Company Number 9346363). A transfer scheme made by the Secretary of State under section 15 of the Infrastructure Act 2015 was entered into on 30 March 2015, transferring certain property, rights and liabilities from the Secretary of State to Highways England Company Limited;
 - (iv) in respect of the plots listed at (i) above title in favour of Highways England Company Limited is not registered at the Land Registry. While the Transfer Scheme dated 30 March 2015 vests in Highways England Company Limited the beneficial interest in the plots listed, the legal title remains in the Secretary of State for Transport and c/o Highways Agency National Property and Management Disposals, until such time as the transfer has been properly registered at the Land Registry;
 - (v) until Land Registry registration has occurred the Applicant intends to continue to note the interests of the Secretary of State for Transport, the Secretary of State for Transport c/o the Highways Agency National Property and Management Disposals and Highways England Company Limited in respect of all of the relevant plots, as a result of its diligent inquiry; and
 - (vi) as the Applicant was aware of the inception of Highways England Company Limited as the intended successor to the Highways Agency, in its Certificate of Compliance with s.59 of PA2008 (submitted to the Planning Inspectorate on 23 April 2015) the Applicant considered it prudent to include Highways England Company Limited as an address for service in respect of those plots. The Applicant also noted Highways England Company Limited as an address for service in respect of those plots in Version 2 of the BoR (Appendix D to the Applicant's Response of 27 April 2015) [APP-0188]).
- (C) The Government Pipelines and Storage System of the Oil and Pipeline Agency owned the Crown interest in two plots (461 and 463); and
- (D) The Highways Agency Historical Railways Estate owned the Crown interest in one plot (168).

9.4.20 Plots 383 to 387 and 389 to 391 included in the original Order and shown in the BoR [APP-022] as land in which the SoS for Transport held the Crown interest were withdrawn at the post-submission update and the plot numbers no longer used [APP-0180]. At the same time plot 392, similarly land in which the SoS held the Crown interest, was significantly reduced in size [APP-0193] as a consequence of amendments to the HP2 proposal.

9.4.21 Article 39 of the draft DCO [APP-010] sought to protect the interests of the Crown and to limit CA powers to enabling the undertaker to

"acquire, override or extinguish a right or interest in Crown land only where the benefit is vested in a person other than the Crown" - in accordance with s.135 of PA2008 [APP-016 para. 9.2.4]. The Panel had significant difficulty in understanding that the draft DCO and BoR as submitted at the post submission stage did in fact achieve this objective - see paragraph 9.5.68 and following below.

9.4.22 As explained at paragraph 9.5.72 by the close of the Examination, with the exception of land held by the SoS for Defence and the Highways England Historical Railways Estate, for which consent under s.135(1) of PA2008 was granted, all other land, previously identified as being held on behalf of the Crown, was evidenced as having been taken into the ownership of organisations not being the Crown or a Crown authority.

STATUTORY UNDERTAKERS

9.4.23 Section 127 of PA2008 applies where an application for development consent under PA2008 seeks the inclusion in a DCO of provision for the CA of land, or a right over land, which has been acquired by SUs for the purpose of their undertaking and the following conditions, set out in s.127(1)(b) and (c) are satisfied:

- (i) a representation has been made about an application for an order granting development consent before the completion of the Examination of the application, and the representation has not been withdrawn, and
- (ii) as a result of the representation the decision-maker is satisfied that (i) the interest is used for the purposes of carrying on the SU's undertaking, or (ii) an interest in the land is held for those purposes.

9.4.24 In the SoR [APP-016, para. 9.1] the Applicant set out the requirements of s.127 (para. 9.1.3 and following) of PA2008 and states that the Order lands include land owned by the following SUs all of which were engaged in negotiation with the Applicant:

- (i) Associated British Ports
- (ii) Network Rail Infrastructure Limited
- (iii) Environment Agency
- (iv) E.ON UK plc [RR-009]
- (v) National Grid Electricity Transmission plc [RR-020]
- (vi) Centrica KPS Limited [RR-004]
- (vii) Able Humber Ports Limited

9.4.25 Article 28 of the draft DCO [APP-010] engages the powers conferred by Articles 18 and 19 in respect of the acquisition of SU land and rights and in relation to SU apparatus within the Order lands, subject to the provisions of Schedule L of the draft DCO [APP-010] which contains the relevant agreed protective provisions.

- 9.4.26 Article 29 of the draft DCO [APP-010] provides for the recovery of costs for new connections from the undertaker in the event that SU apparatus is removed.
- 9.4.27 During the Examination representations were received from, and the Panel was notified of, negotiations between the Applicant and a further six SUs listed below:
- (i) Anglia Water Services Ltd [RR-001] [REP1-01] and [REP3-025]
 - (ii) VPI Immingham CHP LLP [RR-031] [REP7-039] and [REP7-040]
 - (iii) C.Gen Killingholme Ltd [RR-002] [REP1-03] [REP2-003] [REP2A-001] [REP3-017]
 - (iv) Hornsea One Companies [REP3-025] [EV-024]
 - (v) Northern Powergrid Yorkshire plc [RR-024]
 - (vi) National Grid Gas Plc [REP4-034] and [REP4-049]
 - (vii) British Telecom [REP3-026]
- 9.4.28 In total, representations from 14 SUs were considered during the Examination. The outcome of discussions with SUs and progress on agreeing protective provisions with SUs and other utility operators are reported later in this chapter at para 9.5.52 and following.
- 9.4.29 By the close of the Examination representations were withdrawn and protective provisions agreed with all SUs with the exception of Northern Powergrid Yorkshire plc - see paragraph 9.5.57 below.

CHANGES TO THE APPLICATION

- 9.4.30 The Applicant made minor changes to the area of land required for the project by reducing the extent of the Order lands to minimise the impact of the project, following discussions with affected persons (APs), by the removal of plots 227, 382 to 387 (inclusive) and 389 to 391 (inclusive) and the reduction of plots 226 and 392. These amendments were outlined in the Applicant's letter of 27 April 2015 [APP-0180] and shown on a series of updated plans, including Land Plans [APP-0194], Onshore Works Plans [APP-0196], Crown Plans [APP-0198], Crossing Schedule Onshore [APP-0202], Project One Project Two Interface Plan [APP-0203] and Compensation Compounds Plan [APP-0204] and the post-submission updated BoR [APP-0184 to APP-0188].
- 9.4.31 Later in the Examination following clarification that plot 506, required by HP2 for freehold acquisition for the construction of the transmission station or substations, overlapped land included within the HP1 Order and consented as the location of the HP1 transmission/substation site, the Applicant proposed reducing plot 506 in size to remove the overlap

and proportionately increasing plot 505 [REP3-027], shown on revised Land Plans [REP3-005] and a revised BoR at D4 [REP4-011 to REP-014]. This issue is discussed in more detail later in this chapter at paragraph 9.5.24.

9.4.32 The Panel examined all these amendments to the Order lands at the CAH on 29 October 2015 [EV-044 to EV-045]; through its second written questions at question G10 [PD-016]; and considered them in the light of the revised guidance on the consideration of changing an application post-acceptance⁸. Subsequently, the ExA issued a procedural decision in its Rule 17 letter of 26 November 2015 [PD-019] to the effect that acceptance of these changes would neither materially change the application or deprive those who should have been consulted of the opportunity of such consultation.

9.5 HOW THE EXA EXAMINED THE CASE FOR COMPULSORY ACQUISITION

9.5.1 The case for CA was examined through two rounds of written questions; further requests for information under Rule 17⁹; CAHs, the submissions and written summaries which followed, and both accompanied and unaccompanied site visits, as set out below.

In the ExA's first written questions issued on 22 June 2015 the ExA sought to clarify the purpose of the CA provisions in the draft DCO [APP-010] from the Applicant and APs including the Crown Estate, the HP1 companies and SUs. The questions (CA1 to CA16 and G2, G4 and PN1 [PD-010]) referred particularly to:

- Article 18: Compulsory acquisition of land;
- Article 19: Compulsory acquisition of rights;
- why rights to be acquired were not included in the BoR plot descriptions;
- the justification for the boundaries of construction compounds;
- the justification for and proposed operation of compensation compounds;
- the scope of Article 26(10) as originally proposed;
- Crown rights and Crown land; and

⁸ Planning Act 2008: Guidance for the Examination of applications for development consent (Department for Communities and Local Government, March 2015)

⁹ The Infrastructure Planning (Examination Procedure) Rules 2010 (as amended).

- the organisation of the project, including the nature and relationship of the undertakers and their main shareholders, and assurances on funding and their financial capacity for the project.
- 9.5.2 An accompanied site inspection was held on 29 July 2015 at which the Panel viewed the cable landfall at Horseshoe Point; the proposed location for the HVDC transmission substation/HVAC substation at North Killingholme; the alignment of the cable corridor; and a number of locations along the cable corridor where watercourses, major highways and other infrastructure will be required to be crossed and additional land needed on a temporary basis for access and horizontal directional drilling [EV-005 and REP2-021 to REP2-023].
- 9.5.3 In the ExA's second written questions issued on 29 September 2015 questions CA17 to CA28 [PD-016 to PD-017] were asked particularly in relation to:
- the status of land in the ownership of the Crown;
 - whether the DCO and BoR together guaranteed that Crown interests in land in the draft DCO were exempt from CA;
 - clarification in relation to the land required and rights sought in respect of the access road to Centrica's power station;
 - the relationship between HP1 and HP2 in a series of potential construction scenarios and in relation to the temporary possession of a number of specific plots, particularly around the location of the proposed HVDC transmission substation/HVAC substation site; and
 - how and in what circumstances the plots shown on Land Plan 27 of 27 (Revision 02 submitted at D3) [REP3-005] would be brought into use.
- 9.5.4 Two CAHs hearings were held [PD-014] - 17 September 2015 [EV-011 and EV-018 to EV-020] and 29 October 2015 [EV-034a and EV-044 to EV-045].
- 9.5.5 A Rule 17 letter issued on 4 August 2015 [PD-013] requested clarification on a number of CA issues, particularly:
- the status of Crown Land; and
 - the extent of powers of CA being sought in relation to land subject of power for temporary possession and whether, if CA powers were indeed being sought, APs had been notified.
- 9.5.6 By the close of the Examination there were no outstanding questions in relation to the Applicant's purpose in pursuing powers of CA and temporary possession and the extent to which CA of land, new rights and the imposition of restrictive covenants were sought.

Plot by Plot Analysis

9.5.7 In its agenda for the first CAH on 17 September 2015 the Panel made the suggestion that: "*To assist in the running of this hearing, it may be helpful if the Applicant could provide a table setting out for each plot, the nature of the compulsory acquisition sought, including a description of any new right to be created, the purpose for which it is sought and any temporary possession powers required*" [EV-011]. The Applicant provided a Plot by Plot Analysis table at the hearing [REP3-022] and subsequent updates at D4 [REP4-016] and D7 [REP7-015]. The Plot by Plot Analysis table analyses each plot by a number of factors, including whether or not a voluntary agreement is in place with those with an interest in the land, and the following criteria:

- category of interest;
- SU or Crown interest;
- the powers of CA being sought under Articles 18 and 19 of the DCO and/or power of temporary possession under Articles 26 and 27 of the DCO;
- purpose for which the interest is being sought; and
- a description of the land as shown in the key to the Land Plans.

9.5.8 This was a useful mechanism for monitoring changes in the status of individual plots during the course of the Examination.

BOOK OF REFERENCE

9.5.9 In the draft DCO EM [APP-011] at paragraph 20.1 the Applicant states that it is not considered appropriate to describe the rights being acquired by the creation of new rights under Article 19 in the BoR [APP-018 to APP-022] because "*this would not seem consistent with regulation 7(1)(a) of the Applications Rules which requires the land to be identified in the book of reference which it is proposed should be subject to compulsory acquisition or rights to use land*". In its first written questions the Panel asked the Applicant to explain at question CA4 why this would be inconsistent with regulation 7(1)(a) of the APFP Regulations 2009 and to give further consideration to implementing the guidance contained in p.10 of Annex D of the DCLG Guidance related to procedures for the compulsory acquisition of land of September 2013, requesting that the proposed compulsory creation and acquisition of new rights should be clearly identified.

9.5.10 The Applicant responded at D1 [REP1-051] arguing that the regulations and guidance require the BoR to describe the land and parties to be subject to the powers, but not the powers themselves. Paragraph 2 of the response to question CA4 states: "*The APFP Regulations 2009 have not been amended, for example at the time of the APFP (Amendment) Regulations in 2014, to suggest that the*

meaning of Book of Reference should include a description of the new rights sought in the application it supports". Furthermore, the rights sought in HP1 were not included in the BoR and as in many cases the same landowners are involved to change the presentation at this stage would cause confusion.

9.5.11 At the CAH on 17 September 2015 the Applicant stated that it would re-format the BoR to make clearer the link between its contents and the rights sought under Schedule E of the draft DCO [REP3-015, para.8.2.2]. These amendments were submitted as Version 3 of the BoR at D4 [REP4-011 to REP4-014] as an additional column setting out in relation to each plot in Part 1 '*Powers of CA sought under Articles 18 and 19 of the Order and/or Powers of Temporary Possession sought under Articles 26 and 27 of the Order*'.

9.5.12 In its summary of oral case following the second CAH on 29 October 2015 [REP5-010], the Applicant explained the implementation of these changes and how, in its view, there was now adequate cross-referencing between the DCO and the BoR. Paragraph 2.12 states that:

"The Applicant notes in particular that:

- (i) The additional column inserted into Part 1 of Version 3 of the Book of Reference expressly refers to the "powers of compulsory acquisition sought under Articles 18 and 19 of the Order and/or powers of temporary possession sought under Articles 26 and 27 of the Order";
- (ii) The "Order land" is defined in the interpretation section of the draft DCO to mean "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"; and
- (iii) "book of reference" is defined in the interpretation section of the draft DCO to mean "means the book of reference certified by the Secretary of State for the purposes of this Order".

9.5.13 It is the ExA's view that these additions to the BoR ensure its compliance with *The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009* and the *DCLG Guidance related to procedures for the compulsory acquisition of land* of September 2013 and that the BoR now clearly identifies the extent of the CA and temporary possession sought.

THE APPLICANT'S CASE

9.5.14 Section 5 of the SoR [REP4-017] sets out the Purpose of Application and for Compulsory Acquisition and the approach to the acquisition of land and rights; land of which temporary possession may be taken and the range of additional powers being sought through the DCO.

- 9.5.15 The Applicant's approach is to deliver the majority of the project through the acquisition of new rights and the imposition of restrictive covenants, including the acquisition of rights already in existence, to enable the cable corridor to be secured, the cables laid and subsequently protected and maintained. The principal mechanisms to enable this approach are Articles 18 and 19 of the draft DCO [APP-010].
- 9.5.16 The only land for which the Applicant seeks to acquire the freehold is that required for the transmission station comprising up to two substations, either a HVDC converter substation and/or a HVAC substation (plots nos. 500 and 506).
- 9.5.17 The submitted SoR [APP-016] was updated in September 2015 to reflect the acquisition on 21 August 2015, of SMart Wind and both project companies by Dong Energy Power (UK) Limited which acquired the entire share capital and became the sole owner of the HP2 companies [EV-025]. At D4 the Applicant submitted a further composite update of the SoR [REP4-017] and a comparison version [REP4-018], which included a series of update amendments, particularly in relation to Crown land.

Need for the project

- 9.5.18 Section 8 [REP4-017] sets out the Applicant's case for the need for the project which is presented in terms of the importance of addressing climate change through renewable energy sources; national policy on climate change and renewable energy; NPSs EN-1, EN-3 and EN-5; offshore wind policy and marine policy. The Applicant's proposition is summarised in paragraph 7.6.4 of the composite SoR [REP4-017] as: *"Once installed, Project Two will have the capacity to generate up to 1.8 GW of electricity which will make an important contribution towards the achievement of the UK's target to source 15% of its total energy needs from renewable sources by 2020. In addition, it will assist in the UK's transition to a low carbon economy by providing a secure and reliable source of electricity"*.

The Applicant's case under s.122

- 9.5.19 Section 7 of the SoR [REP4-017] sets out the Applicant's justification for the use of CA powers and explains the Applicant's approach to:
- (i) the tests in s.122 of PA2008;
 - (ii) paragraph 7.1.7 states: *"The undertaker is able to demonstrate that the conditions of S122 have been met. The undertaker is not seeking to acquire any more land or rights over land than are reasonably required for the purposes of HP2. There is a compelling case in the public interest for the land and rights over land described in this Updated Statement, the Book of Reference and shown on the Land Plan to be acquired for the purposes of HP2."*;

- (iii) the requirement for the Order land, which includes limiting the cable route corridor within the Order limits to generally 40m in width, with a permanent cable easement anticipated to be approximately 20m within the Order limits and up to 30m where an obstruction is met (paragraph 7.2.3);
- (iv) the need for power to override rights and easements in order to construct the project in respect of both private rights and SUs as allowed for in Articles 21 and 28; and
- (v) the importance of seeking acquisition by agreement, which is discussed earlier.

- 9.5.20 The Panel tested the Applicant's assertion that all the land within the Order limits is required to implement the project through written questions - particularly questions CA21, CA22, CA23 [PD-017]; the CAHs [REP3-015 and REP5-010]; by viewing the land on the accompanied site visit [REP2-021 to REP2-023] and interrogation of the updated submitted Land and other plans [APP-0194].
- 9.5.21 The land coloured blue on the Land Plans is restricted to the cable corridor, where permanent rights and the imposition of restrictive covenants is being sought, and clearly shows the limits of the area required for cable-laying and subsequent maintenance [APP-0194]; however, the land required around the proposed transmission station/substation site in North Killingholme and shown on Land Plan 27 of 27 [APP-0194] is significantly greater in extent. That said, the majority of plots are required only for temporary possession (shown pink) and the remainder for providing rights of access to the substation(s) and the cable connection to the North Killingholme National Grid Substation (shown blue). Only two plots (500 and 506) are to be the subject of freehold acquisition in order to construct the transmission/substation(s) (shown orange). The Panel explored the need for and purpose of each plot shown on Plan 27 of 27 in some detail.
- 9.5.22 The requirement for the cable route corridor within the Order limits is limited to generally 40m in width, with a permanent cable easement anticipated to be approximately 20m within the Order limits and up to 30m where an obstruction is met. The Applicant explains in paragraphs 7.2.3 to 7.2.7 of the Composite Updated SoR [REP4-017] that this is in order to provide the minimum inconvenience to landowners and flexibility to allow for minor variances to avoid potential engineering difficulties. Further ground investigation is required along the route, which will determine where only temporary possession is required, and there will be further consultation with landowners before the exact location of the cables is fixed.
- 9.5.23 At the CAH on 17 September 2015 [REP3-015] the Applicant provided a verbal justification for the scheme meeting the tests of s.122 of PA2008 and the extent and purpose of the rights being sought and, amongst other topics, addressed how these applied to the land shown on Land Plan 27 of 27. At D4, in response to discussion at the hearing

and, in particular, question CA23 of the Panel's second written questions [PD-017] the Applicant provided an explanation and detailed method statement. This outlined how the land required for temporary occupation and for the acquisition of rights in respect of access and cable installation on Sheet 27 of 27 would be used in a number of potential scenarios relating to the construction of HP2 and its relationship with HP1 [REP4-006]. A further detailed verbal examination of this response took place at the second CAH on 29 October 2015 to enable the Panel to receive evidence that all the land shown on Land Plan 27 of 27 was required for the delivery of HP2 and that both HP1 and HP2 could be constructed and maintained without detriment to the implementation of each project [EV-044 and EV-045].

HP2 interface with HP1 and C.Gen Killingholme Ltd at North Killingholme Substation

- 9.5.24 During the Examination it emerged that the Applicant was seeking rights of permanent acquisition in respect of plot 506, the northern portion of which overlapped with the area previously consented for the construction of transmission and/or substations for HP1 and which Dong Energy, on behalf of the HP1 companies, confirmed was required by HP1 for the life of the HP1 project (paragraph 8.7 of Dong Energy Hornsea Project One Written Representation) [REP1-010]. At the first CAH on 17 September 2015 the Applicant confirmed its intention to formally request the Panel to agree to the removal of this proposal from the Order and to reduce the area of plot 506 - and extend plot 505 by an equal area - to remove the conflict caused by the overlap [REP3-015]. Plot 505 is (in the final version of the draft DCO) required for temporary possession only and would be used as a compound to support the construction of the HP2 transmission and/or substations only if not already occupied by HP1. This amendment was reflected in subsequent revisions to the Land Plans [REP3-005] and BoR [REP4-011 to REP4-014]. Following submissions in response to its questions, as recorded earlier at paragraphs 9.4.30 and 9.4.32 the ExA formally issued a procedural decision notifying its acceptance of the proposed changes on 26 November 2015 [PD-019].
- 9.5.25 In advance of the September hearings the Applicant produced a SoCG with HP1 [EV-024] which indicated that all matters of dispute between HP1 and HP2 were resolved and there were no matters of ongoing discussion and no matters were set out as 'not agreed'. The SoCG contained agreed protective provisions on behalf of HP1, which are contained within Part 12 of Schedule L of the recommended DCO, and a memorandum of understanding between the parties.
- 9.5.26 A concern for the Panel was whether it was technically feasible for HP2 to connect to the National Grid at the North Killingholme Substation given:
- (i) the restrictions on cable access imposed by the four existing National Grid Electricity Transmission (NGET) pylons on plots 506, 509 and 510;

- (ii) the consent previously granted to HP1 to run cables from its substation site at plot 505 through plots 509 and 510 to North Killingholme substation [REP1-010]; and
 - (iii) the representations from C.Gen in respect of its ongoing negotiations to obtain appropriate consents to achieve cable access to North Killingholme substation following the approval of a DCO for the construction of its 470MW thermal generating station on land to the north and east of the Centrica Killingholme Power Station [REP1-03].
- 9.5.27 Effectively three generating projects - HP1, C.Gen and HP2 are seeking overlapping rights to connect to North Killingholme substation via plots 509 and 510. The Panel was concerned to ensure that, if all three projects proceed, appropriate agreements and protective provisions were in place to ensure that all three projects could achieve the cable connection to North Killingholme substation required.
- 9.5.28 The Panel viewed the area required for the National Grid connection on its accompanied site visit [EV-005] and examined the issue through questions CA20 to CA21 of its second written questions [PD-017]. At D4 the Applicant stated that protective provisions in the form of a confidentiality agreement were in place with NGET [REP4-034]. NGET responded by stating that a confidentiality agreement and protective provisions were in place with HP2 [REP4-049 and REP4-050]. At D5 the Applicant confirmed that National Grid was now satisfied that its interests were adequately protected and had withdrawn representations in respect of the application with immediate effect [REP5-001].
- 9.5.29 During the course of the Examination C.Gen was:
- (i) in negotiation with various landowners to secure rights to lay cables from the recently consented 470MW thermal generating station on land to the north and east of the Centrica Killingholme Power Station (The North Killingholme (Generating Station) Order 2014) [REP1-03]; and
 - (ii) submitting an application for a Certificate of Lawfulness, including a screening opinion, to North Lincolnshire Council in respect of routes for cable connections to HKSS across plots 505, 507, 509 and 510 within the HP2 Order land [REP2-003].
- 9.5.30 C.Gen made a RR and a number of subsequent representations [RR-02, REP2-003 and REP2A-001]. The Panel looked in detail at these issues on its accompanied site inspection on 29 July 2015 [EV-005] and in questions CL21 and CL22 of its second written questions [PD-017]. At D2A the Applicant submitted draft protective provisions in respect of C.Gen [REP2A-024]. In its September pre-hearings submission C.Gen indicated its agreement to these draft protective provisions [EV-034] and at D3 a joint submission from the Applicant

and C.Gen confirmed both parties' agreement to the protective provisions now included in Part 11 of Schedule L of the recommended DCO [REP3-017].

- 9.5.31 In its response to the Panel's second written question CL22, North Lincolnshire Council confirmed that application PA/2015/1026 for a Certificate of Lawful Development for "*a proposed electrical grid connection, Centrica Energy, Access Roads to Power off Chase Hill Road, North Killingholme has been approved*" and "*(PA/2015/0398) Planning permission for a cable route amendment as an alternative to the current route where it connects to the existing National Grid substation at North Killingholme, Land west of Power Station, North Killingholme has been approved*". North Lincolnshire Council confirmed that the agreed protective provisions were incorporated as conditions in these planning approvals [REP4-002].
- 9.5.32 By the end of the Examination, by virtue of: the representations withdrawn by NGET [REP4-049]; NGET's protective provisions with HP1, C.Gen and HP2 [REP4-050]; and the approval of a Certificate of Lawful Development in respect of an electrical grid connection by North Lincolnshire Council in favour of C.Gen [REP4-002] the ability of HP1, HP2 and C.Gen to achieve a connection to the national grid at the North Killingholme substation was secured and protected.
- 9.5.33 Consequently the ExA is satisfied that with the agreements in place between HP1, HP2, C.Gen and NGET each project is able to make a proper connection at the North Killingholme substation without coming into conflict.

Compensation compounds

- 9.5.34 Section 6 of the SoR [REP4-017] provides a lengthy discussion of the DCO requirements including a description of and justification for the associated development included within the application and an explanation of the compensation compounds required to facilitate the construction of HP1 if both projects are under construction simultaneously or HP2 is completed first.
- 9.5.35 The proposed compensation compounds are justified as associated development within the HP2 project to enable construction of the parallel and immediately adjacent HP1 project. Paragraph 6.5 of the SoR [REP4-017] explains the purpose of the proposed compensation compounds thus:
- "The development has been designed so that the onshore cable corridor sits parallel, and wherever feasible, adjacent to the cable corridor for 'Hornsea Project One' authorised by the Hornsea One Offshore Wind Farm Order 2014. By designing the project in this way, the impacts are reduced as a number of the temporary construction compounds and access areas can be used for both projects and the land take required will be reduced compared to the situation where the corridors are not parallel or adjacent to one another. However, this*

design means that, in the event of a simultaneous or overlapping construction programme with Hornsea Project One or in the event that Hornsea Project Two construction has completed prior to the commencement of the Hornsea Project One construction, access to and use of some of the temporary construction compounds and work areas authorised by the Hornsea One Offshore Wind Farm Order 2014 will be prevented or restricted by the construction, or operation (where the cable for Project Two is installed directly beneath temporary construction compounds authorised by the Hornsea One Offshore Wind Farm Order 2014), of Hornsea Project Two. In order to reduce the impacts to Hornsea Project One in these circumstances, the Order contains some temporary construction working sites (referred to in the Order as "compensation compounds") and means of access to those compensation compounds which are intended for temporary use by the Hornsea Project One undertaker to compensate Hornsea Project One and reduce the impacts of Hornsea Project Two on Hornsea Project One. In the event that compensation compounds are required, the relevant powers under the Order will be transferred to the Hornsea Project One undertaker to enable the Hornsea Project One undertaker to use the temporary construction working sites and means of access."

9.5.36 Paragraph 44.38 of the EM [APP-011] states that Requirement 21 of the ExA's recommended DCO:

"limits the circumstances in which the powers under the Order in respect of the compensation compounds, which are shown coloured green on the compensation compounds plan may be exercised stating that such powers may only be exercised where the undertaker requires to exercise powers in relation to the Order land shown hatched green on the compensation compounds plan (i.e. the land forming part of the Order limits under this Order and overlapping with land to be used as temporary construction compounds under the Hornsea Project One Order) at the relevant time. The "relevant time" is defined as the circumstances where there is a simultaneous or overlapping construction programme with Hornsea Project One in relation to the Order land shown hatched green on the compensation compounds plan or in the event that Hornsea Project Two construction has completed prior to the commencement of the Hornsea Project One construction in respect of the Order land shown hatched green on the compensation compounds plan. The requirement also limits the circumstances in which the powers under the Order in respect of the compensation compound access shown coloured pink and labelled 14-A1c on the compensation compounds plan may be exercised stating that such powers may only be exercised where the undertaker requires to use the compensation compound labelled 14-C3 on the compensation compounds plan".

9.5.37 The Panel had initial concerns about the validity of the requirement for compensation compounds to enable HP1 to be constructed if there was any interference from the simultaneous construction of HP2. In its first written questions [PD-010] three questions were asked (questions CA8 to CA11) seeking greater understanding of their purpose: how in

practice they would operate; whether land required for HP1 was also required for HP2; and the attitude of the HP1 companies to the proposal. Following consideration of the Applicant's responses [REP1-051], the accompanied site inspection [REP2-021 to REP2-023], and detailed examination of the submitted plans, including the Dong Energy Hornsea Project One Overlap Plans [REP1-018] submitted at D1 on behalf of HP1, the ExA concluded that the proposed compensation compounds and accesses constitute associated development in the terms set out in the relevant guidance. This was on the grounds that:

- (i) there is a direct relationship between the compensation compounds and accesses and HP2 as the compensation compounds and accesses help address the impacts of HP2 on HP1. The temporary compensation compounds and accesses are not an aim in themselves but are required as a result of HP2 in certain circumstances;
- (ii) construction compounds are already permitted under the HP1 DCO but in the circumstances of simultaneous or over-lapping construction of both HP1 and HP2 cannot be located or used as anticipated in the HP1 DCO whilst also giving effect to the powers authorised under the HP2 draft DCO;
- (iii) the compensation compounds and accesses are not required as a source of additional revenue for the undertaker in order to cross-subsidise the cost of the Project; and
- (iv) the compensation compounds are proportionate to the nature and scale of the Project given that they are necessary to ensure delivery of another proposed major infrastructure project, namely HP1.

9.5.38 The ExA concluded that the compensation compounds and temporary accesses are a reasonable and necessary mechanism for ensuring that both HP1 and HP2 can proceed simultaneously and constitute associated development. The SoCG between HP1 and HP2 [EV-024] and protective provisions at Part 12 of Schedule L of the recommended DCO ensure that the interests of both projects are protected.

POWER OF TEMPORARY POSSESSION

9.5.39 Article 26 of the draft DCO [APP-010] grants power to the undertakers to enter on and take temporary possession of the land specified in various categories in Schedule G and for the powers of temporary possession to apply to any other Order land which is subject to CA under the DCO, provided the CA process has not begun in relation to it, in order to provide flexibility in implementing the DCO in the event that only temporary possession is required on land designated for CA [REP7-008].

- 9.5.40 The grant of powers of temporary possession sits outside powers of CA. However, the Panel was concerned that, as originally drafted, Article 26(10) stated that: "*the undertaker is not precluded from (a) acquiring new rights or imposing restrictive covenants over any part of the land under Article 19 (compulsory acquisition of rights) and (b) acquiring any part of the sub-soil or rights in the sub-soil*" [APP-010]. This appeared to effectively create a very wide power giving the opportunity for the CA of new rights and the imposition of restrictive covenants over all the land in Schedule G of the DCO, specifically stated to be reserved for temporary possession only, without the need to specify the rights to be acquired.
- 9.5.41 The Panel questioned the Applicant on this point in its first written questions (questions CA3 and CA7) [PD-010], at the first DCO Hearing on 30 July 2015 [REP2-017], and in its Rule 17 request of 4 August 2015 following the accompanied site inspection [PD-013]. In its responses the Applicant provided further justification of its position [REP1-051 and REP2A-002]. At the second CAH on 17 September 2015 the Applicant stated that further consideration had been given to the matter and it proposed revised wording to Article 26(10). This was to explicitly restrict the land in Schedule G (land of which temporary possession may be taken) from the CA of land, rights and the imposition of restrictive covenants unless that land is specified in Column (1) of Schedule E (land in which new rights etc., may be acquired) [REP3-015]. The revisions to Article 26(10) were made at D4 in Version 5 of the DCO [REP4-007] and appear in the ExA's recommended DCO.

When can temporary possession be taken?

- 9.5.42 At question CA6(c) of its first written questions [PD-010] the Panel asked the Applicant to provide a definition of 'completion' as used in Article 26(5) which seeks to define the period for which the undertaker can take temporary possession of land within the Order. The Panel raised the issue again at the first DCO ISH on 30 July 2015 [REP2-017].
- 9.5.43 In its response at D2A the Applicant considered the various uses of 'completion' in the draft DCO and DMLs and the views of the MMO and concluded "*the Applicant does not consider it would be appropriate or helpful to include a general definition in the draft DCO*" [REP2A-002].
- 9.5.44 The matter was discussed further at the first CAH on 17 September 2015 when the Applicant proposed additional wording to Article 26(5) to clarify the meaning of 'completion' by the addition of "*of the construction, installation or implementation*" in sub-paragraphs (a) and (c); and consequent amendments to the definition of 'maintenance period' in Article 27(11) to ensure that possession can be taken in the event that a defect is detected 12 months after completion of construction of the works, but prior to first energisation [REP3-015].

9.5.45 These amendments were made in Version 5 of the DCO at D4 [REP4-007] and appear in the ExA's recommended DCO.

THE OBJECTORS' CASE

9.5.46 As outlined below, four objections to the acquisition of rights and imposition of restrictive covenants and the use of temporary possession powers were received; all the submissions were settled during the Examination:

- (1) Mr Stuart H Somerscales Ltd (withdrawn at hearing);
- (2) Mr Stuart H Somerscales Esq, Mrs Elizabeth Angela Greetham and Robert John Greetham (withdrawn at hearing);
- (3) Messrs T and K Tomlinson (withdrawn at hearing); and
- (4) Gradebrook Filling Stations Ltd (invalid);

9.5.47 Objections [EV-031 to EV-033] dated 11 September 2015 were submitted by Mr Tony Dale of DDM Agriculture on behalf of Mr Stuart H Somerscales Ltd and Mr Stuart H Somerscales Esq, Mrs Elizabeth Angela Greetham and Robert John Greetham and Messrs T and K Tomlinson in advance of the CAH on 17 September 2015. At the hearing Mr Dale confirmed to the Panel that agreement between the Applicant and all of those parties had now been reached and he formally withdrew the objections previously made [REP3-015 and EV-018].

9.5.48 The ExA recommends that, notwithstanding the fact that no written withdrawals have been received, Mr Dale's appearance at the hearing and his clear recorded statement to formally withdraw the three objections is sufficient evidence that they stand withdrawn.

9.5.49 An objection to the inclusion of four plots (383, 384, 391 and 392) in the original Order was made on behalf of Gradebrook Filling Stations Ltd on 21 October 2015 [REP4-056] and was expanded upon in a formal pre-hearing submission on 22 October 2015 [AS-012]. At the CAH on 29 October 2015, representatives of Gradebrook Filling Stations Limited confirmed that, subsequent to their recent late submissions to D4, they had had further discussions with the Applicant and now understood that the areas of land subject to their concern (i.e. plots 383, 384, 391 and part of 392) had been removed from the project's Order limits pursuant to the Applicant's submission of 27 April 2015 [APP-0194]. As a consequence, they understood the only area remaining within the Order limits in which Gradebrook held an interest is the area subject to agreed Heads of Terms between them and the Applicant (part of the original Plot no. 392) [EV-044]. The Gradebrook Filling Stations Ltd representatives indicated at the hearing that they intended to withdraw their objection [EV-044 and REP5 -010], although no formal withdrawal has been received.

9.5.50 The ExA recommends that, as the plots 383, 384, 391 and part of 392 subject to the Gradebrook Filling Station Ltd 'objection' have been

removed from the Order (and had been removed before the 'objection' was received), the 'objection' can have no substance, is invalid and does not require a response.

THE CASE UNDER S.127 AND S.138

9.5.51 Article 28 (Statutory undertakers) of the draft DCO [APP-010] enables the CA of land and rights owned by SUs and to extinguish their rights or remove or reposition their apparatus. Schedule L of the DCO sets out the protective provisions agreed with SUs and other utility providers. The amended version of Part 1 of the BoR [REP4-011] indicates which class of rights are being sought in relation to each plot in which SUs have an interest.

9.5.52 In its SoR [APP-016] the Applicant identified the following SUs with which it was in negotiation:

- (i) Associated British Ports (ABP);
- (ii) Network Rail Infrastructure Limited (NR);
- (iii) Environment Agency (EA);
- (iv) E.ON UK plc (E.ON);
- (v) National Grid Electricity Transmission Plc (NGET);
- (vi) Centrica KPS Limited (Centrica); and
- (vii) Able Humber Ports Limited (AHP).

In addition, the following SUs engaged with the Examination:

- (viii) Anglian Water Services Ltd (AWS);
- (ix) Northern Powergrid
- (x) VPI Immingham LLP (VPI);
- (xi) C.Gen Killingholme Limited (C.Gen);
- (xii) Hornsea One Companies (Dong Energy Ltd) (HP1);
- (xiii) National Grid Gas (NGG); and
- (xiv) British Telecom (BT).

9.5.53 Throughout the Examination the Panel was updated on the progress of negotiations with SUs in respect of representations and protective provisions [REP3-025, REP4-034, REP5-016 and REP7-025].

9.5.54 By the end of the Examination representations were withdrawn and agreement on protective provisions had been reached with:

- (i) ABP [EV-028] - recommended DCO Schedule L Part 5;
- (ii) NR [AS-006] - recommended DCO Schedule L Part 2;
- (iii) EA [APP-016 and RR-012] - recommended DCO Schedule L Part 1;
- (iv) NGET and NGG [REP4-049, REP4-050 and REP5-016] - in its *Update on Land Agreements and Protective Provisions* at D5 [REP5-016] the Applicant states in respect of both NGET and

NGG "*Protective Provisions for the benefit of National Grid Gas are contained in a confidential commercial side agreement*";

- (v) Centrica [REP6-016] - recommended DCO Schedule L Part 7;
- (vi) AWS [REP1-01] - recommended DCO Schedule L Part 6;
- (vii) VPI [REP7-040] - recommended DCO Schedule L Part 8;
- (viii) C.Gen [REP3-017] - recommended DCO Schedule L Part 11;
- (ix) HP1 [EV-024] - recommended DCO Schedule L Part 12;
- (x) BT [REP3-026] - the recommended DCO Schedule L Part 3 contains provisions for the protection of electronic communications code networks.

9.5.55 The interests of E.ON E&P UK Ltd [REP1-023, REP1-080, REP2-005, REP2-026, REP3-002, REP5-034, REP6-010, REP6-011, REP6-013, REP6-019, REP7-028 and REP8-002] lie entirely offshore and consequently s.127 or s.138 issues do not arise because CA is not sought for land offshore owned by the Crown - see E.ON response to the Panel's second written question CA28 [REP4-043] and the Applicant's view [REP3-025].

9.5.56 In regard to Able Humber Ports (AHP) [APP-016 and REP4-017], the Applicant's SoR states in both its original draft and later composite update that "*Draft documentation has been issued and commercial negotiations and discussions are continuing*". No representations were received from AHP so s.127 considerations do not apply.

Northern Powergrid

9.5.57 The Applicant seeks to acquire new rights/impose restrictive covenants in land in which Northern Powergrid has an interest in respect of underground and overhead apparatus. The Applicant also seeks temporary possession powers over other land in which Northern Powergrid has an interest in respect of underground and overhead apparatus. Northern Power Grid Yorkshire plc submitted a RR [RR-024]; no further representations were received.

9.5.58 At D3, the Applicant reported that:

- "*There are currently no bespoke Protective Provisions for the benefit of Northern Powergrid Yorkshire Plc in the DCO;*
- "*the Applicant considers that the Utility Undertaker provisions at Part 4 of Schedule L of the DCO would apply as Northern Powergrid Yorkshire Plc hold a distribution licence under Part 1 of the EA 1989 and therefore fall within the definition of utility undertaker in Paragraph 36 of those provisions;*

- *the Applicant considers the form of Protective Provisions currently at Part 4 of the draft DCO are sufficient to enable the SoS to come to the conclusion that there would be no material detriment to the undertaking; and*
- *notwithstanding the Applicant is engaged with Northern Powergrid Yorkshire Plc to agree bespoke Protective Provisions and is currently awaiting receipt of a draft." [REP3-025].*

9.5.59 At D7 the Applicant reported: *"There are currently no bespoke Protective Provisions for the benefit of Northern Powergrid (Yorkshire) Plc in the DCO. The Applicant is engaged with Northern Powergrid and is in the final stage of negotiations to agree protective provisions with the intention that the same be encapsulated within a private side agreement. The Applicant is hopeful that the protective provisions currently being negotiated will be agreed prior to the close of the Examination. However, if this is not the case, the Applicant considers that the Utility Undertaker provisions at Part 4 of Schedule L of the DCO would apply as Northern Powergrid (Yorkshire) Plc hold a distribution licence under Part 1 of the Electricity Act 1989 and therefore fall within the definition of utility undertaker in Paragraph 36 of those provisions"* [REP7-025]. The protective provisions proposed by the Applicant for the protection of utility undertakers are included in the recommended DCO at Schedule L Part 4.

9.5.60 In its submission at D7 the Applicant states:

"The Applicant considers the form of Protective Provisions currently at Part 4 of the draft DCO are sufficient to enable the SoS to come to the conclusion that there would be no material detriment to the undertaking of Northern Powergrid (Yorkshire) Plc. In particular:

- *Paragraph 41(1) requires the Applicant to submit plans and sections of proposes works before commencing any works which would have an effect on the operation and maintenance of Northern Powergrid's apparatus;*
- *paragraph's 41(2) and 41(3) provide that the Applicant's works can only be executed in accordance with the previously submitted plans and sections and then only in accordance with any reasonable requirements imposed by Northern Powergrid (such requirements to be imposed by Northern Powergrid within 21 days of receipt of the Applicant's plans and specifications), for the protection of or for securing access to, its apparatus;*
- *paragraph 4 (3) provides that an officer of Northern Powergrid is entitled to watch and inspect the execution of the Applicant's works;*
- *paragraph 42(1) provides that if access to Northern Powergrid's apparatus is materially obstructed as a result of the exercise of the DCO powers then the Applicant must provide such alternative*

means of access as will enable Northern Powergrid to maintain or use its apparatus no less effectively than before such obstruction;

- *paragraph 43(1) requires that if, in carrying out any works which would have an effect on the operation and maintenance of Northern Powergrid's apparatus or property, or there is any interruption in any service provided, or in the supply of any goods, by Northern Powergrid, the Applicant must bear and pay the cost reasonably incurred by Northern Powergrid in making good such damage or restoring the supply if incurred by reason or consequence of such damage or interruption; and*
- *paragraph 43(1) also requires the Applicant to make reasonable compensation to Northern Powergrid for any other expenses, loss, damages, penalty or costs incurred by Northern Powergrid in those circumstances (by reason or consequence of such damage or interruption)."*

9.5.61 Where a representation is made by an SU about the CA of any land in which they hold an interest for the purpose of their undertaking and this is not withdrawn before the end of an Examination, s.127 of PA2008 applies. S.127 requires the SoS to be satisfied that, in the circumstances where the proposal is that land or rights in SU land are to be acquired, this can take place without serious detriment to the carrying out of the undertaking (s.127 (3)(a), (5) and (6)(a)). It is the ExA's view that, in the light of the inclusion in the recommended DCO of a protective provision for the protection of utility undertakers (Schedule L, Part 4) as outlined above, the SoS can be assured that there would be no serious detriment to the carrying out of Northern Powergrid's operation and undertaking by the acquisition of new rights over land in which Northern Powergrid holds an interest.

9.5.62 Similarly in relation to the requirements of s.138 of PA2008 in respect of the extinguishment of rights, and removal of apparatus, of statutory undertakers, etc. the SoS can be satisfied that the extinguishment of relevant rights or removal of relevant apparatus is necessary for the purpose of carrying out the development to which the DCO relates.

9.5.63 Protective provisions have been agreed in relation to the following utility providers:

- (i) Phillips 66 Ltd [REP4-035] - recommended DCO Schedule L Part 9;
- (ii) ConocoPhillips (UK) Ltd [REP7-001] - recommended DCO Schedule L Part 10. ConocoPhillips (UK) Ltd requested the addition of a Requirement to the DCO in relation to navigational safety at the Saturn, Mimas and Tethys offshore platforms. This was agreed and incorporated in the Applicant's updated DCO Version 8 at D7 [REP7-005].

- 9.5.64 CLH Pipelines Ltd, which has an interest in plot nos. 461 and 463 as the successor to The Government Pipelines and Storage System of the Oil and Pipeline Agency (see the Applicant's response to first written question CA16 [REP1-051]), reported at D4 that it had "*agreed protective provisions with the promoter*" and took no further part in the Examination [REP4-003].
- 9.5.65 S.138 of PA2008 is engaged by Article 28 (Statutory undertakers) of the draft DCO [APP-010] and permits the inclusion in the DCO of provisions enabling the undertaker to extinguish or relocate the rights and apparatus of SUs so long as the SoS is satisfied the extinguishment or removal is necessary for the authorised project. Paragraph 9.3 of the composite updated SoR [REP4-017] states in relation to s.138 of PA2008 that: "*The construction of the authorised project will require interference with Statutory Undertakers' land and the possible relocation of their apparatus. However, the exercise of such powers will be carried out in accordance with the protective provisions which set out constraints on their exercise with a view to safeguarding the Statutory Undertakers' interests*".
- 9.5.66 The ExA is satisfied that, apart from the case of Northern Powergrid discussed above, there are no outstanding representations under s.127(1)(b) of PA2008. The Applicant has attempted to ensure protective provisions are agreed with all SUs and, apart from Northern Powergrid, there are no outstanding representations in respect of s.138 of PA2008. Therefore, for the reasons set out above, the ExA considers that the SoS can be satisfied that the tests in PA2008 s.127(5) in relation to the CA of rights over SUs' land are met. In relation to s.138 of PA2008, the power to extinguish rights, remove or reposition apparatus and acquire new rights within the Order limits (and having regard to the agreed protective provisions set out in Schedule L of the recommended DCO), the SoS can be satisfied that this is necessary for the purpose of carrying out the development.

SPECIAL LAND

- 9.5.67 There is no special land e.g. National Trust s.130, or s.131 and s.132 of PA2008 Commons, open spaces, allotments etc. within the Order - see paragraph 9.4 of the Applicant's composite updated SoR [REP4-017]. The Panel asked East Lindsay District Council to confirm that the beach at the cable landfall site was not public open space in its second round question CA25 [PD-017]. East Lindsay District Council provided this confirmation in its response [REP4-042].

CROWN LAND

- 9.5.68 During the Examination the Panel explored a number of issues in relation to the status of Crown land, namely:
- land held by the Secretary of State for Transport was in the process of being transferred to a non-statutory agency (Highways

England Company Ltd) from the Highways Agency immediately before and during the Examination;

- the land indicated in Part 4 of the BoR having a Crown interest owned by The Crown Estate (TCE) was also shown in Part 1 of the BoR as forming part of the land to be compulsorily acquired without any exception of the Crown interest; and
- whether Article 39 as drafted did effectively prevent the acquisition of the Crown-held freehold.

9.5.69 In its response to the Panel's first round question CA13 [PD-010] TCE confirmed its agreement to the wording of Article 39 (Crown Rights) as submitted in the draft DCO [REP1-07].

9.5.70 In response to the Panel's second written question CA17(b) [PD-017] highlighting the Panel's concern that, as drafted, Article 39(a) purports to permit the Crown to consent to the CA of their interests which is not permissible under PA2008, the Applicant amended the BoR at Version 3 [REP4-011 to REP4-014] to reference each remaining plot containing an interest held by the Crown: "*Including all interests other than those interests held by or on behalf of the Crown in accordance with Article 39 of the Order*" [REP4-006]. (Note the ExA's query of this statement below.) In its response [REP4-005] TCE concurred with this approach.

9.5.71 The phrase "*in accordance with Article 39 of the Order*" was deleted by the Applicant at D5 following the Panel's query at question CA17(b) of its second written questions [REP5-001].

9.5.72 Consent under s.135(1) of PA2008 was granted by:

- (i) the SoS for Defence at D2 [REP2-018] in respect of plots 34 to 44; and
- (ii) the Highways England Historical Railways Estate at D2A [REP2A-012] in respect of plot 168.

By the close of the Examination all other land, previously identified as being held on behalf of the Crown, was evidenced as having been taken into the ownership of organisations not being the Crown or a Crown authority.

9.5.73 During the course of the Examination ownership of the Government Pipelines and Storage system was transferred to CLH Pipelines Ltd and consequently it was the Applicant's view that plot nos. 461 and 463 no longer constituted Crown land (see the Applicant's response to first written question CA16 [REP1-051]).

9.5.74 The submitted BoR recorded the SoS for Transport c/o the Highways Agency as having an interest in plots 175, 176, 178, 179, 181 to 187, 272, 377, 378, 388, 392 to 399, 404 to 409 and 437 and 441 [APP-018 to APP-022]. However, the Applicant recognised that procedures were underway to transfer these plots to Highways England Company

Ltd under the provisions of the Infrastructure Act 2015 (see Applicant's response to first written question CA14(a) [REP1-051]).

- 9.5.75 At the CAH on 17 September 2015, the Applicant reported that: *"further diligent inquiry had been made at the Land Registry and the results of searches dated 16 September 2015 confirm that legal title to title numbers HS352088, HS107710 and HS349933 which comprise plots 272, 377, 378, 388, 437 and 441 of the Order land passed from the Secretary of State for Transport to Highways England Company Limited on 20 August 2015. By virtue of these completed registrations it is also the Applicant's presumption that the Category 2 rights previously noted in favour of the Secretary of State for Transport in plots 392, 393, 394, 395 to 399, 404 to 409 of the Order land will now benefit Highways England Company Limited as they are rights in relation to drains and culverts and embankments for the benefit of the adjoining A180 (i.e. the land in plots 377, 378, 388, 437 and 441)"* [REP3-015].
- 9.5.76 The Applicant further stated that: *"The Applicant had sought s135 consent from the Secretary of State for Transport in respect of its Category 2 historical interests in plots 175, 176, 178, 179, 181 to 187; however, the Secretary of State for Transport has since confirmed to the Applicant that title to those plots, whilst not registered at the Land Registry, has also passed to Highways England. The Secretary of State for Transport has offered to provide a certificate confirming that this transfer has taken place and the Applicant is continuing to liaise with the Secretary of State in respect of this"*[REP3-015]. The SoS for Transport provided the certificate at D5 [REP5-017]. Plot 272 is omitted from the certificate; but the Applicant confirmed at the CAH that it too was transferred to Highways England Company Ltd [REP5-017].
- 9.5.77 At the second CAH on 29 October 2015 the Panel questioned the Applicant in detail on all land in the BoR in which the SoS for Transport had an interest at the beginning of the Examination and which was subject of transfer to Highways England Company Ltd to satisfy itself that the BoR expressed a clear purpose for each plot [EV-044 to EV-045].
- 9.5.78 Following its examination the ExA concludes that the DCO as recommended meets the tests in s.135(1) of PA2008 by virtue of the exclusion from CA of interests held by the Crown and the consents granted by the appropriate Crown authorities in respect of land in which an interest is held other than by or on behalf of the Crown.
- 9.5.79 However, the ExA notes that the Applicant's wording inserted into Part 1 of the BoR version 4 [REP7-010] not only removes the interest held by the Crown from CA but also those interests held on behalf of the Crown. As the Applicant has sought consent from the appropriate Crown authority to CA those interests and such consent has been given, the ExA considers that it might not have been the Applicant's intention to exclude interests held on behalf of the Crown from the

powers of CA. In its response at D4 [REP4-006] the Applicant states in explanation at paragraph 6 in response to question CA17(b) "*The Applicant considers that the amendments to the Book of Reference in relation to this point provide additional comfort (along with Article 39) that Crown interests are excluded from the scope of the compulsory acquisition powers sought in the draft DCO*". The ExA suggests that the SoS may wish to seek the views of the Applicant and request a revised BoR which removes the wording "or on behalf of" from any plots in which the Applicant seeks to CA an interest held on behalf of the Crown.

9.6 THE EXA'S CONSIDERATION OF THE COMPULSORY ACQUISITION ISSUES

EXA'S APPROACH

- 9.6.1 The ExA's approach to the question whether and what CA powers it should recommend to the SoS to grant has been to seek to apply the relevant sections of PA2008, notably s.122 and s.123, the DCLG Guidance, and the Human Rights Act 1998; and, in the light of the representations received and the evidence submitted, to consider whether a compelling case has been made in the public interest, balancing the public interest against private loss.
- 9.6.2 The ExA understands, however, that the draft DCO deals with both the development itself and CA powers. The case for CA powers cannot properly be considered unless and until the Panel has formed a view on the case for the development overall, and the consideration of the CA issues must be consistent with that view.
- 9.6.3 The ExA has shown in the conclusion to the preceding Chapter of this Report that it has reached the view that development consent should be granted. The question therefore that the ExA addresses here is the extent to which, in the light of the factors set out above, the case is made for CA powers necessary to enable the development to proceed.

The public benefit

- 9.6.4 The effect of s.122(1) and (2) of PA2008 is to provide that the land to be subject to CA must be required for the development to which the development consent relates; effectively that the land needs to be acquired, or rights over, or under it acquired or impediments upon it removed, in order that the development can be carried out.
- 9.6.5 To reach a judgement on this requirement the approach the Panel took was to examine:
- (i) the case which has been made for the grant of CA powers in respect of each and every plot included in the BoR;
 - (ii) the justification for the inclusion of the plots in the SoR;
 - (iii) the type and extent of interests sought;

- (iv) the stated use of the Order land and whether there are clear and necessary proposals in relation to each plot sought; and
- (v) the potential effects and consequences of taking the land proposed.

9.6.6 The Panel noted that the Applicant seeks to limit the use of CA powers by:

- relying on the acquisition of new permanent and existing rights and imposition of restrictive covenants to construct the project, apart from two plots (500 and 506) where freehold acquisition of land is sought to construct up to two electrical transmission stations on the substation site utilising HVDC and/or HVAC technology;
- restricting the acquisition of new permanent and existing rights and imposition of restrictive covenants to the onshore cable corridor and the site of the proposed substation(s) at North Killingholme;
- elsewhere, securing delivery of the onshore project's construction compounds, temporary construction access and compensation compounds through powers of temporary possession;
- placing a high priority on securing both permanent new rights and temporary possession by private treaty negotiation and demonstrating through the Examination progress in achieving successful negotiations [REP5-016]; and
- reducing the land required by the removal of plots 227, 382 to 387 (inclusive) and 389 to 391 (inclusive) and the reduction of plots 226 and 392 from the Order during the Examination.

9.6.7 The ExA is satisfied that, in the event of the grant of development consent for HP2 as applied for and now recommended by the ExA, there would be a need to acquire the land and rights and interests in the land within the DCO; that the land and rights sought are necessary; and that the powers sought in the DCO would be required to implement the development.

9.6.8 The ExA is further satisfied that the powers granted by the recommended DCO in respect of the acquisition of new rights and the imposition of restrictive covenants as proposed in Article 19 is limited to the Order land specified in Column 1 of Schedule E for the purposes set out in Column 2 and are defined in terms that meet the tests of s.122(a) and (b) of PA2008 and that the power to acquire existing rights as proposed in Article 19(1) and (2) is limited by Article 19(3) and Article 26(10) to the two plots 500 and 506.

- 9.6.9 With regard to s.122(3), in considering whether there is a compelling case in the public interest, there are a number of issues to be considered in balancing the public interest against the private loss which would occur.
- 9.6.10 The need for new energy NSIPs is recognised by NPSs EN-1, EN-3 and EN-5. NPS EN-1 explains that electricity meets a significant proportion of our overall energy needs and our reliance on it is likely to increase. It states that the UK needs all the types of energy infrastructure covered by it in order to achieve energy security at the same time as dramatically reducing greenhouse gas emissions. It advises that all applications for such development should be assessed on the basis that there is a need for those types of infrastructure. It sets out, in section 3.3, the key reasons why the Government believes that there is an urgent need for new electricity NSIPs.
- 9.6.11 The NPPF acknowledges the pre-eminence of NPSs in policy terms when considering NSIPs. It is clear from the relevant NPSs that there is a national need for electricity generating capacity of the type that is the subject of the application. There is a need in the public interest to protect the cables/ducts, once installed, and to ensure that the supply of electricity is not impeded. That represents a significant public benefit to be weighed in the balance.
- 9.6.12 In the ExA's opinion, in accordance with the three NPSs, the public benefits associated with the construction and use of HP2 would be clear, substantial and compelling.

Private loss

- 9.6.13 In the light of paragraph 13 of the DCLG Guidance¹⁰, the Panel has considered what assessment had been made of the effect upon APs and their private loss that would result from the exercise of compulsory powers.
- 9.6.14 The Panel recognises that the onshore element of the project has been designed so that the majority of works would take place beneath the ground. The cable corridor route selected seeks to minimise or avoid interaction with urban areas, residential property, non-agricultural businesses and other infrastructure. The extent of any private loss has therefore been mitigated both through the selection of the route and the undergrounding of the cables along it and the use of HDD in sensitive locations.
- 9.6.15 The majority of the plots would be agricultural land which, in the long-term, would be relatively insensitive to the proposed onshore infrastructure works. The undergrounding of the cables and ducts would enable the land to be returned to its original agricultural

¹⁰ DCLG Planning Act 2008 Guidance related to procedures for the compulsory acquisition of land, September 2013

purpose post-construction; although subject to new permanent rights and restrictive covenants following CA.

- 9.6.16 In the ExA's opinion, there is compelling evidence that the private loss imposed by the proposal has been minimised and is outweighed by the public benefits that will be derived from the use of CA and that the test of s.122(3) of PA2008 - that there is a compelling case in the public interest for the land to be acquired compulsorily - is met.

Alternatives

- 9.6.17 The DCLG Guidance requires (para 8) that:

"The applicant should be able to demonstrate to the satisfaction of the SoS that all reasonable alternatives to CA (including modifications to the scheme) have been explored..."

- 9.6.18 The ExA has considered this in terms of the selection of the site, the scale of the development proposed, the specific characteristics of the development and then in relation to the proposed acquisition of each parcel of land.
- 9.6.19 Doc 7.1.4 - Site selection and consideration of alternatives [APP-028] - sets out the Applicant's case for and the process of considering alternative sites and locations for the cable landfall, cable corridor and transmission stations/substation site and the consultations that were undertaken in relation to alternatives. The question of the proper examination of alternatives was discussed at the first CAH on 17 September 2015 [REP3-015].
- 9.6.20 It is the Panel's view that the Applicant conducted a robust testing of alternative locations for all three onshore elements of the project - the landfall; the cable corridor and the transmission/substation site - and selected locations that strike the right balance between economic, operational, environmental and amenity considerations. Additionally, the extent of the Order area was reduced during the Examination; adjustments were made to the line of the cable corridor in the light of consultations; outright acquisition of land is only sought in relation to two plots and considerable reliance is placed on the acquisition of rights and imposition of restrictive covenants and the use of powers of temporary possession to achieve the project.
- 9.6.21 The ExA is mindful of: the size of the project; its ability to contribute to national renewable energy sources; the evidence of consideration of alternatives; its own testing of proportionality and reasonableness in the land and rights, etc. sought through CA; the importance of securing land along the entire length of the 40km cable corridor in order for the project to be viable; and the progress that has been made in securing rights through private treaty negotiations. In the light of these considerations it concludes that the land for which CA powers are being sought is required to enable the construction, operation and maintenance of the onshore elements of HP2 and that there is no alternative to the use of CA powers, if required.

9.7 THE EXA'S OVERALL COMPULSORY ACQUISITION CONCLUSIONS

HUMAN RIGHTS ACT¹¹ 1998 CONSIDERATIONS

- 9.7.1 A key consideration in formulating a compelling case is a consideration of the interference with human rights which would occur if compulsory acquisition powers are granted.
- 9.7.2 The Applicant acknowledges in Section 7 of its composite updated SoR [REP4-017] that the DCO engages a number of the Articles of the Human Rights Act:
- (i) it would affect Article 1 of the First Protocol (rights of those whose property is to be compulsorily acquired and whose peaceful enjoyment of their property is to be interfered with);
 - (ii) Article 6 entitles those affected by CA powers sought for the project to a fair and public hearing of their objections; and
 - (iii) Article 8 protects private and family life, home and correspondence. No public authority can interfere with these interests except if it is in accordance with the law and is necessary in the interests of national security, public safety or the economic well-being of the country.
- 9.7.3 In the SoR [REP4-017] and at the CAHs [REP3-015] the Applicant set out the considerations that arise and stated that it had carefully considered the balance to be struck between individual rights and the wider public interest.
- 9.7.4 Through second written questions CL23 and CL24 [PD-017], with Article 8 in mind, the Panel tested the mitigation measures planned by the Applicant to protect the amenity of residential occupiers in proximity to the proposed project. It received a detailed response demonstrating the range of monitoring, communication and regulatory actions that were proposed in the Outline CoCP [REP4-006 and REP5-029], which the ExA deem to be satisfactory.
- 9.7.5 Having regard to the relevant provision of the Human Rights Act, the ExA has considered the individual rights interfered with and the submissions made by affected parties in this regard and is satisfied that:
- (i) in relation to Article 1 of the First Protocol the proposed interference with the individual's rights would be lawful, necessary, proportionate and justified in the public interest;

¹¹ <http://www.legislation.gov.uk/ukpga/1998/42/contents>
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- (ii) in relation to Article 6, as discussed in paras 9.5.47 to 9.5.51 above, all objections which have been made have been resolved with the objector and all parties have been given the opportunity to fully participate in the Examination; and
- (iii) in relation to Article 8 any interference is in accordance with the law, is proportionate and is necessary in the interests of the economic well-being of the country.

AVAILABILITY AND ADEQUACY OF FUNDS

9.7.6 DCLG Guidance requires that an application for a DCO is accompanied by a statement explaining how both the acquisition of land and the implementation of the project will be funded and that the funding will be available in a timely fashion within the time limits for implementation set by the DCO.

9.7.7 A Funding Statement (FS) was submitted with the application [APP-017]. Following the acquisition of the project by Dong Energy, an updated FS was submitted [EV-026] following the CAH on 17 September 2015 with a final composite submission at D5 [REP5-014]. It is explained that the project, including the promoter SMart Wind and the undertaker for Project A, Optimus Wind Ltd, and for Project B, Breesea Ltd, (to which CA powers are jointly granted by the DCO) is now wholly owned by Dong Energy.

9.7.8 Paragraph 2.4.1 and following of the composite FS [REP5-014] explains that "*Dong Energy Power (UK) Limited, a company incorporated in England and Wales (Company Registration No. 04984787) is a wholly owned subsidiary of Dong VIND A/S, a company incorporated in Denmark (Company Number 27256821). Dong VIND A/S is a wholly owned subsidiary of Dong VE A/S, a company incorporated in Denmark (Company Number 26510244). Dong VE A/S is a wholly owned subsidiary of Dong Energy Wind Power A/S, a company incorporated in Denmark (Company Number 31849292). Dong Energy Wind Power A/S is wholly owned by Dong Energy Wind Power Holding A/S, a company incorporated in Denmark (Company Number 18936674). Dong Energy Wind Power Holding A/S is wholly owned by Dong Energy A/S, a company incorporated in Denmark (Company Number 36213728). The above companies are (hereinafter) referred to collectively as 'Dong Energy'.*

9.7.9 *Dong Energy A/S is owned by the following shareholders:*

(Shareholders with less than 5% holdings may remain anonymous):

- (i) the Danish State (58.8% shareholding);
- (ii) New Energy Investment S.a.r.l, funds managed by Goldman Sachs (17.9% shareholding);
- (iii) SEAS-NVE (10.8%); and
- (iv) Others (12.5%).

- 9.7.10 The consolidated FS [REP5-014] includes the Dong Energy Annual Report for 2014. Dong Energy is one of the leading energy businesses in Northern Europe and has its headquarters in Denmark. The FS notes:
- average number of employees in 2014 was 6,416;
 - generated DKK 67 billion (£7 billion) in revenue in 2014;
 - develops, builds and operates offshore wind farms across Northern Europe;
 - has set a target of quadrupling its installed offshore wind capacity to 6.5GW by 2020;
 - over 20 years' experience in offshore wind farm development, and has built more offshore wind farms than any other company in the world to date;
 - currently operates seven offshore wind farms in the UK and has a strong pipeline of projects under construction and development;
 - in the first quarter of 2013 Dong Energy's Wind Power division generated 1.5 Terawatt hours of electricity across Europe;
 - has 2.5GW of offshore wind power in operation and almost 1.4GW under construction; and
 - the consolidated accounts for Dong Energy A/S for the year ending 31 December 2014 set out total Non-Current assets of DKK 91 Billion (£9.6 billion) based on the exchange rate in force at 31 December 2014.
- 9.7.11 In its second round written questions [PD-017] the Panel asked the Applicant at question CA20 a number of questions relating to the capital cost and capital funding of the project. In its reply at D4 [REP4-006] the Applicant emphasised Dong Energy's track record of delivering large and complex energy/infrastructure projects. It was not prepared to directly respond to the question on the capital cost of HP2; but on the evidence provided by the Applicant the Panel estimate an overall capital cost in the order of £5bn.
- 9.7.12 Dong Energy stated in response to the Panel's question that it expects to invest approximately £3.5 – £4.0bn in 2015 – 2016, with 60% of this investment in offshore wind. This would amount to approximately £2.1 – £2.4bn of new investment in offshore wind alone, all throughout 2015. The mechanism for raising these funds will be a mixture of internal financing and external debt financing through confidential but well established credit lines that have provided support for past project funding. At the CAH on 17 September 2015 [REP3-015] Dong Energy provided evidence of significant investment

in offshore wind in the period since 2007 funded from a mix of internal and external sources.

- 9.7.13 In its response to the Panel's questions, Dong Energy set out the process leading to a Final Investment Decision on major capital projects, which ensures a project cannot proceed until funding is in place. It completes its response by stating: "*Considering Dong Energy's large capital base, established access to finance and structured approach to internal approval, the Applicant does not consider there to be any serious impediment to the Applicant achieving the necessary funding within the timescales required*" [REP4-006].
- 9.7.14 The Applicant produced evidence from an experienced professional adviser that the maximum cost of compensation in respect of CA was £30m [REP5-014, Schedule 3], including compensation in cases where a voluntary agreement has been entered into. It was stated:
- "I have concluded that a cap of £30m would be more than sufficient to cover all relevant heads of claim known to me." Further, it is the opinion of the professional adviser that it was unlikely any claims for blight would be submitted and (for the reasons set out) "no claims for blight will be successful".*
- 9.7.15 It is pointed out in paragraph 3.6 of the composite FS [REP5-014] that the project companies (undertakers) are special purpose vehicles without substantial assets funded by their shareholders on a rolling budget basis. Schedule 2 [REP5-014] is a letter signed jointly by Dong Wind Power Energy A/S and the Project Companies (Optimus Wind Ltd and Breesea Ltd) confirming that upon request the shareholders (i.e. Dong Wind Power Energy A/S) will provide the Project Companies with the capital resources to meet land acquisition and compensation costs when and not until the SoS has confirmed the Order and the Final Investment Decision has been made.
- 9.7.16 The Applicant proposes that the compensation payment is secured by means of Article 4 of the recommended DCO [REP7-003] and sets out the following measures:
- (i) Article 4(1) of the Order provides that compulsory acquisition powers contained in Articles 18 to 28 of the DCO must not begin to be exercised unless a guarantee in respect of the liabilities of the undertaker to pay compensation in respect of the exercise of the relevant powers or an alternative form of security for that purpose is in place "which has been approved by the Secretary of State".
 - (ii) Article 4(2) of the DCO provides that such guarantee or other form of security is to be treated as enforceable against the grantor by any person to whom such compensation is payable.
 - (iii) Article 4(3) of the DCO provides that such guarantee or alternative form of security is to be in place for up to 20 years

from the exercise of the powers.

9.7.17 In paragraph 3.10 of the Composite FS [REP5-014] the Applicant states that:

"Article 4 of the Order is deliberately structured to avoid the need for the Examining Authority to enquire into this matter. It will be for the Secretary of State acting reasonably, to satisfy (himself) herself in relation to the adequacy of the guarantee or other form of security provided at the relevant time when powers require to be exercised. Careful consideration has been given to providing for that approval to be delegated to the local authorities within whose areas the land and rights that may be acquired are located. However, for a long linear project this may necessitate multi-party discussions on potentially more than one occasion with more than one local authority being required to approve a single guarantee or alternative form of security. The Project Companies consider this to be unnecessarily burdensome for the local authorities concerned and for the Project when the same control mechanism could be achieved with greater certainty of delivery and consistency of content through Secretary of State approval."

9.7.18 The ExA draws the SoS's attention to the wording of Article 4(1) and suggests that the location of the phrase 'which has been approved by the Secretary of State' within sub-paragraph (b) creates an unintentional error by not requiring SoS approval for sub-paragraph (a) and thereby fails to achieve the Applicant's purpose as set out in the Composite Updated Funding Statement at paragraph 3.10 and repeated in the previous paragraph [REP5-014]. In the light of this, the ExA recommends Article 4(1) be amended as follows:

"Guarantees in respect of payment of compensation

4.—(1) The undertaker must not begin to exercise the powers of articles 18 to 28 of this Order in relation to any land unless it has first put in place either—

(a) a guarantee in respect of the liabilities of the undertaker to pay compensation under this Order in respect of the exercise of the relevant power in relation to that land; or

(b) an alternative form of security for that purpose

which has been approved by the Secretary of State."

9.7.19 The ExA is satisfied that the Applicant and its subsidiary companies who will comprise the undertaker(s) have provided the information required by the DCLG Guidance and that resources for CA will be in place prior to the implementation of the DCO; that the Applicant is of sufficient standing and experience to provide the capital funding the project requires in full; and that the Final Investment Decision protocols ensure the project(s) will not commence until the required capital funding is in place.

THE EXA'S RECOMMENDATIONS ON THE GRANTING OF COMPULSORY ACQUISITION POWERS

9.7.20 Having examined the Applicant's case under s.122 of PA2008 as described above, the ExA conclude that the proposed DCO meets the tests of s.122(2)(a) and (b). Further, bearing in mind the over-riding need for the generation of renewable energy, in the ExA's opinion the test of s.122(3) of PA2008, that the condition is that there is a compelling case in the public interest for the land to be acquired compulsorily, is also met.

s.122(2)

9.7.21 This section of PA2008 sets out the purposes for which CA may be authorised. In the light of the CA Guidance, it is necessary to consider whether the Applicant has justified its proposals for the CA of the land.

9.7.22 The ExA is satisfied that the legal interests in all the plots of land included in the revised BoR and shown on the Land Plans (as amended) would be required for both the principal development and the associated development identified by the application. The requirements of s.122(2)(a) of PA2008 are therefore met.

s.122(3)

9.7.23 The ExA concludes that:

- (i) the development for which the land is sought would be in accordance with national policy as set out in the relevant NPSs and development consent should be granted;
- (ii) the NPSs identify a national need for electricity generating capacity of the type that is the subject of the application;
- (iii) there is a need to secure the land and rights required and to construct the development within a reasonable commercial timeframe, and the development represents a significant public benefit to weigh in the balance;
- (iv) the private loss to those affected has been mitigated through the selection of the application land; the undergrounding of the cables/ducts and the extent of the rights and interests proposed to be acquired;
- (v) the Applicant has explored all reasonable alternatives to the CA of the rights and interests sought. There are no alternatives which ought to be preferred;
- (vi) adequate and secure funding would be available to enable the compulsory acquisition within the statutory period following the DCO being made; and

(vii) the resource implications of a possible acquisition resulting from a blight notice have been taken into account.

9.7.24 The proposed interference with the human rights of individuals would be for legitimate purposes that would justify such interference in the public interest and to a proportionate extent.

9.7.25 Taking these various factors together, the ExA therefore concludes that there is a compelling case in the public interest for land and interests to be compulsorily acquired and therefore the proposal would comply with s.122(3) of the PA2008.

CONCLUSION

9.7.26 The ExA has examined the Applicant's request to be granted powers of CA to ensure the HP2 project can be implemented against the tests in PA2008. It has further considered all the objections and representations received from IPs and APs in the light of the requirements in PA2008 and related regulations and guidance. As a consequence, it now recommends that powers of CA be granted as amended during the Examination and as set out in the recommended DCO. The ExA is further satisfied that the powers of temporary possession sought by the Applicant are reasonable and proportionate in this case.

10 DRAFT DEVELOPMENT CONSENT ORDER AND RELATED MATTERS

10.1 INTRODUCTION

- 10.1.1 A draft DCO incorporating four DMLs and protective provisions [APP-010], and accompanying Explanatory Memorandum (EM) [APP-011], were submitted as part of the application documents. The draft DCO is in the form of a Statutory Instrument. It seeks to disapply certain existing legislative provisions and to compulsorily acquire and create new rights in land. The Explanatory Memorandum describes the purpose of the draft DCO and each of its proposed Articles and Schedules.
- 10.1.2 The draft DCO is largely based on the Infrastructure Planning (Model Provisions) (England and Wales) Order 2009 (Model Provisions). Although the Localism Act 2011 has changed the status of Model Provisions, the Applicant's general approach has been to follow these, whilst also following precedent set in other NSIP consents where this seems helpful. The ExA is satisfied that the Applicant's approach has been consistent and logical.
- 10.1.3 Given the complexity of the application, the draft DCO itself was identified as a Principal Issue in the Panel's Rule 6 letter [PD-004]. Throughout the Examination, the Panel probed into the detail of its structure and effectiveness. The draft DCO was updated several times throughout the Examination as a result of alterations suggested by the Applicant, IPs and the Panel. In response to the submissions, written questions by the Panel and the various hearings, the Applicant produced in total seven successive versions of the draft DCO during the course of the Examination.
- 10.1.4 The final versions submitted by the Applicant included:
- Version 8 of the DCO [REP7-003];
 - Comparison of Version 8 with Version 1 of the DCO [REP7-006];
 - Schedule of Changes [REP7-007];
 - Explanatory Memorandum Version 2 [REP7-008]; and
 - Comparison of Explanatory Memorandum Version 2 with Version 1 [REP7-009].
- 10.1.5 The scope of the draft DCO is set out in paragraphs 1.5 - 1.8 of the Explanatory Memorandum Version 2 where it states at paragraph 1.6:
- "The Order envisages the possibility that there will be a maximum of two generating stations, each the responsibility of a separate undertaker, comprising of up to a maximum of 300 wind turbine generators."* [REP7-008]
- 10.1.6 The Panel did not issue its own version of a draft DCO for comment during the Examination. However, various suggested amendments to the Applicant's final Version 8 of the DCO have been made in arriving

at the Panel's recommended DCO, which is at Appendix D. These amendments are set out in the following sections, with the changes summarised in Table 10.1.

- 10.1.7 The more significant points to arise in the Examination and the consequent changes made to the draft DCO and incorporated into the recommended DCO are considered below.

10.2 ARTICLES

Interpretation - Article 2 In-Principle Monitoring Plan

- 10.2.1 A definition of an In-Principle Monitoring Plan (IPMP) has been added. This followed the request of both the MMO and NE for the Applicant to prepare an IPMP setting out the types and objectives of monitoring that would be required over the lifetime of the project [REP4-025]. This plan is listed in Schedule M as a plan to be certified by the SoS.

Interpretation - Article 2 'Main River'

- 10.2.2 The Applicant has added a definition of 'main river' which is consistent with the definition given in Part 1 of Schedule L - Protection for the Environment Agency and drainage authorities [REP5-005].

Interpretation - Article 2 'Undertaker'

- 10.2.3 In the light of amendments made by the SoS to the definition of 'undertaker' in granting the Dogger Bank Creyke Beck DCO and the Teesside A and B DCO, the Applicant has sought to amend the definition of 'undertaker' in order to provide greater clarity and certainty to ensure the term always has a meaning which is clear and consistent with the definition used in recent made DCOs.

Disapplication of legislative provisions - Article 3

- 10.2.4 Article 3 of the draft DCO dis-applies certain legislative provisions relating to the EA and other bodies with drainage responsibility. Consent has been confirmed by; EA [REP1-059], Lincolnshire County Council, North Lincolnshire Council and North East Lincolnshire Council as Lead Local Flood Authorities, and North East Lindsey Drainage Board and Lindsey Marsh Drainage Board [REP1-059]. There are no other reasons why consent should not be granted of which the ExA is aware.

Guarantees in respect of payment of compensation - Article 4(1)

- 10.2.5 The Applicant has amended this Article to align it with the equivalent Article in the HP1 DCO. During the DCO ISH of the 30 July 2015 the ExA referenced the minor amendments that the SoS made to Article 4(1) of the HP1 DCO and queried whether similar amendments should be made to the HP2 DCO. The Applicant has accordingly amended Article 4(1) to read- 'any land unless it has first put in place'.... The

Article would prevent the exercise of any CA powers until a guarantee was in place in respect of liabilities of the undertaker to pay compensation, or an alternative form of security had been approved by the SoS.

Development consent etc. granted by the Order - Article 6(2) and (3)

- 10.2.6 The Applicant has amended the provisions of Article 6 to provide greater clarity as to which undertaker development consent is granted and to align the draft DCO with the decisions in respect of the Dogger Bank DCOs. The Panel queried the basis of two separate projects; A and B, within one draft DCO. The Applicant stated that this is a very large project which will require sufficient flexibility to allow the Project to be built out as compartmentalised projects. The Panel sought clarification as to the practicalities of Projects A and B working together. The Applicant replied that Requirements 20 and 25 of the draft DCO provide for co-operation between undertakers with Article 42 providing for a resolution of conflicts between the parties. However, the Applicant does not anticipate any likelihood of conflict between the parties involved [REP5-009, para. 3.7].

Highway Improvements - Article 14

- 10.2.7 This Article, which has precedent in the HP1 DCO enables the undertaker to carry out highway improvements, in this case at Tetney Lock Road. The Applicant confirmed that the Lincolnshire County Council Highways Department is content with the proposed works [REP5-005]. Lincolnshire County Council did not dispute this.

Protective work to building - Article 16

- 10.2.8 The Panel queried whether a definition of the term 'completion' would be useful in the context of para 2(b). The Applicant stated that it had reviewed every instance of where the term is used and is of the opinion that the meaning of the term is sufficiently clear and that the term means the completion of that part of the authorised works which has triggered the need for protective works [REP5-009]. The ExA agrees with this conclusion.

Compulsory acquisition of rights - Article 19

- 10.2.9 The Applicant clarified that as the limits of deviation for the Project A works and Project B works overlap. Paragraphs. (1) and (2) of this Article have been drafted to require the consent of the undertaker that is not seeking to acquire rights prior to that power being exercised. This is to ensure there is a control mechanism in place to prevent one undertaker from acting in a way that compromises the work of the other [REP5-009].

Temporary use of land for carrying out the authorised project - Article 26

- 10.2.10 At the CAH on 17 September 2015, the Panel suggested that a definition of 'completion' should be included in the draft DCO. The Applicant took up this suggestion, considering 'completion' to mean "*of construction, installation or implementation*" and has amended Article 26(5)(a) to read "*beginning with the date of completion of the construction, installation or implementation of the part of the authorised project ...*" and Article 26(5)(c) to read "*beginning with the date of completion of the construction, installation or implementation of the work for which temporary possession*" [REP3-015].
- 10.2.11 The Panel queried the justification and proportionality of the drafting of Article 26(10), which originally permitted the acquisition of any new rights over land specified in Schedule G (land of which temporary possession may be taken). In light of this, the Applicant was prepared to restrict the CA powers that may be exercised and amended Article 26(10) accordingly to limit the CA powers to the plots specified in Schedule E (land in which new rights, etc., may be acquired [REP3-015 and REP7-007]).

Temporary use of land for maintaining the authorised project - Article 27(11)

- 10.2.12 The Applicant felt that in the light of the amendments to Article 26(5), in respect of the clarification of the use of the word 'completion', a consequential further clause needed to be added to Article 27 at subsection (11) to ensure that there was no gap between the two provisions; that is, between the temporary use of land for carrying out the authorised project and the temporary use of land for maintaining the authorised project. This new clause ensures that temporary possession can be taken for maintenance purposes in the event that a defect is detected after completion but prior to first energisation.

Felling or lopping of trees and removal of hedgerows - Article 30(4)

- 10.2.13 At the first ISH on the DCO on 30 July 2015 the Panel asked why Regulations 5 and 7 of the Hedgerow Regulations 1997 had been dis-applied and queried whether amending Regulation 6 would not suffice. The Applicant agreed and has altered Article 30(4) to amend Regulation 6 of the Hedgerow Regulations 1997 only rather than dis-apply Regulations 5 and 7; thereby giving the DCO the same status as the grant of planning permission within the Hedgerow Regulations 1997 [REP2A-006].

Transfer of benefit of Order - Article 35

- 10.2.14 The Applicant, following a review of the DCOs of consented wind farms, introduced a new clause 4(b) to make it clear that any transferred benefit is enforceable against the transferee rather than the original undertaker [REP7-007]. Furthermore, at the second ISH

regarding the DCO on the 28 October 2015, the MMO stated that it was concerned with the proposed wording of the new clause 4(b) in that it may not be able to enforce against the original undertaker for breaches occurring prior to the transfer. The Applicant introduced new wording at the ending of this clause to clarify this issue [REP5-005]. The complete wording of paragraph 4(b) now has the agreement of the MMO [REP5-009].

10.2.15 The MMO requested that the wording in Article 35(6) be amended to make it clear that the MMO will be advised in writing of all transfers within its jurisdiction [REP5-005].

10.2.16 Article 35 remains the only area of disagreement between the Applicant and the MMO. As noted above, in Article 35(4) and (6) the Applicant has amended the wording to the satisfaction of the MMO. However, the MMO fundamentally disagrees with the principle of the transfer of benefit provisions owing to the practicalities of ensuring compliance, as the post-consent enforcement body, across multiple undertakers and parties [REP2-008]. On the other hand, the Applicant is of the opinion that as the SoS has already granted consent to the Dogger Bank Teesside A and B NSIP in 2015, Dogger Bank Creyke Beck NSIP in 2015 and HP1 in 2014, all with the same provision in their DCOs, the SoS should approve Article 35 in the HP2 DCO [REP5-035]. For the reasons set out in the reports and decisions in respect of these previous applications, the ExA agrees with the Applicant in regard to this Article and supports the inclusion of this Article as set out in the recommended DCO.

Deemed Marine Licences under the Marine and Coastal Access Act 2009 - Article 36

10.2.17 The MMO requested the wording be amended to make it clear that the DMLs are granted under Part 4 of the 2009 Act. The Applicant has done this [REP5-005].

Certification of plans etc. - Article 40

10.2.18 The MMO and NE requested that the Applicant prepare an IPMP setting out the types of monitoring with objectives that will be required over the lifetime of the project [REP5-032]. At the ISH on the 28 October 2015 the Panel suggested that the documents to be certified be listed in a Schedule to the DCO rather than in Article 40 of the DCO itself. The Applicant has done this in Schedule M (Documents to be certified).

10.3 SCHEDULE A - AUTHORISED PROJECT

10.3.1 The draft DCO defines the works to be authorised in Schedule A, Part 1 (Authorised Development). The Undertakers for the Project are Optimus Wind and Breesea, with Optimus responsible for Works 1A to 9A and Breesea Works 1B to 9B. Shared works can be carried out by Optimus Wind or Breesea. This is subject to transfer provisions within the draft DCO [REP7-003, Requirement 6(3)].

- 10.3.2 Two changes were made to Schedule A during the course of the Examination.
- 10.3.3 First, as noted in section 2.2 of this Report, on 24 September 2015, the Applicant confirmed that it proposed, in relation to Work 4A and 4B, to remove the export cable option that ran through the HP1 development site, thereby reducing the Order limits [REP3-004 and REP3-027]. In the light of this, the Applicant amended the principal co-ordinates of the limits of deviation for Work 4A and Work 4B in version 5 of the DCO [REP4-007].
- 10.3.4 Secondly, as a result of discussions between the Applicant and NE, the potential effect on the kittiwake populations of the FHBC SPA and the FFC pSPA has been mitigated [REP7-034] by a combination of changes: reducing the maximum number of wind turbines that would be authorised in the DCO from 360 (5MW) to 300 (6MW) in Works 1A and 1B combined [REP7-003, Part 1, 3)]; increasing the minimum blade tip height from 26m relative to lowest astronomical tide (LAT) to 34.97m relative to LAT [REP7-003, Requirement 2(1)(d)]; and reducing the rotor diameter from 250m to 241.03m [REP7-003, Requirement 2(1)(c)].
- 10.3.5 Work 2A will comprise up to, if HVAC, six collector substations and, if HVDC, up to two converter substations together, with electrical circuits connecting Work 2A with 2B.
- 10.3.6 Work 2B will comprise up to, if HVAC, six collector substations and, if HVDC, up to two converter substations, together with electrical circuits connecting Work 2A with 2B.
- 10.3.7 Work 3A will comprise up to, if HVAC, two reactive compensation substations situated approximately midway between Horseshoe Point and the wind farm area.
- 10.3.8 Work 3B will comprise up to, if HVAC, two reactive compensation substations situated approximately midway between Horseshoe Point and the wind farm area.
- 10.3.9 Work 4A will comprise the export electrical cable(s) to the shore from the wind farm area. If HVAC, then up to eight subsea electrical circuits will be required and, if HVDC, then two subsea electrical circuits will be required.
- 10.3.10 Work 4B will comprise the export electrical cable(s) to the shore from the wind farm area. If HVAC, then up to eight subsea electrical circuits will be required and, if HVDC, then two subsea electrical circuits will be required.
- 10.3.11 Work 5A is the foreshore connection of Work 4A crossing under the existing seawall at Horseshoe Point and terminating at Work 6A, comprising up to eight underground transmission joint bays between the offshore and onshore circuits.

- 10.3.12 Work 5B is the foreshore connection of Work 4B crossing under the existing seawall at Horseshoe Point and terminating at Work 6B, comprising up to eight underground transmission joint bays between the offshore circuits and onshore circuits.
- 10.3.13 Work 7A is the underground cables from the transmission joint bays (Work 6A) to the transmission/converter station (Work 8A). If the mode of transmission is HVDC, two transmission circuits will be required and if the mode of transmission is HVAC then up to eight transmission circuits will be required.
- 10.3.14 Work 7B is the underground cables from the transmission joint bays (Work 6B) to the transmission/converter station (Work 8B). If the mode of transmission is HVDC, two transmission circuits will be required and if the mode of transmission is HVAC then up to eight transmission circuits will be required.
- 10.3.15 Work 8A is for up to two electrical transmitting stations on land adjoining the North Killingholme NG substation.
- 10.3.16 Work 8B is for up to two electrical transmitting stations on land adjoining the North Killingholme NG substation.
- 10.3.17 Work 9A is for the connection from Work 8A to the above-mentioned substation.
- 10.3.18 Work 9B is for the connection from Work 8B to the above-mentioned substation.
- 10.3.19 Work 10 relates to improvements to highways and private access roads.
- 10.3.20 In Works 2A and 2B the number of HVAC collector substations must not exceed six and the combined total of HVDC collector substations must not exceed two.
- 10.3.21 In Works 3A and 3B the combined total of reactive compensation substations must not exceed two.
- 10.3.22 In Works 4A and 4B the combined total of electrical circuits must not exceed, if HVAC eight, and if HVDC two.
- 10.3.23 In Works 6A and 6B the combined total of joint bays must not exceed eight.
- 10.3.24 In Works 7A and 7B the combined total of electrical circuits must not exceed, if HVAC eight, and if HVDC two.
- 10.3.25 In Works 8A and 8B the combined total of transmission stations must not exceed two.
- 10.3.26 In Works 9A and 9B the combined total of electrical circuits must not exceed two.

- 10.3.27 The details of the associated development required to support HP2 are given in Chapter 2 (paras. 2.1.8 and 2.1.9); these are within the scope of the environmental assessment as recorded in the ES.
- 10.3.28 The plans that the SoS would need to certify should she give consent to the scheme are specified in Schedule M of the recommended DCO.
- 10.3.29 The Panel is satisfied that the works are described adequately and correctly, and that the limits of deviation have been determined appropriately where required.

10.4 REQUIREMENTS

- 10.4.1 The Requirements are set out in Schedule A Part 3 of the recommended DCO.
- 10.4.2 After seven iterations and several changes to the Requirements in the DCO, the principal changes are as follows:

Requirement 2(1) - Detailed design parameters

- 10.4.3 Following discussions between the Applicant and NE regarding the potential effect of the project on the kittiwake populations of the FHBC SPA and the FFC pSPA, the Applicant proposed refinements to the project's design envelope. The following has been agreed with NE:
- (a) the smallest capacity of WTG is to be 6MW instead of 5MW. This reduces the maximum number of WTGs from 360 to 300 [REP7-003, Part 1, 3]; and
 - (b) increasing the maximum blade height from the Lowest Astronomical Tide (LAT) to 34.97m from 26m [REP7-003, Requirement 2(1)(d)], and reducing the rotor diameter from 250m to 241.03m [REP7-003, Requirement 2(1)(c)].
- 10.4.4 The Panel agreed to accept these changes in its Rules 17 and 8 letter of 26 November 2015 [PD-019] and Rule 17 letter of 7 December 2015 [PD-021]. Based on the above mitigation, NE has concluded that HP2 either alone or in-combination would not cause an adverse effect on the integrity of gannet, guillemot, razorbill, puffin or kittiwake [REP7-021] as set out in Chapter 6 of this Report.

Requirement 2(8) - Detailed design parameters

- 10.4.5 In its RR [RR-012] the EA requested a restriction in the DCO requiring the cables to be passed under the seawall using trenchless techniques. The ExA supports the change to provide for this.

Requirement 2(11) and (14)

- 10.4.6 At the DCO ISH on the 30 July 2015 the Panel asked whether further detail could be provided in respect of the specification of design parameters in Requirement 2 of the DCO. In response, the Applicant

has amended Requirement 2(11) to include the maximum parameters of the main buildings in Works 8A and 8B, and in Requirement 2(14) has stated the maximum width of the onshore cable corridor to be 30m except where the cables pass under the sea wall and into the transition joint bays where the maximum width must not exceed 150m [REP2A-006]. The ExA agrees with the amendments made.

Requirement 2(13)

- 10.4.7 At the request of the EA in its RR [RR-012], the Applicant has agreed to the addition of clause (13) limiting the installation of electrical circuits under Main Rivers to trenchless techniques.

Requirement 5

- 10.4.8 As discussed in Chapter 5 Section 5.10, the ExA has suggested an amendment to the wording of 5(4) and this is set out in Table 10.1 below.

Requirement 7 - Code of Construction Practice

- 10.4.9 No part of the authorised development is to take place until a CoCP landward of MLWS has been approved by the LPA with any travel plan submitted to Highways England. NE confirmed that it had reached agreement with the Applicant on a proposed amendment to the CoCP to provide sand dune monitoring [REP5-009]. NE requested that a separate document covering a method statement for the landfall aspects of the cabling works should be included in the DCO. The Applicant noted that such details will be included in the CoCP and this approach is accepted by NE [REP7-007]. The ExA agrees with this.

Requirement 8 - Landscaping

- 10.4.10 No part of the authorised development landward of MLWS is to commence until a written landscape plan has been approved by the relevant LPA. As noted in Chapter 5, the Panel queried whether the LPAs were content with the proposed approval process under this Requirement. The LPAs have confirmed that they are content with this process and will sign off the relevant part of the scheme within their area of governance [REP5-009].

Requirement 10 - Offshore decommissioning

- 10.4.11 The Panel queried whether the offshore decommissioning programme required any indication of the costs involved. The Applicant confirmed that costs would be considered as part of its preparation [REP5-009].

Requirement 13 - Surface water drainage

- 10.4.12 East Lindsey District Council queried where drainage from compounds was considered under the draft DCO [REP5-009, para.5.12]. The Applicant confirmed that this would be addressed as part of the CoCP.

Requirement 17(1) - Employment and skills plan

- 10.4.13 At the ISH held on 27 October 2015, and as discussed in Chapter 5 of this Report, the Applicant advised [REP5-008] that it would be submitting an outline employment and skills plan and reference to this would be made in Requirement 17(1) of the draft DCO. Any detailed employment and skills plan should be based on this outline plan. At the same ISH, North East Lincolnshire Council and East Lindsey District Council requested that they be consulted by the North Lincolnshire Council when approving this plan. Requirement 17(1) has been amended to address this. The ExA is satisfied with this.

Requirement 24 - Control of noise during the operational phase

- 10.4.14 North Lincolnshire Council requested the inclusion of an operational noise requirement in the DCO [REP2-035]. The Applicant has included a new Requirement 24, the wording of which has been agreed by North Lincolnshire Council and with which the ExA is in agreement [REP2A-006].

Requirement 25 - Onshore co-operation

- 10.4.15 At the DCO ISH held on the 30 July 2015, the Panel questioned if the mechanism for co-operation between undertakers in relation to the submission of pre-construction plans for offshore works (Requirement 20) could be extended to onshore works. The Applicant agreed to this and included a new Requirement in Version 4 of the draft DCO [REP2A-006]. At the ISH, the Panel also questioned whether onshore co-operation could include provision for the LPAs to call liaison meetings as necessary [REP5-008]. The Applicant agreed and this has been included as clause (4) of this Requirement. The ExA considers this to be relevant and necessary.

Requirement 26 - Intertidal access management plan

- 10.4.16 Following discussions with NE, and as set out in Chapter 6 of this Report, the Applicant agreed to include this Requirement to secure the need for an intertidal access management plan, to be approved by the LPA in consultation with NE [REP5-036]. The ExA considers this to be necessary.

Requirement 27 - Navigational safety at the Saturn, Mimas and Tethys offshore platforms

- 10.4.17 ConocoPhillips agreed to withdraw its objection to the project towards the end of the Examination [REP7-001]. This was on the basis that the Applicant agreed to include a Requirement securing measures to ensure mitigation of any adverse impacts on the ability of ConocoPhillips' Radar Early Warning System to ensure the safety of its Saturn, Mimas and Tethys offshore platforms for the lifetime of the HP2 project. Requirement 27 has been included to secure this, the wording of which has been agreed by ConocoPhillips. The ExA considers the inclusion of this Requirement to be necessary.

10.5 PROTECTIVE PROVISIONS

- 10.5.1 The protective provisions are set out in Schedule L of the draft DCO. The Applicant provided an update on the status of agreed protective provisions at D7 [REP7-025].

DRAINAGE AUTHORITIES

- 10.5.2 Part 1 of the Schedule covers protection for the EA and other drainage authorities. Agreement to these provisions by the EA, North Lincolnshire Council, Lincolnshire County Council, North East Lincolnshire Council, North East Lindsey Drainage Board and Lindsey Marsh Drainage Board was provided at D1 [REP1-059].

NATIONAL RAIL INFRASTRUCTURE LTD

- 10.5.3 Part 2 provides protection for Network Rail Infrastructure Ltd, which has confirmed its agreement to the provisions as drafted [AS-006].

ELECTRONIC COMMUNICATIONS CODE NETWORKS

- 10.5.4 Part 3 relates to operators of electronic communications code networks. British Telecommunications plc has confirmed its satisfaction with the provisions [REP3-026].

UTILITY UNDERTAKERS

- 10.5.5 Part 4 provides protection for Utility Undertakers with the specific exception of Anglian Water, Centrica, VPI Immingham, C.Gen Killingholme and the Hornsea 1 companies, which are subject to separate protective provisions. However, Northern Powergrid (Yorkshire) plc objected to the project on the grounds that it would have a detrimental effect on its undertaking [RR-024]. The Applicant was hopeful that protective provisions could be agreed before the close of the Examination but this has not been the case. The Applicant considers that the form of protective provisions in favour of Utility Undertakers given in Part 4 is sufficient to protect the interests of Northern Powergrid (Yorkshire) Plc [REP7-025]. The situation regarding Northern Powergrid is discussed in Section 9.5 of this Report. The ExA agrees with the Applicant's view that the protective provisions as set out in the recommended DCO would adequately protect Northern Powergrid's interests.

ASSOCIATED BRITISH PORTS

- 10.5.6 Part 5 provides protection for Associated British Ports which has confirmed that the protective provisions meet its requirements [REP3-025].

ANGLIA WATER SERVICES LTD

- 10.5.7 Part 6 provides protection for Anglia Water Services Ltd which has confirmed that the protective provisions meet its requirements [REP2-001].

CENTRICA PLC

- 10.5.8 Part 7 provides protection for Centrica Plc which confirms at REP6-016 that it is satisfied with the protective provisions, withdrawing its representations.

VPI IMMINGHAM LLP

- 10.5.9 Part 8 provides protection for VPI Immingham LLP which confirmed at REP7-040 that it is satisfied with the protective provisions, withdrawing its representations.

PHILLIPS 66 LTD

- 10.5.10 Part 9 provides protection for Phillips 66 Ltd which confirmed at REP4-035 that it is satisfied with the protective provisions and did not intend to take part in the Examination.

CONOCOPHILLIPS UK LTD

- 10.5.11 Part 10 provides protection for ConocoPhillips in respect of its pipeline. It confirms it is satisfied with the protective provisions in this respect and withdrew its objection on the basis of the inclusion of the provisions [REP7-001].

C GEN KILLINGHOLME LTD

- 10.5.12 Part 11 provides for the protection of C. Gen Killingholme Ltd which confirms that it is satisfied with the protective provisions, withdrawing its representations [REP4-002].

HORNSEA ONE COMPANIES

- 10.5.13 Part 12 provides for the protection of the HP1 companies which confirm that they are satisfied with the protective provisions [REP2A-025]. The HP1 companies confirmed withdrawal of their representations on the basis of inclusion of the agreed protective provisions [REP3-003 and EV-024].

E.ON E&P UK LIMITED - PART 13

- 10.5.14 E.ON E&P UK Limited (for brevity hereafter referred to as E.ON) acquires, appraises and develops oil and gas exploration licences, acts as an operator in the development of discovered resources and, where appropriate, purchases stakes in strategically important oil and gas fields [RR-009 and REP1-023].

- 10.5.15 There is a substantial overlap between the area covered by the HP2 application site for the turbine array and DECC's 28th offshore Licensing Round block known as 48/3 for oil and gas exploration and appraisal (shown in ES Fig 11.7 [APP-040], Plan A in REP1-023 and the plan within REP3-002). E.ON has been formally awarded the licence for Block 48/3 by the Oil and Gas Authority [REP2-005]. It has a joint venture partner, Bayerngas Europe Limited. The overlap includes the Joly, Newton, Newton Deep and Dodgson exploration and future development prospects [REP1-023, Plan B].
- 10.5.16 There could therefore be potential conflict between the development of the proposed wind farm and the exploitation of oil and gas reserves within such an overlap area. Nonetheless, policy relating to offshore development recognises the need for compromise and the need for a pragmatic balancing of interests.
- 10.5.17 NPS EN-3 states at para 2.6.183:
- "Where a proposed offshore wind farm potentially affects other offshore infrastructure or activity, a pragmatic approach should be employed by the (decision-maker). Much of this infrastructure is important to other offshore industries as is its contribution to the UK economy. In such circumstances the (decision-maker) should expect the applicant to minimise negative impacts and reduce risks to as low as reasonably practicable".*
- 10.5.18 Paragraphs. 2.6.183 - 2.6.185 of EN-3 recognise: the contribution to the UK economy of other offshore operators apart from renewables; that negative impacts, disruption and economic loss on these other operators should be minimised; and that any adverse effects on the future viability and safety of other operators should be given substantial weight in any decision-making.
- 10.5.19 Policy GOV 2 of the Eastern Inshore and Offshore Marine Plan (EIEOMP) states that opportunities for co-existence should be maximised wherever possible, paragraph 267 indicating that proposals should demonstrate the extent to which they will co-exist with other existing or authorised (but yet to be implemented) activities and how this will be achieved.
- 10.5.20 In its RR, E.ON, expressed concern that the HP2 application failed to make adequate provision for co-existence with E.ON oil and gas interests during construction, operation and decommissioning stages, with no consideration of how HP2 could safely progress in a way which did not significantly affect those interests [RR-009]. Details of the manner of how Block 48/3 would likely to be progressed, and which would necessarily run concurrently with progress on HP2, are set out in E.ON's Written Representations [REP1-023]. In short, E.ON's timetable for exploitation of its licensed interests clashes with the Applicant's programme for construction and operation of the wind farm. Were HP2 to be consented without due regard to E.ON's

interests, this would result in the sterilisation of the vast majority of E.ON's licenced block [REP7-032, para 1.1].

10.5.21 E.ON's concerns, as detailed in its Written Representations [REP1-023], as to how HP2 would limit its potential operations can be summarised as: HP2's turbines, cabling and safety zone would limit well positioning, drill rig access, platform and subsea structures positioning, pipeline and umbilical routeing, the ability to undertake large-scale seismic surveys for the known prospects, and general support operations for the installations within Block 48/3. In more detail:

- in terms of access and logistics there are concerns as to the safe operation of helicopter approaches to installations;
- increased operational complexity and longer transit routes and times for helicopters and vessels between E.ON's existing gas production platform in the Babbage field (to the west of Block 48/3 and shown on Plan B in REP1-023);
- increased traffic associated with the development of HP2 and concurrency of the development of Block 48/3 would lead to greater risk of collision;
- restriction in the ability to carry out comprehensive seismic surveys because of the construction and/or operation of HP2;
- the development of wells and their necessary safety zones could be limited; if wind farm cabling is laid first, pipelines for all the prospects within Block 48/3 would need to be laid over the cables resulting in greater impact and risks to safety, and more complex and expensive pipeline installation; and
- the design life for HP2 could cause issues for field decommissioning.

10.5.22 E.ON considered that the HP2 application did not go into sufficient detail to explain the impact of the proposed wind farm on the development of Block 48/3. Nor did it sufficiently explain how site location and design had been carried out with a view to minimising disruption or economic loss, or adverse effects on safety, as required to do by NPS EN-3. As such, without agreement and arrangement for co-existence, E.ON was of the view that the HP2 application would be likely to affect the future viability of its licensed activities [REP3-002].

10.5.23 Near to the close of the Examination, E.ON's position was that:

- E.ON holds an oil and gas licence which would be clearly prejudiced by the HP2 application;

- it is clear from NPS EN-3, the MPS and the EIEOMP that the balancing of conflicting interests must be considered as part of the current consenting process;
- the information produced pre- and post-application and available in the public domain means that the oil and gas activities in Block 48/3 were reasonably foreseeable as being in the normal course of activities that would be expected of any licence holder, in an area known for its oil and gas prospects, and previously covered by a licence held by E.ON, with an oil and gas round ongoing. That information has not been properly taken into account by the Applicant, resulting in the application and environmental information before the ExA failing to assess the likely significant effects on E.ON's licensed activities;
- E.ON has concerns about the assessment of effects on helicopter access as a result of HP2, as well as navigational safety;
- the use of the 'oil and gas clause' mechanism (which in an offshore renewables agreement allows the Crown Estate Commissioners to determine all or part of the development site, on the request of the SoS, in order to enable oil and gas works), and considered in detail in REP5-034, is not an appropriate mechanism for resolving conflict. It is a last resort to be employed only if an application has been made for consent to oil and gas development and there is no other option to allow this to proceed. The compensation costs of its use would be prohibitive, meaning that E.ON would simply not request that the clause be exercised since it would not make economic sense, and E.ON would therefore be unable to pursue its licensed interests in Block 48/3. There would be a failure to achieve the balance of energy generation promoted by Government policy;
- the current DCO process is the proper point at which to consider and reach a decision on the appropriate balance of the conflicting interests;
- the HP2 application fails to comply with the NPS, failing to find solutions to allow co-existence, and not adequately minimising or adequately mitigating impacts, disruption or economic loss on E.ON's licensed activities; and
- however, all that said, it would not be necessary for the application to be refused consent provided that the protective provisions proposed by E.ON are put in place. These would allow E.ON the minimum flexibility required to exploit the known prospects in its licensed area, together with an obligation to release the area when relinquished under the licence. It would leave the Applicant with the large majority of its project site intact, with sufficient area to erect up to the 300 turbines now applied for [REP7-032, paras. 1.1 -1.11].

- 10.5.24 It is clear that discussion between E.ON and the Applicant has been ongoing since 2013 [REP3-002]. Extensive and constructive discussion continued outside of the Examination throughout its course with a view to finding agreement and a mutually acceptable way forward, with the prospects of reaching a commercial agreement. Suggested protective provisions as an alternative were respectively tabled by the Applicant and E.ON (final versions of which are at OD-005 (Applicant) and OD-006 (E.ON)).
- 10.5.25 At the same time, considerable evidence was presented for the Panel's consideration in the event that agreement could not be reached, with E.ON's position in these circumstances as summarised above. The Applicant, in turn, responded in detail to the points of concern raised by E.ON.
- 10.5.26 This included responses as to the adequacy of environmental information, the Applicant noting the extensive consultation with E.ON which informed the assessment of infrastructure and other users presented in the ES. The ES was produced before the award of Block 48/3 to E.ON but the ES assessed the potential for this to occur and the potential activities which would include exploration wells and seismic data acquisition. Account has been taken within the ES of the most likely potential activities of E.ON to the extent that information was publically available and against the background of the offshore licensing regime. Assessment has been carried out in line with policy requirements [REP6-009].
- 10.5.27 Concerns about helicopter and vessel access to Block 48/3 and increased operational complexity and longer transit routes to the existing Babbage platform have been addressed in REP1-080, with further detail in REP6-009. The Applicant notes that the 'oil and gas clause' process is available to E.ON as part of its own consenting process for exploratory works as well as later development. Rather than being a reason to ignore or disapply the other consenting regimes and policies in place, the high degree of uncertainty existing with E.ON's plans at present militates decisively in favour of preserving the integrity of these other consents [REP6-009].
- 10.5.28 Having regard to co-existence, the Applicant states that it took account of E.ON's proposed development to the extent possible based on information publically available and not stated to be confidential. A licence for Block 48/3 was not announced until after the Applicant's DCO application had been made and consultation with a view to achieving acceptable co-existence continued throughout the Examination period [REP6-009].
- 10.5.29 The situation reached by the very end of the Examination was that the parties were close to agreement of commercial terms in order to protect E.ON's position but that it had not been possible to confirm this. However, E.ON was hopeful of reaching an agreement in the very near future thereafter [OD-006]. In the absence of a commercial agreement, it would be necessary to consider which of the two

suggested sets of protective provisions may serve to strike the correct balance between the potentially conflicting interests.

How the issue was examined

- 10.5.30 In light of E.ON's RR and response to the ExA's Rule 6 letter [RR-009 and AS-009], the ExA sought in its first written questions an update on progress on discussions [PD-010, question CS14]. A response was provided by the Applicant commenting on the points raised in E.ON's RR [REP1-080]. In turn, E.ON provided comments on the Applicant's responses [REP2-005], with the Applicant responding to E.ON's Written Representations [REP2-026].
- 10.5.31 E.ON attended the ISH on 15 September 2015, subsequently providing a summary of its oral submissions, noting the Applicant's willingness to engage. It also noted that discussions had not advanced as far as hoped and outlined the challenges faced in reaching agreement on co-existence [REP3-002].
- 10.5.32 In the second written questions the Panel sought an update on progress between the Applicant and E.ON in developing a co-existence agreement, possibly also with protective provisions [PD-016, question CS20]. E.ON responded, noting the meetings that had been held with the Applicant subsequent to the 15 September ISH and the constructive discussions that sought to agree a commercial agreement. Such an agreement would, amongst other matters, set out an agreed position regarding each party's activities in and around the area in which their interests overlap. This was echoed in the Applicant's response [REP4-043 and REP4-006].
- 10.5.33 In notes following evidence provided at the ISH on 27 October 2015, the Applicant provided a summation of the evidence within the application and subsequent written responses with regards the effects of HP2 on E.ON's current and proposed activities [REP5-008 and REP5-011]. These set out that, whilst the parties had sought to pursue a commercial agreement which could regulate interactions and co-existence, completion of such an agreement had not at that time proved possible. The Applicant had therefore taken the pragmatic step of offering protective provisions to secure protection of E.ON's interests [REP5-008, para 4.28]. The Applicant also provided a brief response to points made in oral evidence by E.ON [REP5-012].
- 10.5.34 For its part, E.ON noted in evidence following the ISH on 27 October 2015, the continuing dialogue and series of meetings that had been held with the Applicant in an attempt to reach agreement. However, it also provided extensive submissions to allow scrutiny by the ExA in the event that it was not possible to reach agreement. These included at Appendix 2, its version of proposed protective provisions [REP5-034].
- 10.5.35 Further detailed submissions were provided at D6 by both the Applicant [REP6-009 to REP6-013] and E.ON [REP6-019]. These

included the Applicant's set of protective provisions for the protection of E.ON [REP6-010] together with a comparison of these against the suggested set of provisions put forward by E.ON [REP6-011].

10.5.36 E.ON requested that a further ISH should be held in relation to the issues between it and the Applicant [OD-003]. The Panel carefully considered this request and decided not to hold a further Hearing [PD-019]. In its procedural decision letter of 26 November 2015 the Panel stated in relation to E.ON's request: *"To enable full consideration of this matter and fairness to all parties, the Case Manager sought the views of the Applicant (OD-004). Having considered the information in these submissions, in addition to the submission of documents for Deadline 5, the Panel welcomes the further information provided by both the Applicant and E.ON on relevant issues and on possible ways forward, and believes that this provides a clear basis for progress on outstanding issues without the need for an oral hearing. The Panel emphasises again that the examination is primarily a written process, and our decision is not to hold a further hearing. We have set out in this Rule 17 letter what further information we require from the Applicant and E.ON on the issues between them..."*

10.5.37 One question under Rule 17, addressed to both parties, was to elicit further information on how they saw matters progressing, on the basis that there appeared to be clear scope for co-existence [PD-019, question 7]:

"The ExA welcomes the willingness by E.ON E&P Ltd and the Applicant to adopt a pragmatic approach, as recommended in National Policy Statement EN-3, to resolve the issue of co-existence between Hornsea Project 2 and E.ON E&P Ltd interests in North Sea Block 48/3. For the Applicant this is set out in REP5-008, paras 4.28-4.30. E.ON's approach is set out in REP5-034, paras 1.56-1.66. The ExA also notes the draft Protective Provisions, and especially Figure 2, provided by E.ON in Appendix 2 of the same reference.

In this context, and given, for example, (i) the small percentage of the Hornsea Project 2 site which E.ON state that they need for co-existence with the Hornsea Project 2 project; (ii) the possibilities of directional drilling; and (iii) the implications of the removal of the 5MW WTG option (see 3 above), the ExA believes that there appears to be clear scope for co-existence. The ExA strongly encourages the two parties to find common ground as soon as possible before the close of this examination. This may be expressed in a Statement of Common Ground and/or in Protective Provisions".

10.5.38 The Applicant's response at D7 was that good progress had been made towards identifying a commercial solution. There was agreement to progress to negotiation of a co-existence agreement based on heads of terms proposed by the Applicant and which were acceptable in principle to E.ON, subject to agreement of full contract terms; agreement of those contract terms would allow E.ON to fully withdraw its objections [REP7-002 and REP7-032]. The Applicant's response

noted that the parties were endeavouring to reach full agreement before the close of the Examination. Should agreement not be reached then the Applicant's proposed protective provisions should be included within the DCO for E.ON's protection, in preference to those put forward by E.ON [REP7-002, Part 1, paras. 1 and 18]. The Applicant also provided a detailed response [REP7-020] to E.ON's submissions [REP6-019] at Deadline 6.

- 10.5.39 E.ON's D7 submissions acknowledged the agreement to progress negotiations of a co-existence agreement whilst also including detailed evidence of its position (noted above) in the event that such an agreement could not be reached [REP7-032]. Additionally included was E.ON's updated version of suggested protective provisions for incorporation into the DCO in the event of a failure to reach a commercial agreement.
- 10.5.40 Further submissions by both parties were made for D8 (the Examination's final deadline) [REP8-001 and REP8-002]. That of the Applicant put forward, amongst other matters, additions to its earlier suggested protective provisions. These amendments were in response to E.ON's concerns in relation to the definition of 'apparatus' and also in relation to decommissioning obligations [REP8-001, section 8]. A consolidated track-change version of the Applicant's suggested protective provisions is provided in its final submission of 15 December 2015 [OD-005]. These represent changes to the Applicant's Version 8 of the DCO [REP7-003].

The position at the end of the Examination

- 10.5.41 The final submission received before the close of the Examination was E.ON's response to the Applicant's submissions at D8. In this it is noted that the parties were close to agreement of commercial terms but that it was not possible to confirm the position by the Examination's close, although it was hoped that agreement could be reached in the very near future. The comments on the Applicant's final submissions were made in the event that such agreement was not possible [OD-006].
- 10.5.42 Both the Applicant and E.ON, in the absence of an agreed commercial agreement on co-existence, which would sit out with the DCO consenting procedure, consider protective provisions would allow for co-existence of their respective interests. These would secure an area for E.ON to carry out exploration and appraisal of its known prospects within Block 48/3 and preserve its ability to undertake commercial production activities if hydrocarbon reserves are confirmed by exploration and appraisal activities.

The suggested protective provisions

- 10.5.43 Whilst there are significant commonalities between the two sets of suggested protective provisions there are also some principal differences. These are considered below.

- 10.5.44 Both parties are agreed that the protective provisions should apply to a westernmost section of the HP2 wind farm array site, an area shown in green on plans accompanying the respective draft provisions and cross-referenced to tables of co-ordinates within the body of the provisions¹² [REP7-032, Appendix 1 and OD-005, Appendix A]. This is the area of the application site where there are known prospects of Joly, Newton, Newton Deep and Dodgson.
- 10.5.45 E.ON has proposed an area which is safeguarded for all of the licensed activities it requires during the time it has a seaward production licence over that area or is carrying out decommissioning activities. Whilst the western, northern and southern boundaries are roughly similar within both sets of provisions, the eastern boundary differs as E.ON's plan includes an additional 1 nautical mile (1nm) eastward extension. E.ON explains that this is necessary to provide a required clearance area for flexibility for helicopter access to any installation within Block 48/3. It would also be necessary to account for any safety zones proposed by the Applicant [REP7-032, paras.4.8-4.15].
- 10.5.46 The Applicant notes in its D7 submissions that, with the addition of the 1nm eastward addition to the proposed protected area, E.ON has sought to substantially extend this from the area which E.ON itself identified at D5 [REP5-034, Appendix 2, Figure 1]. The Applicant states that the revision would have a significantly adverse impact on the feasibility and commercial viability of HP2 and, in any case, cannot be justified. It maintains that E.ON is endeavouring to impose protective provisions which provide absolute control over as large an area as possible in order to maximise the flexibility available and to ease other consenting processes relevant to its proposals [REP8-001, section 10]. E.ON, on the other hand, suggests that, in order to commit significant resources for exploration, it requires certainty in its ability to explore with seismic surveys and to drill exploration and appraisal wells [REP7-032, para. 3.3.15].
- 10.5.47 The Applicant submits that the 1nm helicopter buffer area proposed by E.ON to be protected is unjustified since:
- the Applicant's proposed protective provisions provide a 1nm buffer allowing helicopter instrument access for all oil and gas activity to the west of the protected area and covering the majority of the known prospects;
 - it would be unreasonable to expect such a buffer to be provided over the full extent of the protected area given the substantial increase in area sterilised for wind development as a result. Also, it is technically feasible to carry out all activities for exploration

¹² The Panel notes that the longitudinal co-ordinates in E.ON's table within its version of protective provisions, and shown on the accompanying plan, appear to be incorrect when compared with the references around the border of the plan and when compared with the plan produced by the Applicant.

and appraisal of this area using vessel access or visual flight and restricted instrument access, subject to the particular conditions of the operator of the activity;

- blanket control to account for safety zones is disproportionate since the Applicant only proposes to seek 500m safety zones for construction or major maintenance of turbines (and not operational safety zones around them). Operational safety zones would only be applied for around platforms;
- the protection around Babbage is not considered necessary, there being a safety zone of 500m already in operation around the Babbage platform. The ES predicts no significant impacts on access to Babbage; and
- E.ON acknowledges that its proposals are at a very early stage of development. Therefore, as plans are refined, more discrete and less onerous protections may be capable of fully addressing E.ON's concerns [REP8-001, s.10].

10.5.48 E.ON notes that its licence for Block 48/3 requires an exploration well to be drilled no later than the end of June 2019. This is to confirm the presence of hydrocarbons for its known prospects. If confirmed, complex appraisal wells are then drilled, usually at the extremities of the known field, and, for example, in the furthest eastern areas of the known prospects [REP8-002, Appendix 1 para. 2.13.3]. Helicopter access would be necessary during construction and for routine maintenance. Without the 1nm extension of the protected area weather conditions in this part of the North Sea would mean that a visual flight approach only restriction would represent a significant restriction on its ability to access with helicopters. Part of the 1nm area would also be required for helicopter access to installations within the central part of the protected area [OD-006].

10.5.49 E.ON also notes that the above restriction would not be in perpetuity. Under the terms of its licence E.ON would under normal circumstances be obliged to relinquish 50% of Block 48/3 in 2019. Its proposed protective provisions would apply only insofar as the area in question remains under licence. Furthermore, it is possible that a large part of the suggested protected area might be released from protective provisions by the time the Applicant comes to build the offshore elements of its project [REP7-032, paras 2.13.6 and 2.13.7].

10.5.50 The application now does not include 5MW turbines and the total number that could be consented has reduced from 360 turbines to a maximum of 300. E.ON considers that only 52 turbines would need to be removed from its suggested protected area; the Applicant could still reach its total 1,800MW generating capacity on the remainder of the HP2 site by the use of fewer, larger turbines and/or optimising the layout in the available space [REP7-032, para. 2.6 and REP8-002 Appendix 1, revised para.2.13.5]. The amount of the overlap to which restrictions would apply would be about 40.6%, or some 16.4% of the

entire area of the potential wind farm array area [REP8-002, Appendix 1, revised para.2.13.5].

- 10.5.51 The Applicant states that it does not understand how such a calculation is made and that E.ON's assumptions about the similarity in spacing and layout of the wind farm using larger turbines is not necessarily correct. It lists and refers to a number of external factors that would restrict and dictate final layouts; for example, ground conditions, Agreement for Lease obligations, optimisation of wind resource and available installation technologies [REP8-001, para. 10.14].
- 10.5.52 E.ON notes the considerable impact on its interests of the proposed compromise arrangement whereby some 52.2% of the overlapping area of Block 48/3 and the HP2 wind farm is left free for the Applicant to develop. Effectively, E.ON would be giving up its rights to explore and exploit the larger part of Block 48/3 for no compensation. Also, despite the likelihood of a high potential for further hydrocarbons to be discovered in the area beyond the known prospects, exploitation would be unlikely since only directional drilling from outside the area would be possible because of the presence of the wind farm. Expense and geological conditions would cast doubt on this as a potential outcome [REP8-002, Appendix 1, para.2.13.4]. E.ON would therefore be compromising on the maximum economic value that could be derived from Block 48/3.
- 10.5.53 The Panel acknowledges E.ON's concerns regarding flexibility and notes its concessions regarding access to the potential resource under the eastern part of Block 48/3. Nonetheless, it considers the flexibility that would be offered by increasing the area subject to protective provisions in line with E.ON's suggestion does not justify the potential sterilisation of a large area of the HP2 application site when E.ON's plans are as yet not well developed.
- 10.5.54 A further principal difference between the two respective suggested sets of protective provisions relates to the issue of compensation that might be due under the 'oil and gas clause' relating to the Crown Estate's offshore renewable leases and Agreements for Lease. The oil and gas clause in an offshore renewables agreement allows the Crown Estate Commissioners to determine all or part of the development site, on the request of the SoS, in order to enable oil and gas works. E.ON maintains that no compensation should be payable. In its version of protective provisions, the Applicant maintains that nothing within the provisions should affect any assessment of compensation in accordance with the application of the oil and gas clause.
- 10.5.55 E.ON notes that the oil and gas clause within the Agreement for Lease, and the Ministerial Statement and accompanying Guidance [REP2-031 and REP2-032], are appropriate for ensuring that offshore wind farms are financed; funders are given the comfort that the onerous powers of expropriation contained in the clause will not be exercised without compensation being paid [REP5-034].

- 10.5.56 However, E.ON sets out in its D5 submissions why the oil and gas clause mechanism is not appropriate for reaching a suitable decision on the compromise of the interests of itself and the Applicant [REP5-034, paras. 1.5 to 1.15]. It points out that the Guidance is clear that all efforts must be made to reach a commercial agreement between the parties and that paragraph 1 of the Guidance also makes clear that compensation need not be a necessary part of any agreement reached. E.ON considers that the oil and gas clause is not an appropriate method of resolving the conflict between the present wind farm application and its existing licensed interests. It therefore does not consider it necessary to include the provision relating to compensation and reference to the Ministerial Statement and Guidance [REP7-032, para 4.21 and REP8-002, Part 4].
- 10.5.57 The Applicant, on the other hand, maintains that its set of protective provisions retains the integrity of the oil and gas consenting process and the oil and gas clause process, allowing the Government to apply these processes in the normal course and in a manner considered appropriate at the time. The protections within these other processes flow from the Applicant's Agreement for Lease and not the DCO process. Clause 3(4) of its suggested protective provisions is included to make it clear that the protective provisions are not intended to affect these other processes [REP6-013].
- 10.5.58 E.ON maintains the use of the oil and gas clause may not be the most appropriate mechanism for resolving conflict. Nevertheless, whilst acknowledging E.ON's concerns, the Panel considers that, on balance, there is force in the Applicant's argument and that reference to the provisions not affecting any assessment of compensation in accordance with the Ministerial Statement and DECC guidance should still be included within protective provisions.
- 10.5.59 At D7, E.ON expressed concern that the Applicant's definition of 'apparatus' within its protected provisions version was too narrow and vague, appearing to extend protection only to apparatus already in place, or where this might be predicted to be located [REP7-032, para. 4.18]. The Applicant responded to this (and in particular whether activities such as a drilling rig or seismic activities would be covered) by amending its version of protected provisions [REP8-001, section 10]. These were further refined in its final protected provisions version [OD-005]. Having regard to E.ON's concerns, the ExA is now clear that they are fully addressed by the improved precision of the revised definition, and no further change is necessary.
- 10.5.60 Whilst acknowledging these concessions, E.ON nonetheless remains concerned that the protection offered does not adequately protect its licensed activities. It considers the Applicant's provisions contain significant gaps, requiring E.ON to proceed with the risk that it could find it has no protection between completion of appraisal drilling and commencing production; during this time the Applicant would be unrestricted and could construct a wind farm in the protected area in such a way as to prevent the production activities E.ON would wish to

undertake. In financial terms E.ON could not justify the commitment of capital for drilling the exploration and appraisal wells with no genuine protection for production stage activities under its licence [OD-006].

- 10.5.61 Despite these continuing concerns, having carefully considered the case put by both the Applicant and E.ON, the Panel is of the view that should protective provisions be required, in the absence of a commercial agreement concluded outside the DCO process, the provisions as put forward by the Applicant would be sufficient and adequate to offer meaningful protection to E.ON's interests. The protective provisions as set out in the Applicant's final submissions [OD-005] have therefore been incorporated into the ExA's recommended DCO.

Overall conclusions of ExA on protective provisions for E.ON

- 10.5.62 From material submitted during the Examination itself, it is apparent that the direction of travel was that the parties were likely to come to an accommodation, presumably in the form of a commercial agreement on co-existence. Comfort for this conclusion is provided in E.ON's final submissions received immediately before the deadline for the closure of the Examination [OD-006]. In the absence of a commercial agreement, the ExA has considered the differing versions of the suggested protective provisions to see if co-existence of interests could be adequately secured within the DCO consenting process.
- 10.5.63 The ExA's conclusions on protective provisions are set out above and the suggested wording of provisions included within Part 13 of Schedule L of the recommended DCO.
- 10.5.64 The ExA is satisfied that the inclusion of appropriate protective provisions within the recommended DCO would be compatible with the support provided for both offshore wind development and oil and gas activities within NPS EN-3, the MPS and the EIEOMP.

Conclusions on the inclusion of protective provisions as a whole

- 10.5.65 The ExA has carefully considered all the protective provisions to be included in the the DCO and is content to recommend them as set out.

10.6 DEEMED MARINE LICENCES

- 10.6.1 Schedules H, I, J and K set out the four proposed DMLs. The justification for these licences is provided in the Applicant's answer to the Panel's first written questions [REP1-051 questions PN1(c) and PN2(a) and (b)].
- 10.6.2 The project is split into two, namely Projects A and B. Two of the licences are for Project A, in favour of Optimus Wind, one for the Generating Assets (DML A1) and the second for the Transmission

Assets (DML A2). Similarly, there are two licences in favour of Breesea, DML B1 and DML B2.

- 10.6.3 The Applicant proposes to deal with the apportionment of the project area between the two companies as follows;

"The apportionment will be dealt with post consent once commercial decisions have been made in relation to the Project. The apportionment will be clearly reflected in the pre-construction plans that the MMO will approve under Condition 8 of the DMLs". The MMO is content with this (except for the Transfer of benefit Order (Article 35), discussed above) [REP2-008].

INTERPRETATION - PART 1, PARAGRAPH 1

- 10.6.4 The Panel was of the view that a definition of an in-principle monitoring plan (IPMP) should be included in Part 1(1). This the Applicant agreed to.

LICENSED ACTIVITIES - PART 1, PARAGRAPH 2

- 10.6.5 In the Transmission Assets DMLs A2 and B2 the co-ordinates of the export cable route (Works 4A and 4B) have been amended to reflect the reduced area needed because the Applicant does not now intend to take cabling through the HP1 development area.
- 10.6.6 In the Generation Assets DMLs the maximum number of turbines in Works 1A and 1B has been reduced from 360 to 300.

CONDITIONS

- 10.6.7 As noted in Chapter 5, in their RRs, the MMO [RR-019], TH [RR-030] and the MCA [RR-018] were all concerned that the standard navigation conditions that cover navigation, notification and inspections, and pre-construction plans with documentation and the colouring of structures, were not being met. The Applicant has addressed these issues in the Standard Navigation Conditions-Signposting Document [REP1-084]. The wording of Conditions 3, 4, 5, 7 and 8 has been amended to allay these concerns, the wording of which has been agreed by the MMO, MCA and TH [REP1-0108].

CONDITION 5(12) AND (13) - NOTIFICATIONS AND INSPECTIONS

- 10.6.8 These two clauses to Condition 5 of the four DMLs were added to cover the need for the submission of details of impact piling to the Noise Registry, should it become live. They were agreed by the MMO and included in Version 5 of the draft DCO. In addition, the MMO is satisfied with the noise monitoring provisions as provided for in the DMLs [REP5-035].

CONDITION 6(8) AND (9) - CHEMICALS, DRILLING AND DEBRIS

- 10.6.9 These new clauses concerning the procedure to be followed in the event of dropped objects and debris were added to address the MMO's comments at D4. The wording has been agreed with the MMO. In addition, a more robust definition of 'debris' has been provided in Part 1 'Interpretation', agreed by the MMO [REP4-047, Annex 1]

CONDITIONS 8(2)(K), 13(2)(B), 15(2)(A) - PRE-CONSTRUCTION PLANS-ORNITHOLOGICAL MONITORING PLAN

- 10.6.10 At the request of NE [REP1-037], an ornithological monitoring plan is to be provided as part of a CoCP in respect of the Generation Assets DMLs.

CONDITION 8(2)(E)(VII) - NOISE REDUCTION AT SOURCE TECHNOLOGIES

- 10.6.11 At the request of NE [REP1-038], this clause was inserted regarding the consideration of, where appropriate, noise reduction at source technologies in respect of foundation piling, as part of a marine mammal mitigation protocol.

CONDITION 9 - ARCHAEOLOGICAL REPORT

- 10.6.12 The MMO, in discussion with HE, became aware that there was an absence of a timeframe for submission of an HE OASIS reporting form (relating to any agreed archaeological report) and notification to the National Record of the Historic Environment. New wording, specifying that this should be done within six months of completion of the authorised scheme, has been agreed by the MMO [REP5-035] and inserted into this Condition.

CONDITION 10

- 10.6.13 A new clause has been added at Condition 10(1)(b)(ii) to require the Undertaker to notify the MMO of consultation carried out with HP1 and to provide the MMO with any comments received. The wording of this clause has been agreed by the MMO and allays the MMO's concerns about this matter [REP4-047].

CONDITIONS 13(1)(A), 14(1) AND 15(1) - IN-PRINCIPLE MONITORING PLAN

- 10.6.14 In consultation with NE and the MMO, the Applicant has drafted an in-principle monitoring plan (IPMP), the wording of which has been agreed by all parties [REP5-032]. This is to agree the objectives of any monitoring required by the DMLs prior to the grant of any consent. These Conditions require surveys to be in general accordance with the IPMP. The MMO and NE requested an IPMP in order to agree objectives of any monitoring required by the DMLs prior to granting consent.

- 10.6.15 The primary aims of the document are: 1) identify relevant offshore monitoring as required by the Conditions of the DMLs; 2) establish the objectives of such monitoring and 3) set out the guiding principles for delivering any monitoring measures as required by the Conditions of the DMLs [REP5-032]. In response to a query by the Panel, the Applicant confirmed that when defining any post-construction monitoring plan consideration will be given to ornithology in regards to both displacement and collision-related effects. The ExA also queried whether the IPMP included vessel traffic monitoring of fishing vessels. The Applicant confirmed that this was included [REP5-008].

CONDITION 14(2)

- 10.6.16 As noted in Chapter 7, the Panel had some concerns about the scope of offshore ornithological monitoring. Whilst these concerns did not affect the ExA's HRA and EIA recommendations, the Panel concluded that ornithological monitoring would be improved by the inclusion of construction stage monitoring, in addition to the Applicant's provision for pre-and post-construction stage monitoring. An extra clause (c) has been added in to Condition 14(2) to allow for this.

CONDITION 18(3)(4)(5)(6) OF TRANSMISSION ASSETS DMLS A2 AND B2 - RESTRICTIONS IN THE INTERTIDAL AREA OF THE HUMBER ESTUARY SAC

- 10.6.17 As set out in Chapter 6, NE requested [REP5-036] further conditions relating to restrictions on construction and maintenance outside the over-wintering period in the intertidal area of the Humber Estuary SAC. Restrictions have been included.

10.7 ADDITIONAL CHANGES MADE BY THE EXA TO THE APPLICANT'S DCO

10.7.1 Table 10.1 sets out the additional changes made by the ExA, after the close of the Examination. These are included in the recommended draft DCO as set out at Appendix D and have been discussed in preceding sections of this Report.

Location in the DCO	Change	Reason
Article 4 (1)	Relocate the phrase 'which has been approved by the SoS' to after 4(1) (a) and (b), to ensure it refers to both sub-paragraphs (a) and (b).	To achieve the Applicant's intention of ensuring that SoS approval is required for both a guarantee or alternative form of security in respect of any liability of the undertaker to pay compensation before the exercise of the powers of Articles 18 to 28 of this Order in relation to any land.
Requirement 5. Extension of paragraph 5(4)	Any archaeological works or watching brief must be carried out in accordance with any approved scheme and a report of any measures taken to protect record or preserve any significant archaeological remains that were found must be submitted to and approved by the local planning authority before the commencement of any works that would affect those remains.	The amendment leaves the undertaker in charge of timing and able to prioritise archaeological works and responses to them in its programme as necessary. It ensures that the conservation outcomes sought by IPs are delivered in a manner accountable to the LPA, before the commencement of works that would affect any assets that might be found, but does not delay the rest of the scheme.
Schedule L, Protective Provisions Part 13.	E.ON E&P UK LTD Bayerngas Europe LTD	Amendments to be made in line with the Applicant's suggestions in OD-005 relating to the definition of 'apparatus', the addition of a table of co-ordinates and an addition to clause 3 relating to activities that may be required under any statutory decommissioning plan.
Schedules H and J DMLs A1 and B1 Condition 13(1)	After MMO, add... 'in consultation with the relevant nature conservation body'.	To bring into line with Condition 13(1) of DMLs A2 and B2, Schedules I and K.

Condition 14(2)(c) Schedules H,I,J and K DMLs A1, A2, B1, B2	Add new sub-paragraph ... '(c) any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with Condition 8(2)(k)'.	To support a full life cycle approach to offshore ornithological monitoring. The ExA notes that construction stage monitoring could be helpful in identifying whether the construction stage per se is the cause of ornithological changes and whether effects persist during operational stage.
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10.8 OTHER LEGAL AGREEMENTS/RELATED DOCUMENTS

10.8.1 The Applicant has not proposed any s.106, s.107, s.278 or other legal agreements; nor have any local planning authorities sought them.

10.9 OTHER CONSENTS REQUIRED

10.9.1 In addition to the consents required under PA2008, the Project is subject to the need for other consents. These consents are set out by the Applicant in the Consents Management Plan [REP4-020], which covers key environmental consents required for the development which may lie outside the DCO, and in REP7-029, which covers various applications for production licences. The ExA is content that the Applicant is aware of and has considered such additional consents and licences.

10.10 CONCLUSION

10.10.1 Subject to the modifications proposed above, the ExA considers the recommended DCO as set out in Appendix D to be acceptable having regard to all matters forming part of the application for HP2 and put before the Panel at the Examination.

11 SUMMARY OF FINDINGS AND CONCLUSIONS

11.1 CONCLUSIONS

- 11.1.1 In relation to the application for compulsory acquisition (CA) powers within the recommended DCO, the ExA in summary concludes, as set out below, that:
- (1) the development for which the land is sought would be in accordance with national policy, as set out in the NPSs;
 - (2) the NPSs identify a national need for electricity generating capacity;
 - (3) the need to secure the land and rights required, and to construct the Hornsea Project Two development within a reasonable commercial timeframe, represents a significant public benefit;
 - (4) the private loss to those affected has been mitigated through route selection, selection of the application land, the undergrounding of the cables and the extent of the rights and interests proposed to be acquired;
 - (5) the Applicant has explored all reasonable alternatives to the CA of the rights and interests sought and there are no alternatives that ought to be preferred;
 - (6) adequate and secure funding would be available to enable the CA within the statutory period following the order being made; and
 - (7) the proposed interference with the human rights of individuals would be for legitimate purposes that would justify such interference in the public interest and to a proportionate extent.
- 11.1.2 Taking the various factors together, there is a compelling case in the public interest for the CA powers sought in respect of the CA land shown in the Land Plans (as amended). The ExA therefore concludes that the proposal would comply with s.122(3) of PA2008.
- 11.1.3 In relation to s.104 of PA2008, the ExA further concludes in summary that:
- (1) making the recommended DCO would be in accordance with NPSs EN-1, EN-3 and EN-5 and would also be in accordance with the MPS and the EIEOMPs, any relevant development plans and other relevant policy, all of which have been taken into account in this Report;
 - (2) the ExA has had regard to the LIRs from North Lincolnshire Council, North East Lincolnshire Council and East Lindsey District Council in making its recommendations;

- (3) the transboundary impacts have been assessed, have been made known to the relevant EEA States, and would be appropriately mitigated were the recommended DCO to be made;
- (4) in making the DCO the SoS would be fulfilling her duties under the relevant EU Directives as transposed into UK law by regulation, as well as the biodiversity duty under the NERC Act, subject to any necessary Habitats Regulations Assessment;
- (5) whilst the SoS is the competent authority under the Habitats Regulations, the ExA concludes that in its view the proposal would not adversely affect European sites, species or habitats, and the ExA has taken this into account in reaching its recommendation;
- (6) with regard to all other matters and representations received, the ExA found no important and relevant matters that would individually or collectively lead to a different recommendation to that below;
- (7) there is no adverse impact of the proposal that would outweigh its benefits; and
- (8) there is no reason to indicate that the application should be decided other than in accordance with the relevant NPSs.

11.2 RECOMMENDATION

- 11.2.1 For all of the above reasons, and in the light of the ExA's findings and conclusions on important and relevant matters set out in the Report, the ExA, under the Planning Act 2008 (as amended), recommends that the Secretary of State for Energy and Climate Change makes the Hornsea Project Two Wind Farm Order in the form recommended at Appendix D.

APPENDICES

APPENDIX A: EVENTS IN THE EXAMINATION

The table below lists the main events that occurred during the Examination and the procedural decisions taken by the Examining authority (ExA).

Date	Examination Event
16 June 2015	Preliminary Meeting and Examination begins
22 June 2015	Issue by ExA of: <ul style="list-style-type: none"> • Examination timetable • ExA's first written questions
15 July 2015	DEADLINE 1 Deadline for receipt of: <ul style="list-style-type: none"> • Comments on relevant representations (RRs) • Summaries of all RRs exceeding 1500 words • Written representations (WRs) • Summaries of all WRs exceeding 1500 words • Local Impact Report (LIR) from any local authorities • Statements of Common Ground (SoCG) requested by ExA • Schedule of Mitigation Requirements • Responses to ExA's first written questions • Notification of wish to speak at a compulsory acquisition hearing • Notification of wish to make oral representations at the issue specific hearing on the draft Development Consent Order (DCO) • Notification of wish to speak at the open floor hearing (OFH) • Notification of wish to attend Accompanied Site Inspection (ASI) • Notification of suggested locations for the ASI to cover • Notification of any statutory party who wishes to participate in the examination
29 July 2015	Accompanied site inspection
30 July 2015	Issue specific hearing

Date	Examination Event
4 August 2015	Issue by the ExA of request for further information
10 August 2015	<p>DEADLINE 2</p> <p>Deadline for receipt of:</p> <ul style="list-style-type: none"> • Comments on WRs and responses to comments on RRs • Comments on LIRs • Comments on responses to ExA's first written questions • Revised draft DCO from Applicant • Updated HRA matrices • All post hearing documents including written proofs of oral cases made at hearings • Documents post ASI
25 August 2015	<p>DEADLINE 2a</p> <p>Deadline for receipt of:</p> <ul style="list-style-type: none"> • Responses to Rule 17 letter issued 4 August 2015
15 - 16 September 2015	Issue specific hearing
17 September 2015	Compulsory acquisition hearing
24 September 2015	<p>DEADLINE 3:</p> <p>Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> • All post-hearing documents including written proofs of oral cases made at hearings and any other information requested by the ExA
29 September 2015	<p>Publication by ExA of:</p> <ul style="list-style-type: none"> • Second written questions • Notification of hearings
20 October 2015	<p>DEADLINE 4</p> <p>Deadline for receipt by ExA of:</p>

Date	Examination Event
	<ul style="list-style-type: none"> Responses to ExA's second written questions
27 October 2015	Issue specific hearing
28 October 2015	Issue specific hearing
29 October 2015	Compulsory acquisition hearing
12 November 2015	<p>DEADLINE 5</p> <p>Deadline for receipt by ExA of:</p> <ul style="list-style-type: none"> Comments on responses to ExA's second written questions Receipt and publication of Applicant's final DCO Documents post all hearings Written proofs of oral cases made at hearings Any other information requested by the ExA
26 November 2015	<p>DEADLINE 6</p> <p>Deadline for receipt by ExA of:</p> <ul style="list-style-type: none"> Any final version of SoCGs <p>Issue of Report on the Implications for European Sites (RIES) and issue by the ExA of request for further information</p>
7 December 2015	Issue by the ExA of request for further information
10 December 2015	<p>DEADLINE 7</p> <p>Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> Comments on Applicant's DCO (REP5-006) Comments on RIES Responses to Rule 17 issued 26 November 2015
13 December 2015	<p>DEADLINE 8</p> <p>Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> Response to Rule 17 issued 7 December 2015

Date	Examination Event
16 December 2015	Close of Examination (23.59)
16 December 2015	Issue by the ExA of: <ul style="list-style-type: none"><li>• Notification of completion of the Examination under s99 PA2008

APPENDIX B: EXAMINATION LIBRARY INCLUDING RIES

Hornsea Offshore Wind Farm (Zone 4) - Project Two Examination Library

Updated 17/12/2015

This Examination library relates to the Hornsea Offshore Wind Farm (Zone 4) - Project Two application. The library lists each document that has been submitted to the examination by any party and documents that have been issued by the Planning Inspectorate. All documents listed have been published to the National Infrastructures pages of the Planning Portal and a hyperlink is provided for each document. A unique reference is given to each document; these references will be used within the Report on the Implications for European Sites and will be used in the Examining Authority's Recommendation Report. The documents within the library are categorised either by document type or by the deadline to which they are submitted.

Please note the following:

- This is a working document and will be updated periodically as the examination progresses.
- Advice under Section 51 of the Planning Act 2008 that has been issued by the Inspectorate is published to the National Infrastructure Website but is not included within the examination library as such advice is not an examination document.
- This document library contains references to documents received by the Planning Inspectorate on behalf of the Secretary of State from the point of submission on 30 January 2015.
- The order of documents within each sub-section is either chronological, numerical, or alphabetical and confers no priority or higher status on those that have been listed first.

EN010053– Hornsea Offshore Wind Farm (Zone 4) - Project Two**Examination Library - Index**

Category	Reference
<u>Application Documents</u> (as submitted, any amended version to be saved under the deadline received)	APP-xxx
<u>Adequacy of Consultation responses</u>	AoC-xxx
<u>Relevant Representations</u>	RR-xxx
<u>Procedural Decisions and Notifications from the ExA</u> (includes Examining Authority's (ExA), questions, s55 and post acceptance s51)	PD-xxx
<u>Local Impact Reports</u>	LIR – xxx
<u>Additional Submissions</u> (this includes anything accepted at the Preliminary Meeting, correspondence that is either relevant to a procedural decision or contains factual information pertaining to the examination)	AS-xxx
<u>Events and Hearings</u> (includes agendas for hearings and site inspections, audio recordings, responses to notifications, applicant's hearing notices, and responses to R6 and R8)	EV-xxx
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<u>Deadline 1:</u> Deadline for receipt of: <ul style="list-style-type: none">• Comments on Relevant Representations (RRs)• Summaries of all RR's exceeding 1500 words• Written representations (WRs)• Summaries of all WRs exceeding 1500 words• Local Impact Report from any local authorities• Statements of Common Ground (SoCG) requested by Examining Authority (ExA)• Schedule of Mitigation Requirements• Responses to ExA's first written questions• Notification of wish to speak at a compulsory acquisition (CA) hearing• Notification of wish to make oral	REP1-xxx

<p>representations at the issue specific hearing on the draft Development Consent Order (DCO)</p> <ul style="list-style-type: none"> • Notification of wish to attend Accompanied Site Inspection (ASI) • Notification of suggested locations for the ASI to cover • Notification of any statutory party who wishes to participate in the examination. 	
<p><u>Deadline 2:</u> Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> • Comments on WRs and responses to comments on RRs • Comments on Local Impact Reports (LIRs) • Comments on responses to ExA's first written questions • Revised draft DCO from Applicant • Updated HRA matrices • All post hearing documents including written proofs of oral cases made at hearings • Documents post Accompanied Site Inspection • Any other information requested by the ExA 	REP2-xxx
<p><u>Deadline 2a:</u></p> <ul style="list-style-type: none"> • Responses to Rule 17 letter issued by the Examining Authority on 4 August 2015. 	REP2A-xxx
<p><u>Deadline 3:</u> Deadline for receipt of:</p> <ul style="list-style-type: none"> • All post-hearing documents including written proofs of oral cases made at hearings and any other information requested by the ExA. 	REP3-xxx
<p><u>Deadline 4:</u> Deadline for receipt of:</p> <ul style="list-style-type: none"> • Responses to ExA's second written questions • Any other information requested by the ExA 	REP4-xxx
<p><u>Deadline 5:</u> Deadline for receipt of:</p> <ul style="list-style-type: none"> • Comments on responses to ExA's second written questions • Receipt and publication of applicant's final DCO • Documents post all hearings • Written proofs of oral cases made at hearings • Any other information requested by the ExA 	REP5-xxx
<p><u>Deadline 6:</u> Deadline for receipt of:</p> <ul style="list-style-type: none"> • Any final versions of SoCGs • Any other information requested by the ExA 	REP6-xxx
<p><u>Deadline 7:</u> Deadline for receipt of:</p> <ul style="list-style-type: none"> • Comments on Applicant's DCO (REP5-006) • Comments on RIES • Responses to Rule 17 issued 26 November 2015 • Any other information requested by the ExA 	REP7-xxx
<p><u>Deadline 8:</u> Deadline for receipt of:</p> <ul style="list-style-type: none"> • Response to Rule 17 issued 7 December 2015 	REP8-xxx

<u>Other Documents</u> (includes s127/131/138 information, applicant's hearing notices, includes s56, s58 and s59 certificates, and transboundary documents)	OD-xxx
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EN010053 – Hornsea Offshore Wind Farm (Zone 4) - Project Two

Examination Library

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APP-02	<u>1.2 Application Form</u>
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APP-04	<u>1.4 Index to the Environmental Statement</u>
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APP-0149	<u>7.6.8.7 Construction Vehicle Trip Generation Assumptions</u>
APP-0150	<u>7.6.8.8 Traffic Flows with Construction Traffic</u>
APP-0151	<u>7.6.8.9 Project Two Route with HA A160 Scheme</u>
APP-0152	<u>7.6.9.1 Construction Noise Model</u>
APP-0153	<u>7.6.9.2 Operational Noise Model Input</u>
APP-0154	<u>7.6.9.3 Operational Noise Assessment</u>
APP-0155	<u>7.6.9.4 Cumulative Noise Assessment</u>
APP-0156	<u>7.6.10.1 Electromagnetic Fields Study</u>
APP-0157	<u>7.6.10.2 Airport and Technical Site Safeguarding Consultation Zones</u>

APP-0158	<u>7.6.11.1.1 Socio-economic Methodology Information</u>
APP-0159	<u>8.1 Scoping Opinion Nov 2012</u>
APP-0160	<u>9.1 Statement of Engagement</u>
APP-0161	<u>10.1 Crown Plan Offshore</u>
APP-0162	<u>10.2 Crown Plan Onshore</u>
APP-0163	<u>10.3 Crown Plan Intertidal</u>
APP-0164	<u>11.1 Safety Zone Statement</u>
APP-0165	<u>11.2 Cable Statement</u>
APP-0166	<u>12.1 Planning Statement</u>
APP-0167	<u>12.2 Draft EPS Licence Method Statement and Supporting Info (Offshore)</u>
APP-0168	<u>12.3 Onshore EPS Statement of Compliance</u>
APP-0169	<u>12.4 Outline Code of Construction Practice</u>
APP-0170	<u>12.5 Outline Ecological Management Plan</u>
APP-0171	<u>12.6 HRA Report Part 1</u>
APP-0172	<u>12.6 HRA Report Part 2</u>
APP-0173	<u>12.6.1 HRA Evidence Plan</u>

APP-0174	<u>12.6.2 HRA Screening Report</u>
APP-0175	<u>12.6.3 HRA Screening and Integrity Matrices</u>
APP-0176	<u>12.7 Statutory and Non-statutory Conservation etc. Sites Plan Onshore</u>
APP-0177	<u>12.8 Statutory and Non-statutory Conservation etc. Sites Plan Offshore</u>
APP-0178	<u>12.9 Outline Landscape Scheme and Management Plan</u>
APP-0179	<u>12.10 Consents Management Plan</u>
Post-Submission Updates-Submitted by the Applicant in response to s51 advice issued 19 February 2015 and as a result of ongoing work	
APP-0180	<u>Covering Letter to submission of 27 April 2015</u>
APP-0181	<u>Appendix A Draft Development Consent Order (DCO) - Version 2</u>
APP-0182	<u>Appendix B Comparison of Version 2 of draft DCO against Version 1</u>
APP-0183	<u>Appendix C Schedule of Changes to Version 2 of the draft DCO</u>
APP-0184	<u>Appendix D Book of Reference Version 2 Part 1 of 5 (1 of 2)</u>
APP-0185	<u>Appendix D Book of Reference Version 2 Part 1 of 5 (2 of 2)</u>
APP-0186	<u>Appendix D Book of Reference Version 2 Part 2 of 5</u>
APP-0187	<u>Appendix D Book of Reference Version 2 Part 3 of 5</u>

APP-0188	<u>Appendix D Book of Reference Version 2 Part 4 to 5</u>
APP-0189	<u>Appendix E Comparison of Version 2 of the Book of Reference against Version 1 Part 1 of 5 (1 of 2)</u>
APP-0190	<u>Appendix E Comparison of Version 2 of the Book of Reference against Version 1 Part 1 of 5 (2 of 2)</u>
APP-0191	<u>Appendix E Comparison of Version 2 of the Book of Reference against Version 1 Part 2 of 5</u>
APP-0192	<u>Appendix E Comparison of Version 2 of the Book of Reference against Version 1 Part 3 of 5</u>
APP-0193	<u>Appendix E Comparison of Version 2 of the Book of Reference against Version 1 Part 4 to 5</u>
APP-0194	<u>Appendix F Land Plans (Version 2)</u>
APP-0195	<u>Appendix G Offshore Works Plans (Version 2)</u>
APP-0196	<u>Appendix H Onshore Works Plans (Version 2)</u>
APP-0197	<u>Appendix I Intertidal Works Plans (Version 2)</u>
APP-0198	<u>Appendix J Crown Plans (Onshore) (Version 2)</u>
APP-0199	<u>Appendix K Statutory and Non-statutory Conservation etc. Sites Plan (Onshore) (Version 2)</u>
APP-0201	<u>Appendix L DCO DML Coordinates Plan (Version 2)</u>
APP-0202	<u>Appendix M Crossing Schedule (Onshore) (Version 2)</u>
APP-0203	<u>Appendix N Project One Project Two Interface Plan (Version 2)</u>
APP-0204	<u>Appendix O Compensation compounds plan (version 2)</u>

APP-0205	<u>Appendix P HRA Screening and Integrity Matrices (Version 2)</u>
APP-0206	<u>Appendix Q Environmental Information Signposting Document</u>
APP-0207	<u>Appendix R Monopile Suspended Sediment and Deposition Assessment Clarification Note</u>
APP-0208	<u>Appendix S Jacket Foundation Scour Assessment Clarification Note</u>
APP-0209	<u>Appendix T Marine Mammal Decommissioning Vessels Clarification Note</u>
APP-0210	<u>Appendix U Humber Estuary SAC Temporary Subtidal Benthic Habitat Loss Disturbance Clarification Note</u>
APP-0211	<u>Appendix V Transition Joint Bays and Jointing Pits Clarification Note</u>
APP-0212	<u>Appendix W In-combination Auk Displacement Clarification Note</u>
Adequacy of Consultation Responses	
AoC-001	<u>Doncaster Metropolitan Borough Council</u>
AoC-002	<u>East Lindsey District Council</u>
AoC-003	<u>East Riding Of Yorkshire Council</u>
AoC-004	<u>Leicestershire County Council</u>
AoC-005	<u>Newark & Sherwood District Council</u>
AoC-006	<u>Norfolk County Council</u>
AoC-007	<u>North East Lincolnshire Council</u>

AoC-008	<u>North Lincolnshire Council</u>
AoC-009	<u>Peterborough City Council</u>
AoC-010	<u>Rutland County Council</u>
Relevant Representations	
RR-001	<u>Anglian Water Services Ltd</u>
RR-002	<u>C.GEN Killingholme Limited</u>
RR-003	<u>Captain Andrew Firman - Harbour Master</u>
RR-004	<u>Centrica KPS Limited</u>
RR-005	<u>Centrica plc.</u>
RR-006	<u>Civil Aviation Authority</u>
RR-007	<u>ConocoPhillips (U.K.) Limited</u>
RR-008	<u>Defence Infrastructure Organisation</u>
RR-009	<u>E.ON Exploration and Production UK Limited</u>
RR-010	<u>East Lindsey District Council</u>
RR-011	<u>East Riding of Yorkshire Council</u>
RR-012	<u>Environment Agency</u>

RR-013	<u>Forewind Ltd</u>
RR-014	<u>Helen Lindley</u>
RR-015	<u>Heron Wind Limited, Njord Limited and Vi Aura Limited</u>
RR-016	<u>Historic England</u>
RR-017	<u>Lincolnshire Wildlife Trust</u>
RR-018	<u>Marine Management Organisation</u>
RR-019	<u>Maritime and Coastguard Agency</u>
RR-020	<u>National Grid</u>
RR-021	<u>Natural England</u>
RR-022	<u>NFFO</u>
RR-023	<u>Norfolk County Council</u>
RR-024	<u>Northern power grid Yorkshire PLC</u>
RR-025	<u>North Lincolnshire Council</u>
RR-026	<u>Royal Yachting Association</u>
RR-027	<u>The Crown Estate</u>
RR-028	<u>The Royal Society for the Protection of Birds</u>

RR-029	<u>The Wildlife Trusts</u>
RR-030	<u>Trinity House</u>
RR-031	<u>Vitol Immingham CHP LLP</u>
RR-032	<u>Whale and Dolphin Conservation</u>
Procedural Decisions and Notifications from the Examining Authority	
PD-001	<u>Notification of Decision to Accept Application</u>
PD-002	<u>Acceptance advice</u>
PD-003	<u>Section 55 Acceptance of Applications Checklist Hornsea 2</u>
PD-004	<u>Hornsea Project 2 - Rule 6</u>
PD-005	<u>Mr Broekhoven</u>
PD-006	<p><u>Other persons letter to EEA states</u> This letter was sent to :- Flemish Government: 1. Environment, Nature and Energy Department (International) 2. Environmental Policy Division. Belgium: 1. Federal authority 2. Department of European policies and international agreements 3. Ministry of the Brussels – Capital Region, Region of Brussels Denmark: Ministry of the Environment Nature Agency</p>

	<p>France:</p> <ol style="list-style-type: none"> 1. Head office of environmental integration 2. Ministry of Ecology, Sustainable Development 3. Officers Responsible for environmental assessment plans, programs and projects <p>Germany: Federal Ministry for the Environment, Building, Nature Conservation and Nuclear Safety</p> <p>Iceland: Ministry for Foreign Affairs</p> <p>Norway: Ministry of Climate and Environment</p> <p>Netherlands: Ministry of Infrastructure and the Environment</p>
PD-007	<u>Contact Details Correction Letter-Letter published following an incorrect email address in the Rule 6 letter</u>
PD-008	<u>Hornsea Project 2-Rule 8</u>
PD-009	<u>Letter to Scottish Natural Heritage</u>
PD-010	<u>Hornsea Project 2 First round of written questions</u>
PD-011	<u>Rule 17 Letter issued by the Examining Authority on 21 July 2015 to Lincolnshire Wolds AONB</u>
PD-012	<u>Rule 17 Letter issued by the Examining Authority on 21 July 2015 to Mr Wilson.</u>
PD-013	<u>Rule 17 Letter issued by the Examining Authority on 4 August 2015 following the Accompanied Site Inspection and first Issue Specific Hearing</u>
PD-014	<u>Rule 13- Notification of hearings issued by the Examining Authority on 13 August 2015</u>
PD-015	<u>Notification of Second Round Questions</u>

PD-016	Hornsea 2 Second Round of questions
PD-017	Amended Second Round of Written Questions
PD-018	Hornsea Project 2-Rule 8(3)- Letter issued by the Examining Authority changing the date for issue of the RIES
PD-019	Rule 17 Letter issued by the Examining Authority on 26 November 2015
PD-020	Report on the Implications for European sites
PD -021	Rule 17- 7 December 2015
PD- 022	S99 Letter
Local Impact Reports Received for Deadline 1 - 15 July 2015	
LIR-001	North Lincolnshire Council
LIR-002	North East Lincolnshire Council
LIR-003	East Lindsey District Council
Additional Submissions	
AS-001	Smart Wind Cover letter regarding incorrect uploading of application document
AS-002	Mr Broekhoven-Additional submission received after the close of relevant representation period
AS-003	Civil Aviation Authority- Response to Rule 6
AS-004	Homes and Communities Agency- Response to Rule 6
AS-005	The Royal Society for the Protection of Birds -Response to Rule 6

AS-006	Network Rail Infrastructure Limited - Response to Rule 6
AS-007	VPI Immingham-Response to Rule 6
AS-008	Smart Wind Limited Response to Rule 6 letter
AS-009	E.ON Exploration and Production UK Limited- Response to Rule 6
AS-010	Historic England -Response to the Rule 6
AS-011	Quadrant Pipelines Limited, Independent Pipelines Limited and GTC Pipelines Limited-Response to Rule 6
AS-012	Gradebrook Filling Station Limited- representation submitted in advance of the Compulsory Acquisition Hearing of 29 October 2015.
AS-013	DONG Hornsea Project 2 - Proposed refinement to the Project's Rochdale Envelope. Submission of 4 December 2015
AS-014	DONG Hornsea Project 2 - Tabular Review of EIA Conclusions. Appendix A to the Submission of 4 December 2015
AS-015	DONG Hornsea Project 2 - Collision Risk Modelling Note. Appendix B to the Submission of 4 December 2015
Events and Hearings	
Preliminary Meeting – Tuesday 16 June 2015	
EV-001	Preliminary Meeting- Audio
EV-002	Preliminary Meeting Note
Accompanied Site Inspection 29 July 2015 and Issue Specific Hearing 30 July 2015	

EV-003	<u>Smart Wind Limited Notification of Hearings</u>
EV-004	<u>Agenda for Issue specific hearing on 30 July 2015</u>
EV-005	<u>Full itinerary for the accompanied site inspection on 29 July 2015</u>
EV-006	<u>Issue Specific Hearing Agenda</u>
EV-007	<u>Audio recording (Part 1) for Issue specific hearing 30 July 2015</u>
EV-008	<u>Audio recording (Part 2)for Issue specific hearing 30 July 2015</u>
EV-009	<u>Audio recording (Part 3) for Issue specific hearing 30 July 2015</u>
Issue Specific Hearing 15-16 September 2015 and Compulsory Acquisition Hearing 17 and 18 September 2015	
EV-010	<u>Agenda for Issue Specific Hearing 15 and 16 September 2015</u>
EV-011	<u>Agenda for Compulsory Acquisition Hearing 17 and 18 September 2015</u>
EV-012	<u>Issue Specific Hearing Audio- Day One Part 1</u>
EV-013	<u>Issue Specific Hearing Audio- Day One Part 2</u>
EV-014	<u>Issue Specific Hearing Audio- Day One Part 3</u>
EV-015	<u>Issue Specific Hearing Audio- Day Two Part 1</u>
EV-016	<u>Issue Specific Hearing Audio- Day Two Part 2</u>
EV-017	<u>Issue Specific Hearing Audio- Day Two Part 3</u>

EV-018	<u>Compulsory Acquisition Hearing Audio- Part 1</u>
EV-019	<u>Compulsory Acquisition Hearing Audio- Part 2</u>
EV-020	<u>Compulsory Acquisition Hearing Audio- Part 3</u>
Hearing Submissions- September 2015.	
EV-021	<u>Natural England- Letter in relation to the Greater Wash Special Protection Area. Submitted in advance of the September Hearings.</u>
EV-022	<u>DONG-Hornsea Project 1- Letter in advance of the September Hearings</u>
EV-023	<u>DONG-Hornsea Project 2- Documentation in advance of September Hearings</u>
EV-024	<u>DONG-Hornsea Project 2-Appendix A- Statement of Common Ground with Hornsea Project one</u>
EV-025	<u>DONG-Hornsea Project 2- Appendix B- Update to the Statement of Reasons</u>
EV-026	<u>DONG-Hornsea Project 2- Updated Funding Statement</u>
EV-027	<u>E.ON Exploration and Production UK Limited- Letter in advance of the September Hearings</u>
EV-028	<u>Associated British Ports- Letter in advance of the September Hearings</u>
EV-029	<u>Centrica KPS Limited- Letter in advance of the September Hearings</u>
EV-030	<u>National Grid Electricity Transmission plc and National Grid Gas- Letter in advance of the September Hearings (Withdrawn)</u>
EV-031	<u>DDM Agriculture on behalf of Messrs T & K Tomlinson</u>

EV-032	<u>DDM Agriculture on behalf of Mrs Elizabeth Angela Greetham and Robert John Greetham</u>
EV-033	<u>DDM Agriculture on behalf of Mr Stuart H Somerscales</u>
EV-034	<u>C.Gen Killingholme Limited- Letter in advance of the September Hearings</u>
Issue Specific Hearing 27 and 28 October 2015	
EV-034a	<u>Agenda for Issue Specific and Compulsory Acquisition hearings 27 to 30 October 2015</u>
EV-035	<u>Issue Specific Hearing Audio 27 October – Part 1</u>
EV-036	<u>Issue Specific Hearing Audio 27 October – Part 2</u>
EV-037	<u>Issue Specific Hearing Audio 27 October – Part 3</u>
EV-038	<u>Issue Specific Hearing Audio 27 October – Part 4</u>
EV-039	<u>Issue Specific Hearing Audio 27 October – Part 5</u>
EV-040	<u>Issue Specific Hearing Audio 28 October – Part 1</u>
EV-041	<u>Issue Specific Hearing Audio 28 October – Part 2</u>
Compulsory Acquisition Hearing 29 October 2015	
EV-042	<u>VPI Immingham LLP- DCO extract – Part 8 (tracked changed) – Submitted in lieu of attendance at the hearing (Withdrawn)</u>
EV-043	<u>VPI Immingham LLP- Crossing agreement (tracked changed)- Submitted in lieu of attendance at the hearing (Withdrawn)</u>
EV-044	<u>Compulsory Acquisition Hearing – Audio part 1</u>
EV-045	<u>Compulsory Acquisition Hearing – Audio part 2</u>
Representations	

Deadline 1 – 15 July 2015	
<ul style="list-style-type: none"> • Comments on Relevant Representations (RRs) • Written representations (WRs) • Local Impact Report from any local authorities • Statements of Common Ground (SoCG) requested by ExA • Responses to ExA’s first written question • Notification of wish to make oral representations at the issue specific hearing on the draft Development Consent Order (DCO) • Notification of wish to attend Accompanied Site Inspection (ASI) 	<ul style="list-style-type: none"> • Summaries of all RRs exceeding 1500 words • Summaries of all WRs exceeding 1500 words • Schedule of Mitigation Requirements • Notification of wish to speak at a compulsory acquisition (CA) hearing • Notification of wish to speak at the open floor hearing (OFH) • Notification of suggested locations for the ASI to cover • Notification of any statutory party who wishes to participate in the examination.
REP1-01	<u>Anglian Water Response to the Examining Authority's First Written Questions</u>
REP1-02	<u>Associated British Ports Response to Examining Authority's First Written Questions</u>
REP1-03	<u>C.Gen Killingholme Limited Written Representation</u>
REP1-04	<u>Centrica KPS Limited Written Representation</u>
REP1-05	<u>Civil Aviation Authority Response to the Examining Authority's First Written Questions</u>
REP1-06	<u>ConocoPhillips (UK) Limited Response to the Examining Authority's First Questions</u>

REP1-07	<u>Crown Estate Response to the Examining Authority's First Written Questions</u>
REP1-08	<u>Danish Nature Agency Written Representation</u>
REP1-09	<u>Denmark Response to the Examining Authority's First Written Questions</u>
REP1-010	<u>Dong Energy Hornsea Project One Written Representation</u>
REP1-011	<u>Dong Energy Hornsea Project One Summary of Written Representation</u>
REP1-012	<u>Dong Energy Hornsea Project One Appendix 1 Project One Relevant Representation</u>
REP1-013	<u>Dong Energy Hornsea Project One Appendix 2 The Project One Order</u>
REP1-014	<u>Dong Energy Hornsea Project One Appendix 3 Electricity Generation Licences</u>
REP1-015	<u>Dong Energy Hornsea Project One Appendix 4 The Project One Correction Order</u>
REP1-016	<u>Dong Energy Hornsea Project One Appendix 5 DECC News Item FID Enabling Programme</u>
REP1-017	<u>Dong Energy Hornsea Project One Appendix 6 Project One Draft DCO Explanatory Memorandum</u>
REP1-018	<u>Dong Energy Hornsea Project One Appendix 7 Overlap Plans</u>
REP1-019	<u>Dong Energy Hornsea Project One Appendix 8 Project One Land Plans</u>
REP1-020	<u>Dong Energy Hornsea Project One Appendix 9 SoCG between Dong Energy and SmartWind Ltd</u>
REP1-021	<u>Dong Energy Hornsea Project One Appendix 10 Book Of Reference</u>
REP1-022	<u>Dong Energy Hornsea Project One Appendix 11 Work Plans</u>

REP1-023	<u>E.ON E&P UK Limited Written Representation</u>
REP1-024	<u>East Lindsey District Council Response to Examining Authority's First Written Questions</u>
REP1-025	<u>Environment Agency answers to Examining Authority's First Written Questions</u>
REP1-026	<u>Environment Agency Written Representation</u>
REP1-027	<u>Environment Agency Summary of Relevant Representation</u>
REP1-028	<u>Highways England Response to the Examining Authority's First Written Questions</u>
REP1-029	<u>Historic England Written Representation</u>
REP1-030	<u>Historic England Response to the Examining Authority's First Written Questions</u>
REP1-031	<u>Marine Management Organisation Cover Letter</u>
REP1-032	<u>Marine Management Organisation Summary of Relevant Representation</u>
REP1-033	<u>Marine Management Organisation Answers to Examining Authority's First Written Questions</u>
REP1-034	<u>Maritime and Coastguard Agency Response to the Examining Authority's First Written Questions</u>
REP1-035	<u>National Grid Electricity Transmission Plc and National Grid Gas Plc Written Representation (Withdrawn)</u>
REP1-036	<u>National Federation of Fishermen's Organisations Written Representation</u>
REP1-037	<u>Natural England Written Representation</u>
REP1-038	<u>Natural England Summary of Written Representation</u>

REP1-039	<u>Natural England Summary of Relevant Representation</u>
REP1-040	<u>Natural England Response to the Examining Authority's First Written Questions</u>
REP1-041	<u>Natural England A copy of the Marine Scotland Report (Dec 2014) on Avoidance Rates as requested by the Examining Authority (question E004).</u>
REP1-042	<u>Norfolk County Council Written Representation</u>
REP1-043	<u>Norfolk County Council Response to Examining Authority's First Written Questions FNA16</u>
REP1-044	<u>North East Lincolnshire Council Response to the Examining Authority's First Written Questions</u>
REP1-045	<u>Office of Rail and Road Written Representation</u>
REP1-046	<u>Quadrant Pipelines Limited Independent Pipelines Limited and GTC Pipelines Limited Written Representation</u>
REP1-047	<u>The Royal Society for the Protection of Birds Written Representation (late submission)</u>
REP1-048	<u>The Royal Society for the Protection of Birds Summary of Written Representation (late submission)</u>
REP1-049	<u>The Royal Society for the Protection of Birds Response to the Examining Authority's First Written Questions (late submission)</u>
REP1-050	<u>Royal Yachting Association Response to the Examining Authority's First Written Questions</u>
REP1-051	<u>Smart Wind Response</u>
REP1-052	<u>Smart Wind Appendix A -Draft Development Consent Order - Version 3</u>
REP1-053	<u>Smart Wind Appendix B-Comparison of V3 of the draft Development Consent Order against V2</u>

REP1-054	<u>Smart Wind Appendix C-Comparison of V3 of the draft Development Consent Order against V1</u>
REP1-055	<u>Smart Wind Appendix D-Schedule of Changes to V3 of the draft Development Consent Order</u>
REP1-056	<u>Smart Wind Appendix E Schedule of Changes to Version 2 of the Book of Reference</u>
REP1-057	<u>Smart Wind Appendix F-Statement of Common Ground - Table of Commonality</u>
REP1-058	<u>Smart Wind Appendix G-Statement of Common Ground Status Update - response to G3</u>
REP1-059	<u>Smart Wind Appendix H-Update to Consents Management Plan - response to G1</u>
REP1-060	<u>Smart Wind Appendix I-Update on status of Land Agreements response to G2</u>
REP1-061	<u>Smart Wind Appendix J-Collision Risk Modelling; Addressing Uncertainty Clarification Note</u>
REP1-062	<u>Smart Wind Appendix K-Ornithological Survey Coverage Baseline Clarification Note</u>
REP1-063	<u>Smart Wind Appendix L-Offshore Ornithology Baseline data clarification note</u>
REP1-064	<u>Smart Wind Appendix M-Applicant's response to E002 - Extended response</u>
REP1-065	<u>Smart Wind Appendix N-Environmental Information Signposting Document (Version 2)</u>
REP1-066	<u>Smart Wind Appendix O-Multiphase Construction Schedule</u>
REP1-067	<u>Smart Wind Appendix P-Indicative Timing and Sequencing of Compounds Table</u>
REP1-068	<u>Smart Wind Appendix Q-Indicative Substation Layouts Diagrams</u>
REP1-069	<u>Smart Wind Appendix R-Appendix referred to in Response to EL9 - Most Least Disruptive Scenarios Table</u>
REP1-070	<u>Smart Wind Appendix S-Appendix referred to in response to EL12 - Mitigation Measures DCO Requirements</u>

	<u>Table</u>
REP1-071	<u>SMART Wind Appendix T-Appendix referred to in Response to EL13 - Figure 2 of Annex 6.3.1 (errata)</u>
REP1-072	<u>SMART Wind Appendix U-Overview of Management Plans - Table</u>
REP1-073	<u>SMART Wind Appendix V-Enhancement Mitigation and Monitoring Commitments (Version 2)</u>
REP1-074	<u>SMART Wind Appendix W-Applicant's response to GE3 - Extended response</u>
REP1-075	<u>SMART Wind Appendix X-BTO Research Report No 656 - Avoidance Rates of Collision</u>
REP1-076	<u>SMART Wind Appendix Y-Joint response from SNCBs to MSS Avoidance Rate Paper 25 November 2014</u>
REP1-077	<u>SMART Wind Appendix Z-Review of Avoidance Rates - December 2013</u>
REP1-078	<u>SMART Wind Appendix AA-DEPONS Status Report on Model Development - February 2015</u>
REP1-079	<u>SMART Wind Appendix BB-Appendix referred to in response to FNA21 - Diagram</u>
REP1-080	<u>SMART Wind Appendix CC-Applicants response to CS14 - Status of Discussions with E.ON</u>
REP1-081	<u>SMART Wind Appendix DD-Summary of Consultation with Parish Councils</u>
REP1-082	<u>SMART Wind Appendix EE-referred to in response to CS5 - Tabular Summary</u>
REP1-083	<u>SMART Wind Appendix FF-Appendix referred to in response to EOMM13 - Tabular Summary</u>
REP1-084	<u>SMART Wind Appendix GG-Standard Navigation Conditions - Signposting Document</u>
REP1-085	<u>SMART Wind Appendix HH-FLOWWW Best Practice Guidance - January 2014</u>
REP1-086	<u>SMART Wind Appendix II-Letter of Comfort from East Anglia Offshore Wind Limited</u>

REP1-087	<u>Smart Wind Appendix JJ-Statement of Common Ground between the Hornsea P1 and the Highways Agency</u>
REP1-088	<u>Smart Wind Appendix KK-Statement of Common Ground between Hornsea P1 Hornsea P2 and the Highways Agency</u>
REP1-089	<u>Smart Wind Appendix LL-Statement of Common Ground between the Applicant and Highways England</u>
REP1-090	<u>Smart Wind Appendix MM-Statement of Common Ground with the Danish Fishermen PO</u>
REP1-091	<u>Smart Wind Appendix NN-Statement of Common Ground with the Environment Agency</u>
REP1-092	<u>Smart Wind Appendix OO-Statement of Common Ground with TWTs and LWT</u>
REP1-093	<u>Smart Wind Appendix PP-Statement of Common Ground with the MCA</u>
REP1-094	<u>Smart Wind Appendix QQ-Statement of Common Ground with the NFFO, HFIG and VisNed</u>
REP1-095	<u>Smart Wind Appendix RR-Statement of Common Ground with Rederscentrale</u>
REP1-096	<u>Smart Wind Appendix SS-Statement of Common Ground with the Royal Yachting Association</u>
REP1-097	<u>Smart Wind Appendix TT-Statement of Common Ground with Trinity House</u>
REP1-098	<u>Smart Wind Appendix UU-Statement of Common Ground with North East Lincolnshire Council</u>
REP1-099	<u>Smart Wind Appendix V V-Statement of Common Ground with Historic England</u>
REP1-0100	<u>Smart Wind Appendix WW-Statement of Common Ground with the Marine Management Organisation</u>
REP1-0101	<u>Smart Wind Appendix XX-Statement of Common Ground with Natural England (all other matters)</u>
REP1-0102	<u>Smart Wind Appendix YY Draft Statement of Common Ground with North Lincolnshire Council</u>

REP1-0103	<u>Smart Wind Appendix ZZ-Statement of Common Ground with Natural England (Offshore Ornithology)</u>
REP1-0104	<u>Smart Wind Appendix AAA-Statement of Common Ground with the CAA</u>
REP1-0105	<u>Smart Wind Appendix BBB-Draft Statement of Common Ground with the Project One Companies</u>
REP1-0106	<u>Smart Wind Appendix CCC-Draft Statement of Common Ground with Lincolnshire County Council</u>
REP1-0107	<u>Smart Wind Appendix DDD-Appendix referred to in response to EL4 - correspondence with Natural England</u>
REP1-0108	<u>Trinity House- Response to the Examining Authority's First Written Questions</u>
REP1-0109	<u>The Wildlife Trusts- Written Representation</u>
REP1-0110	<u>Whale and Dolphin Conservation- Written representation</u>
Deadline 2 – 10 August 2015	
	<ul style="list-style-type: none"> • Comments on WRs and responses to comments on RRs • Comments on responses to Examining Authority's first written questions • Updated HRA matrices • Documents post Accompanied Site Inspection • Comments on Local Impact Reports (LIRs) • Revised draft DCO from Applicant • All post hearing documents including written proofs of oral cases made at hearings • Any other information requested by the Examining Authority
REP2-001	<u>Anglian Water-Submission in relation to the issue specific hearing of 30 July 2015 including information on the inclusion of protective provisions</u>
REP2-002	<u>Associated British Ports-Response to the Written Representation made by the Applicant for Deadline 1</u>

REP2-003	<u>C.Gen Killingholme Limited-Update in respect of its electrical grid connection</u>
REP2-004	<u>DONG Energy-Response to submissions made by the Applicant and interested parties at deadline 1; a summary of an oral representation made at the issue specific hearing of 30 July 2015 and an update on discussion with the Applicant.</u>
REP2-005	<u>E.ON E&P UK Limited-Comments on the Applicant's responses to the Examining Authority's first written questions and the Applicant's response to E.On E&P UK Limited's relevant representation.</u>
REP2-006	<u>Environment Agency-Summary of oral representations made at the DCO Hearing on 30 July 2015</u>
REP2-007	<u>Environment Agency -Comments on the Applicant's response to Examining Authority's first written questions & update on Written Representations</u>
REP2-008	<u>Marine Management Organisation-Summary of oral representation made at the Issue Specific Hearing 1 on 30 July 2015</u>
REP2-009	<u>Natural England-Comments on Written Representations and responses to the Examining Authority's first written questions; Comments on the offshore ornithology clarification submitted by the Applicant at deadline 1 & Summary of oral representation made at the Issue Specific Hearing 1 on 30 July 2015.</u>
REP2-010	<u>Natural England -Appendix I - Offshore Wind farm Developers as S28G Bodies under the Wildlife and Countryside Act 1981 (as amended by CROW 2000)</u>
REP2-011	<u>North East Lincolnshire Council-Updated response to Examining Authority's first written questions</u>
REP2-012	<u>North East Lincolnshire Council-Updated Local Impact Report</u>
REP2-013	<u>North East Lincolnshire Council-Cover letter to updated documents</u>

REP2-014	<u>North Lincolnshire Council-Comment on response to Examining Authority's first written questions</u>
REP2-015	<u>The Royal Society for the Protection of Birds-Comments on the Applicant's responses to the Examining Authority's first written questions.</u>
REP2-016	<u>Smart Wind Response</u>
REP2-017	<u>Smart Wind Appendix A-Summary of Oral Case from DCO Hearing - 30 July 2015</u>
REP2-018	<u>Smart Wind Appendix B-s135 consent from Secretary of State for Defence</u>
REP2-019	<u>Smart Wind Appendix C-Schedule of Changes to V2 of the BoR - 10 August 2015</u>
REP2-020	<u>Smart Wind Appendix D -Environmental Information Signposting Document - Version 3</u>
REP2-021	<u>Smart Wind Appendix E - Site Visit Information Pack (1 of 3)</u>
REP2-022	<u>Smart Wind Appendix E - Site Visit Information Pack (2 of 3)</u>
REP2-023	<u>Smart Wind Appendix E - Site Visit Information Pack (3 of 3)</u>
REP2-024	<u>Smart Wind Appendix F-Response to Whale and Dolphin Conservation's Written Representation</u>
REP2-025	<u>Smart Wind Appendix G-Response to the Wildlife Trust's Written Representation</u>
REP2-026	<u>Smart Wind Appendix H-Response to E.ON's Written Representation</u>
REP2-027	<u>Smart Wind Appendix I - Applicant's response to Natural England's Written Representation</u>
REP2-028	<u>Smart Wind Appendix J - Response to the Royal Society for the Protection of Bird's Written Representation</u>
REP2-029	<u>Smart Wind Appendix K-Update to Offshore Ornithology Baseline Clarification Note</u>

REP2-030	<u>Smart Wind Appendix L-Marine Processes Clarification Note</u>
REP2-031	<u>Smart Wind Appendix M-Ministerial Statement - 12 July 2011</u>
REP2-032	<u>Smart Wind Appendix N-DECC Guidance - June 2014</u>
REP2-033	<u>Smart Wind Appendix O-Statement of Common Ground with Lincolnshire County Council</u>
REP2-034	<u>Smart Wind Appendix P-Statement of Common Ground with Whale and Dolphin Conservation</u>
REP2-035	<u>Smart Wind Appendix Q - Statement of Common Ground with North Lincolnshire Council</u>
REP2-036	<u>Smart Wind Appendix R - Updated SoCG with Natural England (offshore ornithology)</u>
REP2-037	<u>VPI Immingham-Statement of Common Ground between VPI Immingham LLP and SMart Wind Ltd in relation to Vitol Pipeline Immingham (Late Submission accepted at the discretion of the Examining Authority.) (Withdrawn)</u>
REP2-038	<u>VPI Immingham-Construction works agreement (Late Submission accepted at the discretion of the Examining Authority) (Withdrawn)</u>
Deadline 2a – 25 August 2015	
<ul style="list-style-type: none"> • Responses to Rule 17 letter issued by the Examining Authority on 4 August 2015 	
REP2A-001	<u>C.Gen Killingholme Limited-Update in regard to Protective Provisions</u>
REP2A-002	<u>Smart Wind Response</u>
REP2A-003	<u>Smart Wind Appendix A- Draft Development Consent Order - Version 4</u>

REP2A-004	<u>Smart Wind Appendix B- Comparison of Version 4 of the draft Development Consent Order</u>
REP2A-005	<u>Smart Wind Appendix C- Comparison of Version 4 of the draft Development Consent Order</u>
REP2A-006	<u>Smart Wind Appendix D- Schedule of Changes to Version 4 of the draft Development Consent Order</u>
REP2A-007	<u>Smart Wind Appendix E- Plan of the indicative cable corridors at the National Grid substation</u>
REP2A-008	<u>Smart Wind Appendix F- Plan showing extant permissions and applications in the immediate</u>
REP2A-009	<u>Smart Wind Appendix G- Able Logistics Park Planning Permission</u>
REP2A-010	<u>Smart Wind Appendix H- Approved Plans accompanying the Able Logistics Park Planning</u>
REP2A-011	<u>Smart Wind Appendix I- Photomontages in relation to Q4 of the Rule 17 Letter</u>
REP2A-012	<u>Smart Wind Appendix J - Section 135 Consent from Highways England Historical Railways Estate</u>
REP2A-013	<u>Smart Wind Appendix K- Update on Status of Discussions with Certain Stakeholders</u>
REP2A-014	<u>Smart Wind Appendix L- Indicative Construction Schedule Scenarios</u>
REP2A-015	<u>Smart Wind Appendix M- MacArthur Green Seabird PVA Report - August 2015</u>
REP2A-016	<u>Smart Wind Appendix N-Clarification Note - Apportioning of predicted gannet mortality to the Flamborough and Filey Coast pSPA population</u>
REP2A-017	<u>Smart Wind Appendix O -Clarification Note - Apportioning of predicted guillemot mortality to the Flamborough and Filey Coast pSPA population</u>
REP2A-018	<u>Smart Wind Appendix P -Clarification Note - Apportioning of predicted kittiwake mortality to the Flamborough and Filey Coast pSPA population</u>

REP2A-019	<u>Smart Wind Appendix Q- Clarification Note - Apportioning of predicted puffin mortality to the Flamborough and Filey Coast pSPA population</u>
REP2A-020	<u>Smart Wind Appendix R- Clarification Note - Apportioning of predicted razorbill mortality to the Flamborough and Filey Coast pSPA population</u>
REP2A-021	<u>Smart Wind Appendix S- Clarification Note - Unidentified Birds</u>
REP2A-022	<u>Smart Wind Appendix T- Letter from the Applicant to Natural England dated 26 July 2013</u>
REP2A-023	<u>Smart Wind Appendix U- Letter from Smart Wind on behalf of DONG Energy to the Planning Inspectorate noting change of ownership</u>
REP2A-024	<u>Smart Wind Appendix V- Draft Protective Provisions proposed by the Applicant for the benefit of C.Gen (as referred to in the answer to Question 3 of the Rule 17 Letter</u>
REP2A-025	<u>Smart Wind Appendix W- Draft Protective Provisions for the benefit of Hornsea Project One (as referred to in the answer to Question 3 of the Rule 17 Letter)</u>
Deadline 3- 24 September 2015	
<ul style="list-style-type: none"> All post-hearing documents including written proofs of oral cases made at hearings and any other information requested by the Examining Authority. 	
REP3-001	<u>Environment Agency- Summary of Oral submissions made at the Issue Specific Hearing 16 September 2015</u>
REP3-002	<u>E.ON E&P UK Ltd- Summary of Oral submissions made at the Issue Specific Hearing 16 September 2015</u>
REP3-003	<u>DONG -Hornsea Project 1- Summary of Oral submissions made at the Issue Specific Hearing and Compulsory Acquisition Hearing 15 to 17 September 2015</u>

REP3-004	<u>DONG -Hornsea Project 2- Response</u>
REP3-005	<u>DONG -Hornsea Project 2- Land Plans - Appendix A</u>
REP3-006	<u>DONG -Hornsea Project 2- Works Plans – Offshore. Appendix B</u>
REP3-007	<u>DONG -Hornsea Project 2- Works Plans – Onshore. Appendix C</u>
REP3-008	<u>DONG -Hornsea Project 2- Works Plans – Intertidal. Appendix D</u>
REP3-009	<u>DONG -Hornsea Project 2- Crown Plans – Offshore. Appendix E</u>
REP3-010	<u>DONG -Hornsea Project 2- Statutory and non-statutory conservation and historic or scheduled monument sites plan – Offshore. Appendix F</u>
REP3-011	<u>DONG -Hornsea Project 2- DCO/DML Co-ordinates Plan. Appendix G</u>
REP3-012	<u>DONG -Hornsea Project 2- Project One/Project Two Interface. Appendix H</u>
REP3-013	<u>DONG -Hornsea Project 2- Summary of Oral Case – Issue Specific Hearing 15 September 2015. Appendix I</u>
REP3-014	<u>DONG -Hornsea Project 2- Summary of Oral Case – Issue Specific Hearing 16 September 2015. Appendix J</u>
REP3-015	<u>DONG -Hornsea Project 2- Summary of Oral Case – Compulsory Acquisition Hearing 17 September 2015. Appendix K</u>
REP3-016	<u>DONG -Hornsea Project 2- Comparison of Flight Height Recording Bands. Appendix L</u>
REP3-017	<u>DONG -Hornsea Project 2- Joint submission of agreed protective provisions from the Applicant and C.GEN. Appendix M</u>
REP3-018	<u>DONG -Hornsea Project 2- Compounds Table (Vehicle Movements and Construction Staff).Appendix N</u>

REP3-019	<u>DONG -Hornsea Project 2- Aquatic Mammals Noise Exposure Criteria – Southall et al(2007).Appendix O</u>
REP3-020	<u>DONG -Hornsea Project 2- Temporary shift in masked hearing thresholds in harbour porpoise – Lucke et al(2009). Appendix P</u>
REP3-021	<u>DONG -Hornsea Project 2- Quantifying the effect of boat disturbance on bottlenose dolphin foraging activity – Pirotta et al (2015). Appendix Q</u>
REP3-022	<u>DONG -Hornsea Project 2- Order land – Plot-by-Plot Analysis Table. Appendix R</u>
REP3-023	<u>DONG -Hornsea Project 2- Update on Status of Land Agreements. Appendix S</u>
REP3-024	<u>DONG -Hornsea Project 2- Update on Crown Land. Appendix T</u>
REP3-025	<u>DONG -Hornsea Project 2- Status of agreement with Statutory Undertakers. Appendix U</u>
REP3-026	<u>DONG -Hornsea Project 2- Letter of Agreement from British Telecommunications Plc. Appendix V</u>
REP3-027	<u>DONG -Hornsea Project 2- Schedule of updates to the Application Plans. Appendix W</u>
REP3-028	<u>DONG -Hornsea Project 2- Organogram of draft DCO/DML Plans. Appendix X</u>
REP3-029	<u>DONG -Hornsea Project 2- Updated signed Statement of Common Ground between the Applicant and Natural England (Offshore Ornithology). Appendix Y</u>
REP3-030	<u>DONG -Hornsea Project 2- Statement of Common Ground between the Applicant and the RSPB. Appendix Z</u>
REP3-031	<u>Marine Management Organisation-Summary of Oral submissions made at the Issue Specific Hearing 16 September 2015</u>
REP3-032	<u>Natural England-Notes of Natural England/ Renewables UK Post Consent Monitoring Seminar 18 March 2015</u>

REP3-033	<u>Natural England- Appendix 1 of Written submission - Update on ducting in the intertidal area</u>
REP3-034	<u>Natural England- Appendix 2 of Written Submission - HRA Kittiwake Collision Impacts on Flamborough and Filey Coast pSPA</u>
REP3-035	<u>Natural England- Appendix 3 of Written Submission - HRA Collision and displacement Impacts for gannet on Flamborough and Filey Coast pSPA (FFC pSPA)</u>
REP3-036	<u>Natural England- Appendix 4 of Written Submission - HRA Guillemot Displacement Impacts on Flamborough and Filey Coast pSPA (FFC pSPA)</u>
REP3-037	<u>Natural England- Appendix 5 of Written Submission - HRA Razorbill Displacement Impacts on Flamborough and Filey Coast pSPA (FFC pSPA)</u>
REP3-038	<u>Natural England- Appendix 6 of Written Submission - HRA Puffin Displacement Impacts on Flamborough and Filey Coast pSPA (FFC pSPA)</u>
REP3-039	<u>The Royal Society for the Protection Of Birds- Note correcting previous reference made to tide height</u>
REP3-040	<u>The Royal Society for the Protection Of Birds- Tide height correction note dated 11 September 2015</u>
REP3-041	<u>The Royal Society for the Protection Of Birds- Summary of oral case from Issue Specific Hearing 15 & 16 September 2015</u>
REP3-042	<u>The Wildlife Trust- Summary of Oral submissions made at the Issue Specific Hearing 16 September 2015</u>
Deadline 4- 20 October 2015	
<ul style="list-style-type: none"> • Responses to Examining Authority's second written questions • Any other information requested by the Examining Authority 	
REP4-001	<u>Centrica- Written representation in relation to protective provisions</u>

REP4-002	<u>C.Gen Killingholme Limited- Response to the Examining Authority's second written questions.</u>
REP4-003	<u>CLH Pipelines- Written representation to the Issue Specific hearing.</u>
REP4-004	<u>ConocoPhillips (U.K) Limited- Response to the Examining Authority's second written questions.</u>
REP4-005	<u>The Crown Estate- Response to the Examining Authority's second written questions.</u>
REP4-006	<u>DONG -Hornsea Project 2- Response to Deadline IV</u>
REP4-007	<u>DONG -Hornsea Project 2- Appendix A- Draft development consent Order - Version 5</u>
REP4-008	<u>DONG -Hornsea Project 2- Appendix B - Comparison of V5 of the draft DCO against V4</u>
REP4-009	<u>DONG -Hornsea Project 2- Appendix C - Comparison of V5 of the draft DCO against V1</u>
REP4-010	<u>DONG -Hornsea Project 2- Appendix D - Schedule of Changes to V5 of the draft DCO</u>
REP4-011	<u>DONG -Hornsea Project 2- Appendix E - Book of Reference (V3) Part 1 of 5</u>
REP4-012	<u>DONG -Hornsea Project 2- Appendix E - Book of Reference (V3) Part 2 of 5</u>
REP4-013	<u>DONG -Hornsea Project 2- Appendix E - Book of Reference (V3) Part 3 of 5</u>
REP4-014	<u>DONG -Hornsea Project 2- Appendix E - Book of Reference (V3) Part 4 to 5</u>
REP4-015	<u>DONG -Hornsea Project 2- Appendix F - Schedule of Changes to V3 Book of Reference</u>
REP4-016	<u>DONG -Hornsea Project 2- Appendix G - Updated Plot by Plot Analysis</u>
REP4-017	<u>DONG -Hornsea Project 2- Appendix H - Composite Updated Statement of Reasons</u>
REP4-018	<u>DONG -Hornsea Project 2- Appendix I - Statement of Reasons Comparison</u>

REP4-019	<u>DONG -Hornsea Project 2- Appendix J - Environmental Information Signposting Doc (V4)</u>
REP4-020	<u>DONG -Hornsea Project 2- Appendix K - Update to Consents Management Plan (RTQ G5)</u>
REP4-021	<u>DONG -Hornsea Project 2- Appendix L - SoCG Status Update (RTQ G6)</u>
REP4-022	<u>DONG -Hornsea Project 2- Appendix M - Table of Updates to Application Docs (RTQ G7)</u>
REP4-023	<u>DONG -Hornsea Project 2- Appendix N - Enhancement Mitigation and Monitoring (V3)</u>
REP4-024	<u>DONG -Hornsea Project 2- Appendix O - Tabular Review of EIA Conclusions (RTQ G10)</u>
REP4-025	<u>DONG -Hornsea Project 2- Appendix P - In Principle Monitoring Plan</u>
REP4-026	<u>DONG -Hornsea Project 2- Appendix Q - HRA Addendum Southern North Sea dSAC</u>
REP4-027	<u>DONG -Hornsea Project 2- Appendix R - Intertidal Clarification Note</u>
REP4-028	<u>DONG -Hornsea Project 2- Appendix S -Heritage Survey Extents (RTQ LH15)</u>
REP4-029	<u>DONG -Hornsea Project 2- Appendix T - Amplified Compounds Table (RTQ CL23(b) and (c))</u>
REP4-030	<u>DONG -Hornsea Project 2- Appendix U - Appendix in response to SE8</u>
REP4-031	<u>DONG -Hornsea Project 2- Appendix V - Final SoCG with NFFO HFIG and VisNed</u>
REP4-032	<u>DONG -Hornsea Project 2- Appendix W - Onshore Crown Plans</u>
REP4-033	<u>DONG -Hornsea Project 2- Appendix X - Update on status of Land Agreements</u>
REP4-034	<u>DONG -Hornsea Project 2- Appendix Y - Update on statutory undertakers</u>

REP4-035	<u>DONG -Hornsea Project 2- Appendix Z - Letter from Phillips 66 Limited</u>
REP4-036	<u>DONG -Hornsea Project 2- Appendix AA - Letter from Virgin Media Limited</u>
REP4-037	<u>DONG -Hornsea Project 2- Appendix BB - HRA Screening and Integrity Matrices (V3)</u>
REP4-038	<u>DONG -Hornsea Project 2- Appendix CC - Clarification Note EIA for offshore ornithology</u>
REP4-039	<u>DONG -Hornsea Project 2- Appendix DD - Kittiwake Collision Risk Review</u>
REP4-040	<u>DONG -Hornsea Project 2- Appendix EE - Kittiwake Clarification in response to EOO16</u>
REP4-041	<u>DONG -Hornsea Project 2- Appendix FF - Possible Greater Wash SPA Shadow HRA Screening</u>
REP4-042	<u>East Lindsey District Council- Response to the Examining Authority's second written questions.</u>
REP4-043	<u>E.ON E&P UK Ltd- Response to the Examining Authority's second written questions.</u>
REP4-044	<u>Highways England- Response to the Examining Authority's second written questions.</u>
REP4-045	<u>Hornsea Project 1 - Response to the Examining Authority's second written questions</u>
REP4-046	<u>Humber Local Enterprise Partnership- Response to the Examining Authority's second written questions.</u>
REP4-047	<u>Marine Management Organisation- Response to the Examining Authority's second written questions.</u>
REP4-048	<u>Natural England- Response to the Examining Authority's second written questions.</u>
REP4-049	<u>National Grid Electricity Transmission plc and National Grid Gas plc (Withdrawn)</u>
REP4-050	<u>National Grid- Response to the Examining Authority's second written questions. (Withdrawn)</u>

REP4-051	<u>North East Lincolnshire Council- Response to the Examining Authority's second written questions.</u>
REP4-052	<u>North Lincolnshire Council- Response to the Examining Authority's second written questions.</u>
REP4-053	<u>The Royal Society for the Protection of Birds -Response to the Examining Authority's second written questions.</u>
REP4-054	<u>The Royal Society for the Protection of Birds -Written submission</u>
REP4-055	<u>Trinity House- Response to the Examining Authority's second written questions.</u>
REP4-056	<u>Gradebrook Filling Station-Written representation (Late Submission accepted at the discretion of the Examining Authority)</u>
REP4-057	<u>Historic England- Response to the Examining Authority's second written questions (Late submission this was accepted at the discretion of the Examining Authority).</u>
Deadline 5- 12 November 2015	
<ul style="list-style-type: none"> • Comments on responses to Examining Authority's second written questions • Receipt and publication of applicant's final DCO • Documents post all hearings • Written proofs of oral cases made at hearings • Any other information requested by the Examining Authority 	
REP5-001	<u>DONG -Hornsea Project 2-The Applicant's response to Deadline V</u>
REP5-002	<u>DONG -Hornsea Project 2- Appendix A - Draft DCO - V6</u>
REP5-003	<u>DONG -Hornsea Project 2- Appendix B - Comparison of V6 of the draft DCO against V5</u>
REP5-004	<u>DONG -Hornsea Project 2- Appendix C - Comparison of V6 of the draft DCO against V1</u>

REP5-005	<u>DONG -Hornsea Project 2- Appendix D - Schedule of Changes to Version 6 of the draft DCO</u>
REP5-006	<u>DONG -Hornsea Project 2- Appendix E - Draft DCO - V7</u>
REP5-007	<u>DONG -Hornsea Project 2- Appendix F - Draft DCO V7 - Clause Numbering Signposting Table</u>
REP5-008	<u>DONG -Hornsea Project 2- Appendix G - Summary of Oral Case - ISH 27/10/15</u>
REP5-009	<u>DONG -Hornsea Project 2- Appendix H - Summary of Oral Case - ISH 28/10/15</u>
REP5-010	<u>DONG -Hornsea Project 2- Appendix I - Summary of Oral Case - CAH 29/10/15</u>
REP5-011	<u>DONG -Hornsea Project 2- Appendix J - Summary of Oral Case Presented by Dr Emily Wood</u>
REP5-012	<u>DONG -Hornsea Project 2- Appendix K - Applicant's response to EONs Oral Reps</u>
REP5-013	<u>DONG -Hornsea Project 2- Appendix L - Applicant's position in relation to DML</u>
REP5-014	<u>DONG -Hornsea Project 2- Appendix M - Composite Updated Funding Statement</u>
REP5-015	<u>DONG -Hornsea Project 2- Appendix N - Funding Statement Comparison</u>
REP5-016	<u>DONG -Hornsea Project 2- Appendix O - Update on Land Agreements and Protective Provisions</u>
REP5-017	<u>DONG -Hornsea Project 2- Appendix P - Cert of Interests from SoS for Transport</u>
REP5-018	<u>DONG -Hornsea Project 2- Appendix Q - Letter from Highways England</u>
REP5-019	<u>DONG -Hornsea Project 2- Appendix R - Interests held by Highways England</u>
REP5-020	<u>DONG -Hornsea Project 2- Appendix S - Environmental Information Signposting Document V5</u>

REP5-021	<u>DONG -Hornsea Project 2- Appendix T - Supply Chain and Employment</u>
REP5-022	<u>DONG -Hornsea Project 2- Appendix U - The Kittiwake by Coulson</u>
REP5-023	<u>DONG -Hornsea Project 2- Appendix V - Migratory Seabird Collision Note</u>
REP5-024	<u>DONG -Hornsea Project 2- Appendix W - Errata - App A of Annex 6.8.1 -Transport Assessment of the ES</u>
REP5-025	<u>DONG -Hornsea Project 2- Appendix X - Outline Ecological Management Plan - V2</u>
REP5-026	<u>DONG -Hornsea Project 2- Appendix Y - SoCG (Natural England) - Intertidal Matters</u>
REP5-027	<u>DONG -Hornsea Project 2- Appendix Z - Impact of DONG Energy Investments in Humber Area - Nov 15</u>
REP5-028	<u>DONG -Hornsea Project 2- Appendix AA - URSA - Trial Trench Plan</u>
REP5-029	<u>DONG -Hornsea Project 2- Appendix BB - Construction Activity Note</u>
REP5-030	<u>DONG -Hornsea Project 2- Appendix CC - SoCG (Natural England) - Offshore Ornithology</u>
REP5-031	<u>DONG -Hornsea Project 2- Appendix DD - Enhancement Mitigation and Monitoring - Comp V3 against V2</u>
REP5-032	<u>DONG -Hornsea Project 2- Appendix EE - In Principle Monitoring Plan - V2</u>
REP5-033	<u>DONG -Hornsea Project 2- Appendix FF - Position Statement with ConocoPhillips</u>
REP5-034	<u>E.ON E&P UK Ltd</u>
REP5-035	<u>MMO- Summary of Oral Case at ISH</u>
REP5-036	<u>Natural England</u>

REP5-037	<u>Royal Society for the Protection of Birds</u>
REP5-038	<u>The Wildlife Trust- Comments on Responses to Examining Authority's second written questions</u>
Deadline 6- 26 November 2015	
<ul style="list-style-type: none"> • Any final versions of SoCGs • Any other information requested by the ExA 	
REP6-001	<u>DONG – Hornsea Project 2 - Response</u>
REP6-002	<u>DONG – Hornsea Project 2 - Appendix A - Position Statement on matters raised by the MMO during the Project's Examination</u>
REP6-003	<u>DONG – Hornsea Project 2 - Appendix B - Response to TWT's Deadline V submission</u>
REP6-004	<u>DONG – Hornsea Project 2 - Appendix C - Response to the RSPB's Deadline V submission</u>
REP6-005	<u>DONG – Hornsea Project 2 - Appendix D - Response to Natural England's Deadline V submission</u>
REP6-006	<u>DONG – Hornsea Project 2 – Appendix E - Summary of kittiwake position between Natural England and the Applicant at Deadline VI</u>
REP6-007	<u>DONG – Hornsea Project 2 - Appendix F - Kittiwake Collision Risk – Applicant's position at Deadline VI</u>
REP6-008	<u>DONG – Hornsea Project 2 - Appendix G - Tabular Review of EIA Conclusions in response to the amendments to the Project Design Envelope</u>
REP6-009	<u>DONG – Hornsea Project 2 - Appendix H - Response to E.ON E&P's Deadline V submission</u>
REP6-010	<u>DONG – Hornsea Project 2 – Appendix I - The Applicant's proposed E.ON E&P Protective Provisions</u>
REP6-011	<u>DONG – Hornsea Project 2 - Appendix J - Comparison of the Applicant's proposed E.ON E&P Protective</u>

	<u>Provisions against those submitted by E.ON E&P at Deadline V</u>
REP6-012	<u>DONG – Hornsea Project 2 - Appendix K - Extract of the transcript of The Rt Hon Amber Rudd MP's speech published on 18 November 2015 relating to Offshore Wind</u>
REP6-013	<u>DONG – Hornsea Project 2 - Appendix L - The Applicant's position with regards to E.ON E&P (Consent, Policy and Protective Provisions)</u>
REP6-014	<u>DONG – Hornsea Project 2 - Appendix M - Update to the SoCG between the Applicant and Natural England – Offshore Ornithology</u>
REP6-015	<u>DONG – Hornsea Project 2 - Appendix N - Possible Greater Wash SPA Shadow HRA Screening - Version 2</u>
REP6-016	<u>Centrica - Confirmation of withdrawal of representations in relation to Hornsea 2</u>
REP6-017	<u>Natural England - Written Submission</u>
REP6-018	<u>Royal Society for the Protection of Birds</u>
REP6-019	<u>E.ON E&P UK Limited</u>
	Deadline 7 – 10 December 2015
	<ul style="list-style-type: none"> • Comments on Applicant's DCO (REP5-006) • Comments on the RIES • Responses to Rule 17 issued 26 November 2015 • Any other information requested by the Examining Authority
REP7-001	<u>ConocoPhillips (UK) Ltd</u>
REP7-002	<u>DONG - Hornsea Project 2 - Response</u>
REP7-003	<u>DONG Hornsea Project 2 - Appendix - A draft Development Consent Order Version 8</u> Note: Appendix B – Word Version of DCO V8 - not published

REP7-004	<u>DONG - Hornsea Project 2 - Appendix C - draft Development Consent Order Version 8 Statutory Instrument Validation Report</u>
REP7-005	<u>DONG - Hornsea Project 2 - Appendix D - Comparison of Version 8 of draft Development Consent Order against Version 7</u>
REP7-006	<u>DONG - Hornsea Project 2 - Appendix E - Comparison of draft Development Consent Order Version 8 against Version 1</u>
REP7-007	<u>DONG - Hornsea Project 2 - Appendix F - Schedule of Changes to Version 8 of draft Development Consent Order</u>
REP7-008	<u>DONG - Hornsea Project 2 - Appendix G - Explanatory Memorandum Version 2</u>
REP7-009	<u>DONG - Hornsea Project 2 - Appendix H - Comparison of Explanatory Memorandum Version 2 against Version 1</u>
REP7-010	<u>DONG - Hornsea Project 2 - Appendix I - Part 1 of 5 - Book of Reference Version 4</u>
REP7-011	<u>DONG - Hornsea Project 2 - Appendix I - Part 2 of 5 - Book of Reference Version 4</u>
REP7-012	<u>DONG - Hornsea Project 2 - Appendix I - Part 3 of 5 Book of Reference Version 4</u>
REP7-013	<u>DONG - Hornsea Project 2 - Appendix I - Part 4 to 5 Book of Reference Version 4</u>
REP7-014	<u>DONG - Hornsea Project 2 - Appendix J - Schedule of Changes between Book of Reference Version 3 and Version 4</u>
REP7-015	<u>DONG - Hornsea Project 2 - Appendix K - Updated Plot-by-Plot Analysis Table</u>
REP7-016	<u>DONG - Hornsea Project 2 - Appendix L - Environmental Information Signposting Document Version 6</u>

REP7-017	<u>DONG - Hornsea Project 2 - Appendix M - The Applicant's comments on the RIES issued by the Examining Authority</u>
REP7-018	<u>DONG - Hornsea Project 2 - Appendix N - The Applicant's response to Natural England's submission to Deadline 6</u>
REP7-019	<u>DONG - Hornsea Project 2 - Appendix O - The Applicant's response to the RSPB's submission to Deadline 6</u>
REP7-020	<u>DONG - Hornsea Project 2 - Appendix P - The Applicant's response to EON E&P's Response to Deadline 6</u>
REP7-021	<u>DONG - Hornsea Project 2 - Appendix Q - Memorandum of Understanding between the Applicant and Natural England</u>
REP7-022	<u>DONG - Hornsea Project 2 - Appendix R - Tabular Review of EIA Conclusions in response to the amendments to the Project Design Envelope</u>
REP7-023	<u>DONG - Hornsea Project 2 - Appendix S - The Applicant's Response to Question 8 of the Rule 17 letter dated 26 November 2015</u>
REP7-024	<u>DONG - Hornsea Project 2 - Appendix T - Journal of applied Ecology article by Cleasby et al (2015)</u>
REP7-025	<u>DONG - Hornsea Project 2 - Appendix U - Update to the Status of Protective Provisions</u>
REP7-026	<u>DONG - Hornsea Project 2 - Appendix V - Works plans - Offshore</u>
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REP7-028	<u>DONG - Hornsea Project 2 - Appendix X - Protective Provisions Plan for E.ON E&P and BEL</u>
REP7-029	<u>DONG - Hornsea Project 2 - Appendix Y Applications for production licenses, general guidance, DECC 2014</u>

REP7-030	<u>DONG - Hornsea Project 2 - Appendix Z - Other Regulatory Guidance, DECC 2014</u>
REP7-031	<u>East Lindsey District Council - no further comments on the proposal</u>
REP7-032	<u>E ON E&P UK Limited -cover letter and submission</u>
REP7-033	<u>Marine Management Organisation</u>
REP7-034	<u>Natural England - Comments on the RIES, draft DCO, ExA's written questions and offshore ornithology clarification notes</u>
REP7-035	<u>Royal Society for the Protection of Birds-final submission on alternative solutions under the Habitats Regulations</u>
REP7-036	<u>Royal Society for the Protection of Birds</u>
REP7-037	<u>The Crown Estate - Review of Applicant's Draft DCO V7</u>
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REP7-039	<u>VPI Immingham LLP (Withdrawn)</u>
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REP7-041	<u>Whale and Dolphin Conservation</u>
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• Response to Rule 17 issued 7 December 2015	
REP8-001	<u>DONG - Hornsea Project 2 - Response</u>

REP8-002	<u>E.ON E&P UK Limited - Written Representation</u>
REP8-003	<u>Natural England - Written Representation</u>
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REP8-007	<u>The Crown Estate - further Comments on the Applicant's draft Development Consent Order</u>
Other Documents	
OD-001	<u>Smart Wind Limited s56,59 and reg 13</u>
OD-002	<u>Transboundary Screening Matrix</u>
OD-003	<u>E.ON E&P UK Limited – Request for a hearing</u>
OD-004	<u>DONG- Hornsea Project 2- response to E.ON's request for a hearing</u>
OD-005	<u>DONG- Hornsea Project 2- Position as to the protective provisions for E.On E&P and BEL. Submission of 15 December 2015.</u>
OD-006	<u>E.ON E&P UK Limited – Response to the Applicant's Deadline 8 Submission</u>
OD-007	<u>Royal Society for the Protection of Birds - Response to Deadline 8 Submissions from interested parties</u>

APPENDIX C: LIST OF ABBREVIATIONS

Abbreviation or usage	Reference
AA	Appropriate Assessment
ABP	Associated British Ports
AEOI	Adverse Effect on Integrity
ALARP	As low as reasonably practicable
AMP	Access Management Plan
AONB	Area of Outstanding Natural Beauty
AP	Affected Person
APFP	Applications: Prescribed Forms and Procedures
AR	Avoidance Rate
ASI	Accompanied Site Inspection
BDMPS	Biologically Defined Minimum Population Scale
BoR	Book of Reference
CA	Compulsory Acquisition
CAH	Compulsory Acquisition Hearing
CD	Chart Datum
CIA	Cumulative Impact Assessment
CoCP	Code of Construction Practice
CPGR	Counterfactual of Population Growth Rate
CPS	Counterfactual of Population Size
CRA	Collision Risk Assessment
CRM	Collision Risk Modelling
cSAC	candidate Special Area of Conservation
CTMP	Construction Traffic Management Plan
D	Deadline
DCLG	Department for Communities and Local Government
DCLG compulsory acquisition guidance	'Planning Act 2008: Guidance related to procedures for the compulsory acquisition of land', Department of Communities and Local Government, September 2013
DCO	Development consent order (made or proposed to be made under the Planning Act 2008 (as amended))
DD	Density Dependent
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DEPONS	Disturbance Effects on Harbour Porpoises in the North Sea
DfT	Department for Transport
DI	Density Independent
DIO	Ministry of Defence – Defence Infrastructure Organisation
DML	Deemed marine licence
dSAC	Draft Special Area of Conservation
dSPA	Draft Special Protection Area

Abbreviation or usage	Reference
DWR	Deep Water Route
EA	Environment Agency
ECOW	Ecological Clerk of Works
EEA	European Economic Area
EH	English Heritage
EIA	Environmental Impact Assessment
EIEOMP	East Inshore and East Offshore Marine Plans
ELDC	East Lindsey District Council
EMP	Ecological Management Plan
EM	Explanatory Memorandum
EMF	Electro Magnetic Field
EPR	Examination Procedure Rules
EPS	European Protected Species
ERCOP	Emergency Response Co-operation Plan
ES	Environmental Statement
ExA	Examining Authority
FCS	Favourable Conservation Status
FFC	Flamborough and Filey Coast
FHBC	Flamborough Head and Bempton Cliffs
FLO	Fisheries Liaison Officer
FLP	Fisheries Liaison Plan
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables Group
FRA	Flood Risk Assessment
GBBG	Greater Black-backed Gull
HDD	Horizontal Directional Drilling
HE	Historic England
HETA	Humberside Engineering Training Associations
HFIG	Holderness Fishing Industry Group
HGV	Heavy Goods Vehicle
HP1	Hornsea Project 1
HP2	Hornsea Project 2
HPA	Health Protection Agency
HRA	Habitat Regulations Assessment
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IAMP	Intertidal Access Management Plan
ISH	Issue Specific Hearing
IP	Interested Party
IPMP	In-Principle Monitoring Plan
JNCC	Joint Nature Conservation Committee
kV	Kilovolt

Abbreviation or usage	Reference
LAeq	Equivalent Continuous Sound Level (A-weighting setting)
LAT	Lowest Astronomical Tide
LBBG	Lesser Black-backed Gull
LCC	Lincolnshire County Council
LDF	Local Development Framework
LEP	Local Economic Partnership
LIA	Local Impact Area
LIR	Local Impact Report
LNR	Local Nature Reserve
LPA	Local Planning Authority
LSE	Likely Significant Effect
LWT	Lincolnshire Wildlife Trust
LVIA	Landscape and Visual Impacts Assessment
MACAA2009	Marine and Coastal Access Act 2009
MCA	Maritime and Coastguard Agency
MCZ	Marine Conservation Zone
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MoD	Ministry of Defence
MoU	Memorandum of Understanding
MPS	Marine Policy Statement
MSS	Marine Scotland Science
MW	Megawatt
NE	Natural England
NELC	North East Lincolnshire Council
NERC	The Natural Environment and Rural Communities Act
NERL	NATs En Route Ltd
NFFO	National Federation of Fishermen's Organisations
NG	National Grid
NGET	National Grid Electricity Transmission
NLC	North Lincolnshire Council
nm	Nautical Miles
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRA	Navigation Risk Assessment
NSIP	Nationally Significant Infrastructure Project
O&M	Operation and Maintenance
OFTO	Offshore Transmission Operator
OMP	Ornithological Monitoring Plan
PA2008	Planning Act 2008

Abbreviation or usage	Reference
PBR	Potential Biological Removal
PCH	Percentage at Collision Height
PCoD	Population Consequences of (Noise) Disturbance
PP	Protective Provision
pSPA	potential Special Protection Area
PVA	Population Viability Analysis
Ramsar	The Ramsar Convention on Wetlands
REWS	Radar Early Warning System
RIES	Report on the Implications for European Sites
RR	Relevant Representation
RSPB	Royal Society for the Protection of Birds
RYA	Royal Yachting Association
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SNCB	Statutory Nature Conservation Body
SNCBs	Statutory nature conservation bodies – a collective reference
SNSOWF	Southern North Sea Offshore Wind Farm Forum
SOCG	Statement of Common Ground
SoS	Secretary of State
SOSS	Strategic Ornithological Offshore Services
SP	Statutory Party
SPA	Special Protection Area
SSSI	Sites of Special Scientific Interest
SU	Statutory Undertaker
SVIA	Seascape and Visual Impact Assessment
TCE	the Crown Estate
TCPA	Town and Country Planning Act 1990
TH	Trinity House
TSHD	Trailer Suction Hopper Dredger
TWT	The Wildlife Trusts
UKHO	UK Hydrographic Office
VOR	Valued Ornithological Receptor
WDC	Whales and Dolphin Conservation
WFD	Water Framework Directive
WR	Written Representation
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generators
ZTV	Zone of theoretical visibility

APPENDIX D: FINAL RECOMMENDED DEVELOPMENT CONSENT ORDER

201X No.

INFRASTRUCTURE PLANNING

Hornsea Two Offshore Wind Farm Order 201[X]

Made - - - - ***

Coming into force - - ***

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An application has been made to the Secretary of State in accordance with the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009(a) for an Order under sections 37, 114, 115, 120 and 149A of the Planning Act 2008 (“the 2008 Act”)(b);

The application was examined by a Panel appointed as an Examining authority by the Secretary of State pursuant to Chapter 4 of Part 6 of the 2008 Act and the Infrastructure Planning (Examination Procedure) Rules 2010(c);

The Examining authority, having considered the application with the documents that accompanied it, and the representations made and not withdrawn, has, in accordance with section 74 of the 2008 Act made a report and recommendation to the Secretary of State;

The Secretary of State, having considered the report and recommendation of the Panel, and decided the application, has determined to make an Order giving effect to the proposals comprised in the application with modifications which in his opinion do not make substantial change to the proposals;

The Secretary of State, in exercise of the powers conferred by sections 114, 115, 120, 122 and 149A of the 2008 Act, makes the following Order:

PART 1

Preliminary

Citation and commencement

1. This Order may be cited as the Hornsea Two Offshore Wind Farm Order and comes into force on [] 201X.

Interpretation

2.—(1) In this Order—

“the 1961 Act” means the Land Compensation Act 1961(d);

“the 1965 Act” means the Compulsory Purchase Act 1965(e);

“the 1980 Act” means the Highways Act 1980(a);

(a) S.I. 2009/2264, as amended by the Localism Act 2011 (Infrastructure Planning) (Consequential Amendments) Regulations 2012 (S.I. 2012/635), the Infrastructure Planning (Prescribed Consultees and Interested Parties etc) (Amendment) Regulations 2013 (S.I. 2013/522) and the Infrastructure Planning (Applications: Prescribed Forms and Procedure) (Amendment) Regulations 2014 (S.I. 2014/2381) . There are other amendments to the Regulations which are not relevant to this Order.

(b) 2008 c.29.

(c) S.I. 2010/103, as amended by S.I. 2012/635.

(d) 1961 c.33. Section 2(2) was amended by section 193 of, and paragraph 5 of Schedule 33 to, the Local Government, Planning and Land Act 1980 (c.65). There are other amendments to the 1980 Act which are not relevant to this Order.

(e) 1965 c.56. Section 3 was amended by section 70 of, and paragraph 3 of Schedule 15 to, the Planning and Compensation Act 1991 (c.34). Section 4 was amended by section 3 of, and Part 1 of Schedule 1 to, the Housing (Consequential Provisions) Act 1985 (c.71). Section 5 was amended by sections 67 and 80 of, and Part 2 of Schedule 18 to, the Planning and Compensation Act 1991 (c.34). Section 11(1) and sections 3, 31 and 32 were amended by section 34(1) of, and Schedule 4 to, the Acquisition of Land Act 1981 (c. 67) and by section 14 of, and paragraph 12(1) of Schedule 5 to, the Church of England (Miscellaneous Provisions) Measure 2006 (2006 No.1). Section 12 was amended by section 56(2) of, and Part 1 to Schedule 9 to, the Courts Act 1971 (c.23). Section 13 was amended by section 139 of the Tribunals, Courts and Enforcement Act 2007 (c.15). Section 20 was amended by section 70 of, and paragraph 14 of Schedule 15 to, the Planning and Compensation Act 1991 (c.34). Sections 9, 25 and 29 were amended by the Statute Law (Repeals) Act 1973 (c.39). Section 31 was also amended by section 70 of, and paragraph 19 of Schedule 15 to, the Planning and Compensation Act 1991 (c.34) and by section 14 of, and paragraph 12(2) of Schedule 5 to, the Church of England (Miscellaneous Provisions) Measure 2006 (2006 No.1). There are other amendments to the 1965 Act which are not relevant to this Order.

“the 1981 Act” means the Compulsory Purchase (Vesting Declarations) Act 1981**(b)**;

“the 1989 Act” means the Electricity Act 1989**(c)**;

“the 1990 Act” means the Town and Country Planning Act 1990**(d)**;

“the 1991 Act” means the New Roads and Street Works Act 1991**(e)**;

“the 2003 Act” means the Electronic Communications Act 2003**(f)**;

“the 2004 Act” means the Energy Act 2004**(g)**;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009**(h)**;

“ancillary works” means the ancillary works described in Part 2 of Schedule A (authorised project) and other works authorised by the Order, which are not development within the meaning of section 32 of the 2008 Act;

“authorised development” means the development described in Part 1 of Schedule A and other development authorised by the Order, which is development within the meaning of section 32 of the 2008 Act;

“the authorised project” means the authorised development and the ancillary works authorised by this Order;

“the book of reference” means the book of reference certified by the Secretary of State for the purposes of this Order;

“Breesea” means Breesea Limited, a company registered in England and Wales with company number 07883217 having its registered office at c/o Dong Energy, 5 Howick Place, London, England, SW1P 1WG;

“commence”, except where otherwise provided for, means commencing any material operation (as defined in section 155 of the 2008 Act) forming part of the authorised development other than operations consisting of site clearance, demolition work, archaeological investigations, investigations for the purpose of assessing ground conditions, and remedial work in respect of any contamination or other adverse ground conditions, and “commencement” shall be construed accordingly;

“connection works” means Work Nos. 5A, 5B, 6A, 6B, 7A, 7B, 8A, 8B, 9A, 9B and 10 and any related further associated development;

“compensation compound” means a construction working site forming part of the associated development authorised by this Order and shown coloured green on the compensation

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- (a) 1980 c.66. Section 1(1) was amended by section 21(2) of the New Roads and Street Works Act 1991 (c.22); sections 1(2), (3) and (4) were amended by section 8 of, and paragraph (1) of Schedule 4 to, the Local Government Act 1985 (c.51); section 1(2A) was inserted by, and section 1(3) was amended by, section 259 (1), (2) and (3) of the Greater London Authority Act 1999 (c.29); sections 1(3A) and 1(5) were inserted by section 22(1) of, and paragraph 1 of Schedule 7 to, the Local Government (Wales) Act 1994 (c.19). Section 36(2) was amended by section 4(1) of, and paragraphs 47 (a) and (b) of Schedule 2 to, the Housing (Consequential Provisions) Act 1985 (c.71), by S.I. 2006/1177, by section 4 of and paragraph 45(3) of Schedule 2 to, the Planning (Consequential Provisions) Act 1990 (c.11), by section 64(1) (2) and (3) of the Transport and Works Act 1992 (c.42) and by section 57 of, and paragraph 5 of Part 1 of Schedule 6 to, the Countryside and Rights of Way Act 2000 (c.37); section 36(3A) was inserted by section 64(4) of the Transport and Works Act 1992 and was amended by S.I. 2006/1177; section 36(6) was amended by section 8 of, and paragraph 7 of Schedule 4 to, the Local Government Act 1985 (c.51); and section 36(7) was inserted by section 22(1) of, and paragraph 4 of Schedule 7 to, the Local Government (Wales) Act 1994 (c.19). Section 329 was amended by section 112(4) of, and Schedule 18 to, the Electricity Act 1989 (c.29) and by section 190(3) of, and Part 1 of Schedule 27 to, the Water Act 1989 (c.15). There are other amendments to the 1980 Act which are not relevant to this Order.
- (b) 1981 c.66. Sections 2 and 116 were amended by section 4 of, and paragraph 52 of Schedule 2 to, the Planning (Consequential Provisions) Act 1990 (c.11). There are other amendments to the 1981 Act which are not relevant to this Order.
- (c) 1989 c.29.
- (d) 1990 c. 8. Section 206(1) was amended by section 192(8) of, and paragraphs 7 and 11 of Schedule 8 to, the Planning Act 2008 (c29) (date in force to be appointed see section 241(3), (4)(a), (c) of the 2008 Act). There are other amendments to the 1990 Act which are not relevant to this Order.
- (e) 1991 c.22.
- (f) 2003 c.21.
- (g) 2004 c.20.
- (h) 2009 c. 23.

compounds plan, for the purpose of compensating the Hornsea Project One undertaker in the event that the use by the Hornsea Project One undertaker of Hornsea Project One construction compounds is restricted or prevented by the undertaker carrying out the works authorised by this Order;

“compensation compound access” means an access forming part of the associated development authorised by this Order and shown coloured pink on the compensation compounds plan, for the purpose of accessing a compensation compound;

“compensation compounds plan” means the plan certified as the compensation compounds plan by the Secretary of State for the purposes of this Order;

“deemed marine licence” means a licence set out in any of Schedules H, I, J and K and deemed by article 36 to have been granted under Part 4 of the 2009 Act, by virtue of section 149A of the 2008 Act;

“EIA Regulations” means the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009(a);

“electrical circuit” means a number of electrical conductors necessary to transmit electricity between two points within the authorised development; this comprises, in the case of HVAC transmission, three conductors which may be bundled as one cable or (onshore) take the form of three separate cables, and, in the case of HVDC transmission two conductors, which may be attached together or take the form of single cables: the circuit may include one or more auxiliary cables (normally fibre optic cables) for the purpose of control, monitoring, protection or general communications;

“electrical transmission station” means an onshore HVDC converter substation or HVAC substation required for connecting the electrical circuits to the National Grid;

“the Environmental Statement” means the document certified as the environmental statement by the Secretary of State for the purposes of this Order;

“the export cable area” means the area described as such whose co-ordinates are specified in Part 1 of Schedule A and listed in the offshore works plans;

“gravity base foundation” means either—

- (a) a structure principally of concrete and/or steel which rests on the seabed due either to its own weight and that of added ballast or to the weight of water above it, and may include associated equipment including suction piles, J-tubes and access platforms; or
- (b) a structure principally of concrete and/or steel consisting of a platform supported on two pontoons to which the platform is connected by columns which may be connected by braces;

“highway” and “highway authority” have the same meaning as in the 1980 Act;

“Hornsea Project One construction compounds” means the working sites to be used in connection with the construction of the works authorised by the Hornsea One Offshore Wind Farm Order 2014(b) and forming part of the associated development authorised by that Order;

“Hornsea Project One undertaker” means Heron Wind Limited (Company No. 07640868) or such other person who has the benefit of the Hornsea One Offshore Wind Farm Order 2014 in respect of the works or operations authorised by that Order as are landward of MHWS;

“HVAC” means high voltage alternating current;

“HVDC” means high voltage direct current;

“the in-principle monitoring plan” means the document certified as the in-principle monitoring plan by the Secretary of State for the purposes of this Order;

“the inter-array electrical circuits” means the circuits described in paragraph (b) of Work No. 1A and paragraph (b) of Work No. 1B;

(a) S.I. 2009/2263, as amended by S.I. 20011/2741, S.I. 2012/635, and S.I. 2012/787

(b) S.I. 2014/3331 as amended by S.I. 2015/1280

“the intertidal area” means the area between mean high water springs and mean low water springs;

“the intertidal works plans” means the part of the works plans described as the intertidal works plans;

“jacket foundation” means a lattice construction comprising tubular members and joints which are fixed to the seabed with piles (either driven/drilled piles or suction piles) and which will include platforms and J-tubes and may include braced monopiles and a transition piece;

“the land plans” means the plans certified as the land plans by the Secretary of State for the purposes of this Order;

“LAT” means lowest astronomical tide;

“the licence conditions” means the conditions set out in respect of each of the deemed marine licences in Part 2 of Schedules H, I J and K respectively;

“the limits of deviation” means the limits of deviation for the scheduled works comprised in the authorised development shown on the works plans;

“the local planning authority” means, in relation to any land or part of the authorised development, the district council or unitary authority for the area in which the land or development is situated;

“main river” has the meaning given by the Water Resources Act 1991;

“maintain”, unless otherwise provided for, includes inspect, repair, adjust, alter, remove, reconstruct and replace any of the authorised development, and any derivative of “maintain” shall be construed accordingly;

“MCA” means the Maritime and Coastguard Agency;

“MHWS” means the highest level which spring tides reach on average over a period of time;

“MLWS” means the lowest level which spring tides reach on average over a period of time;

“the MMO” means the Marine Management Organisation or any successor to its statutory functions;

“mode of transmission” means whichever of the HVAC or HVDC technologies is chosen by the undertaker as the means of transmitting electricity by cable for the purposes of the authorised project;

“monopile foundation” comprises a large diameter steel or concrete tube or pile driven vertically into the seabed, J-tubes and platforms and may include external structural devices such as bracing members or steel anchor wires and a transition piece;

“offshore accommodation platform” means a platform housing or incorporating temporary accommodation, landing ports for vessels and/or helicopters, standby electricity generation equipment, marking and lighting and other equipment facilities to assist in the co-ordination of marine activities related to the authorised development;

“offshore HVAC collector substation” means a structure serving as a collection point for the inter-array electrical circuits and containing equipment with the purpose of transforming the electricity generated at the wind turbines to a higher voltage; it may also include a helicopter platform;

“offshore HVDC converter substation” means a structure which contains equipment to convert HVAC electricity to HVDC electricity; it may also include a helicopter platform;

“offshore reactive compensation substation” means a structure housing electrical reactors for the purpose of limiting electrical losses in the course of HVAC transmission by providing reactive compensation; it may also include a helicopter platform;

“the offshore works plans” means the part of the works plans described as the offshore works plans;

“the onshore works plans” means the part of the works plans described as the onshore works plans;

“Optimus Wind” means Optimus Wind Limited, a company registered in England and Wales with company number 07883284 having its registered office at c/o Dong Energy, 5 Howick Place, London, England, SW1P 1WG;

“the 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;

“the Order limits” means the limits shown on the works plans within which the authorised project may be carried out;

“outline code of construction practice” means the document certified as the outline code of construction practice by the Secretary of State for the purposes of this Order;

“outline ecological management plan” means the document certified as the outline ecological management plan by the Secretary of State for the purposes of this Order;

“outline landscape scheme and management plan” means the document certified as the outline landscape scheme and management plan by the Secretary of State for the purposes of this Order;

“Project A works” means Work Nos. 1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A and 10;

“Project B works” means Work Nos. 1B, 2B, 3B, 4B, 5B, 6B, 7B, 8B, 9B and 10;

“requirements” means those matters set out in Part 3 of Schedule A to this Order;

“scheduled works” means the numbered works specified in Part 1 of Schedule A to this Order, or any part of them;

“shared works” means Work No. 10;

“street” means a street within the meaning of section 48 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 Part 3 of the 1991 Act;

“suction pile” means a large diameter steel cylinder which is fixed to the base of the foundation and partially penetrates the seabed and remains in place using its weight and hydrostatic pressure differential;

“trenchless technique” means a method of installation which allows ducts and cables to be installed under an obstruction without breaking open the ground and digging a trench, examples of such techniques include horizontal directional drilling, thrust boring, auger boring, and pipe ramming.

“the tribunal” means the Lands Chamber of the Upper Tribunal;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“undertaker” means—

- (a) for the purposes of constructing, maintaining and operating the Project A works, and any associated development or ancillary works relating to those works, Optimus Wind;
- (b) for the purposes of constructing, maintaining and operating the Project B works, and any associated development or ancillary works relating to those works, Breesea;
- (c) for the purposes of constructing, maintaining and operating the shared works and any associated development or ancillary works relating to those works, Optimus Wind and Breesea and any restrictions, liabilities and obligations arising in relation to any shared works apply to the undertaker exercising the powers under this Order in relation to such shared works; and
- (d) in any other case, Optimus Wind and Breesea and any restrictions, liabilities and obligations arising in relation to any such works apply to the undertaker exercising the powers under this Order in relation to such works.

“vessel” means every description of vessel, however propelled or moved, and includes a nondisplacement 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, cuts, culverts, dykes, sluices, sewers and passages through which water flows except a public sewer;

“Wind Farm Area” means the area described as such whose co-ordinates are specified in Part 1 of Schedule A;

“wind turbine generator” or “wind turbine” means a structure comprising any or all of a tower, rotor, blades, nacelle and ancillary electrical and other equipment or structures which may include lighting and a helicopter platform, fixed to a foundation; and

“the works plans” means the plans certified as the works plans by the Secretary of State for the purposes of this Order divided into three parts and described as the offshore works plans, the intertidal works plans and the onshore works plans.

(2) References in this Order to any statute, order, regulation or similar instrument are construed as a reference to the statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) 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 airspace above its surface.

(4) All distances, directions and lengths referred to in this Order are approximate, save in respect of the parameters referred to in requirements 2 and 4 in Part 3 of Schedule A and licence conditions 1 and 2 in Part 2 of each of Schedules H, I, J and K (deemed marine licences), and distances between parts of a work comprised in the authorised development are taken to be measured along that work.

(5) References in this Order to points identified by letters, with or without numbers, are to be construed as references to points so lettered on the works plans.

(6) References in this Order to numbered works are references to the scheduled works as numbered in Part 1 of Schedule A.

(7) Unless otherwise indicated—

- (a) all offshore co-ordinates shall be taken to be latitude and longitude degrees, minutes and seconds to three decimal places in WGS84 Datum; and
- (b) all onshore co-ordinates shall be taken to be Eastings and Northings in OSGB36 Datum, British National Grid Projection.

Disapplication of legislative provisions

3. The following provisions do not apply in relation to the construction of works carried out for the purpose of, or in connection with, the construction or maintenance of the authorised project—

- (a) section 109 (structures in, over or under a main river) of the Water Resources Act 1991(a);
- (b) the provisions of any byelaws made under, or having effect as if made under, paragraphs 5, 6 or 6A of Schedule 25 to the Water Resources Act 1991, which require consent or approval for the carrying out of the works;
- (c) section 23 (prohibition of obstructions, etc. in watercourses) of the Land Drainage Act 1991(b);
- (d) the provisions of any byelaws made under section 66 (powers to make byelaws) of the Land Drainage Act 1991 which require consent or approval for the carrying out of the works.

Guarantees in respect of payment of compensation

4.—(1) The undertaker must not begin to exercise the powers of articles 18 to 28 of this Order in relation to any land unless it has first put in place either—

-
- (a) 1991 c.57.
 - (b) 1991 c.59.

- (a) a guarantee in respect of the liabilities of the undertaker to pay compensation under this Order in respect of the exercise of the relevant power in relation to that land; or
- (b) an alternative form of security for that purpose,
which has been approved by the Secretary of State

(2) A guarantee or alternative form of security given in respect of any liability of the undertaker to pay compensation under the Order is to be treated as enforceable against the guarantor by any person to whom such compensation is payable and must be in such a form as to be capable of enforcement by such a person.

(3) The guarantee or alternative form of security is to be in place for a maximum of 20 years from the date that the relevant power of the Order is exercised.

Defence to proceedings in respect of statutory nuisance

5.—(1) Where proceedings are brought under section 82(1) of the Environmental Protection Act 1990(a) (summary proceedings by person aggrieved by statutory nuisance) in relation to a nuisance falling within paragraph (g) of section 79(1) of that Act (noise emitted from premises so as to be prejudicial to health or a nuisance) no order is to 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 that the nuisance is attributable to the carrying out of the authorised project in accordance with a notice served under section 60 (control of noise on construction site), or a consent given under section 61 (prior consent for work on construction site) or section 65 (noise exceeding registered level), of the Control of Pollution Act 1974(b); or
 - (ii) is a consequence of the construction or maintenance of the authorised project and that it cannot reasonably be avoided; or
- (b) the defendant shows that the nuisance is a consequence of the use of the authorised project and that it cannot reasonably be avoided.

(2) Section 61(9) (consent for work on construction site to include statement that it does not of itself constitute a defence to proceedings under section 82 of the Environmental Protection Act 1990) of the Control of Pollution Act 1974 and section 65(8) of that Act (corresponding provision in relation to consent for registered noise level to be exceeded), do 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.

PART 2

Principal Powers

Development consent etc. granted by the Order

- 6.—(1) Subject to the provisions of this Order and the requirements, Optimus Wind is granted—
- (a) development consent for the Project A works and any associated development relating to those works; and
 - (b) consent for the ancillary works relating to those works,
- to be carried out within the Order limits.

(a) 1990 c.43. There are amendments to this Act which are not relevant to this Order.
 (b) 1974 c.40. Sections 61(9) and 65(8) were amended by section 162 of, and paragraph 15 of Schedule 3 to, the Environmental Protection Act 1990, c.25. There are other amendments to the 1974 Act which are not relevant to this Order.

- (2) Subject to the provisions of this Order and the requirements, Breesea is granted—
- (a) development consent for the Project B works and any associated development relating to those works; and
 - (b) consent for the ancillary works relating to those works,

to be carried out within the Order limits.

(3) Subject to the provisions of this Order and the requirements, Optimus Wind and Breesea are granted—

- (a) development consent for the shared works and any associated development relating to those works; and
- (b) consent for the ancillary works relating to those works,

to be carried out within the Order limits.

(4) Each of the scheduled works authorised by this Order must be constructed and maintained within the limits of deviation for that work.

(5) In carrying out any of the scheduled works the undertaker may deviate from the situations shown on the works plans and described in Schedule A, to the extent of the limits of deviation.

(6) The grant of development consent under paragraphs (1) and (2) are subject to paragraphs 3, 4, 6, 7, 8, 9, 10, 11 and 12 of Part 1 of Schedule A.

Maintenance of authorised project

7.—(1) Subject to the other terms of this Order, the undertaker may at any time maintain the authorised project, except to the extent that this Order or an agreement made under this Order, provides otherwise. No maintenance works whose likely effects on the environment require to be assessed in accordance with the EIA Regulations and are not assessed in the environmental statement shall take effect, unless otherwise approved by the MMO or the relevant planning authority.

(2) Where the MMO or relevant planning authority's approval is required under paragraph (1), such consent must only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the MMO or the relevant planning authority that the approval sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Operation of electricity generating stations

8.—(1) The undertaker is hereby authorised to operate the electricity generating stations comprised in the authorised development.

(2) This article does not relieve the undertaker of any requirement to obtain any permit or licence under any other legislation that may be required to authorise the operation of an electricity generating station.

PART 3

Streets

Street works

9.—(1) The undertaker may, for the purposes of the authorised project, enter on so much of any of the streets specified in Schedule B (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) place apparatus in the street;
- (d) maintain apparatus in the street or change its position; and
- (e) execute any works required for or incidental to any works referred to in sub-paragraphs (a), (b), (c) and (d).

(2) In this article “apparatus” has the same meaning as in Part 3 of the 1991 Act.

Application of the 1991 Act

10.—(1) The provisions of the 1991 Act mentioned in paragraph (2) which, together with other provisions of that Act, apply in relation to the carrying out of street works and any regulations made or code of practice issued or approved under those provisions apply (with the necessary modifications) in relation to the temporary stopping up, temporary alteration or temporary diversion of a street by the undertaker under the powers conferred by article 11 (temporary stopping up of streets) and the carrying out of works under article 9 (street works) whether or not the stopping up, alteration or diversion, or the carrying out of such works, constitutes street works within the meaning of that Act.

(2) The provisions of the 1991 Act referred to in paragraph (1) are—

- section 54 (advance notice of certain works), subject to paragraph (3);
- section 55 (notice of starting date of works), subject to paragraph (3);
- section 57 (notice of emergency works);
- section 59 (general duty of street authority to co-ordinate works);
- section 60 (general duty of undertakers to co-operate);
- section 68 (facilities to be afforded to street authority);
- section 69 (works likely to affect other apparatus in the street);
- section 76 (liability for cost of temporary traffic regulation);
- section 77 (liability for cost of use of alternative route); and

all such provisions as apply for the purposes of the provisions mentioned above.

(3) Sections 54 and 55 of the 1991 Act as applied by paragraph (1) have effect as if references in section 57 of that Act to emergency included a reference to a stopping up, alteration or diversion (as the case may be) required in a case of emergency.

Temporary stopping up of streets

11.—(1) The undertaker, during and for the purposes of carrying out the authorised project, may temporarily stop up, alter or divert any street and may for any reasonable time—

- (a) divert the traffic from the street; and
- (b) subject to paragraph (3), prevent all persons from passing along the street.

(2) Without limitation on the scope of paragraph (1), the undertaker may use any street temporarily stopped up under the powers conferred by this article within the Order limits 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 stopping up, alteration or diversion of a street under this article if there would otherwise be no such access.

(4) Without limitation on the scope of paragraph (1), the undertaker may temporarily stop up, alter or divert the streets specified in columns (1) and (2) of Schedule C (streets to be temporarily stopped up) to the extent specified, by reference to the letters and numbers shown on the works plans, in column (3) of that Schedule.

(5) The undertaker must not temporarily stop up, alter, divert or use as a temporary working site—

- (a) any street specified as mentioned 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 any 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 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.

Access to works

12.—(1) The undertaker may for the purposes of the authorised project—

- (a) form and lay out means of access, or improve existing means of access, in the location specified in columns (1) and (2) of Schedule D (access to works); and
- (b) with the approval of the local planning authority after consultation with the highway authority, 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 local planning authority fails to notify the undertaker of its decision within 28 days of receiving an application for approval under paragraph (1)(b) that local planning authority shall be deemed to have granted approval.

Agreements with street authorities

13.—(1) A street authority and the undertaker may enter into agreements with respect to—

- (a) the construction of any new street authorised by this Order; or
- (b) the carrying out in the street of any of the works referred to in article 9(1) (street works).

(2) Such an agreement may, without prejudice to the generality of paragraph (1)—

- (a) make provision for the street authority to carry out any function under this Order which relates to the street in question;
- (b) include an agreement between the undertaker and 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.

Highway improvements

14.—(1) The undertaker may carry out highway improvements to the plot marked 133 on the land plans.

(2) The highway improvements should be carried out in accordance with plans approved by the relevant highway authority, such approval not to be unreasonably withheld.

(3) If the relevant highway authority fails to notify the undertaker of its decision on whether to give approval within 28 days of receiving plans for approval that highway authority is deemed to have given approval.

PART 4

Supplemental Powers

Discharge of water

15.—(1) 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 lay down, take up and alter pipes and may, on any land within the Order limits and subject to receipt of consent under paragraph (3), 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 under paragraph (1) is to be determined as if it were a dispute under section 106 of the Water Industry Act 1991(a) (right to communicate with public sewers).

(3) The undertaker must not discharge any water into any 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 make any opening into any public sewer or drain 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 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.

(6) 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.

(7) Nothing in this article overrides the requirement for an environmental permit under regulation 12(1)(b) of the Environmental Permitting (England and Wales) Regulations 2010(b).

(8) 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.

(9) In this article—

(a) “public sewer or drain” means a sewer or drain which belongs to the Environment Agency, a harbour authority within the meaning of section 57 of the Harbours Act 1964(c) (interpretation), an internal drainage board, a local authority, or a sewerage undertaker; and

(b) other expressions, excluding “watercourse”, used both in this article and in the Environmental Permitting (England and Wales) Regulations 2010 have the same meaning as in those regulations.

Protective work to buildings

16.—(1) Subject to the following provisions of this article, the undertaker may at its own expense carry out such protective works to any building lying within the Order limits as the undertaker considers necessary or expedient.

(a) 1991 c.56. Section 106 was amended by sections 36(2) and 99 of the Water Act 2003 (c.37). There are other amendments to this section which are not relevant to this Order.

(b) S.I. 2010/675.

(c) 1964 c.40. Paragraph 9B was inserted into Schedule 2 by the Transport and Works Act 1992 (c.42), section 63(1) and Schedule 3, paragraph 9(1) and (5). There are other amendments to the 1964 Act which are not relevant to this Order.

(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 first opened for use.

(3) For the purpose of determining how the functions 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 which 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) or (c), specifying the protective works proposed to be carried out.

(6) Where a notice is served under paragraph (5)(a), (c) or (d), the owner or occupier of the building or land concerned may, by serving a counter-notice within the period of 10 days beginning with the day on which the notice was served, require the question 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 42 (arbitration).

(7) The undertaker must compensate the owners and occupiers of any building or land in relation to which rights under this article have been exercised for any loss or damage arising to them by reason of the exercise of those rights.

(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 first opened for use 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 from any liability to pay compensation under section 152 of the 2008 Act (compensation in case where no right to claim in nuisance).

(10) Any compensation payable under paragraph (7) or (8) is to be determined, in case of dispute, under Part 1 of the 1961 Act (determination of questions of disputed compensation).

(11) 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 which 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 which has been caused to the building by the carrying out, maintenance or use of the authorised project.

Authority to survey and investigate the land

17.—(1) The undertaker may for the purposes of this Order enter on any land shown within the Order limits and—

- (a) survey or investigate the land;
- (b) without limitation on the generality of sub-paragraph (a), make trial holes in such positions on the land as the undertaker thinks fit to investigate the nature of the surface layer and subsoil and remove soil samples;
- (c) without limitation on the generality of sub-paragraph (a), carry out ecological or archaeological investigations on such land; and
- (d) place on, leave on and remove from the land apparatus for use in connection with the survey and investigation of land and making of trial holes.

(2) No land may be entered under paragraph (1) 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.

(3) Any person entering land under this article on behalf of the undertaker—

- (a) must, if so required, 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 are to be made under this article—

- (a) in land located within the highway boundary without the consent of the highway authority; or
- (b) in a private street without the consent of the street authority,

but such consent must not be unreasonably withheld.

(5) The undertaker must compensate the owners and occupiers of the land for any loss or damage arising by reason of the exercise of the authority conferred by this article, such compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(6) 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)(a) in the case of a highway authority; or
- (b) under paragraph (4)(b) in the case of a street authority,

that authority is deemed to have granted consent.

PART 5

Powers of acquisition etc.

Compulsory acquisition of land

18.—(1) The undertaker in relation to the Project A works may, with the consent of the undertaker in relation to the Project B works, such consent not to be unreasonably withheld, acquire compulsorily so much of the Order land as is required for the Project A works, the shared works or to facilitate, or is incidental, to the construction, operation and maintenance of those works.

(2) The undertaker in relation to the Project B works may, with the consent of the undertaker in relation to the Project A works, such consent not to be unreasonably withheld, acquire compulsorily so much of the Order land as is required for the Project B works, the shared works or to facilitate, or is incidental, to the construction, operation and maintenance of those works.

(3) If the undertaker whose consent is required fails to notify the undertaker requesting consent of its decision within 28 days of receiving an application for consent under paragraph (1) or (2) that undertaker is deemed to have granted consent.

(4) This article is subject to paragraph (3) of article 19 (compulsory acquisition of rights) and paragraph (10) of article 26 (Temporary use of land for carrying out the authorised project).

Compulsory acquisition of rights

19.—(1) Subject to paragraphs (2) and (3), the undertaker in relation to the Project A works may, with the consent of the undertaker in relation to the Project B works, 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 18 (Compulsory acquisition of land), by creating them as well as by acquiring rights already in existence.

(2) Subject to paragraphs (1) and (3), the undertaker in relation to the Project B works may, with the consent of the undertaker in relation to the Project A works, 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 18 (Compulsory acquisition of land), by creating them as well as by acquiring rights already in existence.

(3) In the case of the Order land specified in column (1) of Schedule E (land in which new rights etc., may be acquired) the powers of compulsory acquisition conferred under articles 18 and 19 of this Order are limited to the acquisition of such new rights or the imposition of such restrictive covenants as may be required for the purpose specified in relation to that land in column (2) of that Schedule.

(4) Subject to section 8 of the 1965 Act (as substituted by paragraph 5 of Schedule F (modification of compensation and compulsory purchase enactments for creation of new rights)), where the undertaker acquires an existing right over land or imposes a restrictive covenant under paragraph (1) or (2), the undertaker is not required to acquire a greater interest in that land.

(5) Schedule F 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 article 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 paragraph (1) or (2) is required for the purpose 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 (7) is subject to the same restrictions, liabilities and obligations as would apply under this Order if that power were exercised by the undertaker.

(8) Any person who suffers loss as a result of the extinguishment or suspension of any private right of way under this article is entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

(9) If the undertaker whose consent is required fails to notify the undertaker requesting consent of its decision within 28 days of receiving an application for consent under paragraph (1) or (2) that undertaker is deemed to have granted consent.

Time limit for exercise of authority to acquire land compulsorily

20.—(1) After the end of the period of five years beginning on the day on which this Order is made—

(a) no notice to treat is to be served under Part 1 of the 1965 Act; and

- (b) no declaration is to be executed under section 4 of the 1981 Act as applied by article 22 (application of the Compulsory Purchase (Vesting Declarations) Act 1981)(a).

(2) The authority conferred by article 26 (temporary use of land for carrying out the authorised project) ceases at the end of the period referred to in paragraph (1), save that 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.

Private rights

21.—(1) Subject to the provisions of this article, all private rights over land subject to compulsory acquisition under article 18 of this Order are not to have effect in so far as their continuance would be inconsistent with the exercise of the powers under article 18 —

- (a) as from the date of acquisition of the land 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) of the 1965 Act (power of entry),

whichever is the earliest.

(2) Subject to the provisions of this article, all private rights over land subject to the compulsory acquisition of rights or the imposition of restrictive covenants under article 19 of this Order are not to have effect in so far as their continuance would be inconsistent with the exercise of the right or compliance with the restrictive covenant—

- (a) as from the date of the acquisition of the right or the imposition of the restrictive covenant by the undertaker (whether the right is acquired compulsorily or by agreement, or through the grant of lease of the land by agreement); or
- (b) on the date of entry on the land by the undertaker under section 11(1) of the 1965 Act in pursuance of the right,

whichever is the earliest.

(3) Subject to the provisions of this article, all private rights over land of which the undertaker takes temporary possession under this Order are suspended and unenforceable 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 of the 2008 Act (compensation in case where no right to claim in nuisance) to be determined, in case of dispute, under Part 1 of the 1961 Act.

(5) This article does not apply in relation to any right to which section 138 of the 2008 Act (extinguishment of rights, and removal of apparatus, of statutory undertakers etc.) or article 28 (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 it,
 - (iii) the undertaker's entry onto it, or
 - (iv) the undertaker's taking temporary possession of it,that any or all of those paragraphs do not apply to any right specified in the notice; and
- (b) any agreement made at any time between the undertaker and the person in or to whom the right in question is vested or belongs.

(a) 1981 c.66. Sections 2 and 116 were amended by section 4 of, and paragraph 52 of Schedule 2 to, the Planning (Consequential Provisions) Act 1990 (c.11). There are other amendments to the 1981 Act which are not relevant to this Order.

- (7) If any such agreement as is referred to in paragraph (6)(b)—
- (a) is made with a person in or to whom the right is vested or belongs; and
 - (b) is expressed to have effect also for the benefit of those deriving title from or under that person,

it is effective in respect of the persons so deriving title, whether the title was derived before or after the making of the agreement.

(8) Reference in this article to private rights over land includes reference to any trusts or incidents to which the land is subject.

(9) In the event that the undertaker in relation to the Project A works or the undertaker in relation to the Project B works has exercised powers under articles 18 or 19 prior to the other undertaker exercising powers under articles 18 or 19 in respect of the same land or rights, the rights of the first undertaker that acquired the land or rights shall continue to have effect unless the first undertaker agrees otherwise, acting reasonably.

Application of the Compulsory Purchase (Vesting Declarations) Act 1981

22.—(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 3 (preliminary notices), for subsection (1) there is substituted—

“(1) Before making a declaration under section 4 with respect to any land which is subject to a compulsory purchase order, the acquiring authority must include the particulars specified in subsection (3) in a notice which is—

- (a) given to every person with a relevant interest in the land with respect to which the declaration is to be made (other than a mortgagee who is not in possession); and
- (b) published in a local newspaper circulating in the area in which the land is situated.”

(4) In that section, in subsection (2), for “(1)(b)” there is substituted “(1)” and after “given” there is inserted “and published”.

(5) In that section, for subsections (5) and (6) there is substituted—

“(5) For the purposes of this section, a person has a relevant interest in land if—

- (a) that person is for the time being entitled to dispose of the fee simple of the land, whether in possession or in reversion; or
- (b) that person holds, or is entitled to the rents and profits of, the land under a lease or agreement, the unexpired term of which exceeds one month.”

(6) In section 5 (earliest date for execution of declaration)—

- (a) in subsection (1), after “publication” there is inserted “in a local newspaper circulating in the area in which the land is situated”; and
- (b) subsection (2) is omitted.

(7) In section 7 (constructive notice to treat), in subsection (1)(a), the words “(as modified by section 4 of the Acquisition of Land Act 1981)” are omitted.

(8) References to the 1965 Act in the 1981 Act are construed as references to that Act as applied by section 125 of the 2008 Act to the compulsory acquisition of land under this Order.

Acquisition of subsoil or airspace only

23.—(1) The undertaker may acquire compulsorily so much of, or such rights in, the subsoil of, or the airspace over, the land referred to in article 18 (compulsory acquisition of land) 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) Where the undertaker acquires any part of, or rights in, the subsoil of or the airspace over, the land under paragraph (1), the undertaker is not required to acquire an interest in any other part of the land.

(3) Paragraph (2) does not prevent article 24 (acquisition of part of certain properties) from applying where the undertaker acquires a cellar, vault, arch or other construction forming part of a house, building or manufactory.

Acquisition of part of certain properties

24.—(1) — This article applies instead of section 8(1) of the 1965 Act (other provisions as divided land) (as applied by section 125 of the 2008 Act) where—

- (a) a notice to treat is served on a person (“the owner”) under the 1965 Act (as so applied) in respect of land forming only part of a house, building or manufactory or of land consisting of a house with a park or garden (“the land subject to the notice to treat”); and
- (b) a copy of this article is served on the owner with the notice to treat.

(2) In such a case, the owner may, within the period of 21 days beginning with the day on which the notice was served, serve on the undertaker a counter-notice objecting to the sale of the land subject to the notice to treat which states that the owner is willing and able to sell the whole (“the land subject to the counter-notice”).

(3) If no such counter-notice is served within that period, the owner must sell the land subject to the notice to treat.

(4) If such a counter-notice is served within that period, the question whether the owner must sell only the land subject to the notice to treat is, unless the undertaker agrees to take the land subject to the counter-notice, to be referred to the tribunal.

(5) If on such a reference the tribunal determines that the land subject to the notice to treat can be taken—

- (a) without material detriment to the remainder of the land subject to the counter-notice; or
- (b) where the land subject to the notice to treat consists of a house with a park or garden, without material detriment to the remainder of the land subject to the counter-notice and without seriously affecting the amenity and convenience of the house,

the owner must sell the land subject to the notice to treat.

(6) If on such a reference the tribunal determines that only part of the land subject to the notice to treat can be taken—

- (a) without material detriment to the remainder of the land subject to the counter-notice; or
- (b) where the land subject to the notice to treat consists of a house with a park or garden, without material detriment to the remainder of the land subject to the counter-notice and without seriously affecting the amenity and convenience of the house,

the notice to treat is deemed to be a notice to treat for that part.

(7) If on such a reference the tribunal determines that—

- (a) the land subject to the notice to treat cannot be taken without material detriment to the remainder of the land subject to the counter-notice; but
- (b) the material detriment is confined to a part of the land subject to the counter-notice,

the notice to treat is deemed to be a notice to treat for the land to which the material detriment is confined in addition to the land already subject to the notice, whether or not the additional land is land which the undertaker is authorised to acquire compulsorily under this Order.

(8) If the undertaker agrees to take the land subject to the counter-notice, or if the tribunal determines that—

- (a) none of the land subject to the notice to treat can be taken without material detriment to the remainder of the land subject to the counter-notice or, as the case may be, without material detriment to the remainder of the land subject to the counter-notice and without seriously affecting the amenity and convenience of the house; and

(b) the material detriment is not confined to a part of the land subject to the counter-notice, the notice to treat is deemed to be a notice to treat for the land subject to the counter-notice whether or not the whole of that land is land which the undertaker is authorised to acquire compulsorily under this Order.

(9) Where, by reason of a determination by the tribunal under this article, a notice to treat is deemed to be a notice to treat for less land or more land than that specified in the notice, the undertaker may, within the period of six weeks beginning with the day on which the determination is made, withdraw the notice to treat; and, in that event, must pay the owner compensation for any loss or expense occasioned to the owner by the giving and withdrawal of the notice, to be determined in case of dispute by the tribunal.

(10) Where the owner is required under this article to sell only part of a house, building or manufactory or of land consisting of a house with a park or garden, the undertaker must pay the owner compensation for any loss sustained by the owner due to the severance of that part in addition to the value of the interest acquired.

Rights under or over streets

25.—(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 which 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 of the 1961 Act.

(5) Compensation is not be payable under paragraph (4) to any person who is an undertaker to whom section 85 of the 1991 Act (sharing cost of necessary measures) 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

26.—(1) Each undertaker may, from time to time, alone or in common with the other undertaker, in connection with the carrying out of the authorised project—

(a) enter on and take temporary possession of—

- (i) the Order land specified in columns (1) and (2) of Part 1(a) of Schedule G (land of which temporary possession may be taken) for the purpose specified in relation to that land in column (3) of that Schedule relating to the part of the authorised project specified in column (4) of that Schedule;
- (ii) the Order land specified in columns (1) and (2) of Part 1(b) of Schedule G (land of which temporary possession may be taken) for the purpose specified in relation to that land in column (3) of that Schedule;
- (iii) any of the land referred to in article 18 (compulsory acquisition of land) and Schedule E (land in which new rights etc., may be acquired) in respect of which no notice of entry has been served under section 11 of the 1965 Act (other than in connection with the acquisition of rights only) and no declaration has been made under section 4 of the 1981 Act;

- (b) remove any buildings and vegetation from that land;
 - (c) construct temporary works (including the provision of means of access) and buildings on that land; and
 - (d) construct or carry out any works or operations specified in relation to that land in column (3) of Part 1 of Schedule G, or any other mitigation works or operations (including land drainage restoration works).
- (2) The undertaker may, for the purpose of obtaining access to construct the authorised project—
- (a) make temporary use, in common with other persons enjoying rights over that land, of access routes over the land specified in Part 2(a) of Schedule G; and
 - (b) carry out any necessary works to improve those access routes (and for that purpose only take temporary possession of the area in which the work is to be carried out for the duration of that work).
- (3) The undertaker may, for the purpose of obtaining access to the compensation compounds—
- (a) make temporary use, in common with other persons enjoying rights over that land, of access routes over the land specified in Part 2(b) of Schedule G; and
 - (b) carry out any necessary works to improve those access routes (and for that purpose only take temporary possession of the area in which the work is to be carried out for the duration of that work).
- (4) Not less than 14 days before entering on and taking temporary possession of or using land under this article the undertaker must serve notice of the intended entry on the owners and occupiers of the land.
- (5) The undertaker may not, 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 construction, installation or implementation of the part of the authorised project specified in relation to that land in column (4) of Part 1 of Schedule G;
 - (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 in which the compensation compound is no longer required;
 - (c) in the case of land referred to in paragraph (1)(a)(iii), after the end of the period of one year beginning with the date of completion of the construction, installation or implementation of the work for which temporary possession of this land was taken unless the undertaker has, before the end of that period, served a notice of entry under section 11 of the 1965 Act or made a declaration under section 4 of the 1981 Act.
- (6) 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; but the undertaker is not required to—
- (a) replace a building removed under this article; or
 - (b) restore the land on which any works have been constructed under paragraph (1)(d).
- (7) 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 any power conferred by this article.
- (8) Any dispute as to a person's entitlement to compensation under paragraph (7), or as to the amount of the compensation, is to be determined under Part 1 of the 1961 Act.
- (9) Nothing in this article affects any liability to pay compensation under section 10(2) of the 1965 Act (further provisions as to compensation for injurious affection) 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 (7).
- (10) The undertaker may not compulsorily acquire under this Order the land referred to in paragraphs (1)(a)(i), (1)(a)(ii), (2)(a) or (3)(a) nor may it acquire rights in or impose restrictive

covenants over that land unless that land is specified in Column (1) of Schedule E (land in which new rights etc., may be acquired).

(11) Where the undertaker takes possession of or uses land under this article, the undertaker is not required to acquire the land or any interest in it.

(12) Section 13 of the 1965 Act (refusal to give possession to acquiring authority) applies to the temporary use of 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 of the 2008 Act (application of compulsory acquisition provisions).

(13) The powers of this article may be exercised by each undertaker in relation to the same land at the same time as the other undertaker or at different times, and may be exercised more than once.

Temporary use of land for maintaining authorised project

27.—(1) Subject to paragraph (2), at any time during the maintenance period relating to any part of the authorised project, each undertaker may, alone or in common with the other undertaker—

- (a) enter on and take temporary possession of any land referred to in paragraphs (1)(a)(i) or (iii) of article 26 (temporary use of land for carrying out the authorised project) if such possession is reasonably required for the purpose of maintaining the authorised project; and
- (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.

(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, is to be determined under Part 1 of the 1961 Act.

(8) Nothing in this article affects any liability to pay compensation under section 10(2) of the 1965 Act (further provisions as to compensation for injurious affection) 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 of the 1965 Act (refusal to give possession to acquiring authority) 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 of the 2008 Act (application of compulsory acquisition provisions).

(11) In this article “the maintenance period”, in relation to any part of the authorised project, means—

- (a) the period of five years beginning with the date on which that part of the authorised project is first energised; and
- (b) any period falling between the date at which temporary possession is no longer permitted under Article 26(5)(a) or (c) and the date on which that part of the authorised project is first energised.

(12) The powers of this article may be exercised by each undertaker in relation to the same land at the same time as the other undertaker or at different times, and may be exercised more than once.

Statutory undertakers

28. Subject to the provisions of Schedule L (Protective Provisions), the undertaker may—

- (a) exercise the powers conferred by articles 18 (compulsory acquisition of land) and 19 (compulsory acquisition of rights) in relation to so much of any land referred to in those articles as belongs to statutory undertakers; and
- (b) extinguish the rights of, remove or reposition the apparatus belonging to statutory undertakers over or within the Order land referred to in those articles.

Recovery of costs of new connections

29.—(1) Where any apparatus of public utility undertakers or of a public communications provider is removed under article 28 (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 28 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 which 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 sewerage disposal plant.

(3) In this article—

“public communications provider” has the same meaning as in section 151(1) of the Communications Act 2003(a); and

“public utility undertaker” has the same meaning as in the 1980 Act.

PART 6

Operations

Felling or lopping of trees and the removal of hedgerows

30.—(1) — The undertaker may fell or lop any tree or shrub within or overhanging land within the Order limits or cut back its roots, if it 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 with the authorised project.

(a) 2003 c.21.

(2) In carrying out any activity authorised by paragraph (1), the undertaker must not cause unnecessary damage to any tree or shrub and must pay compensation to any person for any loss or damage arising from such activity.

(3) The undertaker may remove any hedgerows within the Order limits that may be required for the purposes of the carrying out of the authorised development.

(4) Regulation 6 of the Hedgerows Regulations 1997(a) shall be modified so as to read for the purposes of this Order only as if there were inserted after paragraph (1)(j)—

“(k) or for carrying out development which has been authorised by a development consent pursuant to the Planning Act 2008.”.

(5) Any dispute as to a person’s entitlement to compensation under paragraph (2), or as to the amount of compensation, is to be determined under Part 1 of the 1961 Act.

(6) In this article “hedgerow” has the same meaning as in the Hedgerows Regulations 1997.

Trees subject to tree preservation orders

31.—(1) The undertaker may lop any tree within or overhanging land within the Order limits where that tree is subject to a tree preservation order which was made after 3rd November 2014.

(2) In carrying out any activity authorised by paragraph (1)—

- (a) the undertaker must not cause 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) of the 1990 Act (replacement of trees) 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, is to be determined under Part 1 of the 1961 Act.

PART 7

Miscellaneous and general

Operational land for purposes of the 1990 Act

32. Development consent granted by this Order is to be treated as specific planning permission for the purposes of section 264(3)(a) of the 1990 Act (cases in which land is to be treated as operational land for the purposes of that Act).

Procedure in relation to approvals etc under requirements

33. Where an application is made to the relevant planning authority or authorities for any consent, agreement or approval required by a requirement, the following provisions apply, so far as they relate to a consent, agreement or approval of a local planning authority required by a condition imposed on a grant of planning permission as if the requirement was a condition imposed on the grant of planning permission—

- (a) sections 78 and 79 of the 1990 Act (right of appeal in relation to planning decisions);
- (b) any orders, rules or regulations which make provision in relation to appeals under section 78 of the 1990 Act,

insofar as those provisions are not inconsistent with the EIA Regulations and any orders, rules or regulations made under the 2008 Act.

(a) S.I. 1997/1160.

Abatement of offshore works abandoned or decayed

34.—(1) — Where the authorised development constructed seaward of MHWS or any part of it is abandoned or suffered to fall into decay the Secretary of State may, following consultation with the undertaker, by notice in writing require the undertaker at its own expense either to repair and restore the authorised development or any part, or to remove the authorised development and restore the site to its former condition, to such an extent and within such limits as the Secretary of State thinks proper.

(2) In circumstances where the undertaker is required to remove the authorised development, without prejudice to any notice served under section 105(2) of the 2004 Act, the notice may also require the restoration of the site of the relevant part of the authorised development to a safe and proper condition within an area and to such an extent as may be specified in the notice.

(3) If the undertaker fails to comply in any respect with a notice served under this article within the period of 30 days beginning with the date of service of the notice, the Secretary of State may take whatever steps the Secretary of State considers appropriate to achieve the result required by the notice; and any expenditure incurred by the Secretary of State in doing so is recoverable from the undertaker.

Transfer of benefit of Order

35.—(1) The undertaker with the consent of the Secretary of State may—

- (a) transfer to another person (the “transferee”) any or all of the benefit of the provisions of this Order (including the deemed marine licences) and such related statutory rights as may be agreed between the undertaker and the transferee; or
- (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 this Order (including the deemed marine licences) and such related statutory rights as may be so agreed.

(2) Where the consent of the Secretary of State is required under paragraph (1), the Secretary of State must consult the MMO prior to granting consent if such transfer or grant relates to the exercise of powers within the MMO’s jurisdiction

(3) Where a transfer or grant has been made in accordance with paragraph (1) references in this Order to the undertaker, except in paragraph (4) includes references to the transferee or the lessee.

(4) (a) The exercise by a person of any benefits or rights conferred in accordance with any transfer or grant under paragraph (1) (“the transferred benefit”) 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.

- (b) The transferred benefit shall reside exclusively with the transferee or, as the case may be, the lessee and any breach of restrictions, liabilities or obligations with respect to the transferred benefit shall not be enforceable against the undertaker, except in relation to any such breach occurring prior to the date of transfer.

(5) The consent of the Secretary of State is not required for a transfer or grant for an agreed period of the benefit of any of the provisions (and any related statutory rights) relating to Work Nos. 1A or 1B from one undertaker to another or of any of the provisions (and any related statutory rights) relating to Work Nos. 2A, 2B, 3A, 3B, 4A, 4B, 5A, 5B, 6A, 6B, 7A, 7B, 8A, 8B, 9A, 9B and 10 to another body licensed under section 6 of the 1989 Act.

(6) Prior to any transfer or grant under this article taking effect the undertaker must give notice in writing to the Secretary of State and, in the event that the transfer or grant relates to the exercise of powers in the area of their jurisdiction, to the MMO and/or local planning authority, stating—

- (a) the name and contact details of the person to whom the benefit of the powers will be transferred or granted;
- (b) subject to paragraph (7), the date on which the transfer will take effect;
- (c) the powers to be transferred or granted;

- (d) pursuant to paragraph (4), the restrictions, liabilities and obligations that will apply to the person exercising the powers transferred or granted;
- (e) where relevant, a plan showing the works or areas to which the transfer or grant relates; and
- (f) 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.

(7) The date specified under (6)(b) must not be earlier than the expiry of five days from the date of the receipt of the notice.

(8) The notice given under paragraph (6) 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.

Deemed marine licences under the Marine and Coastal Access Act 2009

36. The person who is the undertaker for the purpose of each of Schedules H to K is deemed to be granted under Part 4 of the 2009 Act the deemed marine licence set out in the relevant Schedule, subject to the licence conditions set out in Part 2 of that Schedule.

Disapplication of constraints on works in the Humber

37. Section 25 of the Humber Conservancy Act 1852(a), section 9(ii) (licences for execution of works) of the Humber Conservancy Act 1899(b) and section 6(2) (no erections in the Humber below river lines or without licence above river lines) of the Humber Conservancy Act 1905(c) do not apply to the authorised project.

Saving for Trinity House

38. Nothing in this Order prejudices or derogates from any of the rights, duties or privileges of Trinity House.

Crown Rights

39.—(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 licensee—

- (a) to take, use, enter upon or in any manner interfere with any land or rights of any description (including any portion of the shore or bed of the sea or any river, channel, creek, bay or estuary)—
 - (i) belonging to Her Majesty in right of the Crown and forming part of The Crown Estate without the consent in writing of the Crown Estate Commissioners;
 - (ii) belonging to Her 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
 - (iii) belonging to a government department or held in trust for Her Majesty for the purposes of a government department without the consent in writing of that government department; or
- (b) to exercise any right under this Order compulsorily to acquire an interest in any land which is Crown land (as defined in the 2008 Act) which is for the time being held otherwise than by or on behalf of the Crown without the consent in writing of the appropriate Crown authority (as defined in the 2008 Act).

(a) 1852 c.xxx.
 (b) 1899 c. cci.
 (c) 1905 c. clxxix.

(2) A consent under paragraph (1) may be given unconditionally or subject to terms and conditions; and shall be deemed to have been given in writing where it is sent electronically.

Certification of plans etc

40.—(1) The undertaker must, as soon as practicable after the making of this Order, submit to the Secretary of State copies of the documents listed in Schedule M (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.

Protection of Interests

41. Schedule L (protective provisions) has effect.

Arbitration

42. Any difference under any provision of this Order, unless otherwise provided for, is to be referred to and settled by a single arbitrator to be agreed between the parties or, failing agreement, to be appointed on application of either party (after giving notice in writing to the other) by the Secretary of State.

Signed by authority of the Secretary of State for Energy and Climate Change

Address
Date

Name
Head of National Infrastructure Consents
Department for Energy and Climate Change

SCHEDULES

SCHEDULE A

Article 6

Authorised Project

PART 1

Authorised Development

1. The authorised development includes the nationally significant infrastructure project as defined in sections 14 and 15 of the 2008 Act described in paragraphs 2 to 4 and the associated development within the meaning of section 115(2) of the 2008 Act described in paragraphs 5 to 13.

2. The nationally significant infrastructure project comprises up to two offshore wind generating stations with a combined gross electrical output capacity of up to 1,800 MW as follows—

Work No. 1A — An offshore wind generating station within the Wind Farm Area comprising:

- (a) subject to paragraph 3, up to 300 (inclusive) wind turbine generators fixed to the seabed;
- (b) a network of subsea inter-array electrical circuits connecting the structures comprised in Work No. 1A—
 - (i) with each other;
 - (ii) with any other structure located within the Wind Farm Area; and
 - (iii) with the network of electrical circuits comprised in Work Nos. 1B, 2A and 2B;
- (c) subject to paragraph 4, up to two offshore accommodation platforms fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter substations within Work No. 2A by an unsupported steel bridge and up to two electrical circuits each connecting an accommodation platform to either an offshore HVAC collector substation or to a wind turbine generator in order to power the accommodation platform;

Work No. 1B — An offshore wind generating station within the Wind Farm Area comprising:

- (a) subject to paragraph 3, up to 300 (inclusive) wind turbine generators fixed to the seabed;
- (b) a network of subsea inter-array electrical circuits connecting the structures comprised in Work No. 1B—
 - (i) with each other;
 - (ii) with any other structure located within the Wind Farm Area; and
 - (iii) with the network of electrical circuits comprised in Work Nos. 1A, 2A and 2B;
- (c) subject to paragraph 4, up to two offshore accommodation platforms fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter substations within Work No. 2B by an unsupported steel bridge and up to two electrical circuits each connecting an accommodation platform to either an offshore HVAC collector substation or to a wind turbine generator in order to power the accommodation platform;

Co-ordinates for the Wind Farm Area (limits of deviation for Work Nos. 1A, 1B, 2A and 2B)—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E

3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E
5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E
17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 50' 7.210" N	1° 26' 59.953" E

3. The combined total of wind turbine generators constructed in whole or in part within Work Nos. 1A and 1B must not exceed 300.

4. The combined total of accommodation platforms constructed in whole or in part within Work Nos. 1A and 1B must not exceed two.

5. The associated development includes the following scheduled works and the works specified in paragraph 13—

Work No. 2A

Subject to paragraph 6, up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B.

Work No. 2B

Subject to paragraph 6, up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B.

Work No. 3A

In the event that the mode of transmission is HVAC and subject to paragraph 7, up to two offshore reactive compensation substations fixed to the seabed at latitude point 53° 37' 54.291" N and longitude point 0° 55' 59.731" E and at latitude point 53° 38' 9.295" N and longitude point 0° 55' 49.576" E subject to deviation within the limits of deviation for Work Nos. 3A and 3B

Work No. 3B

In the event that the mode of transmission is HVAC and subject to paragraph 7, up to two offshore reactive compensation substations fixed to the seabed at latitude point 53° 37' 54.291" N and

longitude point 0° 55' 59.731" E and at latitude point 53° 38' 9.295" N and longitude point 0° 55' 49.576" E subject to deviation within the limits of deviation for Work Nos. 3A and 3B.

Co-ordinates for the limits of deviation for Work Nos. 3A and 3B—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 38' 1.918" N	0° 55' 55.183" E
2	53° 38' 2.362" N	0° 55' 58.099" E
3	53° 38' 2.438" N	0° 56' 0.367" E
4	53° 38' 2.185" N	0° 56' 3.394" E
5	53° 38' 1.735" N	0° 56' 5.560" E
6	53° 38' 1.074" N	0° 56' 7.567" E
7	53° 37' 59.900" N	0° 56' 9.900" E
8	53° 37' 58.446" N	0° 56' 11.733" E
9	53° 37' 57.216" N	0° 56' 12.723" E
10	53° 37' 55.456" N	0° 56' 13.477" E
11	53° 37' 54.094" N	0° 56' 13.597" E
12	53° 37' 52.296" N	0° 56' 13.156" E
13	53° 37' 51.011" N	0° 56' 12.387" E
14	53° 37' 49.821" N	0° 56' 11.266" E
15	53° 37' 48.441" N	0° 56' 9.279" E
16	53° 37' 47.358" N	0° 56' 6.825" E
17	53° 37' 46.776" N	0° 56' 4.750" E
18	53° 37' 46.409" N	0° 56' 2.540" E
19	53° 37' 46.268" N	0° 56' 0.258" E
20	53° 37' 46.357" N	0° 55' 57.969" E
21	53° 37' 46.828" N	0° 55' 55.017" E
22	53° 37' 47.678" N	0° 55' 52.316" E
23	53° 37' 48.540" N	0° 55' 50.538" E
24	53° 37' 49.567" N	0° 55' 49.029" E
25	53° 37' 51.143" N	0° 55' 47.509" E
26	53° 37' 52.881" N	0° 55' 46.618" E
27	53° 37' 54.238" N	0° 55' 46.392" E
28	53° 37' 56.046" N	0° 55' 46.691" E
29	53° 37' 57.351" N	0° 55' 47.359" E
30	53° 37' 58.570" N	0° 55' 48.386" E
31	53° 38' 0.004" N	0° 55' 50.262" E
32	53° 38' 1.153" N	0° 55' 52.630" E
33	53° 38' 1.792" N	0° 55' 54.657" E
34	53° 38' 1.346" N	0° 55' 51.708" E
35	53° 38' 1.300" N	0° 55' 48.665" E
36	53° 38' 1.657" N	0° 55' 45.681" E
37	53° 38' 2.399" N	0° 55' 42.906" E
38	53° 38' 3.490" N	0° 55' 40.477" E
39	53° 38' 5.257" N	0° 55' 38.112" E
40	53° 38' 6.910" N	0° 55' 36.872" E
41	53° 38' 8.684" N	0° 55' 36.281" E
42	53° 38' 10.939" N	0° 55' 36.497" E
43	53° 38' 12.244" N	0° 55' 37.130" E

44	53° 38' 13.467" N	0° 55' 38.122" E
45	53° 38' 15.233" N	0° 55' 40.491" E
46	53° 38' 16.080" N	0° 55' 42.277" E
47	53° 38' 16.738" N	0° 55' 44.277" E
48	53° 38' 17.187" N	0° 55' 46.433" E
49	53° 38' 17.441" N	0° 55' 49.447" E
50	53° 38' 17.365" N	0° 55' 51.746" E
51	53° 38' 16.908" N	0° 55' 54.716" E
52	53° 38' 16.068" N	0° 55' 57.438" E
53	53° 38' 15.210" N	0° 55' 59.234" E
54	53° 38' 13.812" N	0° 56' 1.201" E
55	53° 38' 12.609" N	0° 56' 2.302" E
56	53° 38' 10.868" N	0° 56' 3.211" E
57	53° 38' 9.507" N	0° 56' 3.449" E
58	53° 38' 8.141" N	0° 56' 3.296" E
59	53° 38' 6.381" N	0° 56' 2.496" E
60	53° 38' 4.772" N	0° 56' 1.053" E
61	53° 38' 3.714" N	0° 55' 59.591" E
62	53° 38' 2.560" N	0° 55' 57.217" E

Work No. 4A

Subject to paragraph 8, a marine connection to the shore, including cable and pipeline crossing works which—

- (a) if the mode of transmission is HVAC, consists of up to eight subsea electrical circuits proceeding from the offshore HVAC collector substations comprised in Work No 2A via and connecting with the offshore reactive compensation substations comprised in Work No. 3A; or
- (b) if the mode of transmission is HVDC, consists of up to two subsea electrical circuits proceeding from the offshore HVDC converter substations comprised in Work No 2A, and in either case terminates at Work No. 5A.

Work No. 4B

Subject to paragraph 8, a marine connection to the shore, including cable and pipeline crossing works which—

- (a) if the mode of transmission is HVAC, consists of up to eight subsea electrical circuits proceeding from the offshore HVAC collector substations comprised in Work No 2B via and connecting with the offshore reactive compensation substation comprised in Work No. 3B; or
- (b) if the mode of transmission is HVDC, consists of up to two subsea electrical circuits proceeding from the offshore HVDC converter substations comprised in Work No 2B, and in either case terminates at Work No. 5B.

Principal co-ordinates for marine export cable area (limits of deviation for Work Nos. 4A and 4B) of which the full co-ordinates are set out in the offshore works plans—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E

5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E
17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 46' 7.286" N	1° 38' 16.673" E
25	53° 46' 4.677" N	1° 37' 22.711" E
27	53° 44' 47.813" N	1° 28' 38.495" E
32	53° 44' 47.743" N	1° 27' 26.607" E
34	53° 44' 36.477" N	1° 25' 23.743" E
141	53° 42' 30.629" N	1° 15' 58.654" E
152	53° 42' 28.182" N	1° 14' 34.895" E
264	53° 39' 35.134" N	1° 6' 29.785" E
316	53° 38' 17.582" N	1° 2' 16.928" E
447	53° 36' 54.624" N	0° 51' 31.062" E
449	53° 36' 15.738" N	0° 48' 52.425" E
513	53° 35' 21.166" N	0° 43' 44.242" E
515	53° 31' 50.425" N	0° 40' 55.898" E
516	53° 31' 38.281" N	0° 40' 8.340" E
521	53° 28' 36.676" N	0° 20' 3.846" E
532	53° 31' 43.122" N	0° 12' 21.707" E
533	53° 30' 57.432" N	0° 5' 59.890" E
534	53° 31' 11.028" N	0° 5' 42.539" E
535	53° 30' 42.954" N	0° 5' 10.787" E
536	53° 30' 42.180" N	0° 5' 9.912" E
537	53° 30' 46.588" N	0° 4' 55.345" E
538	53° 30' 52.245" N	0° 4' 59.515" E
539	53° 31' 25.514" N	0° 5' 24.049" E
540	53° 31' 29.574" N	0° 5' 27.043" E
580	53° 32' 16.976" N	0° 12' 37.072" E
763	53° 29' 11.523" N	0° 20' 5.981" E
1001	53° 31' 28.589" N	0° 35' 44.348" E
1002	53° 32' 0.855" N	0° 37' 42.781" E
1003	53° 32' 17.793" N	0° 39' 31.883" E

1004	53° 32' 35.749" N	0° 39' 45.737" E
1005	53° 33' 8.117" N	0° 39' 47.665" E
1006	53° 34' 28.861" N	0° 41' 27.396" E
1007	53° 35' 42.522" N	0° 42' 37.802" E
1010	53° 36' 25.571" N	0° 43' 54.129" E
1081	53° 37' 2.569" N	0° 47' 31.846" E
1083	53° 37' 30.986" N	0° 49' 14.023" E
1086	53° 37' 29.991" N	0° 51' 27.606" E
1087	53° 37' 36.904" N	0° 52' 22.841" E
1111	53° 38' 45.654" N	0° 57' 1.237" E
1143	53° 39' 16.652" N	1° 1' 1.016" E
1149	53° 39' 42.566" N	1° 1' 40.167" E
1155	53° 41' 20.037" N	1° 6' 45.836" E
1157	53° 42' 59.843" N	1° 14' 18.127" E
1164	53° 43' 0.151" N	1° 15' 37.960" E
1165	53° 44' 0.963" N	1° 20' 9.157" E
1166	53° 49' 6.492" N	1° 25' 51.682" E
1167	53° 50' 7.210" N	1° 26' 59.953" E

Work No. 5A

A foreshore connection consisting of an extension of the electrical circuits comprised in Work No. 4A, including cable crossing works, crossing under the existing sea wall using a trenchless technique and terminating at the electrical circuit transition joint bays (Work No. 6A).

Work No. 5B

A foreshore connection consisting of an extension of the electrical circuits comprised in Work No. 4B, including cable crossing works, crossing under the existing sea wall using a trenchless technique and terminating at the electrical circuit transition joint bays (Work No. 6B).

Onshore

Work No. 6A

Subject to paragraph 9, up to eight underground electrical circuit transition joint bays in the vicinity of Horseshoe Point in the parish of North Coates in the county of Lincolnshire, housing the connections between the offshore electrical circuits comprised in Work No. 5A and the onshore electrical circuits comprised in Work No. 7A.

Work No. 6B

Subject to paragraph 9, up to eight underground electrical circuit transition joint bays in the vicinity of Horseshoe Point in the parish of North Coates in the county of Lincolnshire, housing the connections between the offshore electrical circuits comprised in Work No. 5B and the onshore electrical circuits comprised in Work No. 7B.

Work No. 7A

Subject to paragraph 10, a connection consisting of two underground transmission electrical circuits and associated electrical circuit ducts if the mode of transmission is HVDC and up to eight underground transmission electrical circuits and associated electrical circuit ducts if the mode of transmission is HVAC, proceeding from Work No. 6A at co-ordinate:

Easting 537725, Northing 402577

to Work No. 8A at co-ordinate:

Easting 514946, Northing 419297.

And, in the event that Work No. 7A is constructed before Work No. 7B, the electrical circuit ducts associated with the underground transmission electrical circuits comprised in Work No. 7B.

Work No. 7B

Subject to paragraph 10, a connection consisting of two underground transmission electrical circuits and associated electrical circuit ducts if the mode of transmission is HVDC and up to eight underground transmission electrical circuits and associated electrical circuit ducts if the mode of transmission is HVAC, proceeding from Work No. 6B at co-ordinate:

Easting 537725, Northing 402577

to Work No. 8B at co-ordinate:

Easting 514946, Northing 419297.

And, in the event that Work No. 7B is constructed before Work No. 7A, the electrical circuit ducts associated with the underground transmission electrical circuits comprised in Work No. 7A.

Work No. 8A

Subject to paragraph 11, up to two electrical transmission stations including up to two main buildings abutting an open yard (which may be partitioned with concrete or steel walls or fences containing switchgear, electrical reactors and other electrical equipment) and associated facilities on land adjoining the North Killingholme National Grid substation:

If the electrical circuits comprised in Work Nos. 4A, 5A and 7A are HVDC, the electrical transmission stations will include facilities to convert the current to HVAC.

Work No. 8B

Subject to paragraph 11, up to two electrical transmission stations including up to two main buildings abutting an open yard (which may be partitioned with concrete or steel walls or fences containing switchgear, electrical reactors and other electrical equipment) and associated facilities on land adjoining the North Killingholme National Grid substation:

If the electrical circuits comprised in Work Nos. 4B, 5B and 7B are HVDC, the electrical transmission stations will include facilities to convert the current to HVAC.

Work No. 9A

Subject to paragraph 12, a connection consisting of up to two underground electrical circuits between Work No. 8A and the North Killingholme National Grid substation, including a connection above ground and electrical engineering works within the National Grid substation buildings and compound.

Work No. 9B

Subject to paragraph 12, a connection consisting of up to two underground electrical circuits between Work No. 8B and the North Killingholme National Grid substation, including a connection above ground and electrical engineering works within the National Grid substation buildings and compound.

Work No. 10

Improvements to the verge, highway and private access road running north from Chase Hill Road between the junction with Haven Road in the east and Eastfield Road in the west.

6. The combined total of offshore HVAC collector substations constructed in whole or in part within Work Nos. 2A and 2B must not exceed six and the combined total of offshore HVDC converter substations constructed in whole or in part within Work Nos. 2A and 2B must not exceed two.

7. The combined total of offshore reactive compensation substations constructed in whole or in part within Work Nos. 3A and 3B must not exceed two.

8. The combined total of electrical circuits constructed in whole or in part within Work Nos. 4A and 4B must not exceed, in the event that the mode of transmission is HVDC, two, and in the event that the mode of transmission is HVAC, eight.

9. The combined total of underground electrical circuit transition joint bays constructed in whole or in part within Work Nos. 6A and 6B must not exceed eight

10. The combined total of electrical circuits constructed in whole or in part within Work Nos. 7A and 7B must not exceed, in the event that the mode of transmission is HVDC, two, and in the event that the mode of transmission is HVAC, eight.

11. The combined total of electrical transmission stations constructed in whole or in part within Work Nos. 8A and 8B must not exceed two.

12. The combined total of electrical circuits constructed in whole or in part within Work Nos. 9A and 9B must not exceed two.

13. The associated development includes such further development as may be necessary or expedient in connection with each of the scheduled works within Order limits which are within the scope of the environmental impact assessment recorded in the Environmental Statement including—

- (a) scour protection around the foundations of the offshore structures;
- (b) dredging;
- (c) cable protection measures such as rock placement and the placement of concrete mattresses and frond mattresses;
- (d) the disposal of seabed sediments produced during construction drilling and seabed preparation for the installation of the foundations of the offshore structures, and/or during seabed preparation for cable laying;
- (e) works to alter the position of apparatus, including mains, sewers, drains and cables;
- (f) works to alter the course of, or otherwise interfere with, non navigable rivers, streams or watercourses;
- (g) landscaping and other works to mitigate any adverse effects of the construction, maintenance or operation of the authorised project;
- (h) works for the benefit or protection of land affected by the authorised project;
- (i) working sites in connection with the construction of the authorised project;
- (j) compensation compounds;
- (k) works to secure means of access;
- (l) works to construct surface water drainage systems;
- (m) in connection with Work Nos. 8A and 8B, private roads and hardstanding for parking;
- (n) link and/or earthing boxes associated with Work Nos. 6A and 6B;
- (o) jointing pits (including link and/or earthing boxes) associated with 7A and 7B;
- (p) a temporary haul road and temporary access track, both alongside and used for the purpose of constructing Work Nos. 7A and 7B;
- (q) works to enable utility services to be run from Chase Hill Road to Work Nos. 8A and 8B; and
- (r) such other works and apparatus, plant and machinery of whatever nature as may be necessary or expedient for the purposes of or in connection with the construction of the authorised project.

PART 2

Ancillary Works

Works and operations within the Order limits comprising:

- (a) temporary anchorage of vessels; and
- (b) buoys, beacons, fenders and other navigational warning or ship impact protection works.

PART 3

Requirements

Time limits

1. The authorised development shall commence no later than the expiration of five years beginning with the date this Order comes into force or such longer period as the Secretary of State may hereafter direct in writing.

Detailed Design parameters

- 2.—(1) All wind turbine generators forming part of Work Nos. 1A and 1B must not—
- (a) be more than 151 metres to the turbine hub when measured from LAT;
 - (b) exceed a height of 276 metres from LAT to the upper tip of the vertical blade;
 - (c) exceed a rotor diameter of 241.03 metres;
 - (d) be less than 34.97 metres from LAT to the lowest point of the rotating blade;
 - (e) be less than 810 metres from the nearest wind turbine generator in all directions.
- (2) Each offshore HVAC collector substation forming part of Work Nos. 2A and 2B must not—
- (a) exceed 64 metres in height above LAT;
 - (b) have a platform which at its greatest extent exceeds 3,600 square metres or 60 metres in width.
- (3) Each offshore HVDC converter substation forming part of Work Nos. 2A and 2B must not—
- (a) exceed 110 metres in height above LAT;
 - (b) have a platform which at its greatest extent exceeds 16,200 square metres or 180 metres in width.
- (4) Each offshore accommodation platform forming part of Work Nos. 1A and 1B must not—
- (a) exceed 64 metres in height above LAT;
 - (b) have a platform which at its greatest extent exceeds, 3,600 square metres or 60 metres in width.
- (5) The offshore reactive compensation substation comprised in Work Nos. 3A and 3B must not—
- (a) exceed 64 metres in height above LAT; or
 - (b) have a platform which at its greatest extent exceeds 3,600 square metres or 60 metres in width.
- (6) (a) The diameter of the electrical cables comprising the electrical circuits must not exceed the following limitations—
- (i) within Work Nos. 1A and 1B, 170 mm;
 - (ii) within Work No. 2A and 2B, 300 mm;
 - (iii) within Work Nos. 4A, 4B, 5A and 5B, 190 mm where the mode of transmission is HVDC and 300 mm where the mode of transmission is HVAC.

- (b) The combined total length of the connections in the form of electrical circuits between the structures comprised in Work Nos. 1A and 1B must not exceed 685 km.
- (c) The combined total length of the connections in the form of electrical circuits between the structures comprised in Work Nos. 2A and 2B must not exceed 300 km.
- (d) The combined total length of the electrical circuits comprised in Work Nos. 4A, 4B, 5A and 5B seaward of MHWS must not exceed 1,200 km.
- (e) The combined total area of cable protection for the electrical circuits comprising Work Nos. 1A and 1B must not exceed 1,246,700 square metres.
- (f) The combined total area of cable protection for the electrical circuits comprising Work Nos. 2A and 2B must not exceed 546,000 square metres.
- (g) The combined total area of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located outwith the Humber Estuary Special Area of Conservation must not exceed 2,055,200 square metres.
- (h) The combined total area of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located within the Humber Estuary Special Area of Conservation must not exceed 44,800 square metres.
- (i) The combined total volume of cable protection for the electrical circuits comprising Work Nos. 1A and 1B must not exceed 712,400 m³.
- (j) The total volume of cable protection for the electrical circuits comprising Work nos. 2A and 2B must not exceed 312,000 m³.
- (k) The total volume of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located outwith the Humber Estuary Special Area of Conservation must not exceed 1,174,400 m³.
- (l) The total volume of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located within the Humber Estuary Special Area of Conservation must not exceed 25,600 m³.

(7) The electrical circuits comprised in Work Nos. 1A, 1B, 2A, 2B, 4A and 4B must be installed by use of, or a combination of, ploughing, trenching, jetting, rock-cutting, dredging, surface laying with post lay burial, and where ground conditions make burial impracticable, by surface laying.

(8) The electrical circuits comprised in Work No. 5A and 5B must be installed by use of, or a combination of, a trenchless technique, ploughing, trenching and jetting with the exception that where the electrical circuits comprised in Work No. 5A and 5B cross under the existing sea wall they must be installed using a trenchless technique.

(9) The total area in which the eight underground transition joint bays comprised in Work Nos. 6A and 6B may be contained must not exceed 2,000 square metres and none of the eight transition joint bays within that area must individually exceed 25 m by 10 m.

(10) The diameter of the cables within Work Nos. 7A, 7B, 9A and 9B must not exceed 180 mm in diameter.

(11) The main buildings comprised in Work Nos. 8A and 8B (electrical transmission stations) must not—

- (a) where the mode of transmission is HVDC—
 - (i) exceed 40 metres in height;
 - (ii) exceed 69.5 metres in width;
 - (iii) exceed 135 metres in length; and
- (b) where the mode of transmission is HVAC—
 - (i) exceed 15 metres in height;
 - (ii) exceed 18.5 metres in width;
 - (iii) exceed 82.5 metres in length; and

the site of Work Nos. 8A and 8B must not cover more than 35,672 square metres in area, excluding any area of land required for landscaping and mitigation.

(12) References to the location of a wind turbine generator are references to the centre point of the turbine.

(13) The electrical circuits comprised in Work Nos. 7A and 7B must be installed by use of a trenchless technique where crossing under a main river.

(14) The total width of the corridor occupied by the connection comprised in Work Nos. 7A and 7B following completion of construction of those works must not exceed 30 metres except where those works overlap with Work Nos. 5A, 5B, 6A or 6B in which case the width of the corridor occupied by the connection comprising Work Nos. 7A and 7B must not exceed 150 metres.

Colour and lighting

3. Except as otherwise required by Trinity House under condition 4 of the deemed marine licences set out in Schedules H, I, J and K, the undertaker must exhibit such lights, with such shape, colour and character as required by Air Navigation Order 2009(a) or as directed by the Civil Aviation Authority or the Secretary of State for Defence.

Foundation methods

4.—(1) The undertaker must in fixing to the seabed any structures comprised in Work Nos. 1A, 1B, 2A, 2B, 3A and 3B use one of the following methods:

- (a) monopile foundations;
- (b) jacket foundations supported by piles; or
- (c) gravity base foundations.

(2) The undertaker must not use the monopile foundation method or any other method which includes braced monopiles to fix to the seabed any offshore HVDC converter substation.

(3) The following parameters apply in respect of the foundation methods used to fix wind turbine generators to the seabed:

- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
- (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 2,827 square metres;
 - (ii) the number of piles per jacket must not exceed 12;
 - (iii) the diameter of each pile must not exceed six metres;
- (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and scour protection for each individual structure must not exceed 12,596 square metres;
 - (ii) the number of piles per jacket must not exceed four;
 - (iii) the diameter of each pile must not exceed 21.1 metres;
- (d) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 7,543 square metres;
 - (ii) the seabed levelling diameter must not exceed 78 metres;

(a) S.I. 2009/3015.

(iii) the cone diameter must not exceed 58 metres at its base.

(4) The following parameters apply in respect of the foundation methods used to fix offshore accommodation platforms to the seabed:

- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
- (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,414 square metres;
 - (ii) the number of piles must not exceed eight;
 - (iii) the diameter of each pile must not exceed three metres;
- (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the number of piles per jacket must not exceed four;
 - (iii) the diameter of each pile must not exceed 15 metres;
- (d) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.

(5) The following parameters apply in respect of the foundation methods used to fix offshore HVAC collector substations to the seabed:

- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
- (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,924 square metres;
 - (ii) the number of piles per jacket must not exceed eight;
 - (iii) the diameter of each pile must not exceed 3.5 metres;
- (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 12,723 square metres;
 - (ii) the number of piles per jacket must not exceed eight;
 - (iii) the diameter of each pile must not exceed 15 metres;
- (d) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.

(6) The following parameters apply in respect of the foundation methods used to fix offshore HVDC converter substations to the seabed:

- (a) where jacket foundations (driven/drilled piles) are used—

- (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 17,318 square metres;
 - (ii) the number of jacket foundations per topside must not exceed four;
 - (iii) the number of piles per topside must not exceed 72;
 - (iv) the number of piles per jacket must not exceed 18;
 - (v) the diameter of each pile must not exceed 3.5 metres;
- (b) where jacket foundations (suction piles) are used—
- (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 50,894 square metres;
 - (ii) the number of jacket foundations per topside must not exceed four;
 - (iii) the number of piles per topside must not exceed 32;
 - (iv) the number of piles per jacket must not exceed eight;
 - (v) the diameter of each pile must not exceed 15 metres;
- (c) where gravity base foundations are used—
- (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 27,300 square metres;
 - (ii) the number of pontoons for each individual structure must not exceed three;
 - (iii) the pontoons must not exceed 170 metres in length or 35 metres in width.
- (7) The following parameters apply in respect of the foundation methods used to fix the offshore reactive compensation substation to the seabed:
- (a) where monopile foundations are used—
- (i) the area occupied by the foundations and the scour protection must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
- (b) where jacket foundations (driven/drilled piles) are used—
- (i) the area occupied by the foundations and the scour protection must not exceed 1,414 square metres;
 - (ii) the number of piles per jacket must not exceed eight;
 - (iii) the diameter of each pile must not exceed three metres;
- (c) where jacket foundations (suction piles) are used—
- (i) the area occupied by the foundations and the scour protection must not exceed 6,362 square metres;
 - (ii) the number of piles per jacket must not exceed four;
 - (iii) the diameter of each pile must not exceed 15 metres;
- (d) where gravity base foundations are used—
- (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.
- (8) The combined total volume of scour protection for the wind turbine generators and the offshore accommodation platforms forming part of the authorised development must not exceed 4,761,555 m³.

Archaeology landward of mean low water springs

5.—(1) No part of the authorised development landward of MLWS is to commence within the area of a local planning authority until a written scheme for the investigation of areas of

archaeological interest landward of MLWS has been submitted to and approved by the local planning authority.

(2) The scheme must identify areas where field work and/or a watching brief are required, and the measures to be taken to protect, record or preserve any significant archaeological remains that may be found

(3) Any archaeological works or watching brief carried out under the approved scheme must be by a suitably qualified person or body approved by the local planning authority.

(4) Any archaeological works or watching brief must be carried out in accordance with the approved scheme and a report of any measures taken to protect record or preserve any significant archaeological remains that were found, must be submitted to and approved by the local planning authority before the commencement of any works that would affect those remains.

Ecological management plan landward of mean low water springs

6.—(1) No part of the authorised development landward of MLWS is to commence within the area of a local planning authority until a written ecological management plan relating to the land landward of MLWS based on the outline ecological management plan and reflecting the survey results and ecological mitigation measures included in the environmental statement has been submitted to and approved by the local planning authority in consultation with Natural England, the Environment Agency, and to the extent that the plan relates to the intertidal area, the MMO.

(2) The ecological management plan must include an implementation timetable and must be carried out as approved.

(3) The ecological management plan must be submitted for approval at least four months prior to the intended start of construction unless otherwise agreed in writing by the local planning authority in consultation with Natural England.

Code of Construction Practice

7.—(1) No part of the authorised development landward of MLWS is to commence within the area of a local planning authority until a code of construction practice relating to the works authorised landward of MLWS, and based on the outline code of construction practice has been submitted to and approved by the local planning authority such approval to be provided in the case of any construction traffic management plan submitted pursuant to paragraph (2)(e), and any travel plan submitted pursuant to sub-paragraph (2)(l) in consultation with the relevant highway authority and Highways England.

(2) The code of construction practice must include—

- (a) an external lighting scheme for the construction phase;
- (b) construction noise and vibration monitoring and management measures;
- (c) air quality and dust monitoring and management measures during construction;
- (d) a site waste management plan detailing sustainable site waste management measures;
- (e) a construction traffic management plan;
- (f) measures to prevent and control spillage of oil, chemicals and other potentially harmful liquids;
- (g) details of the storage of materials during construction;
- (h) measures for the protection of surface and ground water during construction;
- (i) a communication plan;
- (j) a Health and Safety Plan including details of how health and safety risks are identified and managed during construction;
- (k) details of screening and fencing to be installed during construction; and
- (l) a travel plan for the construction workforce to include details of—

- (i) expected means of travel to and from the construction sites;
 - (ii) numbers of construction staff, working hours and modal split;
 - (iii) details of the number of car parking spaces to be provided on sites and if appropriate a car park management plan;
 - (iv) specification of measures to encourage sustainable travel to and from the construction site for construction staff;
 - (v) responsibility and timescales for implementing proposed measures;
 - (vi) targets for vehicle trips and modal splits;
 - (vii) formal monitoring regime for those targets; and
 - (viii) details of mess/canteen facilities for staff.
- (3) All construction works must be undertaken in accordance with the approved code.

Landscaping

8.—(1) No part of the authorised development landward of MLWS is to commence within the area of a local planning authority until a written landscape scheme has been submitted to and approved by the local planning authority.

(2) The written landscape scheme must include the provisions of the outline landscape scheme and management plan, subject to any variation approved by the local planning authority, and, in addition details of—

- (a) cultivation, importing of materials and other operations to ensure plant establishment;
- (b) proposed finished ground levels;
- (c) hard surfacing materials; and
- (d) minor structures, refuse or other storage units, signs and lighting.

Implementation and maintenance of landscaping

9.—(1) The landscape works must be carried out in accordance with the relevant scheme approved under requirement 8.

(2) Any tree or shrub planted as part of an approved landscape scheme that within a period of five years after planting, is removed, dies or becomes, in the opinion of the local planning authority, seriously damaged or diseased, must be replaced in the first available planting season with a specimen of the same species and size as that originally planted, unless alternative timing or a different specimen is otherwise approved by the local planning authority.

Offshore decommissioning

10. No part of the authorised development seaward of MLWS is to commence until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2) of the 2004 Act has been submitted to the Secretary of State for approval in relation to that part.

Highway accesses

11.—(1) No permanent or temporary means of access to a highway to be used by vehicular traffic or any alteration to an existing means of access to a highway used by vehicular traffic is to commence until written details of the design and layout of such works have been submitted to and approved by the local planning authority in consultation with the relevant highway authority.

(2) The highway accesses must be constructed in accordance with the approved details.

Contaminated land and groundwater

12.—(1) No part of the authorised development within the area of a local planning authority is to commence until a written scheme to deal with the contamination of any land, including groundwater within the Order limits which is likely to cause significant harm to persons or pollution of controlled waters or the environment has been submitted to, and approved by, the local planning authority in consultation with the Environment Agency and, to the extent that the plan relates to the intertidal area, the MMO.

(2) The scheme must include an investigation and assessment report, prepared by a specialist consultant approved by the local planning authority, 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 long-term measures with respect to any contaminants remaining on the site.

(3) No remedial work constituting a material operation (as defined in section 155 of the 2008 Act) in respect of contamination of any land, including groundwater within the Order limits is to be carried out until the scheme has been approved.

(4) In carrying out the works for the authorised development, the undertaker must not conduct trenchless technique operations unless the scheme includes a hydrogeological risk assessment demonstrating that such operations are unlikely to cause an unacceptable risk to groundwater quality.

(5) Remediation must be carried out in accordance with the approved scheme.

Surface water drainage

13.—(1) No part of the electrical transmission station is to commence until a detailed surface water drainage scheme based on sustainable drainage principles and an assessment of the hydrological and hydrogeological context of the electrical transmission station have been submitted to and approved in writing by the local planning authority, in consultation with the drainage board within the meaning of section 25 of the Land Drainage Act 1991.

(2) Construction of the electrical transmission station must be carried out in accordance with the scheme.

Colour and detailed design approval – electrical transmission stations

14.—(1) Unless otherwise agreed by the local planning authority, the electrical transmission stations must be coloured using one or more of the following colours:

Bluebell (RAL Code 270 50 30)

Lilac (RAL Code 270 60 25)

Chalk Blue (RAL Code 270 70 20)

Baltic Blue (RAL Code 270 80 15)

White Lilac (RAL Code 270 85 10)

Blue White (RAL Code 270 90 05)

(2) Notwithstanding sub-paragraph (1), construction of Work No. 8A must not commence until details of the layout, scale and external appearance of that work have been submitted to and approved by the relevant planning authority.

(3) Notwithstanding sub-paragraph (1), construction of Work No. 8B must not commence until details of the layout, scale and external appearance of that work have been submitted to and approved by the relevant planning authority.

(4) The construction of Work Nos. 8A and 8B must be carried out in accordance with the approved details.

Prohibited access

15.—(1) The undertaker must not use the access road along the crest of the sea defences within the plots numbered 45 to 49 on the land plans during the construction of Work Nos. 4A, 4B, 5A, 5B 6A and 6B.

(2) Except in an emergency, the access road along the sea defences within the plots numbered 45 to 49 on the land plans may not be used by the undertaker following the construction of Work Nos. 4A, 4B, 5A, 5B, 6A and 6B until a scheme for the protection of the sea defences from use of the access road by the undertaker during the operation and maintenance of the authorised project has been submitted to and approved in writing by the Environment Agency, such approval must not be unreasonably withheld or delayed.

(3) If the Environment Agency fails to notify the undertaker of its decision on whether to give approval within 2 months of receiving the scheme for approval the Environment Agency is deemed to have given approval.

(4) The use of the access road must be in accordance with the approved scheme.

Port traffic management plan

16.—(1) No part of the authorised development seaward of MLWS (excluding ducting and related works which are an integral part of works landward of MLWS) is to commence until a traffic management plan for the onshore port-related traffic to and from the selected base port or ports for construction and/or operation of the relevant part of the authorised development, and relating to the relevant part of the authorised development, has been submitted to and approved in writing by the relevant planning authority in consultation with the relevant highway authority or the relevant planning authority has confirmed in writing, after consultation with the relevant highway authority, that no traffic management plan is required.

(2) All traffic management plans must be implemented as approved at all times specified within the relevant traffic management plan during the construction and/or operation of the authorised development.

(3) For the purposes of this requirement:

“relevant highway authority” means the highway authority or authorities in whose area the relevant port is located;

“relevant planning authority” means the local planning authority or authorities in whose area the relevant port is located;

“selected base port” or “ports” means a port or ports situated in England and/or Wales and used by management personnel for construction of the authorised project and/or for the ongoing operational management of the authorised project.

Employment and skills plan

17.—(1) No part of the authorised development is to commence until an employment and skills plan based on the outline employment and skills plan has been submitted to and approved by North Lincolnshire Council in consultation with North East Lincolnshire Council, East Lindsey District Council and, provided it continues to be in existence, the Humber Local Enterprise Partnership.

(2) The plan must include—

- (a) proposals for the provision of information to the Humber Local Enterprise Partnership on the employment and supply chain opportunities associated with the construction, operation and maintenance of the authorised development including details of the core qualifications and skillsets required to access those opportunities;
 - (b) proposals for local advertising of employment and supply chain opportunities during the construction of the authorised development;
 - (c) proposals for the undertaker to provide outreach employment presentations during the period of construction of the authorised development at appropriate times and locations;
- and

- (d) proposals for local advertising of employment and supply chain opportunities during the operation of the authorised development.
- (3) The approved employment and skills plan must be implemented and maintained during the construction and operation of the authorised development.
- (4) For the purposes of this requirement—
“Humber Local Enterprise Partnership” means the local enterprise partnership established in June 2011 with the objective of promoting and developing the natural economic area surrounding the Humber estuary.

Requirement for written approval

18. Where under any of the requirements the approval or agreement of the Secretary of State, the local planning authority or another person or body is required, that approval or agreement must be given in writing.

Amendments to approved details

19.—(1) With respect to any requirement which requires the authorised development to be carried out in accordance with the details of a plan, scheme or code approved by the local planning authority or any other person or body, the approved details, or plan, scheme or code are to be taken to include any amendments that may subsequently be approved in writing by the local planning authority or that other person or body.

(2) Any amendments to or variations from the approved details must be in accordance with the principles and assessments set out in the environmental statement. Such agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the relevant planning authority or that other person that the subject matter of the agreement sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

(3) Where such details, plan scheme or code are required to be approved in consultation with another body, any amendments of that document must also be approved in consultation with that body.

Offshore Co-operation

20.—(1) Prior to the submission of the pre-construction plans and documentation required to be submitted to the MMO for approval under Condition 8 of each of the deemed marine licences set out in Schedules H, I, J and K the undertaker in respect of the relevant licence must provide a copy of the plans and documentation to the other undertaker under this Order.

(2) The other undertaker must provide any comments on the plans and documentation to the first undertaker within 14 days of receipt of the plans and documentation.

(3) Each undertaker must participate in liaison meetings with the other undertaker under this Order as requested from time to time by the MMO in writing in advance, which meetings shall be chaired by the MMO and shall consider such matters as are determined by the MMO relating to the efficient operation of a deemed marine licence where it has an impact on the efficient operation of any other deemed marine licence(s) issued under this Order (including as varied or transferred).

Compensation compounds

21.—(1) The undertaker may only exercise the powers conferred under this Order in relation to the compensation compounds shown coloured green on the compensation compounds plan where the undertaker requires, or will require, to exercise powers in relation to the Order land shown hatched green on the compensation compounds plan at the relevant time.

(2) The undertaker may only exercise the powers conferred under this Order in relation to the compensation compound access coloured pink and labelled 14-A1c on the compensation

compounds plan where the undertaker requires, or will require, to exercise the powers conferred under this Order in relation to the compensation compound shown coloured green and labelled 14-C3 on the compensation compounds plan in accordance with paragraph (1).

(3) Where the undertaker exercises the powers conferred under this order in relation to the compensation compounds shown coloured green on the compensation compounds plan in accordance with paragraph (1), or in relation to the compensation compound access coloured pink and labelled 14-A1c on the compensation compounds plan in accordance with paragraph (2), these rights and powers may only be exercised for the benefit of the Hornsea Project One undertaker in connection with the construction of Hornsea Project One.

“relevant time” means the scenario where—

- (i) the carrying out of works authorised by this Order in the Order land shown hatched green on the compensation compounds plan would overlap temporally with the carrying out of works authorised by the Hornsea Project One Order in respect of that land; or
- (ii) works authorised by this Order in the Order land shown hatched green on the compensation compounds plan are carried out and completed before the works authorised by the Hornsea Project One Order in respect of that land commence.

Onshore decommissioning

22.—(1) Within three months of the cessation of commercial operation of the connection works, an onshore decommissioning plan must be submitted in writing to the local planning authority for its approval.

(2) The decommissioning plan must be implemented as approved.

North Coates airfield

23. No part of the authorised development is to commence within half a mile of the perimeter of the North Coates airfield until a plan to secure its safe operation during the construction and operation of the authorised project has been submitted to and approved by the Secretary of State following consultation by the Secretary of State with the operator of North Coates airfield and the Civil Aviation Authority.

Control of noise during operational phase

24. The combined rating level, L_Ar,Tr, of the noise emitted during normal operation from the electrical transmission station, converter and associated plant, shall not exceed 35 dB at any residential property that has planning permission on 1st December 2014. The assessment shall be carried out in accordance with BS 4142:2014 “Methods for rating and assessing industrial and commercial sound”.

Onshore co-operation

25.—(1) Prior to the submission of any plan or document required to be submitted for approval under the requirements, the undertaker in respect of the works to which the plan or document relates must provide a copy of the plan or document to the other undertaker under this Order.

(2) The other undertaker must provide any comments on the plan or document to the first undertaker within 14 days of receipt of the plan or document.

(3) On submission of any plan or document referred to in paragraph (1) for approval, the undertaker in respect of the works to which the plan or document relates must also submit any comments received from the other undertaker under paragraph (2), or a statement confirming that no such comments were received.

(4) Each undertaker must participate in liaison meetings with the other undertaker under this Order as requested from time to time by the local planning authority in writing in advance, which meetings shall be chaired by the local planning authority and shall consider such matters as are

determined by the local planning authority relating to the efficient construction and operation of the Project A works above MLWS where they have an impact on the efficient construction and operation of the Project B works above MLWS, and vice versa.

Intertidal access management plan

26.—(1) No part of the authorised development within the intertidal area is to commence until a written intertidal access management plan setting out details of the access route(s) to the intertidal, the methods for accessing the intertidal, expected number of vehicles that will be accessing the intertidal and the expected number of vehicle trips to the intertidal required in relation to that part of the authorised development has been submitted to and approved by the local planning authority in consultation with Natural England.

(2) The undertaker must not exercise the power to maintain under Article 7 of the Order in the intertidal area until a written intertidal access management plan setting out details of the access route(s) to the intertidal, the methods for accessing the intertidal, expected number of vehicles that will be accessing the intertidal and the expected number of vehicle trips to the intertidal required for such maintenance activities has been submitted to and approved by the local planning authority in consultation with Natural England.

(3) If the local planning authority fails to notify the undertaker of its decision on whether to give approval within two months of receiving an intertidal access management plan for approval that local planning authority is deemed to have given approval.

(4) The intertidal access management plan must be implemented as approved, unless otherwise agreed in writing with the local planning authority.

Navigational safety at the Saturn, Mimas and Tethys offshore platforms

27.—(1) No construction of any wind turbine generator forming part of the authorised development shall commence until the Secretary of State having consulted with the Operator is satisfied that appropriate mitigation will be implemented and maintained for the life of the authorised development.

(2) For the purposes of this requirement—

“appropriate mitigation” means measures to mitigate any adverse impacts which the operation of the authorised development will have on the ability of the Operator’s Radar Early Warning System to ensure the safety of its Saturn, Mimas and Tethys offshore platforms during the life of the authorised development;

“Operator” means ConocoPhillips (U.K.) Limited incorporated under the Companies Act (00524868) whose registered office is Portman House, 2 Portman Street, London, W1H 6DU; and

“Radar Early Warning System” means the radar early warning system used to monitor and track vessels proximate to the Operator’s offshore facilities via radio and network links. It comprises primarily of radars fitted on a number of Operator’s offshore platforms. It provides a multi-site, multi-sensor integrated marine surveillance system with logistic and emergency response co-ordination facilities.

(3) The undertaker shall thereafter comply with all obligations contained within the appropriate mitigation for the life of the authorised development.

SCHEDULE B

Article 9

Streets subject to street works

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Streets subject to street works</i>
District of East Lindsey	Permissive Footpath along Sea Wall
District of East Lindsey	Sheep Marsh Lane
District of East Lindsey	Unnamed highway north of Sheep Marsh Lane providing access to Poplar Piggeries and area to the north
District of East Lindsey	Sea Lane
District of East Lindsey	Tetn/19/1 (Public Footpath)
District of East Lindsey	North Coates Road
District of East Lindsey	Tetn/343/1 (Public Footpath)
District of East Lindsey	Tetn/12/5 (Public Footpath)
District of East Lindsey	Tetn/13/5 (Public Footpath)
District of East Lindsey	Unnamed highway east of New Delights access
District of East Lindsey	Tetney Lock Road
District of East Lindsey	Humberston Road (A1031)
District of East Lindsey	Tetn/14/4 (Public Footpath)
District of East Lindsey	Holton Road
District of East Lindsey	HoLC/5/4 (Public Footpath)
District of East Lindsey	Station Road, Tetney
District of East Lindsey	HoLC/4/1 (Public Footpath)
District of East Lindsey	Louth Road (A16)
District of East Lindsey	High Street, North Thoresby (B1201)
District of East Lindsey	Station Road, North Thoresby (B1201)
District of East Lindsey	HoLC/10/1 (Public Footpath)
North East Lincolnshire	Brigsley FP84 (Public Footpath)
North East Lincolnshire	Brigsley FP83 (Public Footpath)
North East Lincolnshire	Waithe Lane
North East Lincolnshire	Brigsley BW75 (Public Bridleway)
North East Lincolnshire	Waltham Road, Brigsley (B1203)
North East Lincolnshire	Waltham Road, Barnoldby le Beck (C148)
North East Lincolnshire	Bradley FP95 (Public Footpath)
North East Lincolnshire	Bradley Road
North East Lincolnshire	Bradley BW93 (Public Bridleway)
North East Lincolnshire	Lacey FP95 (Public Footpath)
North East Lincolnshire	Lacey BW97 (Public Bridleway)
North East Lincolnshire	Lacey FP96 (Public Footpath)
North East Lincolnshire	Grimsby Road (A46)
North East Lincolnshire	Aylesby FP103 (Public Footpath)
North East Lincolnshire	Aylesby FP110 (Public Footpath)
North East Lincolnshire	Aylesby Road
North East Lincolnshire	Aylesby BW108 (Public Bridleway)
North East Lincolnshire	Beech Holt Lane
North East Lincolnshire	Nooking Lane
West Lindsey District	Wells Road

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Streets subject to street works</i>
North East Lincolnshire	Riby Road (A1173)
North East Lincolnshire	Stallingborough FP26 (Public Footpath)
North East Lincolnshire	Stallingborough FP24 (Public Footpath)
North East Lincolnshire	Keelby Road
North East Lincolnshire	Habrough FP4 (Public Footpath)
North East Lincolnshire	Roxton Road south of A180 between Keelby and Immingham.
North East Lincolnshire	A180(T)
North East Lincolnshire	Station Road, Habrough (B1210)
North East Lincolnshire	Immingham Road (B1210)
North East Lincolnshire	Habrough FP8 (Public Footpath)
North East Lincolnshire	Habrough FP7 (Public Footpath)
North East Lincolnshire	Killingholme Road/ Habrough Road
North Lincolnshire Council	South Killingholme 94 (Public Footpath) FP/SKIL/94
North Lincolnshire Council	Habrough Road/Faulding Lane
North Lincolnshire Council	South Killingholme 87 (Public Footpath) FP/SKIL/87
North Lincolnshire Council	Habrough Road
North Lincolnshire Council	South Killingholme 88 (Public Footpath) FP/SKIL/88
North Lincolnshire Council	Proposed A160 Upgrade/Realignment (HA Improvement scheme)
North Lincolnshire Council	Ulceby Road (A160)
North Lincolnshire Council	Ulceby Road access to houses
North Lincolnshire Council	Top Road
North Lincolnshire Council	Currently unconstructed Road on route of proposed cable route. Part of the A160 improvement works. North of the A160 and west of Top Road. Area hatched between points 119 and 120 on the onshore works plan 24.
North Lincolnshire Council	South Killingholme 87 (Public Footpath) FP/SKIL/87
North Lincolnshire Council	South Killingholme 85 (Public Footpath) FP/SKIL/85
North Lincolnshire Council	Church Lane/ Nicholson Road
North Lincolnshire Council	Chase Hill Road
North Lincolnshire Council	Eastfield Road
North Lincolnshire Council	Brick Lane/Dean Street.
North Lincolnshire Council	North Killingholme 86 (Public Footpath) FP/NKIL/86
North Lincolnshire Council	North Killingholme 79 (Public Footpath) FP/NKIL/79

SCHEDULE C

Article 11

Streets to be temporarily stopped up

<i>(1)</i>	<i>(2)</i>	<i>(3)</i>
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<i>Area</i>	<i>Street to be temporarily stopped up</i>	<i>Extent of temporary stopping up</i>
District of East Lindsey	Permissive Footpath	Between points F1 and F2 as shown in a dotted black line on sheet 1 of the onshore works plans.
District of East Lindsey	Permissive Footpath	Between points F3 and F4 as shown in a dotted black line on sheet 1 of the onshore works plans.
District of East Lindsey	Unnamed highway north of Sheep Marsh Lane providing access to Poplar Piggeries and area to the north	Between points 1 and 2 as shown hatched on sheet 2 of the onshore works plans.
District of East Lindsey	Unnamed highway north of Sheep Marsh Lane providing access to Poplar Piggeries and area to the north	Between points 3 and 4 as shown hatched on sheet 2 of the onshore works plans.
District of East Lindsey	Unnamed highway north of Sheep Marsh Lane providing access to Poplar Piggeries and area to the north	Between points 5 and 6 as shown hatched on sheet 2 of the onshore works plans.
District of East Lindsey	Sea Lane	Between points 7 and 8 as shown hatched on sheet 2 of the onshore works plans.
District of East Lindsey	Footpath Tetn/19/1	Between points F5 and F6 as shown in a dotted black line on sheet 3 of the onshore works plans.
District of East Lindsey	Footpath Tetn/19/1	Between points F7 and F8 as shown in a dotted black line on sheet 3 of the onshore works plans.
District of East Lindsey	North Coates Road	Between points 9 and 10 as shown hatched on sheet 4 of the onshore works plans.
District of East Lindsey	Footpath Tetn/13/5	Between points F9 and F10 as shown in a dotted black line on sheet 4 of the onshore works plans.
District of East Lindsey	Unnamed highway east of New Delights access	Between points 11 and 12 as shown hatched on sheet 4 of the onshore works plans.
District of East Lindsey	Unnamed highway east of New Delights access	Between points 13 and 14 as shown hatched on sheet 4 of the onshore works plans.
District of East Lindsey	Unnamed highway east of New Delights access	Between points 15 and 16 as shown hatched on Sheet 4 of the onshore works plans.
District of East Lindsey	Unnamed highway east of New Delights access	Between points 17 and 18 as shown hatched on sheet 5 of the onshore works plans.
District of East Lindsey	Unnamed highway east of New Delights access	Between points 19 and 20 as shown hatched on sheet 5 of the onshore works plans.

District of East Lindsey	Tetney Lock Road	Between points 21 and 22 as shown hatched on sheet 5 of the onshore works plans.
District of East Lindsey	Tetney Lock Road	Between points 23 and 24 as shown hatched on sheet 5 of the onshore works plans.
District of East Lindsey	Humberston Road	Between points 25 and 26 as shown hatched on sheet 5 of the onshore works plans.
District of East Lindsey	Footpath Tetn/14/4	Between points F11 and F12 as shown in a dotted black line on sheet 6 of the onshore works plans.
District of East Lindsey	Holton Road	Between points 27 and 28 as shown hatched on sheet 6 of the onshore works plans.
District of East Lindsey	Holton Road	Between points 121 and 122 as shown hatched on sheet 6 of the onshore works plans.
District of East Lindsey	Holton Road	Between points 123 and 124 as shown hatched on sheet 6 of the onshore works plans.
District of East Lindsey	Footpath HoLC/5/4	Between points F13 and F14 as shown in a dotted black line on sheet 7 of the onshore works plans.
District of East Lindsey	Footpath HoLC/5/4	Between points F14 and F15 as shown in a dotted black line on sheet 7 of the onshore works plans.
District of East Lindsey	Station Road, Tetney	Between points 29 and 30 as shown hatched on sheet 7 of the onshore works plans.
District of East Lindsey	Station Road, Tetney	Between points 31 and 32 as shown hatched on sheet 7 of the onshore works plans.
District of East Lindsey	Station Road, Tetney	Between points 33 and 34 as shown hatched on sheet 7 of the onshore works plans.
District of East Lindsey	Footpath HoLC/4/1	Between points F16 and F17 as shown in a dotted black line on sheet 7 of the onshore works plans.
District of East Lindsey	Louth Road (A16)	Between points 35 and 36 as shown hatched on sheet 7 of the onshore works plans.
District of East Lindsey	Louth Road (A16)	Between points 36 and 37 as shown hatched on sheet 7 of the onshore works plans.
District of East Lindsey	Louth Road (A16)	Between points 38 and 39 as shown hatched on sheet 7 of the onshore works plans.
District of East Lindsey	Footpath HoLC/10/1	Between points F18 and F19 as shown in a dotted black line on sheet 8 of the onshore

		works plans.
North East Lincolnshire	Footpath FP84	Between points F18 and F21 as shown in a dotted black line on sheet 8 of the onshore works plans.
North East Lincolnshire	Footpath FP83	Between points F20 and F20.1 as shown in a dotted black line on sheet 8 of the onshore works plans.
North East Lincolnshire	Waithe Lane	Between points 40 and 41 as shown hatched on sheet 8 of the onshore works plans.
North East Lincolnshire	Waithe Lane	Between points 127 and 128 as shown hatched on sheet 9 of the onshore works plans.
North East Lincolnshire	Waithe Lane	Between points 42 and 43 as shown hatched on sheet 9 of the onshore works plans.
North East Lincolnshire	Bridleway BW75	Between points F22 and F23 as shown in a dotted black line on sheet 9 of the onshore works plans.
North East Lincolnshire	Waltham Road (B1203)	Between points 44 and 45 as shown hatched on sheet 9 of the onshore works plans.
North East Lincolnshire	Waltham Road (B1203)	Between points 46 and 47 as shown hatched on sheet 9 of the onshore works plans.
North East Lincolnshire	Waltham Road (B1203)	Between points 48 and 49 as shown hatched on sheet 9 of the onshore works plans.
North East Lincolnshire	Waltham Road (C148)	Between points 50 and 51 as shown hatched on sheet 10 of the onshore works plans.
North East Lincolnshire	Bradley Road	Between points 52 and 53 as shown hatched on sheet 11 of the onshore works plans.
North East Lincolnshire	Footpath FP95	Between points F24 and F25 as shown in a dotted black line on sheet 12 of the onshore works plans.
North East Lincolnshire	Footpath FP95	Between points F26 and F27 as shown in a dotted black line on sheet 12 of the onshore works plans.
North East Lincolnshire	Bradley Road	Between points 54 and 55 as shown hatched on sheet 12 of the onshore works plans.
North East Lincolnshire	Bradley Road	Between points 56 and 57 as shown hatched on sheet 12 of the onshore works plans.
North East Lincolnshire	Bridleway BW93	Between points F28 and F29 as shown in a dotted black line on sheet 12 of the onshore works plans.

North East Lincolnshire	Footpath FP95	Between points F30 and F31 as shown in a dotted black line on sheet 13 of the onshore works plans.
North East Lincolnshire	Bridleway BW97	Between points F32 and F33 as shown in a dotted black line on sheet 14 of the onshore works plans.
North East Lincolnshire	Footpath FP96	Between points F34 and F35 as shown in a dotted black line on sheet 14 of the onshore works plans.
North East Lincolnshire	Grimsby Road (A46)	Between points 58 and 59 as shown hatched on sheet 14 of the onshore works plans.
North East Lincolnshire	Grimsby Road (A46)	Between points 60 and 61 as shown hatched on sheet 14 of the onshore works plans.
North East Lincolnshire	Grimsby Road (A46)	Between points 62 and 63 as shown hatched on sheet 14 of the onshore works plans.
North East Lincolnshire	Grimsby Road (A46)	Between points 64 and 65 as shown hatched on sheet 14 of the onshore works plans.
North East Lincolnshire	Grimsby Road (A46)	Between points 60 and 65 as shown hatched on sheet 14 of the onshore works plans.
North East Lincolnshire	Grimsby Road (A46)	Between points 58 and 62 as shown hatched on sheet 14 of the onshore works plans.
North East Lincolnshire	Footpath FP103	Between points F36 and F37 as shown in a dotted black line on sheet 15 of the onshore works plans.
North East Lincolnshire	Footpath FP110	Between points F38 and F39 as shown in a dotted black line on sheet 15 of the onshore works plans.
North East Lincolnshire	Aylesby Road	Between points 66 and 67 as shown hatched on sheet 15 of the onshore works plans.
North East Lincolnshire	Bridleway BW108	Between points F40 and F41 as shown in a dotted black line on sheet 15 of the onshore works plans.
North East Lincolnshire	Beech Holt Lane/Nooking Lane	Between points 68 and 69 as shown hatched on sheet 16 of the onshore works plans.
West Lindsey District	Wells Road	Between points 70 and 71 as shown hatched on sheet 17 of the onshore works plans.
North East Lincolnshire	Riby Road (A1173)	Between points 72 and 73 as shown hatched on sheet 18 of the onshore works plans.
North East Lincolnshire	Riby Road (A1173)	Between points 74 and 75 as

		shown hatched on sheet 18 of the onshore works plans.
North East Lincolnshire	Footpath FP26	Between points F42 and F43 as shown in a dotted black line on sheet 19 of the onshore works plans.
North East Lincolnshire	Keelby Road	Between points 76 and 77 as shown hatched on sheet 19 of the onshore works plans.
North East Lincolnshire	Keelby Road	Between points 78 and 79 as shown hatched on sheet 19 of the onshore works plans.
North East Lincolnshire	Roxton Road	Between points 80 and 81 as shown hatched on sheet 20 of the onshore works plans.
North East Lincolnshire	Roxton Road	Between points 82 and 83 as shown hatched on sheet 20 of the onshore works plans.
North East Lincolnshire	Station Road (B1210)	Between points 92 and 93 as shown hatched on sheet 22 of the onshore works plans.
North East Lincolnshire	Immingham Road (B1210)	Between points 94 and 95 as shown hatched on sheet 23 of the onshore works plans.
North East Lincolnshire	Immingham Road (B1210)	Between points 96 and 97 as shown hatched on sheet 23 of the onshore works plans.
North East Lincolnshire	Footpath FP8	Between points F44 and F45 as shown in a dotted black line on sheet 23 of the onshore works plans.
North East Lincolnshire	Footpath FP7	Between points F46 and F47 as shown in a dotted black line on sheet 23 of the onshore works plans.
North East Lincolnshire	Killingholme Road/ Habrough Road	Between points 98 and 99 as shown hatched on sheet 23 of the onshore works plans.
North Lincolnshire Council	Footpath 94	Between points F48 and F49 as shown in a dotted black line on sheet 24 of the onshore works plans.
North Lincolnshire Council	Faulding Lane	Between points 100 and 101 as shown hatched on sheet 24 of the onshore works plans.
North Lincolnshire Council	Footpath 87	Between points F50 and F51 as shown in a dotted black line on sheet 24 of the onshore works plans.
North Lincolnshire Council	Footpath 88	Between points F52 and F53 as shown in a dotted black line on sheet 24 of the onshore works plans.
North Lincolnshire Council	Habrough Road	Between points 102 and 103 as shown hatched on sheet 24 of

		the onshore works plans.
North Lincolnshire Council	Ulceby Road (A160)	Between points 104 and 105 as shown hatched on sheet 24 of the onshore works plans.
North Lincolnshire Council	On Cable route – potential future Road.	Between points 119 and 120 as shown hatched on sheet 24 of the onshore works plans
North Lincolnshire Council	Top Road	Between points 106 and 107 as shown hatched on sheet 25 of the onshore works plans.
North Lincolnshire Council	Footpath 87	Between points F54 and F55 as shown in a dotted black line on sheet 25 of the onshore works plans.
North Lincolnshire Council	Footpath 87	Between points F56 and F57 as shown in a dotted black line on sheet 25 of the onshore works plans.
North Lincolnshire Council	Church Lane	Between points 108 and 109 as shown hatched on sheet 25 of the onshore works plans.
North Lincolnshire Council	Church Lane	Between points 109 and 111 as shown hatched on sheet 25 of the onshore works plans.
North Lincolnshire Council	Chase Hill Road	Between points 112 and 113 as shown hatched on sheet 26 of the onshore works plans.
North Lincolnshire Council	Chase Hill Road	Between points 114 and 115 as shown hatched on sheet 26 of the onshore works plans.
North Lincolnshire Council	Brick Lane	Between points 115 and 116 as shown hatched on sheet 26 and 27 of the onshore works plans.
North Lincolnshire Council	Footpath 86	Between points F58 and F59 as shown in a dotted black line on sheet 27 of the onshore works plans.
North Lincolnshire Council	Footpath 79	Between points F60 and F61 as shown in a dotted black line on sheet 27 of the onshore works plans.
North Lincolnshire Council	Footpath 86	Between points F62 and F65 as shown in a dotted black line on sheet 27 of the onshore works plans.
North Lincolnshire Council	Footpath 86	Between points F65 and F64 as shown in a dotted red line on sheet 27 of the onshore works plans.
North Lincolnshire Council	Chase Hill Road	Between points 117 and 118 as shown hatched on sheet 27 of the onshore works plans.

SCHEDULE D

Article 12

Access to works

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Description of Access</i>
District of East Lindsey	Between point A1 (north side of Sheep Marsh Lane) shown on sheet 1 of the onshore works plans and Work Nos. 5A, 5B, 6A, 6B, 7A and 7B.
District of East Lindsey	Between point A2 (Unnamed highway north of Sheep Marsh Lane providing access to Poplar Piggeries) shown on sheet 2 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A3 (north side of North Coates Road) shown on sheet 3 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A4 (south side of North Coates Road) shown on sheet 4 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A5 (north side of unnamed highway east of New Delights access) shown on sheet 4 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A51 (north side of Tetney Lock Road east of New Delights access) shown on sheet 4 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A52 (north side of unnamed highway east of New Delights access) shown on sheet 4 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A53 (north side of unnamed highway east of New Delights access) shown on sheet 4 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A6 (north side of Tetney Lock Road west of Cow Marsh Lane) shown on sheet 5 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A7 (south side of unnamed highway east of New Delights access) shown on sheet 5 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A8 (north side of unnamed highway east of New Delights access) shown on sheet 5 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A9 (north side of Tetney Lock Road east of Humberston Road) shown on sheet 5 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A10 (west side of Holton Road) shown on sheet 6 of the onshore works plans and Work Nos. 7A and 7B.

District of East Lindsey	Between point A11 (south side of Holton Road) shown on sheet 6 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A12 (north side of Station Road) shown on sheet 7 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A13 (north side of Station Road to the west of the dismantled railway line) shown on sheet 7 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A14 (north side of Station Road) shown on sheet 7 of the onshore works plans and Work Nos. 7A and 7B.
District of East Lindsey	Between point A15 (west side of A16) shown on sheet 8 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A16 (west side of B1203, Waltham Road) shown on sheet 9 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A56 (east side of B1203, Waltham Road) shown on sheet 9 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A17 (south side of C148 Waltham Road) shown on sheet 10 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A18 (north side of C148 Waltham Road) shown on sheet 10 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A20 (west side of Bradley Road north of Waltham) shown on sheet 11 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A21 (west side of Bradley Road south of Netherwood Farm access point) shown on sheet 12 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A22 (west side of Bradley Road Netherwood Farm south access point) shown on sheet 12 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A23 (south-east side of A46 east of Laceby) shown on sheet 14 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A24 (north-west side of A46 east of Laceby) shown on sheet 14 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A25 (south-east side of Aylesby Road) shown on sheet 15 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A26 (north side of Beach Holt

	Lane/Nooking Lane west of Aylesby) shown on sheet 16 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A57 (north side of Nooking Lane west of Aylesby) shown on sheet 16 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A27 (south-east side of Wells Road) shown on sheet 17 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A28 (north-west side of Wells Road) shown on sheet 17 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A29 (east side of A1173) shown on sheet 18 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A30 (north-west side of A1173 at Stallingborough Grange Farm) shown on sheet 18 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A31 (south-east side of Keelby Road, north of Wood View) shown on sheet 19 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A32 (north-west side of Keelby Road north of of Wood View) shown on sheet 19 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A33 (north-west side of Keelby Road north of Wood View) shown on sheet 19 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A34 (south-east side of Roxton Road south of railway) shown on sheet 20 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A35 (east side of Roxton Road north of railway) shown on sheet 20 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A36 (west side of Roxton Road north of railway) shown on sheet 20 of the onshore works plans and Work Nos. 7A and 7B.
North East Lincolnshire	Between point A39 (south-east side of B1210 Station Road south of A180) shown on sheet 22 of the onshore works plans and Works Nos 7A and 7B.
North East Lincolnshire	Between point A40 (south side of B1210 Immingham Road) shown on sheet 23 of the onshore works plans and Works Nos 7A and 7B.
North East Lincolnshire	Between point A41 (north side of B1210 Immingham Road) shown on sheet 23 of the onshore works plans and Works Nos 7A and

	7B.
North East Lincolnshire	Between point A42 (east side of Killingholme Road/Habrough Road, opposite Hill Farm) shown on sheet 23 of the onshore works plans and Works Nos 7A and 7B.
North Lincolnshire	Between point A43 (north side of Faulding Lane) shown on sheet 24 of the onshore works plans and Works Nos 7A and 7B.
North Lincolnshire	Between point A54 (west side of Habrough Road south of A160) shown on sheet 24 of the onshore works plans and Works Nos 7A and 7B.
North Lincolnshire	Between point A55 (east side of Habrough Road) shown on sheet 24 of the onshore works plans and Works Nos 7A and 7B.
North Lincolnshire	Between point A44 (residential access road north of A160, west of A160/Habrough Road roundabout) shown on sheet 24 of the onshore works plans and Works Nos 7A and 7B.
North Lincolnshire	Between point A45 (north-east side of Top Road) shown on sheet 25 of the onshore works plans and Works Nos 7A and 7B.
North Lincolnshire	Between point A46 (south side of Church Lane) shown on sheet 25 of the onshore works plans and Works Nos 7A and 7B.
North Lincolnshire	Between point A47 (north side of Church Lane) shown on sheet 25 of the onshore works plans and Works Nos 7A and 7B.
North Lincolnshire	Between point A48 (south side of Chase Hill Road west of Eastfield Road) shown on sheet 26 of the onshore works plans and Works Nos 7A and 7B.
North Lincolnshire	Between point A49 (north side of Chase Hill Road west of Eastfield Road) shown on sheet 26 of the onshore works plans and Works Nos 7A and 7B.
North Lincolnshire	Between point A50 (Brick Lane, north side of Chase Hill Road) shown on sheet 26 of the onshore works plans and Works Nos 7A and 7B.

SCHEDULE E

Article 19

Land in which only new rights etc., may be acquired

<i>(1)</i> <i>Number of land shown on land plans</i>	<i>(2)</i> <i>Purpose for which rights may be acquired</i>
1, 2, 3, 4, 19, 20, 21, 22, 23, 24, 26, 27, 28	To install, retain, maintain and operate apparatus (and to impose requirements for its protection) within an up to 320 metre corridor within the Order land and to obtain access for such purposes
5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 25, 29, 30, 31, 32	To ground and lay anchor for vessels within the Order land
509, 510	To install, retain, maintain and operate apparatus (and to impose requirements for its protection) within the Order land and to obtain access for such purposes
33, 511	To install, maintain and use an access track and to obtain access for such purposes
35	To install, retain, maintain and operate transition jointing bays for the connection of offshore cable circuits to onshore cable circuits and apparatus (and to impose requirements for their protection) within an up to 150 metre corridor within the Order land and to obtain access for such purposes
37, 38, 39, 67, 68, 69, 79, 80, 81, 83, 84, 85, 86, 87, 88, 92, 96, 97, 98, 99, 107, 113, 119, 123, 131, 132, 134, 135, 139, 140, 141, 147, 148, 149, 150, 151, 152, 153, 155, 161, 168, 169, 173, 175, 180, 183, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 211, 215, 216, 217, 218, 219, 220, 221, 222, 223, 228, 232, 234, 248, 249, 250, 251, 252, 255, 256, 261, 262, 268, 275, 281, 282, 285, 289, 291, 293, 294, 295, 296, 297, 298, 299, 300, 307, 308, 309, 310, 311, 312, 313, 314, 317, 325, 327, 332, 333, 334, 338, 339, 342, 347, 352, 360, 361, 364, 365, 394, 403, 404, 411, 420, 421, 424, 426, 429, 430, 431, 432, 433, 434, 438, 439, 440, 445, 448, 449, 450, 451, 452, 453, 454, 459, 460, 461, 465, 466, 468, 471, 472, 476, 482, 486, 487, 488, 489, 490, 491, 492, 497, 499, 503	To install, retain, maintain and operate apparatus (and to impose requirements for its protection) within an up to 30 metre corridor within the Order land and to obtain access for such purposes
45, 46, 47, 48, 49	To install, maintain and use an access track and to obtain access for the purposes only of maintaining and operating the authorised project
273	To install, retain, maintain and operate apparatus (and to impose requirements for its protection) within an up to 30 metre corridor within the Order land and to obtain access for

	such purposes but not extending to breaking open the surface of the Order land
388, 437	To install, retain, maintain and operate apparatus (and to impose requirements for its protection) within an up to 30 metre corridor within the Order land
507, 519	To install, retain, maintain and operate apparatus (and to impose requirements for its protection) within the Order land and to install, maintain and use an access track and to obtain access for such purposes
512, 521	To install, retain, maintain and operate services (and to impose requirements for their protection) within the Order land and to install, maintain and use an access road and to obtain access for such purposes

SCHEDULE F

Article 19

Modification of compensation and compulsory purchase enactments for creation of new rights

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 and in the case of the imposition of a restrictive covenant as they apply as respects compensation on the compulsory purchase of land and interests in land.

2.—(1) Without prejudice to the generality of paragraph 1, the Land Compensation Act 1973(a) has effect subject to the modifications set out in sub-paragraphs (2) and (3).

(2) In section 44(1) (compensation for injurious affection), as it applies to compensation for injurious affection under section 7 of the 1965 Act as substituted by paragraph 4—

- (a) for the words “land is acquired or taken” there are substituted the words “a right or restrictive covenant over land is purchased from or imposed on”; and
- (b) for the words “acquired or taken from him” there are substituted the words “over which the right is exercisable or the restrictive covenant enforceable”.

(3) In section 58(1) (determination of material detriment where part of house etc. proposed for compulsory acquisition), as it applies to determinations under section 8 of the 1965 Act as substituted by paragraph 5—

- (a) for the word “part” in paragraphs (a) and (b) there are substituted the words “a right over or restrictive covenant affecting land consisting”;
- (b) for the word “severance” there are substituted the words “right or restrictive covenant over or affecting the whole of the house, building or manufactory or of the house and the park or garden”;
- (c) for the words “part proposed” there are substituted the words “right or restrictive covenant proposed”; and
- (d) for the words “part is” there are substituted the words “right or restrictive covenant is”.

(a) 1973 c.26.

Application of the 1965 Act

3.—(1) The 1965 Act has effect with the modifications necessary to make it apply to the compulsory acquisition under this Order of a right by the creation of a new right, or to the imposition under this Order of a restrictive covenant, as it applies to the compulsory acquisition under this Order of land, so that, in appropriate contexts, references in that Act to land are 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 restrictive covenant imposed or to be imposed; or
- (b) the land over which the right is or is to be exercisable or the restrictive covenant is or is to be enforceable.

(2) Without prejudice to the generality of sub-paragraph (1), Part 1 of the 1965 Act applies in relation to the compulsory acquisition under this Order of a right by the creation of a new right, or in relation to the imposition of a restrictive covenant, with the modifications specified in the following provisions of this Schedule.

4. For section 7 of the 1965 Act (measure of compensation) there is substituted the following section—

“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 restrictive 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.”.

5. For section 8 of the 1965 Act (provisions as to divided land) there is substituted the following section—

“8.—(1) Where in consequence of the service on a person under section 5 of this Act of a notice to treat in respect of a right over, or a restrictive covenant affecting, land consisting of a house, building or manufactory or of a park or garden belonging to a house (“the relevant land”)—

- (a) a question of disputed compensation in respect of the purchase of the right or the imposition of the restrictive covenant would apart from this section fall to be determined by the Upper Tribunal (“the tribunal”); and
- (b) before the tribunal has determined that question the tribunal is satisfied that the person has an interest in the whole of the relevant land and is able and willing to sell that interest and—
 - (i) where that land consists of a house, building or manufactory, that the right cannot be purchased or the restrictive covenant imposed without material detriment to that land; or
 - (ii) where that land consists of such a park or garden, that the right cannot be purchased or the restrictive covenant imposed without seriously affecting the amenity or convenience of the house to which that land belongs,

the Hornsea Two Offshore Wind Farm Order 201[x](a) (“the Order”), in relation to that person, ceases to authorise the purchase of the right or the imposition of a restrictive covenant and be deemed to authorise the purchase of that person’s interest in the whole of the relevant land including, where the land consists of such a park or garden, the house to which it belongs, and the notice is deemed to have been served in respect of that interest on such date as the tribunal directs.

(a) S.I. 201[X].

(2) Any question as to the extent of the land in which the Order is deemed to authorise the purchase of an interest by virtue of subsection (1) of this section is to be determined by the tribunal.

(3) Where in consequence of a determination of the tribunal that it is satisfied as mentioned in subsection (1) of this section the Order is deemed by virtue of that subsection to authorise the purchase of an interest in land, the acquiring authority may, at any time within the period of 6 weeks beginning with the date of the determination, withdraw the notice to treat in consequence of which the determination was made; but nothing in this subsection prejudices any other power of the authority to withdraw the notice.”.

6. 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) (failure by owners to convey);
- (b) paragraph 10(3) of Schedule 1 (owners under incapacity);
- (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.

7. Section 11 of the 1965 Act (powers of entry) is so modified as to secure that, as from the date on which the acquiring authority has served notice to treat in respect of any right, 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 12 (penalty for unauthorised entry) and 13 (entry on warrant in the event of obstruction) of the 1965 Act are modified correspondingly.

8. Section 20 of the 1965 Act (protection for interests of tenants at will, etc.) 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.

9. Section 22 of the 1965 Act (interests omitted from purchase) 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 to enforce the restrictive covenant imposed, subject to compliance with that section as respects compensation.

SCHEDULE G

Article 26

Land in which temporary possession may be taken

PART 1(a)

<i>(1)</i> Area	<i>(2)</i> Number of land shown on land plans	<i>(3)</i> Purpose for which temporary possession may be taken	<i>(4)</i> Relevant part of the Authorised project
In the County of Lincolnshire, East Lindsey District	36	Worksite and access for the construction and carrying out of the authorised project	Works No. 5a, 5b, 6a, 6b, 7a and 7b
In the County of Lincolnshire, East Lindsey District	40, 41, 43, 44, 70, 71, 77, 93, 94, 100, 101, 102, 103, 104, 105, 106, 108, 109, 118, 124, 125, 126, 130, 137, 138, 154, 157, 158, 179, 184, 185	Worksite and access for the construction and carrying out of the authorised project	Works No. 7a and 7b
In the County of Lincolnshire, East Lindsey District	34, 50, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 73, 74, 76, 78, 89, 90, 91, 110, 111, 112, 114, 115, 116, 117, 120, 121, 122, 127, 128, 129, 142, 143, 156, 159, 160, 162, 164, 165, 166, 167, 170, 171, 177, 178, 181, 182	Laying and use of temporary vehicular access track	Works No. 7a and 7b
In the County of Lincolnshire, East Lindsey District	172, 174, 176	Laying of temporary public footpaths and bridleways	Works No. 7a and 7b
In the County of North East Lincolnshire	213, 214, 224, 226, 229, 230, 245, 246, 247, 257, 258, 259, 277, 278, 280, 283, 284, 287, 288, 301, 302, 318, 319, 322, 324, 330, 331, 335, 336, 345, 346, 350, 351, 353, 356, 359, 362, 363, 372, 374, 392, 393, 395, 397, 401, 402, 405, 406, 407, 408, 412, 414, 419	Worksite and access for the construction and carrying out of the authorised project	Works No. 7a and 7b
In the County of North East Lincolnshire	209, 210, 212, 231, 239, 241, 242, 264, 265, 266, 267, 269, 270, 271, 272, 274,	Laying and use of temporary vehicular access track	Works No. 7a and 7b

	315, 316, 320, 337, 340, 341, 343, 355, 368, 370, 371, 375, 376, 377, 379, 381, 416, 418		
In the County of North East Lincolnshire	244, 290, 292, 326, 329	Laying of temporary public footpaths and bridleways	Works No. 7a and 7b
In the County of North Lincolnshire	422, 423, 425, 427, 435, 436, 441, 442, 443, 444, 446, 455, 456, 458, 462, 463, 467, 469, 470, 473, 474, 477, 478, 479, 483, 484, 493, 496, 498	Worksite and access for the construction and carrying out of the authorised project	Works No. 7a and 7b
In the County of North Lincolnshire	513, 514, 515, 520, 522	Laying and use of temporary vehicular access track	Works No. 8a, 8b, 9a, 9b and 10
In the County of North Lincolnshire	502, 504, 505	Worksite and access for the construction and carrying out of the authorised project	Work No. 7a, 7b, 8a, 8b, 9a and 9b
In the County of North Lincolnshire	508, 517, 518	Worksite and access for the construction and carrying out of the authorised project	Works No. 8a, 8b, 9a and 9b

PART 1(b)

<i>(1)</i> Area	<i>(2)</i> Number of land shown on land plans	<i>(3)</i> Purpose for which temporary possession may be taken
In the County of Lincolnshire, East Lindsey District	72, 95, 136, 186	Compensation Compound in respect of worksite and access
In the County of Lincolnshire, East Lindsey District	73, 185	Compensation Access in respect of vehicular access track to and from a Compensation Compound
In the County of North East Lincolnshire	225, 233, 235, 243, 260, 276, 279, 286, 321, 328, 344, 348, 349, 354, 373, 396, 398, 409, 410, 413	Compensation Compound in respect of worksite and access
In the County of North East Lincolnshire	239, 241, 242, 263, 293, 294, 296, 297, 355, 399, 400	Compensation Access in respect of vehicular access track to and from a Compensation Compound
In the County of North Lincolnshire	428, 447, 457, 464, 475, 485, 494, 495, 501	Compensation Compound in respect of worksite and access

PART 2(a)

<i>(1)</i>	<i>(2)</i>
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<i>Area</i>	<i>Number of land shown on land plans</i>
In the County of Lincolnshire, East Lindsey District	42, 51, 52, 55, 75, 82, 133, 144, 145, 146, 163
In the County of North East Lincolnshire	236, 237, 238, 240, 253, 254, 303, 304, 305, 306, 323, 357, 358, 366, 367, 369, 378, 380, 415, 417
In the County of North Lincolnshire	480, 481, 516

PART 2(b)

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Number of land shown on land plans</i>
In the County of North East Lincolnshire	240

SCHEDULE H

Article 36

Deemed marine licence under the Marine and Coastal Access Act 2009, Deemed Marine Licence A1: Project A – Generation Assets

PART 1

Licensed Marine Activities

Interpretation

1.—(1) In this licence—

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“ancillary vessel” means any vessel other than a construction vessel or a survey vessel;

“ancillary works” means the ancillary works described in paragraph 2 of Part 1 of this licence which are not development within the meaning of section 32 of the 2008 Act;

“Annex 1 Habitat” means such habitat as defined under the EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora;

“authorised deposits” means the substances and articles specified in paragraph 2(3) of Part 1 of this licence;

“authorised development” means the development described in Part 1 of Schedule A of the Order, which is development within the meaning of section 32 of the 2008 Act;

“authorised project” means the authorised development and the ancillary works authorised by the Order;

“authorised scheme” means Work No. 1A described in paragraph 2 of Part 1 of this licence;

“commence” means the first carrying out of any part of the licensed activities, save for pre-construction surveys and monitoring, and “commencement” shall be construed accordingly;

“construction vessel” means any vessel involved in the course of or used for the construction and/or maintenance of the authorised project;

“debris” means items or equipment of a significant size left on the seabed being lost from survey, construction or maintenance vessels or the structures comprised within the authorised scheme;

“EIA Regulations” means the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009;

“electrical circuit” means a number of electrical conductors necessary to transmit electricity between two points within the authorised project; this comprises, in the case of HVAC transmission, three conductors which may be bundled as one cable, and, in the case of HVDC transmission two conductors, which may be attached together or take the form of single cables: the circuit may include one or more auxiliary cables (normally fibre optic cables) for the purpose of control, monitoring, protection or general communications;

“enforcement officer” means a person authorised to carry out enforcement duties under Part 4 of Chapter 3 of the 2009 Act;

“the Environmental Statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order;

“gravity base foundation” means either—

- (a) a structure principally of concrete and/or steel which rests on the seabed due either to its own weight and that of added ballast or to the weight of water above it, and may include associated equipment including suction piles, J-tubes and access platforms; or
- (b) a structure principally of concrete and/or steel consisting of a platform supported on two pontoons to which the platform is connected by columns which may be connected by braces;

“HVAC” means high voltage alternating current;

“HVDC” means high voltage direct current;

“the in-principle monitoring plan” means the document certified as the in-principle monitoring plan by the Secretary of State for the purposes of the Order;

“inter-array electrical circuits” means the circuits described in paragraph 2(2)(b) of Part 1 of this licence;

“jacket foundation” means a lattice construction comprising tubular members and joints which are fixed to the seabed with piles (either driven/drilled piles or suction piles) and which will include platforms and J-tubes and may include braced monopiles and a transition piece;

“the Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“LAT” means lowest astronomical tide;

“licensed activities” means the activities specified in Part 1 of this licence;

“the licence conditions” means the conditions set out in Part 2 of this licence;

“maintain”, unless otherwise provided for, includes inspect, repair, adjust, alter, remove, reconstruct and replace any of the authorised development, and any derivative of “maintain” shall be construed accordingly;

“the Marine Management Organisation” or “MMO” means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence or any successor to its statutory functions;

“Marine Noise Registry” means the online database accessible at [[insert link to MNR](#)] and maintained by the Joint Nature Conservation Committee on behalf of Defra that records the spatial and temporal distribution of impulsive noise generating activities in UK seas in order that they can be analysed to determine whether they may potentially compromise the achievement of Good Environmental Status;

“the Maritime and Coastguard Agency” or “MCA” means the executive agency of the Department for Transport or any successor to its statutory functions;

“mean high water springs” or “MHWS” means the highest level which spring tides reach on average over a period of time;

“mean low water springs” or “MLWS” means the lowest level which spring tides reach on average over a period of time;

“monopile foundation” comprises a large diameter steel or concrete tube or pile driven vertically into the seabed, J-tubes and platforms and may include external structural devices such as bracing members or steel anchor wires and a transition piece;

“Natural England” means the body established by section 1 of the Natural Environment and Rural Communities Act 2006 or any successor to its statutory functions;

“Notice to Mariners” includes any Notice to Mariners which may be issued by Admiralty, Trinity House, Queen’s harbourmasters, government departments and harbour and pilotage authorities;

“offshore accommodation platform” means a platform housing or incorporating temporary accommodation, landing ports for vessels and/or helicopters, standby electricity generation equipment, marking and lighting and other equipment facilities to assist in the co-ordination of marine activities related to the authorised scheme;

“offshore HVAC collector substation” means a structure serving as a collection point for the inter-array electrical circuits and containing equipment with the purpose of transforming the electricity generated at the wind turbines to a higher voltage; it may also include a helicopter platform;

“offshore HVDC converter substation” means a structure which contains equipment to convert HVAC electricity to HVDC electricity; it may also include a helicopter platform;

“offshore reactive compensation substation” means a structure housing electrical reactors for the purpose of limiting electrical losses in the course of HVAC transmission by providing reactive compensation; it may also include a helicopter platform;

“the offshore works plans” means the part of the works plans described as the offshore works plans;

“the Order limits” means the limits shown on the works plans within which the authorised project may be carried out;

“the Order” means the Hornsea Two Offshore Wind Farm Order 201[X];

“suction pile” means a large diameter steel cylinder which is fixed to the base of the foundation and partially penetrates the seabed and remains in place using its weight and hydrostatic pressure differential;

“survey vessels” means the vessels licensed to carry out environmental or engineering surveys;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“the UK Hydrographic Office” means the Hydrographic Office of the Ministry of Defence, Taunton, Somerset TA1 2DN or any replacement body or successor to its functions;

“undertaker” means Optimus Wind Limited or, to the extent that the benefit of the provisions of the Order and related statutory rights in relation to Work No. 1A and such associated development or ancillary works has been transferred under article 35 of the Order to another person, that other person;

“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 and including ancillary vessels and construction vessels;

“VHF” means very high frequency;

“Wind Farm Area” means the area within the limits of deviation for Work No. 1A of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“wind turbine generator” or “wind turbine” means a structure comprising any or all of a tower, rotor, blades, nacelle and ancillary electrical and other equipment or structures which may include lighting and a helicopter platform, fixed to a foundation;

“working day” means any day other than a Saturday, Sunday or public holiday in England and Wales;

“Work No. 1A” means an offshore wind generating station within the Wind Farm Area and described as Work No. 1A in paragraph 2 of Part 1 of this licence;

“Work No. 1B” means an offshore wind generating station within the Wind Farm Area and described as Work No. 1B in Part 1 of Schedule A of the Order;

“Work No. 2A” means up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B;

“Work No. 2B” means up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B; and

“the works plans” means the plans certified as the works plans by the Secretary of State for the purposes of the Order divided into three parts and described as the offshore works plans, the intertidal works plans and the onshore works plans.

(2) A reference to any statute, order, regulation or similar instrument shall 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 subsequent re-enactment.

(3) Unless otherwise indicated—

(a) all times shall be taken to be Greenwich Mean Time (GMT);

(b) all co-ordinates shall be taken to be latitude and longitude degrees, minutes and seconds to three decimal places in WGS84 Datum.

(4) Except where otherwise notified in writing by the relevant organisation, the primary point of contact with the organisations listed below and the address for returns and correspondence shall be—

(a) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle upon Tyne

NE4 7YH

Tel: 0300 123 1032

E-mail: marine.consents@marinemmanagement.org.uk

(b) Marine Management Organisation (referred to as the “MMO Coastal Office”)

Neville House

Central Riverside

Bell Street

North Shields

Tyne and Wear

NE30 1LJ

Tel (24-hour answer phone): 0191 257 4520 or 0191 257 0159

E-mail: northshields@marinemmanagement.org.uk

(c) Trinity House

Tower Hill

London

EC3N 4DH

- Tel: 020 7481 6900
- (d) The United Kingdom Hydrographic Office
Admiralty Way
Taunton
Somerset
TA1 2DN
Tel: 01823 337 900
- (e) Maritime and Coastguard Agency
Navigation Safety Branch
Bay 2/04
Spring Place
105 Commercial Road
Southampton
SO15 1EG
Tel: 023 8032 9191
- (f) Centre for Environment, Fisheries and Aquaculture Science
Pakefield Road
Lowestoft
Suffolk
NR33 0HT
Tel: 01502 562 244
- (g) Natural England
Foss House
Kings Pool
1-2 Peasholme Green
York
North Yorkshire
YO1 7PX
Tel: 0300 060 1911
- (h) Historic Buildings and Monuments Commission for England (referred to as “Historic England”)
Eastgate Court
195-205 High Street
Guildford
GU1 3EH
Tel: 01483 252 057

Details of licensed activities

2.—(1) This licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities pursuant to section 66(1) of the 2009 Act, subject to the licence conditions—

- (a) the deposit at sea of the substances and articles specified in sub-paragraph (3) below;
- (b) the construction of works in or over the sea and/or on or under the sea bed;

- (c) dredging for the purposes of seabed preparation for foundation works and/or electrical circuit works;
- (d) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation;
- (e) the disposal at disposal site reference HU211 of up to 2,427,666 m³ comprising inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work No. 1A provided that the combined total volume of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work Nos. 1A and 1B disposed of at disposal site reference HU211 does not exceed 2,427,666 m³;
- (f) the disposal at disposal site reference HU211 of up to 400,852 m³ comprising inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work No. 1A provided that the combined total volume of inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work Nos. 1A and 1B disposed of at disposal site reference HU211 does not exceed 400,852 m³; and
- (g) the removal of the substances and articles specified in sub-paragraph (3) below.

(2) Such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 1A—An offshore wind generating station within the Wind Farm Area comprising—

- (a) up to 300 (inclusive) wind turbine generators fixed to the seabed provided that the combined total of wind turbine generators constructed in whole or in part within Work Nos. 1A and 1B does not exceed 300;
- (b) a network of subsea inter-array electrical circuits connecting the structures comprised in Work No. 1A—
 - (i) with each other
 - (ii) with any other structure located within the Wind Farm Area; and
 - (iii) with the network of electrical circuits comprised in Work Nos. 1B, 2A and 2B;
- (c) up to two offshore accommodation platforms fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter substations within Work No. 2A by an unsupported steel bridge and up to two electrical circuits each connecting an accommodation platform to either an offshore HVAC collector substation or to a wind turbine generator in order to power the accommodation platform, provided that the combined total of offshore accommodation platforms constructed in whole or in part within Work Nos. 1A and 1B does not exceed two.

Co-ordinates for the Wind Farm Area (limits of deviation for Work No. 1A, 1B, 2A and 2B)—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E
5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E

12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E
17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 50' 7.210" N	1° 26' 59.953" E

And in connection with such Work No. 1A, further associated development as may be necessary or expedient in connection with the authorised scheme within the Order limits and which fall within the scope of the environmental impact assessment recorded in the Environmental Statement;

And in connection with such Work No. 1A, ancillary works consisting of works and operations within the Order limits comprising temporary anchorage of vessels and buoys, beacons, fenders and other navigational warning or ship impact protection works.

(3) The substances or articles authorised for deposit at sea and removal are—

- (a) iron and steel;
- (b) stone and rock;
- (c) concrete;
- (d) sand and gravel;
- (e) plastic and synthetic; and
- (f) material extracted from within the Wind Farm Area during construction drilling and seabed preparation for foundation works.

(4) The grid co-ordinates for disposal site reference HU211 are—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E
5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E

17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 50' 7.210" N	1° 26' 59.953" E

(5) The provisions of section 72 of the 2009 Act shall apply to this licence, save that the provisions of section 72(7) and 72(8) relating to the transfer of the licence shall only apply to a transfer not falling within article 35 of the Order.

Maintenance of authorised project

3.—(1) Subject to the other terms of this licence, the undertaker may at any time maintain the authorised project, except to the extent that this licence or an agreement made under this licence, provides otherwise. No maintenance works whose likely effects on the environment require to be assessed in accordance with the EIA Regulations and are not assessed in the environmental statement shall take effect, unless otherwise approved by the MMO.

(2) Where the MMO's approval is required under sub-paragraph (1), such consent must only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the MMO that the approval sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Duration

4. This licence shall remain in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 of the Energy Act 2004, 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.

PART 2

Licence Conditions

Design parameters

- 1.—(1) All wind turbine generators forming part of Work No. 1A must not—
- be more than 151 metres to the turbine hub when measured from LAT;
 - exceed a height of 276 metres from LAT to the upper tip of the vertical blade;
 - exceed a rotor diameter of 241.03 metres;
 - be less than 34.97 metres from LAT to the lowest point of the rotating blade;
 - be less than 810 metres from the nearest wind turbine generator in all directions.
- (2) References to the location of a wind turbine generator are references to the centre point of the turbine.
- (3) Any offshore accommodation platform forming part of Work No. 1A must not—
- exceed 64 metres in height above LAT;
 - have a platform which at its greatest extent exceeds 3,600 square metres or 60 metres in width.
- (4) The diameter of the electrical circuits comprising the electrical circuits within Work No. 1A must not exceed 170 mm.

(5) The electrical circuits comprised in Work No. 1A must be installed by use of, or a combination of, ploughing, trenching, jetting, rock-cutting, dredging, surface laying with post lay burial, and where ground conditions make burial impracticable, by surface laying.

2.—(1) The undertaker must in fixing to the seabed any structures comprised in Work No. 1A use one of the following methods—

- (a) monopile foundations;
- (b) jacket foundations supported by piles; or
- (c) gravity base foundations.

(2) The following parameters apply in respect of the foundation methods used to fix wind turbine generators comprised in Work No. 1A to the seabed—

- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
- (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 2,827 square metres;
 - (ii) the number of piles per jacket must not exceed 12;
 - (iii) the diameter of each pile must not exceed six metres;
- (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and scour protection for each individual structure must not exceed 12,596 square metres;
 - (ii) the number of piles per jacket must not exceed four;
 - (iii) the diameter of each pile must not exceed 21.1 metres;
- (d) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 7,543 square metres;
 - (ii) the seabed levelling diameter must not exceed 78 metres;
 - (iii) the cone diameter must not exceed 58 metres at its base.

(3) The following parameters apply in respect of the foundation methods used to fix offshore accommodation platforms to the seabed—

- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
- (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,414 square metres;
 - (ii) the number of piles must not exceed eight;
 - (iii) the diameter of each pile must not exceed three metres;
- (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the number of piles per jacket must not exceed four;
 - (iii) the diameter of each pile must not exceed 15 metres;
- (d) where gravity base foundations are used—

- (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
- (ii) the seabed levelling diameter must not exceed 70 metres;
- (iii) the cone diameter must not exceed 50 metres at its base.

(4) The total volume of scour protection for the wind turbine generators and the offshore accommodation platforms forming part of Work No. 1A must not exceed 4,761,555 m³ provided that the combined total volume of scour protection for the wind turbine generators and the offshore accommodation platforms forming part of Work Nos. 1A and 1B does not exceed 4,761,555 m³.

Navigational practice, safety and emergency response

3.—(1) No part of the authorised scheme seaward of MHWS is to commence until the MMO, in consultation with the MCA, has given written approval for an Emergency Response Co-operation Plan which includes full details of the emergency co-operation plans for the construction, operation and decommissioning phases of that part of the authorised scheme in accordance with the MCA recommendations contained within MGN 371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues”.

(2) No part of the authorised scheme seaward of MHWS is to commence 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 development, adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN 371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (including its annexes).

(3) The Emergency Response Co-operation Plan must be implemented as approved, unless otherwise agreed in writing by the MMO, in consultation with the MCA.

Aids to navigation

4.—(1) The undertaker must during the whole period from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning—

- (a) 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;
- (b) colour all structures in the authorised scheme as directed by Trinity House;
- (c) keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MWHS including—
 - (i) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
 - (ii) notice within 24 hours of any aids to navigation being established by the undertaker; and
 - (iii) notice within five working days of completion of construction of the authorised scheme.
- (d) submit reports to Trinity House detailing the working condition of aids to navigation quarterly, or as requested by Trinity House;
- (e) 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.

(2) Except as otherwise required by Trinity House under paragraph (1), the undertaker must colour all structures comprised in Work No. 1A yellow (colour code RAL 1023) from at least HAT to a height as directed by Trinity House. Unless the MMO otherwise directs, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Notifications and inspections

5.—(1) The undertaker must ensure that—

- (a) a copy of this licence and any subsequent amendments or revisions to it are provided to—
 - (i) all agents and contractors notified to the MMO in accordance with the conditions of this licence; and
 - (ii) the masters and transport managers responsible for the vehicles notified to the MMO in accordance with the conditions of this licence.
- (b) Within 28 days of receipt of a copy of this licence those persons referred to in subparagraph (a) shall provide a completed confirmation form to the MMO confirming their understanding of the terms and conditions of this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 11 are permitted to carry out the licensed activities.

(3) Copies of this licence shall 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 for the authorised deposits; and
- (c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits are to be made.

(4) The documents referred to in paragraph (1)(a) shall be available for inspection by an enforcement officer at the locations set out in paragraph (3) above at any time.

(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 construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Marine Licensing Team and the MMO Coastal Office in writing at least five working days prior to the commencement of the licensed activities or any part of them.

(7) The Kingfisher Information Service of Seafish, must be informed by email of details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part to kingfisher@seafish.co.uk—

- (a) at least two weeks prior to the construction of the authorised scheme or relevant part, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
- (b) on completion of the construction of the authorised scheme or relevant part.

Confirmation of notification must be provided to the MMO within 5 working days of notification to the Kingfisher Information Service of Seafish.

(8) The undertaker must ensure that a Notice to Mariners is issued at least ten working days prior to the commencement of the licensed activities advising of the commencement of licensed activities within the Wind Farm Area and the expected vessel routes from the local service ports to the location of the works comprised within the authorised scheme.

(9) The undertaker must ensure that the Notices to Mariners are updated and reissued at weekly intervals during construction activities and at least five days before any planned operation and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under licence condition 8(2)(a). Copies of all notices must be provided to the MMO within 10 working days of issue.

(10) The undertaker must notify—

- (a) the UK Hydrographic Office of commencement (within two weeks), progress and completion (within two weeks) of the authorised scheme in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO; and

- (b) the Defence Geographic Centre at least four weeks prior to the commencement of the authorised scheme, and of the progress and completion (within two weeks) of the authorised scheme, in order that all necessary amendments to aviation charts are made.

(11) In case of damage to, or destruction or decay of, the authorised scheme or any part of it seaward of MHWS 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, Trinity House, MCA and the UK Hydrographic Office.

(12) In the event that the Marine Noise Registry has gone live prior to the commencement of impact pile driving—

- (a) the licence holder must submit details on the expected location, start and end dates of impact pile driving to the Marine Noise Registry prior to the commencement of the impact pile driving; and
- (b) the licence holder must notify the MMO of the successful submission of the details required under sub-paragraph (a) within seven days of the submission.

(13) In the event that the Marine Noise Registry has gone live at the time of impact pile driving—

- (a) the licence holder must submit the exact locations and dates of impact pile driving to the Marine Noise Registry at six month intervals from the commencement of impact pile driving until the completion of impact pile driving. The final data must be submitted within 12 weeks of completion of impact pile driving; and
- (b) the licence holder must notify the MMO of the successful submission of the details required under sub-paragraph (a) within seven days of the submission.

Chemicals, drilling and debris

6.—(1) All chemicals used in the construction of the authorised scheme shall be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002 (as amended), unless otherwise agreed in writing by the MMO.

(2) The undertaker must ensure that any coatings or treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by Health and Safety Executive or the Environment Agency Pollution Prevention Guidelines.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances shall be undertaken so as to prevent releases into the marine environment including bunding of 110 per cent of the total volume of all reservoirs and containers.

(4) Where foundation drilling works are proposed, in the event that any system other than water based mud is proposed the MMO's written approval in relation to the proposed disposal of any arisings shall be obtained before the drilling commences, which disposal may also require a marine licence.

(5) The undertaker must ensure that, where practicable, any debris arising from the construction of the authorised scheme or temporary works placed seaward of MHWS are removed by a date no later than 28 days following the undertaker becoming aware of the debris after the completion of the authorised scheme (or by such later date as may be agreed in writing by the MMO). In the event that such debris cannot practicably be removed, the undertaker must notify the MMO, Trinity House and the MCA within seven days of becoming aware that the debris cannot practicably be removed.

(6) At least ten days prior to the commencement of the licensed activities the undertaker must submit to the MMO an audit sheet covering all aspects of the construction of the authorised scheme and no works shall commence until the audit sheet content has been agreed with the MMO. The audit sheet shall include details of—

- (a) loading facilities;
- (b) vessels;
- (c) equipment;

- (d) shipment routes;
- (e) working schedules; and
- (f) all components and materials to be used in the construction of the authorised scheme.

(7) The audit sheet shall be maintained throughout the construction of the authorised scheme and the MMO shall be notified of any changes on a fortnightly basis.

(8) In the event that the undertaker becomes aware that any of the materials on the audit sheet cannot be accounted for it must notify the MMO within 24 hours where possible, and in any event within five days of becoming aware using the Dropped Object Procedure Form. On receipt of 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. Local fishermen shall be invited to send a representative to be present during the survey. The MMO may require any new obstructions associated with the authorised scheme to be removed from the seabed at the undertaker's expense if reasonable to do so.

(9) All debris arising from the operation and maintenance of the authorised scheme must be reported to the MMO using the Dropped Object Procedure Form within 24 hours where possible, and in any event within five days of the undertaker becoming aware of the incident. On receipt of 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 any new obstructions associated with the authorised scheme to be removed from the seabed at the undertaker's expense if reasonable to do so.

(10) The undertaker must inform the MMO of the location and quantities of inert material and dredged material disposed of each month under this licence, by submission of a disposal return by 31 January each year for disposals occurring during the months July to December inclusive of the preceding year, and by 31 July each year for disposals occurring during the months January to June inclusive of that year.

(11) The undertaker must ensure that only—

- (a) inert material of natural origin and drilling mud, produced during construction drilling and seabed preparation for foundation works comprised in Work No. 1A;
- (b) dredged material produced during seabed preparation for foundation works comprised in Work No. 1A; and
- (c) inert material of natural origin and dredged material produced during cable laying preparation works comprised in Work No. 1A;

shall be disposed of at disposal site reference HU211.

(12) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete, cement mixing and washing areas must be contained to prevent run-off entering the water through the freeing ports.

(13) 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.

(14) The undertaker must notify the MMO within 48 hours of the completion of the final authorised disposal at disposal site reference HU211.

Force majeure

7. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit—

- (a) authorised deposits outside of the Wind Farm Area or disposal site reference HU211; or
- (b) unauthorised deposits within or outside of the Wind Farm Area or disposal site reference HU211

because the safety of human life and/or of the vessel is threatened, full details of the circumstances of the deposit shall be notified to the MMO within 48 hours.

Pre-construction plans and documentation

8.—(1) The licensed activities shall 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—

- (a) A plan to be agreed in writing with the MMO following appropriate consultation with Trinity House and the MCA 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) grid co-ordinates of the centre point of the proposed location for each wind turbine generator and offshore accommodation platform, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions;
 - (iii) proposed layout of all cables, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions; and
 - (iv) location and specification of all other aspects of the authorised scheme, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions.

(2) The licensed activities, or any phase of those activities, shall not commence until a Code of Construction Practice incorporating the following (insofar as relevant to that activity or phase of activity) has been submitted to and approved in writing by the MMO—

- (a) A construction and monitoring programme to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works; and
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction monitoring and related reporting in accordance with licence conditions 13, 14 and 15. The pre-construction survey programme and all pre-construction survey methodologies shall be submitted to the MMO for written approval by the MMO in consultation with the relevant statutory nature conservation body at least four months prior to the commencement of any survey works detailed within.
- (b) A construction method statement in accordance with the Environmental Statement and including details of—
 - (i) foundation installation, including any seabed preparation, drilling and disposal of arisings methods;
 - (ii) turbine installation, including any seabed preparation and scour protection;
 - (iii) installation of offshore accommodation platforms, including any seabed preparation and scour protection;
 - (iv) circuit installation, including any seabed preparation and circuit protection;
 - (v) contractors;
 - (vi) vessels; and
 - (vii) associated works.
- (c) A project environmental management and monitoring plan 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 seaward of MHWS. The plan must include a mechanism for reporting oil, fuel and chemical spills to the MMO Marine Pollution Response Team;

- (ii) a chemical risk analysis to include information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance;
 - (iii) a disposal plan detailing the locations, methods and timings of dredging and disposal, as well as disposal site monitoring requirements;
 - (iv) waste management and disposal arrangements;
 - (v) locations of any archaeological exclusion zones agreed as part of the written scheme of archaeological investigation approved under sub-paragraph (g) of this licence condition; and
 - (vi) the appointment and responsibilities of a fisheries liaison officer and an environmental liaison officer.
- (d) A scour protection management and cable armouring plan providing details of the need, type, sources, quantity, location and installation methods for scour protection and cable armouring to be within the scope of the environmental impact assessment recorded in the Environmental Statement.
- (e) In the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol following current best practice as advised by the statutory nature conservation agencies, which may include, but is not limited to—
- (i) identification of a Marine Mammal Mitigation Zone (MMMZ);
 - (ii) appointment of an appropriate number of suitably qualified marine mammal observer(s);
 - (iii) methods for the detection of marine mammals within the MMMZ whether visually (by the marine mammal observer(s)) or acoustically using Passive Acoustic Monitoring equipment or other means of detection;
 - (iv) a reporting methodology to enable efficient communication between the marine mammal observer(s) and the person responsible for approving commencement of piling;
 - (v) an appropriate soft start procedure whereby piling activities do not commence until an agreed time has elapsed and during which marine mammals have not been detected within the MMMZ;
 - (vi) where appropriate, methods for the application of acoustic deterrent devices; and
 - (vii) where appropriate, consideration of the use of noise reduction at source technologies.
- (f) Cable specification and installation plan, to include—
- (i) technical specification of offshore electrical circuits, including a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice; and
 - (ii) a detailed cable laying plan, including geotechnical data, cable laying techniques and a cable burial risk assessment encompassing the identification of any cable protection which exceeds 5% of navigable depth referenced to Chart Datum and, in the event that any area of cable protection exceeding 5% of navigable depth is identified, details of any steps (to be determined following consultation with the MCA) to be taken to ensure existing and future safe navigation is not compromised.
- (g) A written scheme of archaeological investigation in relation to the Wind Farm Area in accordance with industry good practice to include—
- (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for any further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) analysis and reporting of survey data to be submitted to the MMO within four months of survey completion;

- (iv) delivery of any mitigation including, where necessary, archaeological exclusion zones;
 - (v) monitoring during and post-construction, including a conservation programme for finds;
 - (vi) archiving of archaeological material; and
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme.
- (h) A plan for marine mammal monitoring setting out the circumstances in which marine mammal monitoring will be required and the monitoring to be carried out in such circumstances.
 - (i) An offshore project maintenance plan to be submitted to the MMO at least four months prior to commencement of the operation of the licensed activities and to include provision for the review and resubmission of the plan every three years during the operational phase.
 - (j) An aids to navigation management plan specifying how the undertaker will ensure compliance with Condition 4 from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning.
 - (k) 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.

(3) Prior to the submission of the pre-construction plans and documentation required by this condition the undertaker must provide a copy of the plans and documentation to the other undertakers under the Order.

(4) The undertaker shall participate in liaison meetings with other undertakers under the Order as requested from time to time by the MMO in writing in advance, which meetings shall be chaired by the MMO and shall consider such matters as are determined by the MMO relating to the efficient operation of a deemed marine licence where it has an impact on the efficient operation of any other deemed marine licence issued under the Order (including as varied or transferred).

(5) Prior to giving its approval under paragraph (2), the MMO must—

- (a) in relation to any programme, statement, plan or protocol submitted under sub-paragraphs (a) to (f), (h), (i) or (k), consult with the relevant statutory nature conservation body;
- (b) in relation to a scheme submitted under sub-paragraph (g), consult with Historic England; and
- (c) in relation to a plan submitted under sub-paragraph (j), consult with Trinity House.

9. The undertaker must ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS form with a digital copy of the report within 6 months of completion of construction of the authorised scheme. The undertaker must notify the MMO that the OASIS report has been submitted to the National Record of the Historic Environment within two weeks of the submission.

10.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 8—

- (a) shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or where an alternative date is agreed in writing by the MMO; and
- (b) shall be accompanied by—
 - (i) a statement confirming that the undertaker has complied with condition 8(3) in relation to such programme, statement, plan, protocol or scheme; and
 - (ii) any comments received by the undertaker from the other undertakers, or a statement from the undertaker confirming that no such comments were received.

(2) The undertaker must comply with the plans and documentation approved under licence condition 8 in carrying out the licensed activities unless otherwise agreed in writing by the MMO.

(3) Prior to agreeing an alternative date under paragraph (1)(a) or a change to approved details under paragraph (2) relating to any document in respect of which consultation is required under condition 8(5), the MMO must consult with the relevant consultation body referred to in that condition.

Reporting of engaged agents, contractors and vessels

11.—(1) The undertaker must provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities at least five working days prior to the commencement of the licensed activities or any part of them; and
- (b) each week during the construction of the authorised scheme, a completed Hydrographic Note H102 listing the construction vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO and MMO Coastal Office in writing prior to the agent, contractor or vessel engaging in the licensed activities. All agents, contractors and/or vessel operators will abide by the conditions set out in this licence.

Equipment and operation of vessels engaged in licensed activities

12.—(1) All vessels employed to perform the licensed activities shall be constructed and equipped to be capable of the proper performance of such activities in accordance with the conditions of this licence and shall comply with paragraphs (2) to (5).

(2) All motor powered vehicles must be fitted with—

- (a) electronic positioning aid to provide navigational data;
- (b) radar;
- (c) echo sounder; and
- (d) multi-channel VHF.

(3) All vessels' names or identification shall be clearly marked on the hull or superstructure of the vessel.

(4) All communication on VHF working frequencies shall be in English.

(5) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

Pre-construction monitoring and surveys

13.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant conservation body of proposed pre-construction surveys, including methodologies (including appropriate buffers, where relevant) and timings, and a proposed format and content for a pre-construction baseline report; and

- (a) the survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and shall 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; and
- (b) the baseline report proposals shall 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 shall make clear what post-construction comparison is intended and the justification for this being required.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this condition, so far as applicable, the pre-construction surveys will comprise, in outline—

- (a) a high resolution swath bathymetric survey to include a 100% coverage and a side scan sonar survey of the part(s) of the Wind Farm Area in which it is proposed to carry out construction works and disposal activities under this licence;
- (b) any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with Condition 8(2)(k);
- (c) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance (including Annex 1 Habitats) in the part(s) of the Wind Farm Area in which it is proposed to carry out construction works under this licence; and
- (d) any marine mammal monitoring required by the plan for marine mammal monitoring submitted in accordance with condition 8(2)(h).

(3) The undertaker must carry out the surveys agreed under paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

Construction monitoring

14.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant statutory nature conservation body of any proposed construction monitoring, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general 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 pre-construction position and/or will enable the validation or otherwise of key predictions in the Environmental Statement.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this condition, so far as applicable, the construction monitoring will comprise, in outline—

- (a) unless the MMO agrees otherwise in writing, measurements of noise generated by the installation of the first four foundations of each discrete foundation type to be constructed under this licence where driven or part-driven pile foundations are used;
- (b) recording of any visual sightings or acoustic detection of marine mammals where required as part of the marine mammal mitigation protocol under condition 8(2)(e); and
- (c) any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with Condition 8(2)(k).

(3) The undertaker must carry out the surveys approved under paragraph (1), including any further noise monitoring required in writing by the MMO under paragraph (4), 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 body.

(4) The results of the initial noise measurements monitored in accordance with paragraph (2)(a) must be provided to the MMO within six weeks of the installation of the first four foundations of each discrete foundation type. The assessment of this report by the MMO shall determine whether any further noise monitoring is required.

(5) Construction monitoring shall include vessel traffic monitoring by Automatic Identification System for the duration of the construction period. A report will be submitted to the MMO and the MCA at the end of each year of the construction period.

Post-construction

15.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant statutory nature conservation body of proposed post-construction surveys, including methodologies (including appropriate buffers, where relevant) and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and shall 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) Subject to receipt of specific proposals, so far as applicable, the post-construction surveys will comprise, in outline—

- (a) any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with Condition 8(2)(k);
- (b) a high resolution swath bathymetric survey of the following to assess any changes in bedform morphology—
 - (i) a representative sample area, as may be agreed in writing with the MMO, of the part(s) of the Wind Farm Area within which construction works and disposal activities were carried out under this licence, and such further monitoring as may be required to ensure that the cables have been buried or protected; and
 - (ii) an area not to exceed 125 per cent of the predicted scour area around a selection of turbines, such selection to be based on the desk based assessment.
- (c) a survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance (including Annex 1 Habitats) identified in the pre-construction survey in the part(s) of the Wind Farm Area in which construction works were carried out. The survey design will be informed by the results of the pre-construction benthic survey;
- (d) any marine mammal monitoring required by the plan for marine mammal monitoring submitted in accordance with condition 8(2)(h); and
- (e) vessel traffic monitoring by Automatic Identification System, for 28 days taking account seasonal variations in traffic patterns, for a maximum duration of one year post construction. A report will be submitted to the MMO and the MCA at the end of the first year after construction is completed.

(3) The undertaker must carry out the surveys agreed under 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 body.

(4) Prior to carrying out the survey required under paragraph (2)(b), the undertaker must submit to the MMO for written approval a desk based assessment (which takes account of all factors which influence scour) identifying the turbines with greatest potential for scour. The survey will be used to validate the desk based assessment and the significance of any differences between the predicted scour and recorded scour will be assessed in the survey report which will be submitted to the MMO. The need for further surveys will be agreed in writing with the MMO following submission of the first year of survey data.

Amendments to approved details

16.—(1) With respect to any condition of this licence which requires the licensed activities to be carried out in accordance with the plans and programmes approved by the MMO, the approved plans and programmes shall be 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 must be in accordance with the principles and assessments set out in the environmental statement. Such agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the

MMO that the subject matter of the agreement sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Offshore decommissioning

17. No decommissioning activities shall commence until plans for the carrying out of such activities have been submitted to and approved in writing by the MMO. The plans shall be submitted for approval at least four months prior to the intended start of the decommissioning activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

SCHEDULE I

Article 36

Deemed marine licence under the Marine and Coastal Access Act 2009, Deemed Marine Licence A2: Project A – Transmission Assets

PART 1

Licensed Marine Activities

Interpretation

1.—(1) In this licence—

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“ancillary vessel” means any vessel other than a construction vessel or a survey vessel;

“ancillary works” means the ancillary works described in paragraph 2 of Part 1 of this licence which are not development within the meaning of section 32 of the 2008 Act;

“Annex 1 Habitat” means such habitat as defined under the EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora;

“authorised deposits” means the substances and articles specified in paragraph 2(3) of Part 1 of this licence;

“authorised development” means the development described in Part 1 of Schedule A of the Order, which is development within the meaning of section 32 of the 2008 Act;

“authorised project” means the authorised development and the ancillary works authorised by the Order;

“authorised scheme” means Work Nos. 2A, 3A, 4A and 5A described in paragraph 2 of Part 1 of this licence;

“Cefas” means the Centre for Environment, Fisheries and Aquaculture Science or any replacement body;

“commence” means the first carrying out of any part of the licensed activities, save for pre-construction surveys and monitoring, and “commencement” shall be construed accordingly;

“construction vessel” means any vessel involved in the course of or used for the construction and/or maintenance of the authorised project;

“debris” means items or equipment of a significant size left on the seabed being lost from survey, construction or maintenance vessels or the structures comprised within the authorised scheme;

“EIA Regulations” means the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009;

“electrical circuit” means a number of electrical conductors necessary to transmit electricity between two points within the authorised project; this comprises, in the case of HVAC

transmission, three conductors which may be bundled as one cable, and, in the case of HVDC transmission two conductors, which may be attached together or take the form of single cables: the circuit may include one or more auxiliary cables (normally fibre optic cables) for the purpose of control, monitoring, protection or general communications;

“enforcement officer” means a person authorised to carry out enforcement duties under Part 4 of Chapter 3 of the 2009 Act;

“the Environmental Statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order;

“gravity base foundation” means either—

- (a) a structure principally of concrete and/or steel which rests on the seabed due either to its own weight and that of added ballast or to the weight of water above it, and may include associated equipment including suction piles, J-tubes and access platforms; or
- (b) a structure principally of concrete and/or steel consisting of a platform supported on two pontoons to which the platform is connected by columns which may be connected by braces;

“high tide” means the state of the tide when it reaches its highest level during a tidal cycle, as may be published from time to time on the United Kingdom Hydrographic Office Admiralty EasyTide Website, or such other publication as may be approved by the MMO;

“HVAC” means high voltage alternating current;

“HVDC” means high voltage direct current;

“the in-principle monitoring plan” means the document certified as the in-principle monitoring plan by the Secretary of State for the purposes of the Order;

“the intertidal area” means the area between mean high water springs and mean low water springs;

“the intertidal works plans” means the part of the works plans described as the intertidal works plans;

“jacket foundation” means a lattice construction comprising tubular members and joints which are fixed to the seabed with piles (either driven/drilled piles or suction piles) and which will include platforms and J-tubes and may include braced monopiles and a transition piece;

“the Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“LAT” means lowest astronomical tide;

“licensed activities” means the activities specified in Part 1 of this licence;

“the licence conditions” means the conditions set out in Part 2 of this licence;

“maintain”, unless otherwise provided for, includes inspect, repair, adjust, alter, remove, reconstruct and replace any of the authorised development, and any derivative of “maintain” shall be construed accordingly;

“major storm event” means a greater than one in ten year wave event within the offshore Order limits seaward of MHWS in terms of wave height, measured by reference to the height of waves recorded at the nearest wave buoy to the authorised scheme as agreed with the MMO, and the WaveNet data published by Cefas, or such other means of measurement as may be agreed with the MMO;

“the Marine Management Organisation” or “MMO” means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence or any successor to its statutory functions;

“Marine Noise Registry” means the online database accessible at [[insert link to MNR](#)] and maintained by the Joint Nature Conservation Committee on behalf of Defra that records the spatial and temporal distribution of impulsive noise generating activities in UK seas in order that they can be analysed to determine whether they may potentially compromise the achievement of Good Environmental Status;

“the Maritime and Coastguard Agency” or “MCA” means the executive agency of the Department for Transport or any successor to its statutory functions;

“mean high water springs” or “MHWS” means the highest level which spring tides reach on average over a period of time;

“mean low water springs” or “MLWS” means the lowest level which spring tides reach on average over a period of time;

“monopile foundation” comprises a large diameter steel or concrete tube or pile driven vertically into the seabed, J-tubes and platforms and may include external structural devices such as bracing members or steel anchor wires and a transition piece;

“Natural England” means the body established by section 1 of the Natural Environment and Rural Communities Act 2006 or any successor to its statutory functions;

“Notice to Mariners” includes any Notice to Mariners which may be issued by Admiralty, Trinity House, Queen’s harbourmasters, government departments and harbour and pilotage authorities;

“offshore accommodation platform” means a platform housing or incorporating temporary accommodation, landing ports for vessels and/or helicopters, standby electricity generation equipment, marking and lighting and other equipment facilities to assist in the co-ordination of marine activities related to the authorised scheme;

“offshore HVAC collector substation” means a structure serving as a collection point for the inter-array electrical circuits and containing equipment with the purpose of transforming the electricity generated at the wind turbines to a higher voltage; it may also include a helicopter platform;

“offshore HVDC converter substation” means a structure which contains equipment to convert HVAC electricity to HVDC electricity; it may also include a helicopter platform;

“offshore Order limits” means the limits shown on the offshore works plans and the intertidal works plans within which the authorised scheme may be carried out, whose grid co-ordinates are set out in paragraph 2(2) of Part 1 of this licence;

“offshore reactive compensation substation” means a structure housing electrical reactors for the purpose of limiting electrical losses in the course of HVAC transmission by providing reactive compensation; it may also include a helicopter platform;

“the offshore works plans” means the part of the works plans described as the offshore works plans;

“the Order limits” means the limits shown on the works plans within which the authorised project may be carried out;

“the Order” means the Hornsea Two Offshore Wind Farm Order 201[X];

“suction pile” means a large diameter steel cylinder which is fixed to the base of the foundation and partially penetrates the seabed and remains in place using its weight and hydrostatic pressure differential;

“survey vessels” means the vessels licensed to carry out environmental or engineering surveys;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“the UK Hydrographic Office” means the Hydrographic Office of the Ministry of Defence, Taunton, Somerset TA1 2DN or any replacement body or successor to its functions;

“undertaker” means Optimus Wind Limited or, to the extent that the benefit of the provisions of the Order and related statutory rights in relation to Works Nos. 2A, 3A, 4A or 5A and such associated development or ancillary works has been transferred under article 35 of the Order to another person, that other person;

“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 and including ancillary vessels and construction vessels;

“VHF” means very high frequency;

“Wind Farm Area” means the area within the limits of deviation for Work No. 2A of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“wind turbine generator” or “wind turbine” means a structure comprising any or all of a tower, rotor, blades, nacelle and ancillary electrical and other equipment or structures which may include lighting and a helicopter platform, fixed to a foundation;

“working day” means any day other than a Saturday, Sunday or public holiday in England and Wales;

“Work No. 2A” means up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B;

“Work No. 2B” means up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B;

“Work No. 3A” means up to two offshore reactive compensation substations fixed to the seabed in the event that the mode of transmission is HVAC;

“Work No. 3B” means up to two offshore reactive compensation substations fixed to the seabed in the event that the mode of transmission is HVAC;

“Work No. 4A” means a marine connection to the shore, including cable and pipeline crossing works which if the mode of transmission is HVAC, consists of up to eight subsea electrical circuits proceeding from the offshore HVAC collector substations comprised in Work No 2A via and connecting with the offshore reactive compensation substation comprised in Work No. 3A; or if the mode of transmission is HVDC, consists of up to two subsea electrical circuits proceeding from the offshore HVDC converter substations comprised in Work No 2A, and in either case terminates at Work No. 5A;

“Work No. 4B” means a marine connection to the shore, including cable and pipeline crossing works which if the mode of transmission is HVAC, consists of up to eight subsea electrical circuits proceeding from the offshore HVAC collector substations comprised in Work No 2B via and connecting with the offshore reactive compensation substation comprised in Work No. 3B; or if the mode of transmission is HVDC, consists of up to two subsea electrical circuits proceeding from the offshore HVDC converter substations comprised in Work No 2B, and in either case terminates at Work No. 5B;

“Work No. 5A” means a foreshore connection consisting of an extension of the electrical circuits comprised in Work No. 4A, including cable crossing works, crossing under the existing sea wall using trenchless duct and cable installation methods and terminating at the electrical circuit transition joint bays comprising Work No. 6A;

“Work No. 5B” means a foreshore connection consisting of an extension of the electrical circuits comprised in Work No. 4B, including cable crossing works, crossing under the existing sea wall using trenchless duct and cable installation methods and terminating at the electrical circuit transition joint bays comprising Work No. 6B;

“Work No. 6A” means up to eight underground electrical circuit transition joint bays in the vicinity of Horseshoe Point in the parish of North Coates in the county of Lincolnshire, housing the connections between the offshore electrical circuits comprised in Work No. 5A and the onshore electrical circuits;

“Work No. 6B” means up to eight underground electrical circuit transition joint bays in the vicinity of Horseshoe Point in the parish of North Coates in the county of Lincolnshire, housing the connections between the offshore electrical circuits comprised in Work No. 5B and the onshore electrical circuits; and

“the works plans” means the plans certified as the works plans by the Secretary of State for the purposes of the Order divided into three parts and described as the offshore works plans, the intertidal works plans and the onshore works plans.

(2) A reference to any statute, order, regulation or similar instrument shall 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 subsequent re-enactment.

(3) Unless otherwise indicated—

- (a) all times shall be taken to be Greenwich Mean Time (GMT);
- (b) all co-ordinates shall be taken to be latitude and longitude degrees, minutes and seconds to three decimal places in WGS84 Datum.

(4) Except where otherwise notified in writing by the relevant organisation, the primary point of contact with the organisations listed below and the address for returns and correspondence shall be—

(a) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle upon Tyne

NE4 7YH

Tel: 0300 123 1032

E-mail: marine.consent@marinemangement.org.uk

(b) Marine Management Organisation (referred to as the “MMO Coastal Office”)

Neville House

Central Riverside

Bell Street

North Shields

Tyne and Wear

NE30 1LJ

Tel (24-hour answer phone): 0191 257 4520 or 0191 257 0159

E-mail: northshields@marinemangement.org.uk

(c) Trinity House

Tower Hill

London

EC3N 4DH

Tel: 020 7481 6900

(d) The United Kingdom Hydrographic Office

Admiralty Way

Taunton

Somerset

TA1 2DN

Tel: 01823 337 900

(e) Maritime and Coastguard Agency

Navigation Safety Branch

Bay 2/04

Spring Place

- 105 Commercial Road
Southampton
SO15 1EG
Tel: 023 8032 9191
- (f) Centre for Environment, Fisheries and Aquaculture Science
Pakefield Road
Lowestoft
Suffolk
NR33 0HT
Tel: 01502 562 244
- (g) Natural England
Foss House
Kings Pool
1-2 Peasholme Green
York
North Yorkshire
YO1 7PX
Tel: 0300 060 1911
- (h) Historic Buildings and Monuments Commission for England (referred to as “Historic England”)
Eastgate Court
195-205 High Street
Guildford
GU1 3EH
Tel: 01483 252 057
- (i) Environment Agency
Waterside House
Waterside North
Lincoln
LN2 5HA
Tel: 03708 506 506

Details of licensed activities

2.—(1) This licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities pursuant to section 66(1) of the 2009 Act, subject to the licence conditions—

- (a) the deposit at sea of the substances and articles specified in sub-paragraph (3) below;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) dredging for the purposes of seabed preparation for foundation works and/or electrical circuit works;
- (d) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation;
- (e) the disposal at disposal site reference HU211 of up to 324,454 m³ comprising inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for

foundation works comprised in Work No. 2A provided that the combined total volume of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work Nos. 2A and 2B disposed of at disposal site reference HU211 does not exceed 324,454 m³;

- (f) the disposal at disposal site reference HU211 of up to 92,048 m³ comprising inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work Nos. 2A and 4A provided that the combined total volume of inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work Nos. 2A, 2B, 4A and 4B disposed of at disposal site reference HU211 does not exceed 92,048 m³;
- (g) the disposal at disposal site reference HU209 of up to 38,485 m³ comprising inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work No. 3A provided that the combined total volume of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work Nos. 3A and 3B disposed of at disposal site reference HU209 does not exceed 38,485 m³;
- (h) the disposal at disposal site reference HU209 of up to 1,269,000 m³ comprising inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work No. 4A provided that the combined total volume of inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work Nos. 4A and 4B disposed of at disposal site reference HU209 does not exceed 1,269,000 m³;
- (i) the disposal at disposal site reference HU210 of up to 131,000 m³ comprising inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work No. 4A provided that the combined total volume of inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work Nos. 4A and 4B disposed of at disposal site reference HU210 does not exceed 131,000 m³; and
- (j) the removal of the substances and articles specified in sub-paragraph (3) below.

(2) Such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 2A

Up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B provided that—

- (a) the combined total of offshore HVAC collector substations constructed in whole or in part within Work Nos. 2A and 2B does not exceed six; and
- (b) the combined total of offshore HVDC converter substations constructed in whole or in part within Work Nos. 2A and 2B does not exceed two.

Co-ordinates for the Wind Farm Area (limits of deviation for Work No. 2A)—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E
5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E

8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E
17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 50' 7.210" N	1° 26' 59.953" E

Work No. 3A

In the event that the mode of transmission is HVAC, up to two offshore reactive compensation substations fixed to the seabed at latitude point 53° 37' 54.291" N and longitude point 0° 55' 59.731" E and at latitude point 53° 38' 9.295" N and longitude point 0° 55' 49.576" E subject to deviation within the following limits of deviation, provided that the combined total of offshore reactive compensation substations constructed in whole or in part within Work Nos. 3A and 3B does not exceed two—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 38' 1.918" N	0° 55' 55.183" E
2	53° 38' 2.362" N	0° 55' 58.099" E
3	53° 38' 2.438" N	0° 56' 0.367" E
4	53° 38' 2.185" N	0° 56' 3.394" E
5	53° 38' 1.735" N	0° 56' 5.560" E
6	53° 38' 1.074" N	0° 56' 7.567" E
7	53° 37' 59.900" N	0° 56' 9.900" E
8	53° 37' 58.446" N	0° 56' 11.733" E
9	53° 37' 57.216" N	0° 56' 12.723" E
10	53° 37' 55.456" N	0° 56' 13.477" E
11	53° 37' 54.094" N	0° 56' 13.597" E
12	53° 37' 52.296" N	0° 56' 13.156" E
13	53° 37' 51.011" N	0° 56' 12.387" E
14	53° 37' 49.821" N	0° 56' 11.266" E
15	53° 37' 48.441" N	0° 56' 9.279" E
16	53° 37' 47.358" N	0° 56' 6.825" E
17	53° 37' 46.776" N	0° 56' 4.750" E
18	53° 37' 46.409" N	0° 56' 2.540" E
19	53° 37' 46.268" N	0° 56' 0.258" E
20	53° 37' 46.357" N	0° 55' 57.969" E
21	53° 37' 46.828" N	0° 55' 55.017" E
22	53° 37' 47.678" N	0° 55' 52.316" E

23	53° 37' 48.540" N	0° 55' 50.538" E
24	53° 37' 49.567" N	0° 55' 49.029" E
25	53° 37' 51.143" N	0° 55' 47.509" E
26	53° 37' 52.881" N	0° 55' 46.618" E
27	53° 37' 54.238" N	0° 55' 46.392" E
28	53° 37' 56.046" N	0° 55' 46.691" E
29	53° 37' 57.351" N	0° 55' 47.359" E
30	53° 37' 58.570" N	0° 55' 48.386" E
31	53° 38' 0.004" N	0° 55' 50.262" E
32	53° 38' 1.153" N	0° 55' 52.630" E
33	53° 38' 1.792" N	0° 55' 54.657" E
34	53° 38' 1.346" N	0° 55' 51.708" E
35	53° 38' 1.300" N	0° 55' 48.665" E
36	53° 38' 1.657" N	0° 55' 45.681" E
37	53° 38' 2.399" N	0° 55' 42.906" E
38	53° 38' 3.490" N	0° 55' 40.477" E
39	53° 38' 5.257" N	0° 55' 38.112" E
40	53° 38' 6.910" N	0° 55' 36.872" E
41	53° 38' 8.684" N	0° 55' 36.281" E
42	53° 38' 10.939" N	0° 55' 36.497" E
43	53° 38' 12.244" N	0° 55' 37.130" E
44	53° 38' 13.467" N	0° 55' 38.122" E
45	53° 38' 15.233" N	0° 55' 40.491" E
46	53° 38' 16.080" N	0° 55' 42.277" E
47	53° 38' 16.738" N	0° 55' 44.277" E
48	53° 38' 17.187" N	0° 55' 46.433" E
49	53° 38' 17.441" N	0° 55' 49.447" E
50	53° 38' 17.365" N	0° 55' 51.746" E
51	53° 38' 16.908" N	0° 55' 54.716" E
52	53° 38' 16.068" N	0° 55' 57.438" E
53	53° 38' 15.210" N	0° 55' 59.234" E
54	53° 38' 13.812" N	0° 56' 1.201" E
55	53° 38' 12.609" N	0° 56' 2.302" E
56	53° 38' 10.868" N	0° 56' 3.211" E
57	53° 38' 9.507" N	0° 56' 3.449" E
58	53° 38' 8.141" N	0° 56' 3.296" E
59	53° 38' 6.381" N	0° 56' 2.496" E
60	53° 38' 4.772" N	0° 56' 1.053" E
61	53° 38' 3.714" N	0° 55' 59.591" E
62	53° 38' 2.560" N	0° 55' 57.217" E

Work No. 4A

A marine connection to the shore, including cable and pipeline crossing works which—

- (a) if the mode of transmission is HVAC, consists of up to eight subsea electrical circuits proceeding from the offshore HVAC collector substations comprised in Work No 2A via and connecting with the offshore reactive compensation substations comprised in Work No. 3A; or
- (b) if the mode of transmission is HVDC, consists of up to two subsea electrical circuits proceeding from the offshore HVDC converter substations comprised in Work No 2A,

and in either case terminates at Work No. 5A.

provided that the combined total of electrical circuits constructed in whole or in part within Work Nos. 4A and 4B does not exceed, in the event that the mode of transmission is HVDC, two, and in the event that the mode of transmission is HVAC, eight.

Principal co-ordinates for marine export cable area (limits of deviation for Work No. 4A) of which the full co-ordinates are set out in the offshore works plans—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E
5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E
17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 46' 7.286" N	1° 38' 16.673" E
25	53° 46' 4.677" N	1° 37' 22.711" E
27	53° 44' 47.813" N	1° 28' 38.495" E
32	53° 44' 47.743" N	1° 27' 26.607" E
34	53° 44' 36.477" N	1° 25' 23.743" E
141	53° 42' 30.629" N	1° 15' 58.654" E
152	53° 42' 28.182" N	1° 14' 34.895" E
264	53° 39' 35.134" N	1° 6' 29.785" E
316	53° 38' 17.582" N	1° 2' 16.928" E
447	53° 36' 54.624" N	0° 51' 31.062" E
449	53° 36' 15.738" N	0° 48' 52.425" E
513	53° 35' 21.166" N	0° 43' 44.242" E
515	53° 31' 50.425" N	0° 40' 55.898" E
516	53° 31' 38.281" N	0° 40' 8.340" E
521	53° 28' 36.676" N	0° 20' 3.846" E
532	53° 31' 43.122" N	0° 12' 21.707" E
533	53° 30' 57.432" N	0° 5' 59.890" E

534	53° 31' 11.028" N	0° 5' 42.539" E
535	53° 30' 42.954" N	0° 5' 10.787" E
536	53° 30' 42.180" N	0° 5' 9.912" E
537	53° 30' 46.588" N	0° 4' 55.345" E
538	53° 30' 52.245" N	0° 4' 59.515" E
539	53° 31' 25.514" N	0° 5' 24.049" E
540	53° 31' 29.574" N	0° 5' 27.043" E
580	53° 32' 16.976" N	0° 12' 37.072" E
763	53° 29' 11.523" N	0° 20' 5.981" E
1001	53° 31' 28.589" N	0° 35' 44.348" E
1002	53° 32' 0.855" N	0° 37' 42.781" E
1003	53° 32' 17.793" N	0° 39' 31.883" E
1004	53° 32' 35.749" N	0° 39' 45.737" E
1005	53° 33' 8.117" N	0° 39' 47.665" E
1006	53° 34' 28.861" N	0° 41' 27.396" E
1007	53° 35' 42.522" N	0° 42' 37.802" E
1010	53° 36' 25.571" N	0° 43' 54.129" E
1081	53° 37' 2.569" N	0° 47' 31.846" E
1083	53° 37' 30.986" N	0° 49' 14.023" E
1086	53° 37' 29.991" N	0° 51' 27.606" E
1087	53° 37' 36.904" N	0° 52' 22.841" E
1111	53° 38' 45.654" N	0° 57' 1.237" E
1143	53° 39' 16.652" N	1° 1' 1.016" E
1149	53° 39' 42.566" N	1° 1' 40.167" E
1155	53° 41' 20.037" N	1° 6' 45.836" E
1157	53° 42' 59.843" N	1° 14' 18.127" E
1164	53° 43' 0.151" N	1° 15' 37.960" E
1165	53° 44' 0.963" N	1° 20' 9.157" E
1166	53° 49' 6.492" N	1° 25' 51.682" E
1167	53° 50' 7.210" N	1° 26' 59.953" E

Work No. 5A

A foreshore connection consisting of an extension of the electrical circuits comprised in Work No. 4A, including cable crossing works, crossing under the existing sea wall using trenchless duct and cable installation methods and terminating at the electrical circuit transition joint bays (Work No. 6A).

And in connection with such Work Nos. 2A, 3A, 4A and 5A, further associated development as may be necessary or expedient in connection with the authorised scheme within the Order limits and which fall within the scope of the environmental impact assessment recorded in the Environmental Statement;

And in connection with such Work Nos. 2A, 3A, 4A and 5A, ancillary works consisting of works and operations within the Order limits comprising temporary anchorage of vessels and buoys, beacons, fenders and other navigational warning or ship impact protection works.

(3) The substances or articles authorised for deposit at sea and removal are—

- (a) iron and steel;
- (b) stone and rock;
- (c) concrete;
- (d) sand and gravel;

- (e) plastic and synthetic; and
- (f) material extracted from within the offshore Order limits during construction drilling and seabed preparation for foundation works and cable sandwave preparation works.

(4) The grid co-ordinates for disposal site reference HU211 are—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E
5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E
17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 50' 7.210" N	1° 26' 59.953" E

(5) The grid co-ordinates for disposal site reference HU209 are—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
A	53° 36' 40.490" N	0° 50' 41.571" E
B	53° 36' 54.624" N	0° 51' 31.062" E
C	53° 37' 22.048" N	0° 55' 08.301" E
D	53° 37' 38.643" N	0° 57' 17.843" E
E	53° 37' 56.680" N	0° 59' 39.524" E
F	53° 38' 15.917" N	1° 02' 08.601" E
G	53° 39' 35.134" N	1° 06' 29.785" E
H	53° 41' 22.549" N	1° 11' 30.804" E
I	53° 42' 14.598" N	1° 10' 44.250" E
J	53° 41' 19.717" N	1° 06' 44.682" E
K	53° 39' 41.954" N	1° 01' 38.714" E
L	53° 39' 16.652" N	1° 01' 01.016" E
M	53° 38' 45.654" N	0° 57' 01.237" E
N	53° 37' 36.904" N	0° 52' 22.841" E

O	53° 37' 29.991" N	0° 51' 27.606" E
P	53° 37' 30.124" N	0° 50' 57.716" E

(6) The grid co-ordinates for disposal site reference HU210 are—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
W	53° 43' 14.348" N	1° 19' 13.563" E
X	53° 43' 52.989" N	1° 22' 07.248" E
Y	53° 44' 22.957" N	1° 21' 47.484" E
Z	53° 43' 44.110" N	1° 18' 53.902" E

(7) The provisions of section 72 of the 2009 Act shall apply to this licence, save that the provisions of section 72(7) and 72(8) relating to the transfer of the licence shall only apply to a transfer not falling within article 35 of the Order.

Maintenance of authorised project

3.—(1) Subject to the other terms of this licence, the undertaker may at any time maintain the authorised project, except to the extent that this licence or an agreement made under this licence, provides otherwise. No maintenance works whose likely effects on the environment require to be assessed in accordance with the EIA Regulations and are not assessed in the environmental statement shall take effect, unless otherwise approved by the MMO.

(2) Where the MMO's approval is required under sub-paragraph (1), such consent must only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the MMO that the approval sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Duration

4. This licence shall remain in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 of the Energy Act 2004, 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.

PART 2

Licence Conditions

Design parameters

- 1.—(1) Each offshore HVAC collector substation forming part of Work Nos. 2A must not—
- (a) exceed 64 metres in height above LAT;
 - (b) have a platform which at its greatest extent exceeds 3,600 square metres or 60 metres in width.
- (2) Each offshore HVDC converter substation forming part of Work Nos. 2A must not—
- (a) exceed 110 metres in height above LAT;
 - (b) have a platform which at its greatest extent exceeds 16,200 square metres or 180 metres in width.
- (3) The offshore reactive compensation substation comprised in Work Nos. 3A must not—
- (a) exceed 64 metres in height above LAT; or

- (b) have a platform which at its greatest extent exceeds 3,600 square metres or 60 metres in width.
- (4) The diameter of the electrical circuits comprising the electrical circuits must not exceed the following limitations—
- (a) within Work No. 2A, 300 mm;
 - (b) within Work Nos. 4A and 5A, 190 mm where the mode of transmission is HVDC and 300 mm where the mode of transmission is HVAC.
- (5) The combined total length of the electrical circuits comprised in Work Nos. 4A, 4B, 5A and 5B seaward of MHWS must not exceed 1,200 km.
- (6) The combined total area of cable protection for the electrical circuits comprising Work Nos. 2A and 2B must not exceed 546,000 square metres.
- (7) The combined total area of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located outwith the Humber Estuary Special Area of Conservation must not exceed 2,055,200 square metres.
- (8) The combined total area of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located within the Humber Estuary Special Area of Conservation must not exceed 44,800 square metres.
- (9) The total volume of cable protection for the electrical circuits comprising Work nos. 2A and 2B must not exceed 312,000 m³.
- (10) The total volume of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located outwith the Humber Estuary Special Area of Conservation must not exceed 1,174,400 m³.
- (11) The total volume of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located within the Humber Estuary Special Area of Conservation must not exceed 25,600 m³.
- (12) The electrical circuits comprised in Work Nos. 2A and 4A must be installed by use of, or a combination of, ploughing, trenching, jetting, rock-cutting, dredging, surface laying with post lay burial, and where ground conditions make burial impracticable, by surface laying.
- (13) The electrical circuits comprised in Work No. 5A must be installed by use of, or a combination of, ploughing, trenching and jetting.
- 2.—(1) The undertaker must in fixing to the seabed any structures comprised in Work Nos. 2A and 3A use one of the following methods—
- (a) monopile foundations;
 - (b) jacket foundations supported by piles; or
 - (c) gravity base foundations.
- (2) The undertaker must not use the monopile foundation method or any other method which includes braced monopiles to fix to the seabed any offshore HVDC converter substation.
- (3) The following parameters apply in respect of the foundation methods used to fix offshore HVAC collector substations to the seabed—
- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
 - (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,924 square metres;
 - (ii) the number of piles per jacket must not exceed eight;
 - (iii) the diameter of each pile must not exceed 3.5 metres;

- (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 12,723 square metres;
 - (ii) the number of piles per jacket must not exceed eight;
 - (iii) the diameter of each pile must not exceed 15 metres;
 - (d) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.
- (4) The following parameters apply in respect of the foundation methods used to fix offshore HVDC converter substations to the seabed—
- (a) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 17,318 square metres;
 - (ii) the number of jacket foundations per topside must not exceed four;
 - (iii) the number of piles per topside must not exceed 72;
 - (iv) the number of piles per jacket must not exceed 18;
 - (v) the diameter of each pile must not exceed 3.5 metres;
 - (b) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 50,894 square metres;
 - (ii) the number of jacket foundations per topside must not exceed four;
 - (iii) the number of piles per topside must not exceed 32;
 - (iv) the number of piles per jacket must not exceed eight;
 - (v) the diameter of each pile must not exceed 15 metres;
 - (c) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 27,300 square metres;
 - (ii) the number of pontoons for each individual structure must not exceed three;
 - (iii) the pontoons must not exceed 170 metres in length or 35 metres in width.
- (5) The following parameters apply in respect of the foundation methods used to fix the offshore reactive compensation substation to the seabed—
- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
 - (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection must not exceed 1,414 square metres;
 - (ii) the number of piles per jacket must not exceed eight;
 - (iii) the diameter of each pile must not exceed three metres;
 - (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and the scour protection must not exceed 6,362 square metres;
 - (ii) the number of piles per jacket must not exceed four;

- (iii) the diameter of each pile must not exceed 15 metres;
- (d) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.

Navigational practice, safety and emergency response

3.—(1) No part of the authorised scheme seaward of MHWS is to commence until the MMO, in consultation with the MCA, has given written approval for an Emergency Response Co-operation Plan which includes full details of the emergency co-operation plans for the construction, operation and decommissioning phases of that part of the authorised scheme in accordance with the MCA recommendations contained within MGN 371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues”.

(2) No part of the authorised scheme seaward of MHWS is to commence 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 development, adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN 371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (including its annexes).

(3) The Emergency Response Co-operation Plan must be implemented as approved, unless otherwise agreed in writing by the MMO, in consultation with the MCA.

Aids to navigation

4.—(1) The undertaker must during the whole period from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning—

- (a) 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;
- (b) colour all structures in the authorised scheme as directed by Trinity House;
- (c) keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MWHS including—
 - (i) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
 - (ii) notice within 24 hours of any aids to navigation being established by the undertaker; and
 - (iii) notice within five working days of completion of construction of the authorised scheme;
- (d) submit reports to Trinity House detailing the working condition of aids to navigation quarterly, or as requested by Trinity House;
- (e) 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.

(2) Except as otherwise required by Trinity House under paragraph (1), the undertaker must colour all structures comprised in Work Nos. 2A and 3A yellow (colour code RAL 1023) from at least HAT to a height as directed by Trinity House. Unless the MMO otherwise directs, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Notifications and inspections

5.—(1) The undertaker must ensure that—

- (a) a copy of this licence and any subsequent amendments or revisions to it are provided to—
 - (i) all agents and contractors notified to the MMO in accordance with the conditions of this licence; and
 - (ii) the masters and transport managers responsible for the vehicles notified to the MMO in accordance with the conditions of this licence.
- (b) Within 28 days of receipt of a copy of this licence those persons referred to in subparagraph (a) shall provide a completed confirmation form to the MMO confirming their understanding of the terms and conditions of this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 11 are permitted to carry out the licensed activities.

(3) Copies of this licence shall 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 for the authorised deposits; and
- (c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits are to be made.

(4) The documents referred to in paragraph (1)(a) shall be available for inspection by an enforcement officer at the locations set out in paragraph (3) above at any time.

(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 construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Marine Licensing Team and the MMO Coastal Office in writing at least five working days prior to the commencement of the licensed activities or any part of them.

(7) The Kingfisher Information Service of Seafish, must be informed by email of details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part to kingfisher@seafish.co.uk—

- (a) at least two weeks prior to the construction of the authorised scheme or relevant part, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
- (b) on completion of the construction of the authorised scheme or relevant part.

Confirmation of notification must be provided to the MMO within 5 working days of notification to the Kingfisher Information Service of Seafish.

(8) The undertaker must ensure that a Notice to Mariners is issued at least ten working days prior to the commencement of the licensed activities advising of the commencement of licensed activities within the offshore Order limits and the expected vessel routes from the local service ports to the location of the works comprised within the authorised scheme.

(9) The undertaker must ensure that the Notices to Mariners are updated and reissued at weekly intervals during construction activities and at least five days before any planned operation and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under licence condition 8(2)(a). Copies of all notices must be provided to the MMO within 10 working days of issue.

(10) The undertaker must notify—

- (a) the UK Hydrographic Office of commencement (within two weeks), progress and completion (within two weeks) of the authorised scheme in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO; and

- (b) the Defence Geographic Centre at least four weeks prior to the commencement of the authorised scheme, and of the progress and completion (within two weeks) of the authorised scheme, in order that all necessary amendments to aviation charts are made.

(11) In case of damage to, or destruction or decay of, the authorised scheme or any part of it seaward of MHWS 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, Trinity House, MCA and the UK Hydrographic Office.

(12) In the event that the Marine Noise Registry has gone live prior to the commencement of impact pile driving—

- (a) the licence holder must submit details on the expected location, start and end dates of impact pile driving to the Marine Noise Registry prior to the commencement of the impact pile driving; and
- (b) the licence holder must notify the MMO of the successful submission of the details required under sub-paragraph (a) within seven days of the submission.

(13) In the event that the Marine Noise Registry has gone live at the time of impact pile driving—

- (a) the licence holder must submit the exact locations and dates of impact pile driving to the Marine Noise Registry at six month intervals from the commencement of impact pile driving until the completion of impact pile driving. The final data must be submitted within 12 weeks of completion of impact pile driving; and
- (b) the licence holder must notify the MMO of the successful submission of the details required under sub-paragraph (a) within seven days of the submission.

Chemicals, drilling and debris

6.—(1) All chemicals used in the construction of the authorised scheme shall be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002 (as amended), unless otherwise agreed in writing by the MMO.

(2) The undertaker must ensure that any coatings or treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by Health and Safety Executive or the Environment Agency Pollution Prevention Guidelines.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances shall be undertaken so as to prevent releases into the marine environment including bunding of 110 per cent of the total volume of all reservoirs and containers.

(4) Where foundation drilling works are proposed, in the event that any system other than water based mud is proposed the MMO's written approval in relation to the proposed disposal of any arisings shall be obtained before the drilling commences, which disposal may also require a marine licence.

(5) The undertaker must ensure that, where practicable, any debris arising from the construction of the authorised scheme or temporary works placed seaward of MHWS are removed by a date no later than 28 days following the undertaker becoming aware of the debris after the completion of the authorised scheme (or by such later date as may be agreed in writing by the MMO). In the event that such debris cannot practicably be removed, the undertaker must notify the MMO, Trinity House and the MCA within seven days of becoming aware that the debris cannot practicably be removed.

(6) At least ten days prior to the commencement of the licensed activities the undertaker must submit to the MMO an audit sheet covering all aspects of the construction of the authorised scheme and no works shall commence until the audit sheet content has been agreed with the MMO. The audit sheet shall include details of—

- (a) loading facilities;
- (b) vessels;
- (c) equipment;

- (d) shipment routes;
- (e) working schedules; and
- (f) all components and materials to be used in the construction of the authorised scheme.

(7) The audit sheet shall be maintained throughout the construction of the authorised scheme and the MMO shall be notified of any changes on a fortnightly basis.

(8) In the event that the undertaker becomes aware that any of the materials on the audit sheet cannot be accounted for it must notify the MMO within 24 hours where possible, and in any event within five days of becoming aware using the Dropped Object Procedure Form. On receipt of 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. Local fishermen shall be invited to send a representative to be present during the survey. The MMO may require any new obstructions associated with the authorised scheme to be removed from the seabed at the undertaker's expense if reasonable to do so.

(9) All debris arising from the operation and maintenance of the authorised scheme must be reported to the MMO using the Dropped Object Procedure Form within 24 hours where possible, and in any event within five days of the undertaker becoming aware of the incident. On receipt of 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 any new obstructions associated with the authorised scheme to be removed from the seabed at the undertaker's expense if reasonable to do so.

(10) The undertaker must inform the MMO of the location and quantities of inert material and dredged material disposed of each month under this licence at each of disposal site reference HU211, disposal site reference HU209 and disposal site reference HU210, by submission of a disposal return for each disposal area by 31 January each year for disposals occurring during the months July to December inclusive of the preceding year, and by 31 July each year for disposals occurring during the months January to June inclusive of that year.

(11) The undertaker must ensure that only—

- (a) inert material of natural origin and drilling mud, produced during construction drilling and seabed preparation for foundation works comprised in Work No. 2A;
- (b) dredged material produced during seabed preparation for foundation works comprised in Work No. 2A; and
- (c) inert material of natural origin and dredged material produced during cable laying preparation works comprised in Work No. 2A and Work No. 4A;

shall be disposed of at disposal site reference HU211.

(12) The undertaker must ensure that only—

- (a) inert material of natural origin and drilling mud, produced during construction drilling and seabed preparation for foundation works comprised in Work No. 3A;
- (b) dredged material produced during seabed preparation for foundation works comprised in Work No. 3A; and
- (c) inert material of natural origin and dredged material produced during cable laying preparation works comprised in Work No. 4A;

shall be disposed of at disposal site reference HU209.

(13) The undertaker must ensure that only inert material of natural origin and dredged material produced during cable laying preparation works comprised in Work No. 4A shall be disposed of at disposal site reference HU210.

(14) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete, cement mixing and washing areas must be contained to prevent run-off entering the water through the freeing ports.

(15) 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.

(16) The undertaker must notify the MMO within 48 hours of the completion of the final authorised disposal at disposal site reference HU211.

(17) The undertaker must notify the MMO within 48 hours of the completion of the final authorised disposal at disposal site reference HU209.

(18) The undertaker must notify the MMO within 48 hours of the completion of the final authorised disposal at disposal site reference HU210.

Force majeure

7. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit—

- (a) authorised deposits outside of the offshore Order limits or disposal site references HU209, HU210 or HU211; or
- (b) unauthorised deposits within or outside of the offshore Order limits or disposal site references HU209, HU210 or HU211

because the safety of human life and/or of the vessel is threatened, full details of the circumstances of the deposit shall be notified to the MMO within 48 hours.

Pre-construction plans and documentation

8.—(1) The licensed activities shall 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—

- (a) A plan to be agreed in writing with the MMO following appropriate consultation with Trinity House and the MCA setting out proposed details of the authorised scheme, including the—
 - (i) number, dimensions, specification, foundation type(s) and depth for each offshore HVAC collector substation, offshore HVDC converter substation and offshore reactive compensation substation;
 - (ii) grid co-ordinates of the centre point of the proposed location for each offshore HVAC collector substation, offshore HVDC converter substation and offshore reactive compensation substation, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions;
 - (iii) proposed layout of all cables, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions; and
 - (iv) location and specification of all other aspects of the authorised scheme, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions.

(2) The licensed activities, or any phase of those activities, shall not commence until a Code of Construction Practice incorporating the following (insofar as relevant to that activity or phase of activity) has been submitted to and approved in writing by the MMO—

- (a) A construction and monitoring programme to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works; and
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction monitoring and related reporting in accordance with licence conditions 13, 14 and 15. The pre-construction survey programme and all pre-construction survey methodologies shall be submitted to the MMO for written approval by the MMO in consultation with the relevant statutory nature conservation body at least four months prior to the commencement of any survey works detailed within.

- (b) A construction method statement in accordance with the Environmental Statement and including details of—
 - (i) foundation installation, including any seabed preparation, drilling and disposal of arisings methods;
 - (ii) installation of offshore HVAC collector substations, offshore HVDC converter substations and offshore reactive compensation substations, including any seabed preparation and scour protection;
 - (iii) circuit installation, including any seabed preparation and circuit protection;
 - (iv) contractors;
 - (v) vessels; and
 - (vi) associated works.
- (c) A project environmental management and monitoring plan 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 seaward of MHWS. The plan must include a mechanism for reporting oil, fuel and chemical spills to the MMO Marine Pollution Response Team;
 - (ii) a chemical risk analysis to include information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance;
 - (iii) a disposal plan detailing the locations, methods and timings of dredging and disposal, as well as disposal site monitoring requirements;
 - (iv) waste management and disposal arrangements;
 - (v) locations of any archaeological exclusion zones agreed as part of the written scheme of archaeological investigation approved under sub-paragraph (g) of this licence condition;
 - (vi) any seasonal restrictions on construction works; and
 - (vii) the appointment and responsibilities of a fisheries liaison officer, an environmental liaison officer and an intertidal ecological clerk of works.
- (d) A scour protection management and cable armouring plan providing details of the need, type, sources, quantity, location and installation methods for scour protection and cable armouring to be within the scope of the environmental impact assessment recorded in the Environmental Statement;
- (e) In the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol following current best practice as advised by the statutory nature conservation agencies, which may include, but is not limited to—
 - (i) identification of a Marine Mammal Mitigation Zone (MMMZ);
 - (ii) appointment of an appropriate number of suitably qualified marine mammal observer(s);
 - (iii) methods for the detection of marine mammals within the MMMZ whether visually (by the marine mammal observer(s)) or acoustically using Passive Acoustic Monitoring equipment or other means of detection;
 - (iv) a reporting methodology to enable efficient communication between the marine mammal observer(s) and the person responsible for approving commencement of piling;
 - (v) an appropriate soft start procedure whereby piling activities do not commence until an agreed time has elapsed and during which marine mammals have not been detected within the MMMZ;
 - (vi) where appropriate, methods for the application of acoustic deterrent devices; and
 - (vii) where appropriate, consideration of the use of noise reduction at source technologies.

- (f) Cable specification and installation plan, to include—
 - (i) technical specification of offshore electrical circuits, including a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice;
 - (ii) a detailed cable laying plan, including geotechnical data, cable laying techniques and a cable burial risk assessment encompassing the identification of any cable protection which exceeds 5% of navigable depth referenced to Chart Datum and, in the event that any area of cable protection exceeding 5% of navigable depth is identified, details of any steps (to be determined following consultation with the MCA) to be taken to ensure existing and future safe navigation is not compromised;
 - (iii) details of the steps to be taken, where the offshore electrical circuits across the inter tidal zone are buried using trenching or ploughing to ensure that the excavation and subsequent backfilling is carried out in such a way as to maintain the sediment profile so far as is reasonably practicable to do so; and
 - (iv) details of the steps to be taken, where the offshore electrical circuits across the inter tidal zone are installed using a trenchless technique.
- (g) A written scheme of archaeological investigation in relation to the offshore Order limits seaward of MHWS in accordance with industry good practice to include—
 - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for any further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) analysis and reporting of survey data to be submitted to the MMO within four months of survey completion;
 - (iv) delivery of any mitigation including, where necessary, archaeological exclusion zones;
 - (v) monitoring during and post construction, including a conservation programme for finds;
 - (vi) archiving of archaeological material; and
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme.
- (h) A proposed survey and reinstatement plan for Salicornia forming Annex 1 Habitat in the part(s) of the offshore Order limits within which it is proposed to carry out construction works comprised in Work No. 5A, including the circumstances in which reinstatement will be required and the proposed methods of reinstatement.
- (i) An offshore project maintenance plan to be submitted to the MMO at least four months prior to commencement of the operation of the licensed activities and to include provision for the review and resubmission of the plan every three years during the operational phase.
- (j) An aids to navigation management plan specifying how the undertaker will ensure compliance with Condition 4 from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning.

(3) Prior to the submission of the pre-construction plans and documentation required by this condition the undertaker must provide a copy of the plans and documentation to the other undertakers under the Order.

(4) The undertaker shall participate in liaison meetings with other undertakers under the Order as requested from time to time by the MMO in writing in advance, which meetings shall be chaired by the MMO and shall consider such matters as are determined by the MMO relating to the efficient operation of a deemed marine licence where it has an impact on the efficient operation of any other deemed marine licence issued under the Order (including as varied or transferred).

- (5) Prior to giving its approval under paragraph (2), the MMO must—
- (a) in relation to any programme or plan submitted under sub-paragraphs (a), (c), (d), (f), (h) or (i), consult with the relevant statutory nature conservation body and the Environment Agency;
 - (b) in relation to any statement or protocol submitted under sub-paragraphs (b) or (e), consult with the relevant statutory nature conservation body;
 - (c) in relation to a scheme submitted under sub-paragraph (g), consult with Historic England; and
 - (d) in relation to a plan submitted under sub-paragraph (j), consult with Trinity House.

9. The undertaker must ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS form with a digital copy of the report within 6 months of completion of construction of the authorised scheme. The undertaker must notify the MMO and, where the report relates to the intertidal area, Lincolnshire County Council that the OASIS report has been submitted to the National Record of the Historic Environment within two weeks of the submission.

10.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 8—

- (a) shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or where an alternative date is agreed in writing by the MMO; and
- (b) shall be accompanied by—
 - (i) a statement confirming that the undertaker has complied with condition 8(3) in relation to such programme, statement, plan, protocol or scheme;
 - (ii) any comments received by the undertaker from the other undertakers, or a statement from the undertaker confirming that no such comments were received; and
 - (iii) details of the consultation that has been carried out with the undertakers with the benefit of all or part of the deemed marine licences under the Hornsea One Offshore Wind Farm Order 2014 and any comments received from those undertakers.

(2) The undertaker must comply with the plans and documentation approved under licence condition 8 in carrying out the licensed activities unless otherwise agreed in writing by the MMO.

(3) Prior to agreeing an alternative date under paragraph (1)(a) or a change to approved details under paragraph (2) relating to any document in respect of which consultation is required under condition 8(5), the MMO must consult with the relevant consultation body referred to in that condition.

Reporting of engaged agents, contractors and vessels

11.—(1) The undertaker must provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities at least five working days prior to the commencement of the licensed activities or any part of them; and
- (b) each week during the construction of the authorised scheme, a completed Hydrographic Note H102 listing the construction vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO and MMO Coastal Office in writing prior to the agent, contractor or vessel engaging in the licensed activities. All agents, contractors and/or vessel operators will abide by the conditions set out in this licence.

Equipment and operation of vessels engaged in licensed activities

12.—(1) All vessels employed to perform the licensed activities shall be constructed and equipped to be capable of the proper performance of such activities in accordance with the conditions of this licence and shall comply with paragraphs (2) to (5).

(2) All motor powered vehicles must be fitted with—

- (a) electronic positioning aid to provide navigational data;
- (b) radar;
- (c) echo sounder; and
- (d) multi-channel VHF.

(3) All vessels' names or identification shall be clearly marked on the hull or superstructure of the vessel.

(4) All communication on VHF working frequencies shall be in English.

(5) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

Pre-construction monitoring and surveys

13.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant statutory nature conservation body and, in respect of the surveys required under paragraph (2)(b) and (c), in consultation with the Environment Agency, of proposed pre-construction surveys, including methodologies (including appropriate buffers, where relevant) and timings, and a proposed format and content for a pre-construction baseline report; and

- (a) the survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and shall 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; and
- (b) the baseline report proposals shall 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 shall make clear what post-construction comparison is intended and the justification for this being required.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this condition, so far as applicable, the pre-construction surveys will comprise, in outline—

- (a) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance (including Annex 1 Habitats) in the part(s) of the offshore Order limits in which it is proposed to carry out construction works under this licence;
- (b) a Phase 1 survey of the intertidal area within which it is proposed to carry out construction works;
- (c) a high resolution swath bathymetric survey to include a 100% coverage and a side scan sonar survey of the part(s) of the offshore Order limits within which it is proposed to carry out construction works and disposal activities under this licence; and
- (d) a grab survey and particle size analysis in the part(s) of the offshore Order limits within which it is proposed to carry out dredging and disposal activities relating to Work Nos. 3A and 4A under this licence within a period not greater than 12 months prior to the dredging and disposal activities to determine the extent of suitable herring spawning habitat within those areas.

(3) The undertaker must carry out the surveys agreed under paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless

otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

Construction monitoring

14.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant statutory nature conservation body of any proposed construction monitoring, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general 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 pre-construction position and/or will enable the validation or otherwise of key predictions in the Environmental Statement.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this condition, so far as applicable, the construction monitoring will comprise, in outline—

- (a) unless the MMO agrees otherwise in writing, measurements of noise generated by the installation of the first four foundations of each discrete foundation type comprised in Work No. 2A to be constructed under this licence where driven or part-driven pile foundations are used;
- (b) recording of any visual sightings or acoustic detection of marine mammals where required as part of the marine mammal mitigation protocol under condition 8(2)(e); and
- (c) any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with Condition 8(2)(k).

(3) The undertaker must carry out the surveys approved under paragraph (1), including any further noise monitoring required in writing by the MMO under paragraph (4), 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 body.

(4) The results of the initial noise measurements monitored in accordance with paragraph (2)(a) must be provided to the MMO within six weeks of the installation of the first four foundations of each discrete foundation type. The assessment of this report by the MMO shall determine whether any further noise monitoring is required.

(5) Construction monitoring shall include vessel traffic monitoring by Automatic Identification System for the duration of the construction period. A report will be submitted to the MMO and the MCA at the end of each year of the construction period

Post-construction

15.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant statutory nature conservation body and, in respect of the surveys required under paragraph (2)(a), (b) and (c), in consultation with the Environment Agency, of proposed post-construction surveys, including methodologies (including appropriate buffers, where relevant) and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and shall 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) Subject to receipt of specific proposals, so far as applicable, the post-construction surveys will comprise, in outline—

- (a) a survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance (including Annex 1 Habitats) identified in the pre-construction survey in the part(s) of the offshore Order limits in which construction works were carried out. The survey design will be informed by the results of the pre-construction benthic survey;

- (b) one high resolution swath bathymetric survey to be undertaken no sooner than six months following completion of construction works and disposal activities to include a 100% coverage of the part(s) of the offshore Order limits with a water depth no greater than 12 metres (referenced to Chart Datum) within which construction works and disposal activities were carried out under this licence to assess any changes in bedform morphology and such further monitoring as may be required to ensure that the cables have been buried or protected and sediment is able to move over any installed cable protection. The need for further surveys will be agreed in writing with the MMO following submission of the first year of survey data;
- (c) one high resolution bathymetric survey of a representative sample area, as may be agreed in writing with the MMO, of the part(s) of the offshore Order limits with a water depth no greater than 12 metres (referenced to Chart Datum) within which construction works and disposal activities were carried out under this licence following the first major storm event the timing of which shall be agreed with the MMO in consultation with Natural England and the Environment Agency;
- (d) a grab survey and particle size analysis in the part(s) of the offshore Order limits within which dredging and disposal activities relating to Work Nos. 3A and 4A were carried out under this licence within 12 months of the completion of the dredging and disposal activities to determine the extent of suitable herring spawning ground habitat within those areas; and
- (e) vessel traffic monitoring by Automatic Identification System, for 28 days taking account seasonal variations in traffic patterns, for a maximum duration of one year post construction. A report will be submitted to the MMO and the MCA at the end of the first year after construction is completed.

(3) The undertaker must carry out the surveys agreed under 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 body.

Amendments to approved details

16.—(1) With respect to any condition of this licence which requires the licensed activities to be carried out in accordance with the plans and programmes approved by the MMO, the approved plans and programmes shall be 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 must be in accordance with the principles and assessments set out in the environmental statement. Such agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the MMO that the subject matter of the agreement sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Offshore decommissioning

17. No decommissioning activities shall commence until plans for the carrying out of such activities have been submitted to and approved in writing by the MMO and, where the plans relate to the decommissioning of Work Nos. 4A or 5A, the MMO must consult with the Environment Agency prior to giving its approval. The plans shall be submitted for approval at least four months prior to the intended start of the decommissioning activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

Restrictions in intertidal area and Humber Estuary Special Area of Conservation

18.—(1) The cable protection to be used within the Humber Estuary Special Area of Conservation must be frond matting, unless otherwise agreed in writing with the MMO.

(2) No cable protection is to be used within the intertidal area of the Humber Estuary Special Area of Conservation.

(3) The undertaker must not construct or install those licensable activities comprised in Work No. 4A or Work No. 5A in the intertidal area during the overwintering period unless otherwise agreed in writing with the MMO, in consultation with Natural England.

(4) The undertaker must not construct or install those licensable activities comprised in Work Nos. 4A and 5A in the intertidal area within 500 metres seaward of the seawall during the period of time commencing two hours before a high tide predicted to be greater than 6.5 metres Chart Datum and ending two hours after a high tide predicted to be greater than 6.5 metres Chart Datum between 1 April and 31 May (inclusive) and 1 August to 30 September (inclusive), unless provided for in the construction and monitoring programme submitted and approved under Condition 8(2)(a) or the construction method statement submitted and approved under Condition 8(2)(b) or unless otherwise agreed in writing by the MMO, in consultation with Natural England.

(5) The undertaker must not carry out inspections in the intertidal area during the overwintering period to the extent that such inspections require to be carried out—

- (a) more than once per overwintering period;
- (b) over more than two consecutive days by people on foot; or
- (c) by more than 5 people on foot at any one time,

unless otherwise agreed in writing with the MMO, in consultation with Natural England or unless provided for in the offshore project maintenance plan submitted and approved under Condition 8(2)(i).

(6) For the purposes of this condition, “overwintering period” means the period between 1 October and 31 March (inclusive).

SCHEDULE J

Article 36

Deemed marine licence under the Marine and Coastal Access Act 2009, Deemed Marine Licence B1: Project B – Generation Assets

PART 1

Licensed Marine Activities

Interpretation

1.—(1) In this licence—

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“ancillary vessel” means any vessel other than a construction vessel or a survey vessel;

“ancillary works” means the ancillary works described in paragraph 2 of Part 1 of this licence which are not development within the meaning of section 32 of the 2008 Act;

“Annex 1 Habitat” means such habitat as defined under the EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora;

“authorised deposits” means the substances and articles specified in paragraph 2(3) of Part 1 of this licence;

“authorised development” means the development described in Part 1 of Schedule A of the Order, which is development within the meaning of section 32 of the 2008 Act;

“authorised project” means the authorised development and the ancillary works authorised by the Order;

“authorised scheme” means Work No. 1B described in paragraph 2 of Part 1 of this licence;

“commence” means the first carrying out of any part of the licensed activities, save for pre-construction surveys and monitoring, and “commencement” shall be construed accordingly;

“construction vessel” means any vessel involved in the course of or used for the construction and/or maintenance of the authorised project;

“debris” means items or equipment of a significant size left on the seabed being lost from survey, construction or maintenance vessels or the structures comprised within the authorised scheme;

“EIA Regulations” means the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009;

“electrical circuit” means a number of electrical conductors necessary to transmit electricity between two points within the authorised project; this comprises, in the case of HVAC transmission, three conductors which may be bundled as one cable, and, in the case of HVDC transmission two conductors, which may be attached together or take the form of single cables: the circuit may include one or more auxiliary cables (normally fibre optic cables) for the purpose of control, monitoring, protection or general communications;

“enforcement officer” means a person authorised to carry out enforcement duties under Part 4 of Chapter 3 of the 2009 Act;

“the Environmental Statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order;

“gravity base foundation” means either—

- (a) a structure principally of concrete and/or steel which rests on the seabed due either to its own weight and that of added ballast or to the weight of water above it, and may include associated equipment including suction piles, J-tubes and access platforms; or
- (b) a structure principally of concrete and/or steel consisting of a platform supported on two pontoons to which the platform is connected by columns which may be connected by braces;

“HVAC” means high voltage alternating current;

“HVDC” means high voltage direct current;

“the in-principle monitoring plan” means the document certified as the in-principle monitoring plan by the Secretary of State for the purposes of the Order;

“inter-array electrical circuits” means the circuits described in paragraph 2(2)(b) of Part 1 of this licence;

“jacket foundation” means a lattice construction comprising tubular members and joints which are fixed to the seabed with piles (either driven/drilled piles or suction piles) and which will include platforms and J-tubes and may include braced monopiles and a transition piece;

“the Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“LAT” means lowest astronomical tide;

“licensed activities” means the activities specified in Part 1 of this licence;

“the licence conditions” means the conditions set out in Part 2 of this licence;

“maintain”, unless otherwise provided for, includes inspect, repair, adjust, alter, remove, reconstruct and replace any of the authorised development, and any derivative of “maintain” shall be construed accordingly;

“the Marine Management Organisation” or “MMO” means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence or any successor to its statutory functions;

“Marine Noise Registry” means the online database accessible at [[insert link to MNR](#)] and maintained by the Joint Nature Conservation Committee on behalf of Defra that records the spatial and temporal distribution of impulsive noise generating activities in UK seas in order

that they can be analysed to determine whether they may potentially compromise the achievement of Good Environmental Status;

“the Maritime and Coastguard Agency” or “MCA” means the executive agency of the Department for Transport or any successor to its statutory functions;

“mean high water springs” or “MHWS” means the highest level which spring tides reach on average over a period of time;

“mean low water springs” or “MLWS” means the lowest level which spring tides reach on average over a period of time;

“monopile foundation” comprises a large diameter steel or concrete tube or pile driven vertically into the seabed, J-tubes and platforms and may include external structural devices such as bracing members or steel anchor wires and a transition piece;

“Natural England” means the body established by section 1 of the Natural Environment and Rural Communities Act 2006 or any successor to its statutory functions;

“Notice to Mariners” includes any Notice to Mariners which may be issued by Admiralty, Trinity House, Queen’s harbourmasters, government departments and harbour and pilotage authorities;

“offshore accommodation platform” means a platform housing or incorporating temporary accommodation, landing ports for vessels and/or helicopters, standby electricity generation equipment, marking and lighting and other equipment facilities to assist in the co-ordination of marine activities related to the authorised scheme;

“offshore HVAC collector substation” means a structure serving as a collection point for the inter-array electrical circuits and containing equipment with the purpose of transforming the electricity generated at the wind turbines to a higher voltage; it may also include a helicopter platform;

“offshore HVDC converter substation” means a structure which contains equipment to convert HVAC electricity to HVDC electricity; it may also include a helicopter platform;

“offshore reactive compensation substation” means a structure housing electrical reactors for the purpose of limiting electrical losses in the course of HVAC transmission by providing reactive compensation; it may also include a helicopter platform;

“the offshore works plans” means the part of the works plans described as the offshore works plans;

“the Order limits” means the limits shown on the works plans within which the authorised project may be carried out;

“the Order” means the Hornsea Two Offshore Wind Farm Order 201[X];

“suction pile” means a large diameter steel cylinder which is fixed to the base of the foundation and partially penetrates the seabed and remains in place using its weight and hydrostatic pressure differential;

“survey vessels” means the vessels licensed to carry out environmental or engineering surveys;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“the UK Hydrographic Office” means the Hydrographic Office of the Ministry of Defence, Taunton, Somerset TA1 2DN or any replacement body or successor to its functions;

“undertaker” means Breesea Limited or, to the extent that the benefit of the provisions of the Order and related statutory rights in relation to Work No. 1B and such associated development or ancillary works has been transferred under article 35 of the Order to another person, that other person;

“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 and including ancillary vessels and construction vessels;

“VHF” means very high frequency;

“Wind Farm Area” means the area within the limits of deviation for Work No. 1B of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“wind turbine generator” or “wind turbine” means a structure comprising any or all of a tower, rotor, blades, nacelle and ancillary electrical and other equipment or structures which may include lighting and a helicopter platform, fixed to a foundation;

“working day” means any day other than a Saturday, Sunday or public holiday in England and Wales;

“Work No. 1A” means an offshore wind generating station within the Wind Farm Area and described as Work No. 1A in Part 1 of Schedule A of the Order;

“Work No. 1B” means an offshore wind generating station within the Wind Farm Area and described as Work No. 1B in paragraph 2 of Part 1 of this licence;

“Work No. 2A” means up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B;

“Work No. 2B” means up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B; and

“the works plans” means the plans certified as the works plans by the Secretary of State for the purposes of the Order divided into three parts and described as the offshore works plans, the intertidal works plans and the onshore works plans.

(2) A reference to any statute, order, regulation or similar instrument shall 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 subsequent re-enactment.

(3) Unless otherwise indicated—

(a) all times shall be taken to be Greenwich Mean Time (GMT);

(b) all co-ordinates shall be taken to be latitude and longitude degrees, minutes and seconds to three decimal places in WGS84 Datum.

(4) Except where otherwise notified in writing by the relevant organisation, the primary point of contact with the organisations listed below and the address for returns and correspondence shall be—

(a) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle upon Tyne

NE4 7YH

Tel: 0300 123 1032

E-mail: marine.consents@marinemangement.org.uk

(b) Marine Management Organisation (referred to as the “MMO Coastal Office”)

Neville House

Central Riverside

Bell Street

North Shields

Tyne and Wear

NE30 1LJ

Tel (24-hour answer phone): 0191 257 4520 or 0191 257 0159

E-mail: northshields@marinemangement.org.uk

- (c) Trinity House
Tower Hill
London
EC3N 4DH
Tel: 020 7481 6900
- (d) The United Kingdom Hydrographic Office
Admiralty Way
Taunton
Somerset
TA1 2DN
Tel: 01823 337 900
- (e) Maritime and Coastguard Agency
Navigation Safety Branch
Bay 2/04
Spring Place
105 Commercial Road
Southampton
SO15 1EG
Tel: 023 8032 9191
- (f) Centre for Environment, Fisheries and Aquaculture Science
Pakefield Road
Lowestoft
Suffolk
NR33 0HT
Tel: 01502 562 244
- (g) Natural England
Foss House
Kings Pool
1-2 Peasholme Green
York
North Yorkshire
YO1 7PX
Tel: 0300 060 1911
- (h) Historic Buildings and Monuments Commission for England (referred to as “Historic England”)
Eastgate Court
195-205 High Street
Guildford
GU1 3EH
Tel: 01483 252 057

Details of licensed activities

2.—(1) This licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities pursuant to section 66(1) of the 2009 Act, subject to the licence conditions—

- (a) the deposit at sea of the substances and articles specified in sub-paragraph (3) below;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) dredging for the purposes of seabed preparation for foundation works and/or electrical circuit works;
- (d) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation;
- (e) the disposal at disposal site reference HU211 of up to 2,427,666 m³ comprising inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work No. 1B provided that the combined total volume of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work Nos. 1A and 1B disposed of at disposal site reference HU211 does not exceed 2,427,666 m³;
- (f) the disposal at disposal site reference HU211 of up to 400,852 m³ comprising inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work No. 1B provided that the combined total volume of inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work Nos. 1A and 1B disposed of at disposal site reference HU211 does not exceed 400,852 m³; and
- (g) the removal of the substances and articles specified in sub-paragraph (3) below.

(2) Such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 1B—An offshore wind generating station within the Wind Farm Area comprising—

- (a) up to 300 (inclusive) wind turbine generators fixed to the seabed provided that the combined total of wind turbine generators constructed in whole or in part within Work Nos. 1A and 1B does not exceed 300;
- (b) a network of subsea inter-array electrical circuits connecting the structures comprised in Work No. 1B—
 - (i) with each other
 - (ii) with any other structure located within the Wind Farm Area; and
 - (iii) with the network of electrical circuits comprised in Work Nos. 1A, 2A and 2B;
- (c) up to two offshore accommodation platforms fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter substations within Work No. 2B by an unsupported steel bridge and up to two electrical circuits each connecting an accommodation platform to either an offshore HVAC collector substation or to a wind turbine generator in order to power the accommodation platform, provided that the combined total of offshore accommodation platforms constructed in whole or in part within Work Nos. 1A and 1B does not exceed two.

Co-ordinates for the Wind Farm Area (limits of deviation for Work No. 1A, 1B, 2A and 2B)—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E

5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E
17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 50' 7.210" N	1° 26' 59.953" E

And in connection with such Work No. 1B, further associated development as may be necessary or expedient in connection with the authorised scheme within the Order limits and which fall within the scope of the environmental impact assessment recorded in the Environmental Statement;

And in connection with such Work No. 1B, ancillary works consisting of works and operations within the Order limits comprising temporary anchorage of vessels and buoys, beacons, fenders and other navigational warning or ship impact protection works.

(3) The substances or articles authorised for deposit at sea and removal are—

- (a) iron and steel;
- (b) stone and rock;
- (c) concrete;
- (d) sand and gravel;
- (e) plastic and synthetic; and
- (f) material extracted from within the Wind Farm Area during construction drilling and seabed preparation for foundation works.

(4) The grid co-ordinates for disposal site reference HU211 are—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E
5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E

10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
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24	53° 50' 7.210" N	1° 26' 59.953" E

(5) The provisions of section 72 of the 2009 Act shall apply to this licence, save that the provisions of section 72(7) and 72(8) relating to the transfer of the licence shall only apply to a transfer not falling within article 35 of the Order.

Maintenance of authorised project

3.—(1) Subject to the other terms of this licence, the undertaker may at any time maintain the authorised project, except to the extent that this licence or an agreement made under this licence, provides otherwise. No maintenance works whose likely effects on the environment require to be assessed in accordance with the EIA Regulations and are not assessed in the environmental statement shall take effect, unless otherwise approved by the MMO.

(2) Where the MMO's approval is required under sub-paragraph (1), such consent must only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the MMO that the approval sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Duration

4. This licence shall remain in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 of the Energy Act 2004, 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.

PART 2

Licence Conditions

Design parameters

- 1.—(1) All wind turbine generators forming part of Work No. 1B must not—
- (a) be more than 151 metres to the turbine hub when measured from LAT;
 - (b) exceed a height of 276 metres from LAT to the upper tip of the vertical blade;
 - (c) exceed a rotor diameter of 241.03 metres;
 - (d) be less than 34.97 metres from LAT to the lowest point of the rotating blade;
 - (e) be less than 810 metres from the nearest wind turbine generator in all directions.

(2) References to the location of a wind turbine generator are references to the centre point of the turbine.

(3) Any offshore accommodation platform forming part of Work No. 1B must not—

- (a) exceed 64 metres in height above LAT;
- (b) have a platform which at its greatest extent exceeds 3,600 square metres or 60 metres in width.

(4) The diameter of the electrical circuits comprising the electrical circuits within Work No. 1B must not exceed 170 mm.

(5) The electrical circuits comprised in Work No. 1B must be installed by use of, or a combination of, ploughing, trenching, jetting, rock-cutting, dredging, surface laying with post lay burial, and where ground conditions make burial impracticable, by surface laying.

2.—(1) The undertaker must in fixing to the seabed any structures comprised in Work No. 1B use one of the following methods—

- (a) monopile foundations;
- (b) jacket foundations supported by piles; or
- (c) gravity base foundations.

(2) The following parameters apply in respect of the foundation methods used to fix wind turbine generators comprised in Work No. 1B to the seabed—

- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
- (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 2,827 square metres;
 - (ii) the number of piles per jacket must not exceed 12;
 - (iii) the diameter of each pile must not exceed six metres;
- (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and scour protection for each individual structure must not exceed 12,596 square metres;
 - (ii) the number of piles per jacket must not exceed four;
 - (iii) the diameter of each pile must not exceed 21.1 metres;
- (d) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 7,543 square metres;
 - (ii) the seabed levelling diameter must not exceed 78 metres;
 - (iii) the cone diameter must not exceed 58 metres at its base.

(3) The following parameters apply in respect of the foundation methods used to fix offshore accommodation platforms to the seabed—

- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
- (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,414 square metres;

- (ii) the number of piles must not exceed eight;
- (iii) the diameter of each pile must not exceed three metres;
- (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the number of piles per jacket must not exceed four;
 - (iii) the diameter of each pile must not exceed 15 metres;
- (d) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.

(4) The total volume of scour protection for the wind turbine generators and the offshore accommodation platforms forming part of Work No. 1B must not exceed 4,761,555 m³ provided that the combined total volume of scour protection for the wind turbine generators and the offshore accommodation platforms forming part of Work Nos. 1A and 1B does not exceed 4,761,555 m³.

Navigational practice, safety and emergency response

3.—(1) No part of the authorised scheme seaward of MHWS is to commence until the MMO, in consultation with the MCA, has given written approval for an Emergency Response Co-operation Plan which includes full details of the emergency co-operation plans for the construction, operation and decommissioning phases of that part of the authorised scheme in accordance with the MCA recommendations contained within MGN 371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues”.

(2) No part of the authorised scheme seaward of MHWS is to commence 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 development, adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN 371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (including its annexes).

(3) The Emergency Response Co-operation Plan must be implemented as approved, unless otherwise agreed in writing by the MMO, in consultation with the MCA.

Aids to navigation

4.—(1) The undertaker must during the whole period from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning—

- (a) 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;
- (b) colour all structures in the authorised scheme as directed by Trinity House;
- (c) keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MWHS including—
 - (i) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
 - (ii) notice within 24 hours of any aids to navigation being established by the undertaker; and
 - (iii) notice within five working days of completion of construction of the authorised scheme;

- (d) submit reports to Trinity House detailing the working condition of aids to navigation quarterly, or as requested by Trinity House;
- (e) 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.

(2) Except as otherwise required by Trinity House under paragraph (1), the undertaker must colour all structures comprised in Work No. 1B yellow (colour code RAL 1023) from at least HAT to a height as directed by Trinity House. Unless the MMO otherwise directs, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Notifications and inspections

5.—(1) The undertaker must ensure that—

- (a) a copy of this licence and any subsequent amendments or revisions to it are provided to—
 - (i) all agents and contractors notified to the MMO in accordance with the conditions of this licence; and
 - (ii) the masters and transport managers responsible for the vehicles notified to the MMO in accordance with the conditions of this licence.
- (b) Within 28 days of receipt of a copy of this licence those persons referred to in subparagraph (a) shall provide a completed confirmation form to the MMO confirming their understanding of the terms and conditions of this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 11 are permitted to carry out the licensed activities.

(3) Copies of this licence shall 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 for the authorised deposits; and
- (c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits are to be made.

(4) The documents referred to in paragraph (1)(a) shall be available for inspection by an enforcement officer at the locations set out in paragraph (3) above at any time.

(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 construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Marine Licensing Team and the MMO Coastal Office in writing at least five working days prior to the commencement of the licensed activities or any part of them.

(7) The Kingfisher Information Service of Seafish, must be informed by email of details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part to kingfisher@seafish.co.uk—

- (a) at least two weeks prior to the construction of the authorised scheme or relevant part, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
- (b) on completion of the construction of the authorised scheme or relevant part.

Confirmation of notification must be provided to the MMO within 5 working days of notification to the Kingfisher Information Service of Seafish.

(8) The undertaker must ensure that a Notice to Mariners is issued at least ten working days prior to the commencement of the licensed activities advising of the commencement of licensed activities within the Wind Farm Area and the expected vessel routes from the local service ports to the location of the works comprised within the authorised scheme.

(9) The undertaker must ensure that the Notices to Mariners are updated and reissued at weekly intervals during construction activities and at least five days before any planned operation and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under licence condition 8(2)(a). Copies of all notices must be provided to the MMO within 10 working days of issue.

(10) The undertaker must notify—

- (a) the UK Hydrographic Office of commencement (within two weeks), progress and completion (within two weeks) of the authorised scheme in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO; and
- (b) the Defence Geographic Centre at least four weeks prior to the commencement of the authorised scheme, and of the progress and completion (within two weeks) of the authorised scheme, in order that all necessary amendments to aviation charts are made.

(11) In case of damage to, or destruction or decay of, the authorised scheme or any part of it seaward of MHWS 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, Trinity House, MCA and the UK Hydrographic Office.

(12) In the event that the Marine Noise Registry has gone live prior to the commencement of impact pile driving—

- (a) the licence holder must submit details on the expected location, start and end dates of impact pile driving to the Marine Noise Registry prior to the commencement of the impact pile driving; and
- (b) the licence holder must notify the MMO of the successful submission of the details required under sub-paragraph (a) within seven days of the submission.

(13) In the event that the Marine Noise Registry has gone live at the time of impact pile driving—

- (a) the licence holder must submit the exact locations and dates of impact pile driving to the Marine Noise Registry at six month intervals from the commencement of impact pile driving until the completion of impact pile driving. The final data must be submitted within 12 weeks of completion of impact pile driving; and
- (b) the licence holder must notify the MMO of the successful submission of the details required under sub-paragraph (a) within seven days of the submission.

Chemicals, drilling and debris

6.—(1) All chemicals used in the construction of the authorised scheme shall be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002 (as amended), unless otherwise agreed in writing by the MMO.

(2) The undertaker must ensure that any coatings or treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by Health and Safety Executive or the Environment Agency Pollution Prevention Guidelines.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances shall be undertaken so as to prevent releases into the marine environment including bunding of 110 per cent of the total volume of all reservoirs and containers.

(4) Where foundation drilling works are proposed, in the event that any system other than water based mud is proposed the MMO's written approval in relation to the proposed disposal of any arisings shall be obtained before the drilling commences, which disposal may also require a marine licence.

(5) The undertaker must ensure that, where practicable, any debris arising from the construction of the authorised scheme or temporary works placed seaward of MHWS are removed by a date no later than 28 days following the undertaker becoming aware of the debris after the completion of the authorised scheme (or by such later date as may be agreed in writing by the MMO). In the event that such debris cannot practicably be removed, the undertaker must notify the MMO,

Trinity House and the MCA within seven days of becoming aware that the debris cannot practicably be removed.

(6) At least ten days prior to the commencement of the licensed activities the undertaker must submit to the MMO an audit sheet covering all aspects of the construction of the authorised scheme and no works shall commence until the audit sheet content has been agreed with the MMO. The audit sheet shall include details of—

- (a) loading facilities;
- (b) vessels;
- (c) equipment;
- (d) shipment routes;
- (e) working schedules; and
- (f) all components and materials to be used in the construction of the authorised scheme.

(7) The audit sheet shall be maintained throughout the construction of the authorised scheme and the MMO shall be notified of any changes on a fortnightly basis.

(8) In the event that the undertaker becomes aware that any of the materials on the audit sheet cannot be accounted for it must notify the MMO within 24 hours where possible, and in any event within five days of becoming aware using the Dropped Object Procedure Form. On receipt of 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. Local fishermen shall be invited to send a representative to be present during the survey. The MMO may require any new obstructions associated with the authorised scheme to be removed from the seabed at the undertaker's expense if reasonable to do so.

(9) All debris arising from the operation and maintenance of the authorised scheme must be reported to the MMO using the Dropped Object Procedure Form within 24 hours where possible, and in any event within five days of the undertaker becoming aware of the incident. On receipt of 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 any new obstructions associated with the authorised scheme to be removed from the seabed at the undertaker's expense if reasonable to do so.

(10) The undertaker must inform the MMO of the location and quantities of inert material and dredged material disposed of each month under this licence, by submission of a disposal return by 31 January each year for disposals occurring during the months July to December inclusive of the preceding year, and by 31 July each year for disposals occurring during the months January to June inclusive of that year.

(11) The undertaker must ensure that only—

- (a) inert material of natural origin and drilling mud, produced during construction drilling and seabed preparation for foundation works comprised in Work No. 1B;
- (b) dredged material produced during seabed preparation for foundation works comprised in Work No. 1B; and
- (c) inert material of natural origin and dredged material produced during cable laying preparation works comprised in Work No. 1B;

shall be disposed of at disposal site reference HU211.

(12) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete, cement mixing and washing areas must be contained to prevent run-off entering the water through the freeing ports.

(13) 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.

(14) The undertaker must notify the MMO within 48 hours of the completion of the final authorised disposal at disposal site reference HU211.

Force majeure

7. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit—

- (a) authorised deposits outside of the Wind Farm Area or disposal site reference HU211; or
- (b) unauthorised deposits within or outside of the Wind Farm Area or disposal site reference HU211

because the safety of human life and/or of the vessel is threatened, full details of the circumstances of the deposit shall be notified to the MMO within 48 hours.

Pre-construction plans and documentation

8.—(1) The licensed activities shall 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—

- (a) A plan to be agreed in writing with the MMO following appropriate consultation with Trinity House and the MCA 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) grid co-ordinates of the centre point of the proposed location for each wind turbine generator and offshore accommodation platform, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions;
 - (iii) proposed layout of all cables, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions; and
 - (iv) location and specification of all other aspects of the authorised scheme, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions.

(2) The licensed activities, or any phase of those activities, shall not commence until a Code of Construction Practice incorporating the following (insofar as relevant to that activity or phase of activity) has been submitted to and approved in writing by the MMO—

- (a) A construction and monitoring programme to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works; and
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction monitoring and related reporting in accordance with licence conditions 13, 14 and 15. The pre-construction survey programme and all pre-construction survey methodologies shall be submitted to the MMO for written approval by the MMO in consultation with the relevant statutory nature conservation body at least four months prior to the commencement of any survey works detailed within.
- (b) A construction method statement in accordance with the Environmental Statement and including details of—
 - (i) foundation installation, including any seabed preparation, drilling and disposal of arisings methods;
 - (ii) turbine installation, including any seabed preparation and scour protection;
 - (iii) installation of offshore accommodation platforms, including any seabed preparation and scour protection;
 - (iv) circuit installation, including any seabed preparation and circuit protection;

- (v) contractors;
 - (vi) vessels; and
 - (vii) associated works.
- (c) A project environmental management and monitoring plan 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 seaward of MHWS. The plan must include a mechanism for reporting oil, fuel and chemical spills to the MMO Marine Pollution Response Team;
 - (ii) a chemical risk analysis to include information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance;
 - (iii) a disposal plan detailing the locations, methods and timings of dredging and disposal, as well as disposal site monitoring requirements;
 - (iv) waste management and disposal arrangements;
 - (v) locations of any archaeological exclusion zones agreed as part of the written scheme of archaeological investigation approved under sub-paragraph (g) of this licence condition; and
 - (vi) the appointment and responsibilities of a fisheries liaison officer and an environmental liaison officer.
- (d) A scour protection management and cable armouring plan providing details of the need, type, sources, quantity, location and installation methods for scour protection and cable armouring to be within the scope of the environmental impact assessment recorded in the Environmental Statement.
- (e) In the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol following current best practice as advised by the statutory nature conservation agencies, which may include, but is not limited to—
- (i) identification of a Marine Mammal Mitigation Zone (MMMZ);
 - (ii) appointment of an appropriate number of suitably qualified marine mammal observer(s);
 - (iii) methods for the detection of marine mammals within the MMMZ whether visually (by the marine mammal observer(s)) or acoustically using Passive Acoustic Monitoring equipment or other means of detection;
 - (iv) a reporting methodology to enable efficient communication between the marine mammal observer(s) and the person responsible for approving commencement of piling;
 - (v) an appropriate soft start procedure whereby piling activities do not commence until an agreed time has elapsed and during which marine mammals have not been detected within the MMMZ;
 - (vi) where appropriate, methods for the application of acoustic deterrent devices; and
 - (vii) where appropriate, consideration of the use of noise reduction at source technologies.
- (f) Cable specification and installation plan, to include—
- (i) technical specification of offshore electrical circuits, including a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice; and
 - (ii) a detailed cable laying plan, including geotechnical data, cable laying techniques and a cable burial risk assessment encompassing the identification of any cable protection which exceeds 5% of navigable depth referenced to Chart Datum and, in the event that any area of cable protection exceeding 5% of navigable depth is

identified, details of any steps (to be determined following consultation with the MCA) to be taken to ensure existing and future safe navigation is not compromised.

- (g) A written scheme of archaeological investigation in relation to the Wind Farm Area in accordance with industry good practice to include—
 - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for any further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) analysis and reporting of survey data to be submitted to the MMO within four months of survey completion;
 - (iv) delivery of any mitigation including, where necessary, archaeological exclusion zones;
 - (v) monitoring during and post construction, including a conservation programme for finds;
 - (vi) archiving of archaeological material; and
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme.
- (h) A plan for marine mammal monitoring setting out the circumstances in which marine mammal monitoring will be required and the monitoring to be carried out in such circumstances.
- (i) An offshore project maintenance plan to be submitted to the MMO at least four months prior to commencement of the operation of the licensed activities and to include provision for the review and resubmission of the plan every three years during the operational phase.
- (j) An aids to navigation management plan specifying how the undertaker will ensure compliance with Condition 4 from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning.
- (k) 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.

(3) Prior to the submission of the pre-construction plans and documentation required by this condition the undertaker must provide a copy of the plans and documentation to the other undertakers under the Order.

(4) The undertaker shall participate in liaison meetings with other undertakers under the Order as requested from time to time by the MMO in writing in advance, which meetings shall be chaired by the MMO and shall consider such matters as are determined by the MMO relating to the efficient operation of a deemed marine licence where it has an impact on the efficient operation of any other deemed marine licence issued under the Order (including as varied or transferred).

(5) Prior to giving its approval under paragraph (2), the MMO must—

- (a) in relation to any programme, statement, plan or protocol submitted under sub-paragraphs (a) to (f), (h), (i) or (k), consult with the relevant statutory nature conservation body;
- (b) in relation to a scheme submitted under sub-paragraph (g), consult with Historic England; and
- (c) in relation to a plan submitted under sub-paragraph (j), consult with Trinity House.

9. The undertaker must ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS form with a digital copy of the report within 6 months of completion of construction of the authorised scheme. The undertaker must notify the MMO that the OASIS report has been submitted to the National Record of the Historic Environment within two weeks of the submission.

10.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 8—

- (a) shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or where an alternative date is agreed in writing by the MMO; and
- (b) shall be accompanied by—
 - (i) a statement confirming that the undertaker has complied with condition 8(3) in relation to such programme, statement, plan, protocol or scheme; and
 - (ii) any comments received by the undertaker from the other undertakers, or a statement from the undertaker confirming that no such comments were received.

(2) The undertaker must comply with the plans and documentation approved under licence condition 8 in carrying out the licensed activities unless otherwise agreed in writing by the MMO.

(3) Prior to agreeing an alternative date under paragraph (1)(a) or a change to approved details under paragraph (2) relating to any document in respect of which consultation is required under condition 8(5), the MMO must consult with the relevant consultation body referred to in that condition.

Reporting of engaged agents, contractors and vessels

11.—(1) The undertaker must provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities at least five working days prior to the commencement of the licensed activities or any part of them; and
- (b) each week during the construction of the authorised scheme, a completed Hydrographic Note H102 listing the construction vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO and MMO Coastal Office in writing prior to the agent, contractor or vessel engaging in the licensed activities. All agents, contractors and/or vessel operators will abide by the conditions set out in this licence.

Equipment and operation of vessels engaged in licensed activities

12.—(1) All vessels employed to perform the licensed activities shall be constructed and equipped to be capable of the proper performance of such activities in accordance with the conditions of this licence and shall comply with paragraphs (2) to (5).

(2) All motor powered vehicles must be fitted with—

- (a) electronic positioning aid to provide navigational data;
- (b) radar;
- (c) echo sounder; and
- (d) multi-channel VHF.

(3) All vessels' names or identification shall be clearly marked on the hull or superstructure of the vessel.

(4) All communication on VHF working frequencies shall be in English.

(5) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

Pre-construction monitoring and surveys

13.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant conservation body of proposed pre-construction surveys, including methodologies (including appropriate buffers, where relevant) and timings, and a proposed format and content for a pre-construction baseline report; and

- (a) the survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and shall 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; and
 - (b) the baseline report proposals shall 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 shall make clear what post-construction comparison is intended and the justification for this being required.
- (2) Subject to receipt from the undertaker of specific proposals pursuant to this condition, so far as applicable, the pre-construction surveys will comprise, in outline—
- (a) a high resolution swath bathymetric survey to include a 100% coverage and a side scan sonar survey of the part(s) of the Wind Farm Area in which it is proposed to carry out construction works and disposal activities under this licence;
 - (b) any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with Condition 8(2)(k);
 - (c) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance (including Annex 1 Habitats) in the part(s) of the Wind Farm Area in which it is proposed to carry out construction works under this licence; and
 - (d) any marine mammal monitoring required by the plan for marine mammal monitoring submitted in accordance with condition 8(2)(h).
- (3) The undertaker must carry out the surveys agreed under paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

Construction monitoring

14.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant statutory nature conservation body of any proposed construction monitoring, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general 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 pre-construction position and/or will enable the validation or otherwise of key predictions in the Environmental Statement.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this condition, so far as applicable, the construction monitoring will comprise, in outline—

- (a) unless the MMO agrees otherwise in writing, measurements of noise generated by the installation of the first four foundations of each discrete foundation type to be constructed under this licence where driven or part-driven pile foundations are used;
- (b) recording of any visual sightings or acoustic detection of marine mammals where required as part of the marine mammal mitigation protocol under condition 8(2)(e); and
- (c) any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with Condition 8(2)(k).

(3) The undertaker must carry out the surveys approved under paragraph (1), including any further noise monitoring required in writing by the MMO under paragraph (4), 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 body.

(4) The results of the initial noise measurements monitored in accordance with paragraph (2)(a) must be provided to the MMO within six weeks of the installation of the first four foundations of

each discrete foundation type. The assessment of this report by the MMO shall determine whether any further noise monitoring is required.

(5) Construction monitoring shall include vessel traffic monitoring by Automatic Identification System for the duration of the construction period. A report will be submitted to the MMO and the MCA at the end of each year of the construction period.

Post-construction

15.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant statutory nature conservation body of proposed post-construction surveys, including methodologies (including appropriate buffers, where relevant) and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and shall 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) Subject to receipt of specific proposals, so far as applicable, the post-construction surveys will comprise, in outline—

- (a) any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with Condition 8(2)(k);
- (b) a high resolution swath bathymetric survey of the following to assess any changes in bedform morphology—
 - (i) a representative sample area, as may be agreed in writing with the MMO, of the part(s) of the Wind Farm Area within which construction works and disposal activities were carried out under this licence, and such further monitoring as may be required to ensure that the cables have been buried or protected; and
 - (ii) an area not to exceed 125 per cent of the predicted scour area around a selection of turbines, such selection to be based on the desk based assessment.
- (c) a survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance (including Annex 1 Habitats) identified in the pre-construction survey in the part(s) of the Wind Farm Area in which construction works were carried out. The survey design will be informed by the results of the pre-construction benthic survey;
- (d) any marine mammal monitoring required by the plan for marine mammal monitoring submitted in accordance with condition 8(2)(h); and
- (e) vessel traffic monitoring by Automatic Identification System, for 28 days taking account seasonal variations in traffic patterns, for a maximum duration of one year post construction. A report will be submitted to the MMO and the MCA at the end of the first year after construction is completed.

(3) The undertaker must carry out the surveys agreed under 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 body.

(4) Prior to carrying out the survey required under paragraph (2)(b), the undertaker must submit to the MMO for written approval a desk based assessment (which takes account of all factors which influence scour) identifying the turbines with greatest potential for scour. The survey will be used to validate the desk based assessment and the significance of any differences between the predicted scour and recorded scour will be assessed in the survey report which will be submitted to the MMO. The need for further surveys will be agreed in writing with the MMO following submission of the first year of survey data

Amendments to approved details

16.—(1) With respect to any condition of this licence which requires the licensed activities to be carried out in accordance with the plans and programmes approved by the MMO, the approved plans and programmes shall be 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 must be in accordance with the principles and assessments set out in the environmental statement. Such agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the MMO that the subject matter of the agreement sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Offshore decommissioning

17. No decommissioning activities shall commence until plans for the carrying out of such activities have been submitted to and approved in writing by the MMO. The plans shall be submitted for approval at least four months prior to the intended start of the decommissioning activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

SCHEDULE K

Article 36

Deemed marine licence under the Marine and Coastal Access Act 2009, Deemed Marine Licence B2: Project B – Transmission Assets

PART 1

Licensed Marine Activities

Interpretation

1.—(1) In this licence—

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“ancillary vessel” means any vessel other than a construction vessel or a survey vessel;

“ancillary works” means the ancillary works described in paragraph 2 of Part 1 of this licence which are not development within the meaning of section 32 of the 2008 Act;

“Annex 1 Habitat” means such habitat as defined under the EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora;

“authorised deposits” means the substances and articles specified in paragraph 2(3) of Part 1 of this licence;

“authorised development” means development described in Part 1 of Schedule A of the Order, which is development within the meaning of section 32 of the 2008 Act;

“authorised project” means the authorised development and the ancillary works authorised by the Order;

“authorised scheme” means Work Nos. 2B, 3B, 4B and 5B described in paragraph 2 of Part 1 of this licence;

“Cefas” means the Centre for Environment, Fisheries and Aquaculture Science or any replacement body;

“commence” means the first carrying out of any part of the licensed activities, save for pre-construction surveys and monitoring, and “commencement” shall be construed accordingly;

“construction vessel” means any vessel involved in the course of or used for the construction and/or maintenance of the authorised project;

“debris” means items or equipment of a significant size left on the seabed being lost from survey, construction or maintenance vessels or the structures comprised within the authorised scheme;

“EIA Regulations” means the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009;

“electrical circuit” means a number of electrical conductors necessary to transmit electricity between two points within the authorised project; this comprises, in the case of HVAC transmission, three conductors which may be bundled as one cable, and, in the case of HVDC transmission two conductors, which may be attached together or take the form of single cables: the circuit may include one or more auxiliary cables (normally fibre optic cables) for the purpose of control, monitoring, protection or general communications;

“enforcement officer” means a person authorised to carry out enforcement duties under Part 4 of Chapter 3 of the 2009 Act;

“the Environmental Statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order;

“gravity base foundation” means either—

- (a) a structure principally of concrete and/or steel which rests on the seabed due either to its own weight and that of added ballast or to the weight of water above it, and may include associated equipment including suction piles, J-tubes and access platforms; or
- (b) a structure principally of concrete and/or steel consisting of a platform supported on two pontoons to which the platform is connected by columns which may be connected by braces;

“high tide” means the state of the tide when it reaches its highest level during a tidal cycle, as may be published from time to time on the United Kingdom Hydrographic Office Admiralty EasyTide Website, or such other publication as may be approved by the MMO;

“HVAC” means high voltage alternating current;

“HVDC” means high voltage direct current;

“the in-principle monitoring plan” means the document certified as the in-principle monitoring plan by the Secretary of State for the purposes of the Order;

“the intertidal area” means the area between mean high water springs and mean low water springs;

“the intertidal works plans” means the part of the works plans described as the intertidal works plans;

“jacket foundation” means a lattice construction comprising tubular members and joints which are fixed to the seabed with piles (either driven/drilled piles or suction piles) and which will include platforms and J-tubes and may include braced monopiles and a transition piece;

“the Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“LAT” means lowest astronomical tide;

“licensed activities” means the activities specified in Part 1 of this licence;

“the licence conditions” means the conditions set out in Part 2 of this licence;

“maintain”, unless otherwise provided for, includes inspect, repair, adjust, alter, remove, reconstruct and replace any of the authorised development, and any derivative of “maintain” shall be construed accordingly;

“major storm event” means a greater than one in ten year wave event within the offshore Order limits seaward of MHWS in terms of wave height, measured by reference to the height of waves recorded at the nearest wave buoy to the authorised scheme as agreed with the

MMO, and the WaveNet data published by Cefas, or such other means of measurement as may be agreed with the MMO;

“the Marine Management Organisation” or “MMO” means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence or any successor to its statutory functions;

“Marine Noise Registry” means the online database accessible at [[insert link to MNR](#)] and maintained by the Joint Nature Conservation Committee on behalf of Defra that records the spatial and temporal distribution of impulsive noise generating activities in UK seas in order that they can be analysed to determine whether they may potentially compromise the achievement of Good Environmental Status;

“the Maritime and Coastguard Agency” or “MCA” means the executive agency of the Department for Transport or any successor to its statutory functions;

“mean high water springs” or “MHWS” means the highest level which spring tides reach on average over a period of time;

“mean low water springs” or “MLWS” means the lowest level which spring tides reach on average over a period of time;

“monopile foundation” comprises a large diameter steel or concrete tube or pile driven vertically into the seabed, J-tubes and platforms and may include external structural devices such as bracing members or steel anchor wires and a transition piece;

“Natural England” means the body established by section 1 of the Natural Environment and Rural Communities Act 2006 or any successor to its statutory functions;

“Notice to Mariners” includes any Notice to Mariners which may be issued by Admiralty, Trinity House, Queen’s harbourmasters, government departments and harbour and pilotage authorities;

“offshore accommodation platform” means a platform housing or incorporating temporary accommodation, landing ports for vessels and/or helicopters, standby electricity generation equipment, marking and lighting and other equipment facilities to assist in the co-ordination of marine activities related to the authorised scheme;

“offshore HVAC collector substation” means a structure serving as a collection point for the inter-array electrical circuits and containing equipment with the purpose of transforming the electricity generated at the wind turbines to a higher voltage; it may also include a helicopter platform;

“offshore HVDC converter substation” means a structure which contains equipment to convert HVAC electricity to HVDC electricity; it may also include a helicopter platform;

“offshore Order limits” means the limits shown on the offshore works plans and the intertidal works plans within which the authorised scheme may be carried out, whose grid co-ordinates are set out in paragraph 2(2) of Part 1 of this licence;

“offshore reactive compensation substation” means a structure housing electrical reactors for the purpose of limiting electrical losses in the course of HVAC transmission by providing reactive compensation; it may also include a helicopter platform;

“the offshore works plans” means the part of the works plans described as the offshore works plans;

“the Order limits” means the limits shown on the works plans within which the authorised project may be carried out;

“the Order” means the Hornsea Two Offshore Wind Farm Order 201[X];

“suction pile” means a large diameter steel cylinder which is fixed to the base of the foundation and partially penetrates the seabed and remains in place using its weight and hydrostatic pressure differential;

“survey vessels” means the vessels licensed to carry out environmental or engineering surveys;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“the UK Hydrographic Office” means the Hydrographic Office of the Ministry of Defence, Taunton, Somerset TA1 2DN or any replacement body or successor to its functions;

“undertaker” means Breesea Limited or, to the extent that the benefit of the provisions of the Order and related statutory rights in relation to Works Nos. 2B, 3B, 4B or 5B and such associated development or ancillary works has been transferred under article 35 of the Order to another person, that other person;

“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 and including ancillary vessels and construction vessels;

“VHF” means very high frequency;

“Wind Farm Area” means the area within the limits of deviation for Work No. 2B of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“wind turbine generator” or “wind turbine” means a structure comprising any or all of a tower, rotor, blades, nacelle and ancillary electrical and other equipment or structures which may include lighting and a helicopter platform, fixed to a foundation;

“working day” means any day other than a Saturday, Sunday or public holiday in England and Wales;

“Work No. 2A” means up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B;

“Work No. 2B” means up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B;

“Work No. 3A” means up to two offshore reactive compensation substations fixed to the seabed in the event that the mode of transmission is HVAC;

“Work No. 3B” means up to two offshore reactive compensation substations fixed to the seabed in the event that the mode of transmission is HVAC;

“Work No. 4A” means a marine connection to the shore, including cable and pipeline crossing works which if the mode of transmission is HVAC, consists of up to eight subsea electrical circuits proceeding from the offshore HVAC collector substations comprised in Work No 2A via and connecting with the offshore reactive compensation substation comprised in Work No. 3A; or if the mode of transmission is HVDC, consists of up to two subsea electrical circuits proceeding from the offshore HVDC converter substations comprised in Work No 2A, and in either case terminates at Work No. 5A;

“Work No. 4B” means a marine connection to the shore, including cable and pipeline crossing works which if the mode of transmission is HVAC, consists of up to eight subsea electrical circuits proceeding from the offshore HVAC collector substations comprised in Work No 2B via and connecting with the offshore reactive compensation substation comprised in Work No. 3B; or if the mode of transmission is HVDC, consists of up to two subsea electrical circuits proceeding from the offshore HVDC converter substations comprised in Work No 2B, and in either case terminates at Work No. 5B;

“Work No. 5A” means a foreshore connection consisting of an extension of the electrical circuits comprised in Work No. 4A, including cable crossing works, crossing under the existing sea wall using trenchless duct and cable installation methods and terminating at the electrical circuit transition joint bays comprising Work No. 6A;

“Work No. 5B” means a foreshore connection consisting of an extension of the electrical circuits comprised in Work No. 4B, including cable crossing works, crossing under the existing sea wall using trenchless duct and cable installation methods and terminating at the electrical circuit transition joint bays comprising Work No. 6B;

“Work No. 6A” means up to eight underground electrical circuit transition joint bays in the vicinity of Horseshoe Point in the parish of North Coates in the county of Lincolnshire, housing the connections between the offshore electrical circuits comprised in Work No. 5A and the onshore electrical circuits;

“Work No. 6B” means up to eight underground electrical circuit transition joint bays in the vicinity of Horseshoe Point in the parish of North Coates in the county of Lincolnshire, housing the connections between the offshore electrical circuits comprised in Work No. 5B and the onshore electrical circuits; and

“the works plans” means the plans certified as the works plans by the Secretary of State for the purposes of the Order divided into three parts and described as the offshore works plans, the intertidal works plans and the onshore works plans.

(2) A reference to any statute, order, regulation or similar instrument shall 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 subsequent re-enactment.

(3) Unless otherwise indicated—

(a) all times shall be taken to be Greenwich Mean Time (GMT);

(b) all co-ordinates shall be taken to be latitude and longitude degrees, minutes and seconds to three decimal places in WGS84 Datum.

(4) Except where otherwise notified in writing by the relevant organisation, the primary point of contact with the organisations listed below and the address for returns and correspondence shall be—

(a) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle upon Tyne

NE4 7YH

Tel: 0300 123 1032

E-mail: marine.consents@marinemangement.org.uk

(b) Marine Management Organisation (referred to as the “MMO Coastal Office”)

Neville House

Central Riverside

Bell Street

North Shields

Tyne and Wear

NE30 1LJ

Tel (24-hour answer phone): 0191 257 4520 or 0191 257 0159

E-mail: northshields@marinemangement.org.uk

(c) Trinity House

Tower Hill

London

EC3N 4DH

Tel: 020 7481 6900

(d) The United Kingdom Hydrographic Office

Admiralty Way

Taunton

- Somerset
TA1 2DN
Tel: 01823 337 900
- (e) Maritime and Coastguard Agency
Navigation Safety Branch
Bay 2/04
Spring Place
105 Commercial Road
Southampton
SO15 1EG
Tel: 023 8032 9191
- (f) Centre for Environment, Fisheries and Aquaculture Science
Pakefield Road
Lowestoft
Suffolk
NR33 0HT
Tel: 01502 562 244
- (g) Natural England
Foss House
Kings Pool
1-2 Peasholme Green
York
North Yorkshire
YO1 7PX
Tel: 0300 060 1911
- (h) Historic Buildings and Monuments Commission for England (referred to as “Historic England”)
Eastgate Court
195-205 High Street
Guildford
GU1 3EH
Tel: 01483 252 057
- (i) Environment Agency
Waterside House
Waterside North
Lincoln
LN2 5HA
Tel: 03708 506 506

Details of licensed activities

2.—(1) This licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities pursuant to section 66(1) of the 2009 Act, subject to the licence conditions—

- (a) the deposit at sea of the substances and articles specified in sub-paragraph (3) below;

- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) dredging for the purposes of seabed preparation for foundation works and/or electrical circuit works;
- (d) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation;
- (e) the disposal at disposal site reference HU211 of up to 324,454 m³ comprising inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work No. 2B provided that the combined total volume of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work Nos. 2A and 2B disposed of at disposal site reference HU211 does not exceed 324,454 m³;
- (f) the disposal at disposal site reference HU211 of up to 92,048 m³ comprising inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work Nos. 2B and 4B provided that the combined total volume of inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work Nos. 2A, 2B, 4A and 4B disposed of at disposal site reference HU211 does not exceed 92,048 m³;
- (g) the disposal at disposal site reference HU209 of up to 38,485 m³ comprising inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work No. 3B provided that the combined total volume of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and/or dredged material produced during seabed preparation for foundation works comprised in Work Nos. 3A and 3B disposed of at disposal site reference HU209 does not exceed 38,485 m³;
- (h) the disposal at disposal site reference HU209 of up to 1,269,000 m³ comprising inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work No. 4B provided that the combined total volume of inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work Nos. 4A and 4B disposed of at disposal site reference HU209 does not exceed 1,269,000 m³;
- (i) the disposal at disposal site reference HU210 of up to 131,000 m³ comprising inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work No. 4B provided that the combined total volume of inert material of natural origin and/or dredged material produced during cable laying preparation works comprised in Work Nos. 4A and 4B disposed of at disposal site reference HU210 does not exceed 131,000 m³; and
- (j) the removal of the substances and articles specified in sub-paragraph (3) below.

(2) Such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 2B

Up to six offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter substations together with a network of electrical circuits connecting the structures within Work Nos. 2A and 2B provided that—

- (a) the combined total of offshore HVAC collector substations constructed in whole or in part within Work Nos. 2A and 2B does not exceed six; and
- (b) the combined total of offshore HVDC converter substations constructed in whole or in part within Work Nos. 2A and 2B does not exceed two.

Co-ordinates for the Wind Farm Area (limits of deviation for Work No. 2B)—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E
5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E
17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 50' 7.210" N	1° 26' 59.953" E

Work No. 3B

In the event that the mode of transmission is HVAC, up to two offshore reactive compensation substations fixed to the seabed at latitude point 53° 37' 54.291" N and longitude point 0° 55' 59.731" E and at latitude point 53° 38' 9.295" N and longitude point 0° 55' 49.576" E subject to deviation within the following limits of deviation, provided that the combined total of offshore reactive compensation substations constructed in whole or in part within Work Nos. 3A and 3B does not exceed two—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 38' 1.918" N	0° 55' 55.183" E
2	53° 38' 2.362" N	0° 55' 58.099" E
3	53° 38' 2.438" N	0° 56' 0.367" E
4	53° 38' 2.185" N	0° 56' 3.394" E
5	53° 38' 1.735" N	0° 56' 5.560" E
6	53° 38' 1.074" N	0° 56' 7.567" E
7	53° 37' 59.900" N	0° 56' 9.900" E
8	53° 37' 58.446" N	0° 56' 11.733" E
9	53° 37' 57.216" N	0° 56' 12.723" E
10	53° 37' 55.456" N	0° 56' 13.477" E
11	53° 37' 54.094" N	0° 56' 13.597" E
12	53° 37' 52.296" N	0° 56' 13.156" E
13	53° 37' 51.011" N	0° 56' 12.387" E
14	53° 37' 49.821" N	0° 56' 11.266" E

15	53° 37' 48.441" N	0° 56' 9.279" E
16	53° 37' 47.358" N	0° 56' 6.825" E
17	53° 37' 46.776" N	0° 56' 4.750" E
18	53° 37' 46.409" N	0° 56' 2.540" E
19	53° 37' 46.268" N	0° 56' 0.258" E
20	53° 37' 46.357" N	0° 55' 57.969" E
21	53° 37' 46.828" N	0° 55' 55.017" E
22	53° 37' 47.678" N	0° 55' 52.316" E
23	53° 37' 48.540" N	0° 55' 50.538" E
24	53° 37' 49.567" N	0° 55' 49.029" E
25	53° 37' 51.143" N	0° 55' 47.509" E
26	53° 37' 52.881" N	0° 55' 46.618" E
27	53° 37' 54.238" N	0° 55' 46.392" E
28	53° 37' 56.046" N	0° 55' 46.691" E
29	53° 37' 57.351" N	0° 55' 47.359" E
30	53° 37' 58.570" N	0° 55' 48.386" E
31	53° 38' 0.004" N	0° 55' 50.262" E
32	53° 38' 1.153" N	0° 55' 52.630" E
33	53° 38' 1.792" N	0° 55' 54.657" E
34	53° 38' 1.346" N	0° 55' 51.708" E
35	53° 38' 1.300" N	0° 55' 48.665" E
36	53° 38' 1.657" N	0° 55' 45.681" E
37	53° 38' 2.399" N	0° 55' 42.906" E
38	53° 38' 3.490" N	0° 55' 40.477" E
39	53° 38' 5.257" N	0° 55' 38.112" E
40	53° 38' 6.910" N	0° 55' 36.872" E
41	53° 38' 8.684" N	0° 55' 36.281" E
42	53° 38' 10.939" N	0° 55' 36.497" E
43	53° 38' 12.244" N	0° 55' 37.130" E
44	53° 38' 13.467" N	0° 55' 38.122" E
45	53° 38' 15.233" N	0° 55' 40.491" E
46	53° 38' 16.080" N	0° 55' 42.277" E
47	53° 38' 16.738" N	0° 55' 44.277" E
48	53° 38' 17.187" N	0° 55' 46.433" E
49	53° 38' 17.441" N	0° 55' 49.447" E
50	53° 38' 17.365" N	0° 55' 51.746" E
51	53° 38' 16.908" N	0° 55' 54.716" E
52	53° 38' 16.068" N	0° 55' 57.438" E
53	53° 38' 15.210" N	0° 55' 59.234" E
54	53° 38' 13.812" N	0° 56' 1.201" E
55	53° 38' 12.609" N	0° 56' 2.302" E
56	53° 38' 10.868" N	0° 56' 3.211" E
57	53° 38' 9.507" N	0° 56' 3.449" E
58	53° 38' 8.141" N	0° 56' 3.296" E
59	53° 38' 6.381" N	0° 56' 2.496" E
60	53° 38' 4.772" N	0° 56' 1.053" E
61	53° 38' 3.714" N	0° 55' 59.591" E
62	53° 38' 2.560" N	0° 55' 57.217" E

Work No. 4B

A marine connection to the shore, including cable and pipeline crossing works which—

- (a) if the mode of transmission is HVAC, consists of up to eight subsea electrical circuits proceeding from the offshore HVAC collector substations comprised in Work No 2B via and connecting with the offshore reactive compensation substations comprised in Work No. 3B; or
- (b) if the mode of transmission is HVDC, consists of up to two subsea electrical circuits proceeding from the offshore HVDC converter substations comprised in Work No 2B, and in either case terminates at Work No. 5B.

provided that the combined total of electrical circuits constructed in whole or in part within Work Nos. 4A and 4B does not exceed, in the event that the mode of transmission is HVDC, two, and in the event that the mode of transmission is HVAC, eight.

Principal co-ordinates for marine export cable area (limits of deviation for Work No. 4B) of which the full co-ordinates are set out in the offshore works plans—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E
5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E
17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 46' 7.286" N	1° 38' 16.673" E
25	53° 46' 4.677" N	1° 37' 22.711" E
27	53° 44' 47.813" N	1° 28' 38.495" E
32	53° 44' 47.743" N	1° 27' 26.607" E
34	53° 44' 36.477" N	1° 25' 23.743" E
141	53° 42' 30.629" N	1° 15' 58.654" E
152	53° 42' 28.182" N	1° 14' 34.895" E
264	53° 39' 35.134" N	1° 6' 29.785" E
316	53° 38' 17.582" N	1° 2' 16.928" E

447	53° 36' 54.624" N	0° 51' 31.062" E
449	53° 36' 15.738" N	0° 48' 52.425" E
513	53° 35' 21.166" N	0° 43' 44.242" E
515	53° 31' 50.425" N	0° 40' 55.898" E
516	53° 31' 38.281" N	0° 40' 8.340" E
521	53° 28' 36.676" N	0° 20' 3.846" E
532	53° 31' 43.122" N	0° 12' 21.707" E
533	53° 30' 57.432" N	0° 5' 59.890" E
534	53° 31' 11.028" N	0° 5' 42.539" E
535	53° 30' 42.954" N	0° 5' 10.787" E
536	53° 30' 42.180" N	0° 5' 9.912" E
537	53° 30' 46.588" N	0° 4' 55.345" E
538	53° 30' 52.245" N	0° 4' 59.515" E
539	53° 31' 25.514" N	0° 5' 24.049" E
540	53° 31' 29.574" N	0° 5' 27.043" E
580	53° 32' 16.976" N	0° 12' 37.072" E
763	53° 29' 11.523" N	0° 20' 5.981" E
1001	53° 31' 28.589" N	0° 35' 44.348" E
1002	53° 32' 0.855" N	0° 37' 42.781" E
1003	53° 32' 17.793" N	0° 39' 31.883" E
1004	53° 32' 35.749" N	0° 39' 45.737" E
1005	53° 33' 8.117" N	0° 39' 47.665" E
1006	53° 34' 28.861" N	0° 41' 27.396" E
1007	53° 35' 42.522" N	0° 42' 37.802" E
1010	53° 36' 25.571" N	0° 43' 54.129" E
1081	53° 37' 2.569" N	0° 47' 31.846" E
1083	53° 37' 30.986" N	0° 49' 14.023" E
1086	53° 37' 29.991" N	0° 51' 27.606" E
1087	53° 37' 36.904" N	0° 52' 22.841" E
1111	53° 38' 45.654" N	0° 57' 1.237" E
1143	53° 39' 16.652" N	1° 1' 1.016" E
1149	53° 39' 42.566" N	1° 1' 40.167" E
1155	53° 41' 20.037" N	1° 6' 45.836" E
1157	53° 42' 59.843" N	1° 14' 18.127" E
1164	53° 43' 0.151" N	1° 15' 37.960" E
1165	53° 44' 0.963" N	1° 20' 9.157" E
1166	53° 49' 6.492" N	1° 25' 51.682" E
1167	53° 50' 7.210" N	1° 26' 59.953" E

Work No. 5B

A foreshore connection consisting of an extension of the electrical circuits comprised in Work No. 4B, including cable crossing works, crossing under the existing sea wall using trenchless duct and cable installation methods and terminating at the electrical circuit transition joint bays (Work No. 6B).

And in connection with such Work Nos. 2B, 3B, 4B and 5B, further associated development as may be necessary or expedient in connection with the authorised scheme within the Order limits and which fall within the scope of the environmental impact assessment recorded in the Environmental Statement;

And in connection with such Work Nos. 2B, 3B, 4B and 5B, ancillary works consisting of works and operations within the Order limits comprising temporary anchorage of vessels and buoys, beacons, fenders and other navigational warning or ship impact protection works.

(3) The substances or articles authorised for deposit at sea and removal are—

- (a) iron and steel;
- (b) stone and rock;
- (c) concrete;
- (d) sand and gravel;
- (e) plastic and synthetic; and
- (f) material extracted from within the offshore Order limits during construction drilling and seabed preparation for foundation works and cable sandwave preparation works.

(4) The grid co-ordinates for disposal site reference HU211 are—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	54° 0' 31.626" N	1° 26' 19.993" E
2	54° 0' 18.479" N	1° 38' 37.320" E
3	54° 0' 15.768" N	1° 40' 21.864" E
4	53° 59' 36.924" N	2° 3' 45.936" E
5	53° 57' 24.509" N	2° 6' 6.700" E
6	53° 57' 12.481" N	2° 4' 32.376" E
7	53° 56' 46.586" N	2° 5' 4.031" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 55' 22.663" N	2° 2' 14.219" E
10	53° 55' 2.525" N	1° 59' 45.776" E
11	53° 55' 35.429" N	1° 59' 20.944" E
12	53° 55' 8.162" N	1° 56' 10.619" E
13	53° 55' 23.329" N	1° 55' 20.262" E
14	53° 55' 37.592" N	1° 53' 38.108" E
15	53° 55' 31.318" N	1° 52' 54.282" E
16	53° 56' 22.870" N	1° 51' 57.409" E
17	53° 55' 46.445" N	1° 47' 47.796" E
18	53° 58' 42.179" N	1° 44' 31.880" E
19	53° 58' 17.828" N	1° 41' 46.795" E
20	53° 56' 29.670" N	1° 43' 45.592" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 55' 9.293" N	1° 39' 52.024" E
23	53° 50' 5.118" N	1° 38' 58.430" E
24	53° 50' 7.210" N	1° 26' 59.953" E

(5) The grid co-ordinates for disposal site reference HU209 are—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
A	53° 36' 40.490" N	0° 50' 41.571" E
B	53° 36' 54.624" N	0° 51' 31.062" E
C	53° 37' 22.048" N	0° 55' 08.301" E
D	53° 37' 38.643" N	0° 57' 17.843" E
E	53° 37' 56.680" N	0° 59' 39.524" E
F	53° 38' 15.917" N	1° 02' 08.601" E

G	53° 39' 35.134" N	1° 06' 29.785" E
H	53° 41' 22.549" N	1° 11' 30.804" E
I	53° 42' 14.598" N	1° 10' 44.250" E
J	53° 41' 19.717" N	1° 06' 44.682" E
K	53° 39' 41.954" N	1° 01' 38.714" E
L	53° 39' 16.652" N	1° 01' 01.016" E
M	53° 38' 45.654" N	0° 57' 01.237" E
N	53° 37' 36.904" N	0° 52' 22.841" E
O	53° 37' 29.991" N	0° 51' 27.606" E
P	53° 37' 30.124" N	0° 50' 57.716" E

(6) The grid co-ordinates for disposal site reference HU210 are—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
W	53° 43' 14.348" N	1° 19' 13.563" E
X	53° 43' 52.989" N	1° 22' 07.248" E
Y	53° 44' 22.957" N	1° 21' 47.484" E
Z	53° 43' 44.110" N	1° 18' 53.902" E

(7) The provisions of section 72 of the 2009 Act shall apply to this licence, save that the provisions of section 72(7) and 72(8) relating to the transfer of the licence shall only apply to a transfer not falling within article 35 of the Order.

Maintenance of authorised project

3.—(1) Subject to the other terms of this licence, the undertaker may at any time maintain the authorised project, except to the extent that this licence or an agreement made under this licence, provides otherwise. No maintenance works whose likely effects on the environment require to be assessed in accordance with the EIA Regulations and are not assessed in the environmental statement shall take effect, unless otherwise approved by the MMO.

(2) Where the MMO's approval is required under sub-paragraph (1), such consent must only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the MMO that the approval sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Duration

4. This licence shall remain in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 of the Energy Act 2004, 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.

PART 2

Licence Conditions

Design parameters

- 1.—(1) Each offshore HVAC collector substation forming part of Work Nos. 2B must not—
- (a) exceed 64 metres in height above LAT;
 - (b) have a platform which at its greatest extent exceeds 3,600 square metres or 60 metres in width.

- (2) Each offshore HVDC converter substation forming part of Work Nos. 2B must not—
- (a) exceed 110 metres in height above LAT;
 - (b) have a platform which at its greatest extent exceeds 16,200 square metres or 180 metres in width.
- (3) The offshore reactive compensation substation comprised in Work Nos. 3B must not—
- (a) exceed 64 metres in height above LAT; or
 - (b) have a platform which at its greatest extent exceeds 3,600 square metres or 60 metres in width.
- (4) The diameter of the electrical circuits comprising the electrical circuits must not exceed the following limitations—
- (a) within Work No. 2B, 300 mm;
 - (b) within Work Nos. 4B and 5B, 190 mm where the mode of transmission is HVDC and 300 mm where the mode of transmission is HVAC.
- (5) The combined total length of the electrical circuits comprised in Work Nos. 4A, 4B, 5A and 5B seaward of MHWS must not exceed 1,200 km.
- (6) The combined total area of cable protection for the electrical circuits comprising Work Nos. 2A and 2B must not exceed 546,000 square metres.
- (7) The combined total area of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located outwith the Humber Estuary Special Area of Conservation must not exceed 2,055,200 square metres.
- (8) The combined total area of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located within the Humber Estuary Special Area of Conservation must not exceed 44,800 square metres.
- (9) The total volume of cable protection for the electrical circuits comprising Work nos. 2A and 2B must not exceed 312,000 m³.
- (10) The total volume of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located outwith the Humber Estuary Special Area of Conservation must not exceed 1,174,400 m³.
- (11) The total volume of cable protection for the electrical circuits comprising Work Nos. 4A and 4B located within the Humber Estuary Special Area of Conservation must not exceed 25,600 m³.
- (12) The electrical circuits comprised in Work Nos. 2B and 4B must be installed by use of, or a combination of, ploughing, trenching, jetting, rock-cutting, dredging, surface laying with post lay burial, and where ground conditions make burial impracticable, by surface laying.
- (13) The electrical circuits comprised in Work No. 5B must be installed by use of, or a combination of, ploughing, trenching and jetting.

2.—(1) The undertaker must in fixing to the seabed any structures comprised in Work Nos. 2B and 3B use one of the following methods—

- (a) monopile foundations;
- (b) jacket foundations supported by piles; or
- (c) gravity base foundations.

(2) The undertaker must not use the monopile foundation method or any other method which includes braced monopiles to fix to the seabed any offshore HVDC converter substation.

(3) The following parameters apply in respect of the foundation methods used to fix offshore HVAC collector substations to the seabed—

- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,963 square metres;

- (ii) the diameter of each foundation must not exceed ten metres;
 - (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 1,924 square metres;
 - (ii) the number of piles per jacket must not exceed eight;
 - (iii) the diameter of each pile must not exceed 3.5 metres;
 - (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 12,723 square metres;
 - (ii) the number of piles per jacket must not exceed eight;
 - (iii) the diameter of each pile must not exceed 15 metres;
 - (d) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.
- (4) The following parameters apply in respect of the foundation methods used to fix offshore HVDC converter substations to the seabed—
- (a) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 17,318 square metres;
 - (ii) the number of jacket foundations per topside must not exceed four;
 - (iii) the number of piles per topside must not exceed 72;
 - (iv) the number of piles per jacket must not exceed 18;
 - (v) the diameter of each pile must not exceed 3.5 metres;
 - (b) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 50,894 square metres;
 - (ii) the number of jacket foundations per topside must not exceed four;
 - (iii) the number of piles per topside must not exceed 32;
 - (iv) the number of piles per jacket must not exceed eight;
 - (v) the diameter of each pile must not exceed 15 metres;
 - (c) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 27,300 square metres;
 - (ii) the number of pontoons for each individual structure must not exceed three;
 - (iii) the pontoons must not exceed 170 metres in length or 35 metres in width.
- (5) The following parameters apply in respect of the foundation methods used to fix the offshore reactive compensation substation to the seabed—
- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection must not exceed 1,963 square metres;
 - (ii) the diameter of each foundation must not exceed ten metres;
 - (b) where jacket foundations (driven/drilled piles) are used—
 - (i) the area occupied by the foundations and the scour protection must not exceed 1,414 square metres;

- (ii) the number of piles per jacket must not exceed eight;
- (iii) the diameter of each pile must not exceed three metres;
- (c) where jacket foundations (suction piles) are used—
 - (i) the area occupied by the foundations and the scour protection must not exceed 6,362 square metres;
 - (ii) the number of piles per jacket must not exceed four;
 - (iii) the diameter of each pile must not exceed 15 metres;
- (d) where gravity base foundations are used—
 - (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 square metres;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.

Navigational practice, safety and emergency response

3.—(1) No part of the authorised scheme seaward of MHWS is to commence until the MMO, in consultation with the MCA, has given written approval for an Emergency Response Co-operation Plan which includes full details of the emergency co-operation plans for the construction, operation and decommissioning phases of that part of the authorised scheme in accordance with the MCA recommendations contained within MGN 371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues”.

(2) No part of the authorised scheme seaward of MHWS is to commence 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 development, adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN 371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (including its annexes).

(3) The Emergency Response Co-operation Plan must be implemented as approved, unless otherwise agreed in writing by the MMO, in consultation with the MCA.

Aids to navigation

4.—(1) The undertaker must during the whole period from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning—

- (a) 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;
- (b) colour all structures in the authorised scheme as directed by Trinity House;
- (c) keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MWHS including—
 - (i) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
 - (ii) notice within 24 hours of any aids to navigation being established by the undertaker; and
 - (iii) notice within five working days of completion of construction of the authorised scheme;
- (d) submit reports to Trinity House detailing the working condition of aids to navigation quarterly, or as requested by Trinity House;
- (e) 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.

(2) Except as otherwise required by Trinity House under paragraph (1), the undertaker must colour all structures comprised in Work Nos. 2B and 3B yellow (colour code RAL 1023) from at least HAT to a height as directed by Trinity House. Unless the MMO otherwise directs, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Notifications and inspections

5.—(1) The undertaker must ensure that—

- (a) a copy of this licence and any subsequent amendments or revisions to it are provided to—
 - (i) all agents and contractors notified to the MMO in accordance with the conditions of this licence; and
 - (ii) the masters and transport managers responsible for the vehicles notified to the MMO in accordance with the conditions of this licence.
- (b) Within 28 days of receipt of a copy of this licence those persons referred to in subparagraph (a) shall provide a completed confirmation form to the MMO confirming their understanding of the terms and conditions of this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 11 are permitted to carry out the licensed activities.

(3) Copies of this licence shall 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 for the authorised deposits; and
- (c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits are to be made.

(4) The documents referred to in paragraph (1)(a) shall be available for inspection by an enforcement officer at the locations set out in paragraph (3) above at any time.

(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 construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Marine Licensing Team and the MMO Coastal Office in writing at least five working days prior to the commencement of the licensed activities or any part of them.

(7) The Kingfisher Information Service of Seafish, must be informed by email of details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part to kingfisher@seafish.co.uk—

- (a) at least two weeks prior to the construction of the authorised scheme or relevant part, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
- (b) on completion of the construction of the authorised scheme or relevant part.

Confirmation of notification must be provided to the MMO within 5 working days of notification to the Kingfisher Information Service of Seafish.

(8) The undertaker must ensure that a Notice to Mariners is issued at least ten working days prior to the commencement of the licensed activities advising of the commencement of licensed activities within the offshore Order limits and the expected vessel routes from the local service ports to the location of the works comprised within the authorised scheme.

(9) The undertaker must ensure that the Notices to Mariners are updated and reissued at weekly intervals during construction activities and at least five days before any planned operation and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under licence condition 8(2)(a). Copies of all notices must be provided to the MMO within 10 working days of issue.

(10) The undertaker must notify—

- (a) the UK Hydrographic Office of commencement (within two weeks), progress and completion (within two weeks) of the authorised scheme in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO; and
- (b) the Defence Geographic Centre at least four weeks prior to the commencement of the authorised scheme, and of the progress and completion (within two weeks) of the authorised scheme, in order that all necessary amendments to aviation charts are made.

(11) In case of damage to, or destruction or decay of, the authorised scheme or any part of it seaward of MHWS 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, Trinity House, MCA and the UK Hydrographic Office.

(12) In the event that the Marine Noise Registry has gone live prior to the commencement of impact pile driving—

- (a) the licence holder must submit details on the expected location, start and end dates of impact pile driving to the Marine Noise Registry prior to the commencement of the impact pile driving; and
- (b) the licence holder must notify the MMO of the successful submission of the details required under sub-paragraph (a) within seven days of the submission.

(13) In the event that the Marine Noise Registry has gone live at the time of impact pile driving—

- (a) the licence holder must submit the exact locations and dates of impact pile driving to the Marine Noise Registry at six month intervals from the commencement of impact pile driving until the completion of impact pile driving. The final data must be submitted within 12 weeks of completion of impact pile driving; and
- (b) the licence holder must notify the MMO of the successful submission of the details required under sub-paragraph (a) within seven days of the submission.

Chemicals, drilling and debris

6.—(1) All chemicals used in the construction of the authorised scheme shall be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002 (as amended), unless otherwise agreed in writing by the MMO.

(2) The undertaker must ensure that any coatings or treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by Health and Safety Executive or the Environment Agency Pollution Prevention Guidelines.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances shall be undertaken so as to prevent releases into the marine environment including bunding of 110 per cent of the total volume of all reservoirs and containers.

(4) Where foundation drilling works are proposed, in the event that any system other than water based mud is proposed the MMO's written approval in relation to the proposed disposal of any arisings shall be obtained before the drilling commences, which disposal may also require a marine licence.

(5) The undertaker must ensure that, where practicable, any debris arising from the construction of the authorised scheme or temporary works placed seaward of MHWS are removed by a date no later than 28 days following the undertaker becoming aware of the debris after the completion of the authorised scheme (or by such later date as may be agreed in writing by the MMO). In the event that such debris cannot practicably be removed, the undertaker must notify the MMO, Trinity House and the MCA within seven days of becoming aware that the debris cannot practicably be removed.

(6) At least ten days prior to the commencement of the licensed activities the undertaker must submit to the MMO an audit sheet covering all aspects of the construction of the authorised

scheme and no works shall commence until the audit sheet content has been agreed with the MMO. The audit sheet shall include details of—

- (a) loading facilities;
- (b) vessels;
- (c) equipment;
- (d) shipment routes;
- (e) working schedules; and
- (f) all components and materials to be used in the construction of the authorised scheme.

(7) The audit sheet shall be maintained throughout the construction of the authorised scheme and the MMO shall be notified of any changes on a fortnightly basis.

(8) In the event that the undertaker becomes aware that any of the materials on the audit sheet cannot be accounted for it must notify the MMO within 24 hours where possible, and in any event within five days of becoming aware using the Dropped Object Procedure Form. On receipt of 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. Local fishermen shall be invited to send a representative to be present during the survey. The MMO may require any new obstructions associated with the authorised scheme to be removed from the seabed at the undertaker's expense if reasonable to do so.

(9) All debris arising from the operation and maintenance of the authorised scheme must be reported to the MMO using the Dropped Object Procedure Form within 24 hours where possible, and in any event within five days of the undertaker becoming aware of the incident. On receipt of 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 any new obstructions associated with the authorised scheme to be removed from the seabed at the undertaker's expense if reasonable to do so.

(10) The undertaker must inform the MMO of the location and quantities of inert material and dredged material disposed of each month under this licence at each of disposal site reference HU211, disposal site reference HU209 and disposal site reference HU210, by submission of a disposal return for each disposal area by 31 January each year for disposals occurring during the months July to December inclusive of the preceding year, and by 31 July each year for disposals occurring during the months January to June inclusive of that year.

(11) The undertaker must ensure that only—

- (a) inert material of natural origin and drilling mud, produced during construction drilling and seabed preparation for foundation works comprised in Work No. 2B;
- (b) dredged material produced during seabed preparation for foundation works comprised in Work No. 2B; and
- (c) inert material of natural origin and dredged material produced during cable laying preparation works comprised in Work No. 2B and Work No. 4B;

shall be disposed of at disposal site reference HU211.

(12) The undertaker must ensure that only—

- (a) inert material of natural origin and drilling mud, produced during construction drilling and seabed preparation for foundation works comprised in Work No. 3B;
- (b) dredged material produced during seabed preparation for foundation works comprised in Work No. 3B; and
- (c) inert material of natural origin and dredged material produced during cable laying preparation works comprised in Work No. 4B;

shall be disposed of at disposal site reference HU209.

(13) The undertaker must ensure that only inert material of natural origin and dredged material produced during cable laying preparation works comprised in Work No. 4B shall be disposed of at disposal site reference HU210.

(14) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete, cement mixing and washing areas must be contained to prevent run-off entering the water through the freeing ports.

(15) 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.

(16) The undertaker must notify the MMO within 48 hours of the completion of the final authorised disposal at disposal site reference HU211.

(17) The undertaker must notify the MMO within 48 hours of the completion of the final authorised disposal at disposal site reference HU209.

(18) The undertaker must notify the MMO within 48 hours of the completion of the final authorised disposal at disposal site reference HU210.

Force majeure

7. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit—

- (a) authorised deposits outside of the offshore Order limits or disposal site references HU209, HU210 or HU211; or
- (b) unauthorised deposits within or outside of the offshore Order limits or disposal site references HU209, HU210 or HU211

because the safety of human life and/or of the vessel is threatened, full details of the circumstances of the deposit shall be notified to the MMO within 48 hours.

Pre-construction plans and documentation

8.—(1) The licensed activities shall 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—

- (a) A plan to be agreed in writing with the MMO following appropriate consultation with Trinity House and the MCA setting out proposed details of the authorised scheme, including the—
 - (i) number, dimensions, specification, foundation type(s) and depth for each offshore HVAC collector substation, offshore HVDC converter substation and offshore reactive compensation substation;
 - (ii) grid co-ordinates of the centre point of the proposed location for each offshore HVAC collector substation, offshore HVDC converter substation and offshore reactive compensation substation, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions;
 - (iii) proposed layout of all cables, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions; and
 - (iv) location and specification of all other aspects of the authorised scheme, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions.

(2) The licensed activities, or any phase of those activities, shall not commence until a Code of Construction Practice incorporating the following (insofar as relevant to that activity or phase of activity) has been submitted to and approved in writing by the MMO—

- (a) A construction and monitoring programme to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works; and

- (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction monitoring and related reporting in accordance with licence conditions 13, 14 and 15. The pre-construction survey programme and all pre-construction survey methodologies shall be submitted to the MMO for written approval by the MMO in consultation with the relevant statutory nature conservation body at least four months prior to the commencement of any survey works detailed within.
- (b) A construction method statement in accordance with the Environmental Statement and including details of—
 - (i) foundation installation, including any seabed preparation, drilling and disposal of arisings methods;
 - (ii) installation of offshore HVAC collector substations, offshore HVDC converter substations and offshore reactive compensation substations, including any seabed preparation and scour protection;
 - (iii) circuit installation, including any seabed preparation and circuit protection;
 - (iv) contractors;
 - (v) vessels; and
 - (vi) associated works.
- (c) A project environmental management and monitoring plan 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 seaward of MHWS. The plan must include a mechanism for reporting oil, fuel and chemical spills to the MMO Marine Pollution Response Team;
 - (ii) a chemical risk analysis to include information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance;
 - (iii) a disposal plan detailing the locations, methods and timings of dredging and disposal, as well as disposal site monitoring requirements;
 - (iv) waste management and disposal arrangements;
 - (v) locations of any archaeological exclusion zones agreed as part of the written scheme of archaeological investigation approved under sub-paragraph (g) of this licence condition;
 - (vi) any seasonal restrictions on construction works; and
 - (vii) the appointment and responsibilities of a fisheries liaison officer, an environmental liaison officer and an intertidal ecological clerk of works.
- (d) A scour protection management and cable armouring plan providing details of the need, type, sources, quantity, location and installation methods for scour protection and cable armouring to be within the scope of the environmental impact assessment recorded in the Environmental Statement;
- (e) In the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol following current best practice as advised by the statutory nature conservation agencies, which may include, but is not limited to—
 - (i) identification of a Marine Mammal Mitigation Zone (MMMZ);
 - (ii) appointment of an appropriate number of suitably qualified marine mammal observer(s);
 - (iii) methods for the detection of marine mammals within the MMMZ whether visually (by the marine mammal observer(s)) or acoustically using Passive Acoustic Monitoring equipment or other means of detection;

- (iv) a reporting methodology to enable efficient communication between the marine mammal observer(s) and the person responsible for approving commencement of piling;
 - (v) an appropriate soft start procedure whereby piling activities do not commence until an agreed time has elapsed and during which marine mammals have not been detected within the MMMZ;
 - (vi) where appropriate, methods for the application of acoustic deterrent devices; and
 - (vii) where appropriate, consideration of the use of noise reduction at source technologies.
- (f) Cable specification and installation plan, to include—
- (i) technical specification of offshore electrical circuits, including a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice;
 - (ii) a detailed cable laying plan, including geotechnical data, cable laying techniques and a cable burial risk assessment encompassing the identification of any cable protection which exceeds 5% of navigable depth referenced to Chart Datum and, in the event that any area of cable protection exceeding 5% of navigable depth is identified, details of any steps (to be determined following consultation with the MCA) to be taken to ensure existing and future safe navigation is not compromised;
 - (iii) details of the steps to be taken, where the offshore electrical circuits across the inter tidal zone are buried using trenching or ploughing to ensure that the excavation and subsequent backfilling is carried out in such a way as to maintain the sediment profile so far as is reasonably practicable to do so; and
 - (iv) details of the steps to be taken, where the offshore electrical circuits across the inter tidal zone are installed using a trenchless technique.
- (g) A written scheme of archaeological investigation in relation to the offshore Order limits seaward of MHWS in accordance with industry good practice to include—
- (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for any further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) analysis and reporting of survey data to be submitted to the MMO within four months of survey completion;
 - (iv) delivery of any mitigation including, where necessary, archaeological exclusion zones;
 - (v) monitoring during and post construction, including a conservation programme for finds;
 - (vi) archiving of archaeological material; and
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme.
- (h) A proposed survey and reinstatement plan for Salicornia forming Annex 1 Habitat in the part(s) of the offshore Order limits within which it is proposed to carry out construction works comprised in Work No. 5B, including the circumstances in which reinstatement will be required and the proposed methods of reinstatement.
- (i) An offshore project maintenance plan to be submitted to the MMO at least four months prior to commencement of the operation of the licensed activities and to include provision for the review and resubmission of the plan every three years during the operational phase.
- (j) An aids to navigation management plan specifying how the undertaker will ensure compliance with Condition 4 from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning.

(3) Prior to the submission of the pre-construction plans and documentation required by this condition the undertaker must provide a copy of the plans and documentation to the other undertakers under the Order.

(4) The undertaker shall participate in liaison meetings with other undertakers under the Order as requested from time to time by the MMO in writing in advance, which meetings shall be chaired by the MMO and shall consider such matters as are determined by the MMO relating to the efficient operation of a deemed marine licence where it has an impact on the efficient operation of any other deemed marine licence issued under the Order (including as varied or transferred).

(5) Prior to giving its approval under paragraph (2), the MMO must—

- (a) in relation to any programme or plan submitted under sub-paragraphs (a), (c), (d), (f), (h) or (i), consult with the relevant statutory nature conservation body and the Environment Agency;
- (b) in relation to any statement or protocol submitted under sub-paragraphs (b) or (e), consult with the relevant statutory nature conservation body;
- (c) in relation to a scheme submitted under sub-paragraph (g), consult with Historic England; and
- (d) in relation to a plan submitted under sub-paragraph (j), consult with Trinity House.

9. The undertaker must ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS form with a digital copy of the report within 6 months of completion of construction of the authorised scheme. The undertaker must notify the MMO and, where the report relates to the intertidal area, Lincolnshire County Council that the OASIS report has been submitted to the National Record of the Historic Environment within two weeks of the submission.

10.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 8—

- (a) shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or where an alternative date is agreed in writing by the MMO; and
- (b) shall be accompanied by—
 - (i) a statement confirming that the undertaker has complied with condition 8(3) in relation to such programme, statement, plan, protocol or scheme;
 - (ii) any comments received by the undertaker from the other undertakers, or a statement from the undertaker confirming that no such comments were received; and
 - (iii) of the consultation that has been carried out with the undertakers with the benefit of all or part of the deemed marine licences under the Hornsea One Offshore Wind Farm Order 2014 and any comments received from those undertakers.

(2) The undertaker must comply with the plans and documentation approved under licence condition 8 in carrying out the licensed activities unless otherwise agreed in writing by the MMO.

(3) Prior to agreeing an alternative date under paragraph (1)(a) or a change to approved details under paragraph (2) relating to any document in respect of which consultation is required under condition 8(5), the MMO must consult with the relevant consultation body referred to in that condition.

Reporting of engaged agents, contractors and vessels

11.—(1) The undertaker must provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities at least five working days prior to the commencement of the licensed activities or any part of them; and

- (b) each week during the construction of the authorised scheme, a completed Hydrographic Note H102 listing the construction vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO and MMO Coastal Office in writing prior to the agent, contractor or vessel engaging in the licensed activities. All agents, contractors and/or vessel operators will abide by the conditions set out in this licence.

Equipment and operation of vessels engaged in licensed activities

12.—(1) All vessels employed to perform the licensed activities shall be constructed and equipped to be capable of the proper performance of such activities in accordance with the conditions of this licence and shall comply with paragraphs (2) to (5).

(2) All motor powered vehicles must be fitted with—

- (a) electronic positioning aid to provide navigational data;
- (b) radar;
- (c) echo sounder; and
- (d) multi-channel VHF.

(3) All vessels' names or identification shall be clearly marked on the hull or superstructure of the vessel.

(4) All communication on VHF working frequencies shall be in English.

(5) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

Pre-construction monitoring and surveys

13.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant statutory nature conservation body and, in respect of the surveys required under paragraph (2)(b) and (c), in consultation with the Environment Agency, of proposed pre-construction surveys, including methodologies (including appropriate buffers, where relevant) and timings, and a proposed format and content for a pre-construction baseline report; and

- (a) the survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and shall 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; and
- (b) the baseline report proposals shall 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 shall make clear what post-construction comparison is intended and the justification for this being required.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this condition, so far as applicable, the pre-construction surveys will comprise, in outline—

- (a) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance (including Annex 1 Habitats) in the part(s) of the offshore Order limits in which it is proposed to carry out construction works under this licence;
- (b) a Phase 1 survey of the intertidal area within which it is proposed to carry out construction works;
- (c) a high resolution swath bathymetric survey to include a 100% coverage and a side scan sonar survey of the part(s) of the offshore Order limits within which it is proposed to carry out construction works and disposal activities under this licence; and

- (d) a grab survey and particle size analysis in the part(s) of the offshore Order limits within which it is proposed to carry out dredging and disposal activities relating to Work Nos. 3B and 4B under this licence within a period not greater than 12 months prior to the dredging and disposal activities to determine the extent of suitable herring spawning habitat within those areas.

(3) The undertaker must carry out the surveys agreed under paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

Construction monitoring

14.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant statutory nature conservation body of any proposed construction monitoring, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general 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 pre-construction position and/or will enable the validation or otherwise of key predictions in the Environmental Statement.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this condition, so far as applicable, the construction monitoring will comprise, in outline—

- (a) unless the MMO agrees otherwise in writing, measurements of noise generated by the installation of the first four foundations of each discrete foundation type comprised in Work No. 2B to be constructed under this licence where driven or part-driven pile foundations are used;
- (b) recording of any visual sightings or acoustic detection of marine mammals where required as part of the marine mammal mitigation protocol under condition 8(2)(e); and
- (c) any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with Condition 8(2)(k).

(3) The undertaker must carry out the surveys approved under paragraph (1), including any further noise monitoring required in writing by the MMO under paragraph (4), 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 body.

(4) The results of the initial noise measurements monitored in accordance with paragraph (2)(a) must be provided to the MMO within six weeks of the installation of the first four foundations of each discrete foundation type. The assessment of this report by the MMO shall determine whether any further noise monitoring is required.

(5) Construction monitoring shall include vessel traffic monitoring by Automatic Identification System for the duration of the construction period. A report will be submitted to the MMO and the MCA at the end of each year of the construction period

Post-construction

15.—(1) The undertaker must, in discharging condition 8(2)(a), submit details for written approval by the MMO in consultation with the relevant statutory nature conservation body and, in respect of the surveys required under paragraph (2)(a), (b) and (c), in consultation with the Environment Agency, of proposed post-construction surveys, including methodologies (including appropriate buffers, where relevant) and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and shall 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) Subject to receipt of specific proposals, so far as applicable, the post-construction surveys will comprise, in outline—

- (a) a survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance (including Annex 1 Habitats) identified in the pre-construction survey in the part(s) of the offshore Order limits in which construction works were carried out. The survey design will be informed by the results of the pre-construction benthic survey;
- (b) one high resolution swath bathymetric survey to be undertaken no sooner than six months following completion of construction works and disposal activities to include a 100% coverage of the part(s) of the offshore Order limits with a water depth no greater than 12 metres (referenced to Chart Datum) within which construction works and disposal activities were carried out under this licence to assess any changes in bedform morphology and such further monitoring as may be required to ensure that the cables have been buried or protected and sediment is able to move over any installed cable protection. The need for further surveys will be agreed in writing with the MMO following submission of the first year of survey data;
- (c) one high resolution bathymetric survey of a representative sample area, as may be agreed in writing with the MMO, of the part(s) of the offshore Order limits with a water depth no greater than 12 metres (referenced to Chart Datum) within which construction works and disposal activities were carried out under this licence following the first major storm event the timing of which shall be agreed with the MMO in consultation with Natural England and the Environment Agency;
- (d) a grab survey and particle size analysis in the part(s) of the offshore Order limits within which dredging and disposal activities relating to Work Nos. 3B and 4B were carried out under this licence within 12 months of the completion of the dredging and disposal activities to determine the extent of suitable herring spawning ground habitat within those areas; and
- (e) vessel traffic monitoring by Automatic Identification System, for 28 days taking account seasonal variations in traffic patterns, for a maximum duration of one year post construction. A report will be submitted to the MMO and the MCA at the end of the first year after construction is completed.

(3) The undertaker must carry out the surveys agreed under 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 body.

Amendments to approved details

16.—(1) With respect to any condition of this licence which requires the licensed activities to be carried out in accordance with the plans and programmes approved by the MMO, the approved plans and programmes shall be 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 must be in accordance with the principles and assessments set out in the environmental statement. Such agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the MMO that the subject matter of the agreement sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Offshore decommissioning

17. No decommissioning activities shall commence until plans for the carrying out of such activities have been submitted to and approved in writing by the MMO and, where the plans relate to the decommissioning of Work Nos. 4B or 5B, the MMO must consult with the Environment Agency prior to giving its approval. The plans shall be submitted for approval at least four months prior to

the intended start of the decommissioning activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

Restrictions in intertidal area and Humber Estuary Special Area of Conservation

18.—(1) The cable protection to be used within the Humber Estuary Special Area of Conservation must be frond mattressing, unless otherwise agreed in writing with the MMO.

(2) No cable protection is to be used within the intertidal area of the Humber Estuary Special Area of Conservation.

(3) The undertaker must not construct or install those licensable activities comprised in Work No. 4B or Work No. 5B in the intertidal area during the overwintering period unless otherwise agreed in writing with the MMO, in consultation with Natural England.

(4) The undertaker must not construct or install those licensable activities comprised in Work Nos. 4B and 5B in the intertidal area within 500 metres seaward of the seawall during the period of time commencing two hours before a high tide predicted to be greater than 6.5 metres Chart Datum and ending two hours after a high tide predicted to be greater than 6.5 metres Chart Datum between 1 April and 31 May (inclusive) and 1 August to 30 September (inclusive), unless provided for in the construction and monitoring programme submitted and approved under Condition 8(2)(a) or the construction method statement submitted and approved under Condition 8(2)(b) or unless otherwise agreed in writing by the MMO, in consultation with Natural England.

(5) The undertaker must not carry out inspections in the intertidal area during the overwintering period to the extent that such inspections require to be carried out—

- (a) more than once per overwintering period;
- (b) over more than two consecutive days by people on foot; or
- (c) by more than 5 people on foot at any one time,

unless otherwise agreed in writing with the MMO, in consultation with Natural England or unless provided for in the offshore project maintenance plan submitted and approved under Condition 8(2)(i).

(6) For the purposes of this condition, “overwintering period” means the period between 1 October and 31 March (inclusive).

SCHEDULE L

Article 41

Protective Provisions

PART 1

Protection for Environment Agency and drainage authorities

1.—(1) The following provisions apply for the protection of the 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 “construct” and “constructed” are construed accordingly;

“drainage authority” means in relation to an ordinary water course the drainage board concerned within the meaning of section 23 of the Land Drainage Act 1991 and in relation to a main river or any sea defence work means the Environment Agency;

“drainage work” means any watercourse other than the river Humber and includes any land which provides or is expected to provide flood storage capacity for any watercourse and any bank, wall, embankment or other structure, or any appliance, constructed or used for land drainage, flood defence, sea defence or tidal monitoring;

“a main river” and “ordinary watercourse” have the meanings given by respectively the Water Resources Act 1991 and the Land Drainage Act 1991;

“plans” includes sections, drawings, specifications and method statements;

“relevant undertaker” means—

- (a) in relation to specified work which is Project A works or associated development or ancillary works relating to Project A works, Optimus Wind;
- (b) in relation to specified work which is Project B works or associated development or ancillary works relating to Project B works, Breesea; and
- (c) in relation to specified work which is shared works or associated development or ancillary works relating to shared works, Optimus Wind or Breesea.

“specified work” means so much of any work or operation authorised by this Order as is in, on, under, over or within 16 metres of a drainage work or is otherwise likely to—

- (a) affect any drainage work or the volumetric rate of flow of water in or flowing to or from any drainage work;
- (b) affect the flow, purity, or quality of water in any watercourse; or
- (c) affect the conservation, distribution or use of water resources;

2.—(1) Before beginning to construct any specified work, the relevant undertaker must submit to the drainage authority plans of the specified work and such further particulars available to it as the drainage authority may within 28 days of the submission of the plans reasonably require.

(2) Any such 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 10.

(3) 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 two months of the submission of the plans for approval, or submission of further particulars if required by the drainage authority under sub-paragraph (1), and, in the case of a refusal, accompanied by a statement of the grounds of refusal; and
- (c) may be given subject to such reasonable requirements as the drainage authority may make for the protection of any drainage work or where the drainage authority is the Environment Agency for the protection of water resources for the prevention of pollution or in the discharge of its environmental duties.

(4) The drainage authority 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).

3. Without limiting the scope of paragraph 2, the requirements which the drainage authority may make under that paragraph include conditions requiring the relevant undertaker at its own expense to construct such protective works, whether temporary or permanent, 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.

4.—(1) Subject to sub-paragraph (2), any specified work, and all protective works required by the drainage authority under paragraph 3, 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 relevant undertaker must give to the drainage authority 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 seven days after the date on which it is brought into use.

(3) If the drainage authority shall reasonably require, the relevant undertaker shall construct all or part of the protective works so that they are in place prior to the construction of specific works

(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 relevant undertaker at the relevant undertaker's own expense to comply with the requirements of this part of this Schedule or (if the relevant 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 required, 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), if within a reasonable period, being not less than 28 days from the date when a notice under sub-paragraph (4) is served upon the relevant undertaker, it 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 expenditure incurred by it in so doing is recoverable from the relevant 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 emergency exercise the powers conferred by sub-paragraph (5) until the dispute has been finally determined.

5.—(1) Subject to sub-paragraph (5) the relevant 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 on land held by the relevant 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 relevant 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 relevant undertaker to repair and restore the work, or any part of such work, or (if the relevant undertaker so elects and the drainage authority 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 drainage authority reasonably requires.

(3) 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 relevant undertaker, the relevant 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 necessary for such compliance and may recover any expenditure reasonably incurred by it in so doing from the relevant 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.

(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 prescribed by the powers of the Order from doing so; 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.

6. 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 relevant undertaker to the reasonable satisfaction of the drainage authority and if the relevant undertaker fails to do so, the drainage authority may make good the impairment or damage and recover from the relevant undertaker the expense reasonably incurred by it in doing so.

7. The relevant undertaker must indemnify the drainage authority in respect of all costs, charges and expenses which the drainage authority may reasonably incur or have to pay or which it may sustain—

- (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) 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.

8.—(1) Without prejudice to the other provisions of this part of this Schedule, the relevant undertaker must indemnify the drainage authority from all claims, demands, proceedings, costs, damages, expenses or loss, which may be made or taken against, recovered from, or incurred by, the drainage authority by reason of—

- (a) any damage to any drainage work so as to impair its efficiency for the purposes of flood defence;
- (b) any raising or lowering of the water table in land adjoining the authorised works or any sewers, drains and watercourses; or
- (c) any flooding or increased flooding of any such lands; and where the drainage authority is the Environment Agency inadequate water quality in any watercourse or other surface waters or in any groundwater,

which is caused by the construction of any of the specified works or any act or omission of the relevant undertaker, its contractors, agents or employees whilst engaged upon the work.

(2) The drainage authority must give to the relevant undertaker reasonable notice of any such claim or demand and no settlement or compromise may be made without the agreement of the relevant undertaker which agreement must not be unreasonably withheld or delayed.

9. The fact that any work or thing has been executed or done by the relevant 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 relevant undertaker from any liability under the provisions of this part of this Schedule.

10. Any dispute arising between the relevant undertaker and the drainage authority under this part of this Schedule, if the parties agree, is to be determined by arbitration under article 42 (arbitration), but otherwise is to be determined by the Secretary of State for Environment, Food and Rural Affairs and the Secretary of State for Energy and Climate Change acting jointly on a reference to them by the relevant undertaker or the drainage authority, after notice in writing by one to the other.

PART 2

Protection for Network Rail Infrastructure Limited

11. The following 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 25, any other person on whom rights or obligations are conferred by that paragraph.

12. In this part of this Schedule—

“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 his powers under section 8 of the Railways Act 1993;

“Network Rail” means Network Rail Infrastructure Limited 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;

“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 Infrastructure Limited and—

- (a) any station, land, works, apparatus and equipment belonging to Network Rail Infrastructure Limited or connected with any such railway; and
- (b) any easement or other property interest held or used by Network Rail Infrastructure Limited for the purposes of such railway or works, apparatus or equipment; and

“relevant undertaker” means—

- (a) in relation to specified work which is Project A works or associated development or ancillary works relating to Project A works, Optimus Wind;
- (b) in relation to specified work which is Project B works or associated development or ancillary works relating to Project B works, Breesea; and
- (c) in relation to specified work which is shared works or associated development or ancillary works relating to shared works, Optimus Wind or Breesea.

“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.

13.—(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 relevant 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.

14.—(1) The undertaker must not exercise the powers conferred by article 17 (authority to survey and investigate the land) or the powers conferred by section 11(3) of the 1965 Act (powers of entry) 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 (extinguishment of rights of statutory undertakers and electronic code communications operators: preliminary notices), or article 28 (statutory undertakers), 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 any railway property except with the consent of Network Rail.

(5) Where Network Rail is asked to give its consent or agreement pursuant to this paragraph, such consent or agreement must not be unreasonably withheld but may be given subject to reasonable conditions.

15.—(1) The relevant 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.

(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 disapproval of those plans and the grounds of disapproval the relevant 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 relevant undertaker. If by the expiry of the further 28 days the engineer has not intimated approval or disapproval, the engineer is 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 relevant 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 relevant undertaker desires such part of the specified work to be constructed, Network Rail must construct it with all reasonable dispatch on behalf of and to the reasonable satisfaction of the relevant 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 relevant undertaker.

(4) When signifying 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 relevant undertaker, if Network Rail so desires, and such protective works must be carried out at the expense of the relevant undertaker in either case with all reasonable dispatch and the relevant undertaker must not commence the construction of the specified works until the engineer has notified the relevant undertaker that the protective works have been completed to his reasonable satisfaction.

16.—(1) Any specified work and any protective works to be constructed by virtue of paragraph 15(4) must, when commenced, be constructed—

- (a) with all reasonable dispatch in accordance with the plans approved or deemed to have been approved or settled under paragraph 15;
- (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 is caused by the carrying out of, or in consequence of the construction of a specified work, the relevant 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 relevant 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 relevant undertaker or its servants, contractors or agents.

17. The relevant 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 the engineer may reasonably require with regard to a specified work or the method of constructing it.

18. 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.

19.—(1) If any permanent or temporary alterations or additions to railway property are reasonably necessary in consequence of the construction of a specified work, or during a period of 24 months after the completion of that 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 relevant undertaker reasonable notice of its intention to carry out such alterations or additions (which must be specified in the notice), the relevant 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 relevant undertaker, Network Rail gives notice to the relevant 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 relevant undertaker decides that part of the specified work is to be constructed, Network Rail may assume construction of that part of the specified work and the relevant undertaker must, notwithstanding any such approval of a specified work under paragraph 15(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 work.

(3) The engineer must, in respect of the capitalised sums referred to in this paragraph and paragraph 20(a) provide such details of the formula by which those sums have been calculated as the relevant 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 relevant undertaker to Network Rail under this paragraph.

20. The relevant 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 relevant undertaker as provided by paragraph 15(3) or in constructing any protective works under the provisions

- of paragraph 15(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 relevant 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, signalmen, watchmen and other persons whom it may 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.

21.—(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 15(1) for the relevant part of the authorised development giving rise to EMI (unless the relevant 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 relevant undertaker must in the design and construction of the authorised development take all measures necessary to prevent EMI and establish with Network Rail (both parties acting reasonably) appropriate arrangements to verify their effectiveness.

(4) In order to facilitate the relevant undertaker’s compliance with sub-paragraph (3)—

- (a) the relevant 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 15(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 relevant undertaker all information in the possession of Network Rail reasonably requested by the relevant undertaker in respect of Network Rail’s apparatus identified pursuant to sub-paragraph (a); and
- (c) Network Rail must allow the relevant 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 selected in the reasonable discretion of Network Rail, and in relation to such modifications paragraph 15(1) has effect subject to this sub-paragraph.

(6) If at any time prior to the commencement of commercial operation of the authorised development and notwithstanding any measures adopted pursuant to sub-paragraph (3), the testing

or commissioning of the authorised development causes EMI then the relevant 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 relevant 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 relevant undertaker must afford reasonable facilities to Network Rail for access to the relevant undertaker's apparatus in the investigation of such EMI;
- (b) Network Rail must afford reasonable facilities to the relevant undertaker for access to Network Rail's apparatus in the investigation of such EMI; and
- (c) Network Rail must make available to the relevant undertaker any additional material information in its possession reasonably requested by the relevant undertaker in respect of Network Rail's apparatus or such EMI.

(8) Where Network Rail approves modifications to Network Rail's apparatus pursuant to sub-paragraphs (5) or (6)—

- (a) Network Rail must allow the relevant 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 relevant undertaker in accordance with paragraph 16.

(9) To the extent that it would not otherwise do so, the indemnity in paragraph 25(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 20(a) any modifications to Network Rail's apparatus under this paragraph is deemed to be protective works referred to in that paragraph.

(11) In relation to any dispute arising under this paragraph the reference in article 42 (arbitration) to an arbitrator to be agreed is to be read as a reference to an arbitrator being a member of the Institution of Electrical Engineers to be agreed.

22. 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 relevant 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 relevant 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 adversely to affect railway property.

23. The relevant 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.

24. 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 relevant undertaker, be repaid by the relevant undertaker to Network Rail.

25.—(1) The relevant undertaker must pay to Network Rail all reasonable costs, charges, damages and expenses not otherwise provided for in this part of this Schedule which may be occasioned to or reasonably incurred by Network Rail—

- (a) by reason of the construction or maintenance of a specified work or the failure of them; or
- (b) by reason of any act or omission of the relevant undertaker or of any person in its employ or of its contractors or others whilst engaged upon a specified work,

and the relevant 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 relevant undertaker or in accordance with plans approved by the engineer or in accordance with any requirement of the engineer or under his supervision must 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 relevant undertaker from any liability under the provisions of this sub-paragraph.

(2) Network Rail must give the relevant undertaker reasonable notice of any such claim or demand and no settlement or compromise of such a claim or demand may be made without the prior consent of the relevant undertaker.

(3) The sums payable by the relevant undertaker under sub-paragraph (1) must 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 may, 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, direct losses and expenses (including loss of revenue) reasonably incurred by each train operator as a consequence of 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 sub-paragraph (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.

26. Network Rail must, on receipt of a request from the relevant undertaker, from time to time provide the relevant undertaker free of charge with written estimates of the costs, charges, expenses and other liabilities for which the relevant undertaker is or will become liable under this part of this Schedule (including the amount of the relevant costs mentioned in paragraph 25) and with such information as may reasonably enable the relevant 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).

27. 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 relevant undertaker under this part of this Schedule or increasing the sums so payable.

28. 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.

29. The undertaker must give written notice to Network Rail where any application is proposed to be made by the undertaker for the Secretary of State’s consent under article 35 (transfer of 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.

30. The relevant 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 40 (certification of plans etc), provide a set of those plans to Network Rail in the form of a computer disc with read only memory.

PART 3

Protection for operators of electronic communications code networks

31.—(1) For the protection of any operator, the following provisions, unless otherwise agreed in writing between the undertaker and the operator, have effect.

(2) In this part of this Schedule—

“conduit system” has the same meaning as in the electronic communications code and references to providing a conduit system are to be construed in accordance with paragraph 1(3A) of that code;

“electronic communications apparatus” has the same meaning as in the electronic communications code;

“the electronic communications code” has the same meaning as in Chapter 1 of Part 2 of the 2003 Act;

“electronic communications code network” means—

- (a) so much of an electronic communications network or conduit 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 of the 2003 Act; and
- (b) an electronic communications network which the Secretary of State 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 of the 2003 Act;

“operator” means the operator of an electronic communications code network; and

“relevant undertaker” means—

- (a) in relation to authorised development which is Project A works or associated development or ancillary works relating to Project A works, Optimus Wind;
- (b) in relation to authorised development which is Project B works or associated development or ancillary works relating to Project B works, Breesea; and
- (c) in relation to authorised development which is shared works or associated development or ancillary works relating to shared works, Optimus Wind or Breesea.

32. Paragraph 23 of Schedule 2 to the Telecommunications Act 1984^(a) (which provides a procedure for certain cases where works involve the alteration of electronic communications apparatus), applies in relation to the exercise of the powers of article 28 (statutory undertakers).

33.—(1) Subject to sub-paragraphs (2) to (4), if as the result of the authorised development or its construction, or of any subsidence resulting from that 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 those works, or other property of an operator); or

(a) 1984 c.12.

(b) there is any interruption in the supply of the service provided by an operator, the relevant undertaker must bear and pay the cost reasonably incurred by the operator in making good such damage or restoring the supply and must—

- (i) make reasonable compensation to an operator for loss sustained by it; and
- (ii) indemnify an operator against claims, demands, proceedings, costs, damages and expenses which may be made or taken against, or recovered from, or incurred by, an operator 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 may be made without the 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.

(4) Any difference arising between the undertaker and the operator under this paragraph is to be referred to and settled by arbitration under article 42 (arbitration).

34. This part of this Schedule does not apply to any apparatus in respect of which the relations between the undertaker and an operator are regulated by the provisions of Part 3 of the 1991 Act.

PART 4

For the protection of utility undertakers

35. For the protection of the utility undertakers referred to in this part of this Schedule the following provisions, unless otherwise agreed in writing between the undertaker and the utility undertakers concerned, have effect.

36. In this part of this Schedule—

“alternative apparatus” means alternative apparatus adequate to enable the utility undertaker in question to fulfil its statutory functions in a manner not less efficient than previously;

“apparatus” means—

- (a) in the case of an electricity undertaker, electric lines or electrical plant (as defined in the Electricity Act 1989(a)) belonging to or maintained by that undertaker;
- (b) in the case of a gas undertaker, any mains, pipes or other apparatus belonging to or maintained by a gas transporter for the purposes of gas supply;
- (c) in the case of a water undertaker—
 - (i) mains, pipes or other apparatus belonging to, or maintained by, the water undertaker for the purposes of water supply; and
 - (ii) any water mains or service pipes (or part of a water main or service pipe) that is the subject of an agreement to adopt made under section 51A of the Water Industry Act 1991(b);
- (d) in the case of a sewerage undertaker—
 - (i) any drain or works vested in the sewerage undertaker under the Water Industry Act 1991; and
 - (ii) any sewer which is so vested or is the subject of a notice of intention to adopt given under section 102(4) of that Act or an agreement to adopt made under section 104 of that Act,

(a) 1989 c.29.

(b) 1991 c.56.

and includes a sludge main, disposal main (within the meaning of section 219 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; and

“relevant undertaker” means—

- (a) in relation to works which are Project A works or associated development or ancillary works relating to Project A works, Optimus Wind;
- (b) in relation to works which are Project B works or associated development or ancillary works relating to Project B works, Breesea; and
- (c) in relation to works which are shared works or associated development or ancillary works relating to shared works, Optimus Wind or Breesea.

“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(a);
 - (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 authorised works, and in relation to any apparatus, means the utility undertaker to whom it belongs or by whom it is maintained but in each case does not include Anglian Water Services Limited, Centrica Plc, VPI Immingham LLP, C.GEN Killingholme Limited or the Hornsea One Companies (as defined in Part 12 of this Schedule).

37. This part of this Schedule does not apply to apparatus in respect of which the relations between the undertaker and the utility undertaker are regulated by the provisions of Part 3 of the 1991 Act.

38.—(1) Regardless of any provision in this Order or anything shown on the land plans the undertaker must not acquire any apparatus other than by agreement.

(2) The undertaker must not in the exercise of the powers of this Order acquire any right over, or occupy or use, all or any part of the electricity sub-station within the land shown numbered 510 on the land plans, without the consent of the utility undertaker responsible for its operation.

(3) Consent for the purpose of sub-paragraph (2) is not to be unreasonably withheld but may be granted subject to reasonable conditions.

39.—(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, that apparatus must not be removed under this part of this Schedule 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 relevant undertaker requires the removal of any apparatus placed in that land, it must give to the utility undertaker in question written notice of that requirement, together with a plan and section 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 relevant undertaker must, subject to sub-

(a) 1986 c. 44. A new section 7 was substituted by section 5 of the Gas Act 1995 (c. 45), and was further amended by section 76 of the Utilities Act 2000 (c. 27).

paragraph (3), afford to the utility undertaker the necessary facilities and rights for the construction of alternative apparatus in other land of the relevant undertaker and for the subsequent 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 relevant undertaker, or the relevant 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 relevant undertaker, as soon as reasonably possible use its best 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 relevant undertaker under this part of this Schedule is to be constructed in such manner and in such line or situation as may be agreed between the utility undertaker in question and the relevant undertaker or in default of agreement settled by arbitration in accordance with article 42 (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 42, 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 relevant undertaker to be removed under the provisions of this part of this Schedule.

(6) Regardless of anything in sub-paragraph (5), if the relevant undertaker gives notice in writing to the utility undertaker in question that it desires itself to execute any work to which this subparagraph applies, that work, instead of being executed by the utility undertaker, must be executed by the relevant undertaker without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of the utility undertaker.

(7) Sub-paragraph (6) applies to any part of any work necessary in connection with construction of alternative apparatus, or the removal of apparatus required to be removed, as will take place in any land of the relevant undertaker.

(8) Nothing in sub-paragraph (6) authorises the relevant 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.

40.—(1) Where, in accordance with the provisions of this part of this Schedule, the relevant undertaker affords to a utility undertaker facilities and rights for the construction and maintenance in land of the relevant undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights are to be granted upon such terms and conditions as may be agreed between the relevant undertaker and the utility undertaker in question or in default of agreement settled by arbitration in accordance with article 42 (arbitration).

(2) In settling those terms and conditions in respect of the alternative apparatus to be constructed, the arbitrator must—

- (a) give effect to all reasonable requirements of the relevant undertaker for ensuring the safety and efficient operation of the electricity generating station and for securing any subsequent alterations or adaptations of the alternative apparatus which may be required to prevent interference with any proposed works of the relevant 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 for which the alternative apparatus is to be substituted.

(3) If the facilities and rights to be afforded by the relevant 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 right 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 relevant undertaker to that

utility undertaker as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

41.—(1) Not less than 28 days before starting the execution of any works of the type referred to in paragraph 39(2) that are near to, or will or may affect, any apparatus the removal of which has not been required by the relevant undertaker under paragraph 39(2), the relevant undertaker must submit to the utility undertaker in question a plan, section and description of the works to be executed.

(2) Those works are to be executed only in accordance with the plan, section and description 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 an officer of the utility undertaker is entitled to watch and inspect the execution of those works.

(3) Any requirements made by the utility undertaker under sub-paragraph (2) must be made within a period of 21 days beginning with the date on which a plan, section and description under sub-paragraph (1) are submitted to it.

(4) If a utility undertaker in accordance with sub-paragraph (3) and in consequence of the works proposed by the relevant undertaker, reasonably requires the removal of any apparatus and gives written notice to the relevant undertaker of that requirement, paragraphs 39 and 40 apply as if the removal of the apparatus had been required by the relevant undertaker under paragraph 39(2).

(5) Nothing in this paragraph precludes the relevant 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, section and description instead of the plan, section and description previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan, section and description.

(6) The relevant 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, section and description of those works as soon as reasonable practicable subsequently and must comply with sub-paragraph (2) in so far as is reasonably practicable in the circumstances.

42.—(1) If in consequence of the exercise of the powers conferred by this Order the access to any apparatus is materially obstructed the relevant undertaker must provide such alternative means of access to such apparatus as will enable the utility undertaker to maintain or use the apparatus no less effectively than was possible before such obstruction.

(2) Subject to the following provisions of this paragraph, the relevant undertaker must repay to a utility undertaker the reasonable expenses 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 39(2).

(3) The value of any apparatus removed under the provisions of this part of this Schedule, is to be deducted from any sum payable under sub-paragraph (2), that value being calculated after removal.

(4) 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,

and the placing of apparatus of that type or capacity or those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the relevant undertaker or, in default of agreement, is not determined by arbitration in accordance with article 42 (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 the utility undertaker in question by virtue of sub-paragraph (2), is to be reduced by the amount of that excess.

(5) For the purposes of sub-paragraph (4)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus must not be treated as 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 must be treated as if it also had been agreed or had been so determined.

(6) An amount which apart from this sub-paragraph would be payable to a utility undertaker in respect of works by virtue of sub-paragraph (2) must, if the works include the placing of apparatus provided in substitution for apparatus placed more than seven years and six 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, be reduced by the amount which represents that benefit.

43.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any of the works referred to in paragraph 39(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 relevant 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 relevant 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 relevant undertaker reasonable notice of any such claim or demand and no settlement or compromise may be made without the consent of the relevant 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.

PART 5

For the protection of Associated British Ports

44. In this part of this Schedule—

“accumulation” means any accumulation of silt or other material which constitutes an impediment to navigation

“construction” includes execution and placing, maintenance, extension, enlargement, alteration, replacement, relaying, and removal, (including for the avoidance of doubt the removal of the electrical circuits comprised in Work Nos. 6A and 6B, and “construct” and “constructed” are to be construed accordingly;

“erosion” means any erosion of the bed or banks of the river Humber or of any jetty or other structure of whatever nature;

“plans” includes sections, descriptions, drawings and specifications; and

“relevant undertaker” means—

- (a) in relation to specified work which is Project A works or associated development or ancillary works relating to Project A works, Optimus Wind;

- (b) in relation to specified work which is Project B works or associated development or ancillary works relating to Project B works, Breesea; and
- (c) in relation to specified work which is shared works or associated development or ancillary works relating to shared works, Optimus Wind or Breesea.

“specified work” means so much of Work Nos. 6A and 6B and any associated development or ancillary works as are within A.B. Port’s jurisdiction.

45. For the protection of A. B. Ports the following provisions have effect unless otherwise agreed in writing between the undertaker and A. B. Ports.

46. The undertaker must not under the powers of this Order acquire land or acquire new rights over land held by A.B. Ports for the purpose of its statutory undertaking without the consent of A.B. Ports, which consent must not be unreasonably withheld but may be given subject to reasonable conditions.

47.—(1) Before commencing the construction of the specified works the relevant undertaker must furnish to A. B. Ports for its approval, which it must not unreasonably withhold, plans of the work showing the general mode of construction, depth and method of trenching and possible cable protection; and such works—

- (a) must not be constructed otherwise than in accordance with such plans as may be approved by A. B. Ports; and
- (b) are to be executed to the reasonable satisfaction of A. B. Ports.

(2) When submitting plans in respect of the specified works to the Secretary of State pursuant to article 40 (certification of plans etc) of this Order, the relevant undertaker must—

- (a) send a copy of those plans to A. B. Ports; and
- (b) on receipt of approval of plans or of any conditions or restrictions imposed by the Secretary of State, send a copy to A. B. Ports.

(3) If A. B. Ports fails to express its disapproval of any plans within 56 days after they have been delivered to it under sub-paragraph (1), it is deemed to have approved them.

48. The relevant undertaker must give to A. B. Ports not less than 14 days’ written notice of its intention to commence the construction of the specified works and, not more than 14 days after completion of such construction, must give to A. B. Ports written notice of such completion.

49. The relevant undertaker must at all reasonable times during construction of the specified works and thereafter allow A. B. Ports, its servants and agents, access to such work and all reasonable facilities for inspection of any such work.

50.—(1) After the purpose of any temporary works has been accomplished the relevant undertaker must with all reasonable dispatch, or after a reasonable period of notice in writing from A. B. Ports requiring the relevant undertaker so to do, remove any such temporary works or any materials relating thereto which may have been placed below the level of high water by or on behalf of the relevant undertaker.

(2) If the relevant undertaker fails to do so within a reasonable period after receiving such notice, A. B. Ports may remove the same and may recover the reasonable costs of doing so from the relevant undertaker.

51.—(1) If during the construction of the specified works it is agreed, or in the absence of agreement it is proved to the satisfaction of an arbitrator appointed under article 42 (arbitration), that any accumulation or erosion has been caused wholly or partly by the construction of the specified works, the relevant undertaker, if so requested by A. B. Ports acting reasonably, must remedy such accumulation or erosion to the extent attributable to such construction or exercise of powers.

(2) If the relevant undertaker refuses or fails to do so, A. B. Ports may itself cause the work to be done and may recover the reasonable cost of doing so from the relevant undertaker.

52. The relevant undertaker must pay to A. B. Ports the reasonable costs of such alterations to the marking and lighting of the navigational channel of the river as may be necessary during or in consequence of the construction of the specified works.

53.—(1) Without prejudice to the other provisions of this part of this Schedule, the relevant undertaker is to be responsible for, and make good to A. B. Ports, all losses, costs, charges, damages and expenses however caused (including a reasonable and proper proportion of the overhead charges of A. B. Ports) which may reasonably be incurred by or occasioned to A. B. Ports by reason of or arising from or in connection with—

- (a) the perusal of plans and the inspection of the specified works by A. B. Ports or its duly authorised representative;
- (b) the construction or failure of the specified works, or the relevant undertaking by A. B. Ports of works or measures to prevent or remedy danger or impediment to navigation or damage to any property of A. B. Ports arising from such construction or failure;
- (c) any act or omission of the relevant undertaker or their servants or agents whilst engaged in the construction of any of the specified works.

(2) Without prejudice to the generality of sub-paragraph (1), the relevant undertaker must indemnify A. B. Ports from and against all claims and demands arising out of, or in connection with, such construction, or failure or act or omission as is mentioned in that sub-paragraph.

(3) Nothing in this paragraph imposes any liability on the relevant undertaker to the extent that any losses, costs, charges, damages, expenses, claims or demands referred to in sub-paragraph (1) or (2) are attributable to negligence on the part of A. B. Ports or of any person in its employ or of its contractors or agents.

(4) A. B. Ports must give to the relevant undertaker notice in writing of any claim or demand for which the relevant undertaker may be liable under this paragraph and no settlement or compromise of any such claim or demand may be made without the consent in writing of the relevant undertaker.

54. The fact that any work or thing has been executed or done with the consent of A.B. Ports and in accordance with any conditions or restrictions prescribed by A.B. Ports or in accordance with any plans approved or deemed to be approved by A. B. Ports or to its satisfaction or in accordance with any directions or award of any arbitrator or in accordance with any plans approved by the Secretary of State and any conditions or restrictions imposed by him, does not relieve the relevant undertaker from any liability under the provisions of this part of this Schedule.

55. With the exception of any duty owed by A. B. Ports to the relevant undertaker expressly provided for in the foregoing provisions of this part of this Schedule, nothing in this Order is to be construed as imposing upon A. B. Ports, either directly or indirectly, any form of duty or liability to which A. B. Ports would not otherwise be subject which is enforceable by proceedings before any court.

56. Nothing in this Order affects prejudicially any statutory or other rights, powers or privileges vested in, or enjoyed by, A. B. Ports at the commencement of this Order or any title of A. B. Ports in, to or over any lands or foreshore held or acquired by it.

PART 6

For the protection of Anglian Water Services Limited

57. For the protection of Anglian Water, the following provisions shall, unless otherwise agreed in writing between the undertaker and Anglian Water, have effect.

58. In this part of this schedule—

“Anglian Water” means Anglian Water Services Limited;

“Apparatus” means—

- (a) any works, mains, pipes or other apparatus belonging to or maintained by Anglian Water for the purposes of water supply and sewerage;
- (b) any drain or works vested in Anglian Water under The Water Industry Act 1991; and
- (c) any sewer which is so vested or is the subject of a notice of intention to adopt given under section 102 (4) of The Water Industry Act 1991 or an agreement to adopt made under section 104 of that Act,

and includes a sludge main, disposal main or sewer outfall and any manholes, ventilating shafts, pumps or other accessories forming part of any sewer, drain, or works (within the meaning of section 219 of that Act) and any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus.

“alternative apparatus” means alternative apparatus adequate to enable Anglian Water to fulfill its statutory functions in not less efficient a manner than previously;

“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 sections, drawings, specifications and method statements; and

“relevant undertaker” means—

- (a) in relation to works which are Project A works or associated development or ancillary works relating to Project A works, Optimus Wind;
- (b) in relation to works which are Project B works or associated development or ancillary works relating to Project B works, Breesea; and
- (c) in relation to works which are shared works or associated development or ancillary works relating to shared works, Optimus Wind or Breesea.

59. This part of this Schedule does not apply to Apparatus in respect of which the relations between the undertaker and Anglian Water are regulated by the provisions of Part 3 of the 1991 Act.

60.—(1) The relevant undertaker must not execute any works that interfere with, build over or near to any Apparatus within the Order land or 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 the standard protection strips which are the strips of land falling the following distances to either side of the medial line of any Apparatus—

- (a) 2.25 metres where the diameter of the pipe is less than 150 millimetres;
- (b) 3 metres where the diameter of the pipe is between 150 and 450 millimetres;
- (c) 4.5 metres where the diameter of the pipe is between 450 and 750 millimetres; and
- (d) 6 metres where the diameter of the pipe exceeds 750 millimetres

unless the relevant undertaker has submitted to Anglian Water not less than 28 days before starting the execution of any works, a plan and description of the works to be executed.

(2) Those works are to be executed only in accordance with the plan and description submitted under sub-paragraph (1) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (3) by Anglian Water for the alteration or otherwise for the protection of the Apparatus, or for securing access to it, and an officer of Anglian Water is entitled to watch and inspect the execution of those works.

(3) Any requirements made by Anglian Water under sub-paragraph (2) must be made within a period of 21 days beginning with the date on which a plan and description under sub-paragraph (1) are submitted to it.

(4) Nothing in this paragraph precludes the relevant 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 and description instead of the plan and description previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan and description.

(5) The relevant undertaker is not required to comply with sub-paragraph (1) in a case of emergency but in that case it must give to Anglian Water notice as soon as is reasonably practicable and a plan and description 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.

(6) It will be reasonable for Anglian Water to require that the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or the filling around the apparatus (where the apparatus is laid in a trench) be executed by Anglian Water.

(7) Anglian Water must execute any requirement made under sub-paragraph (6) in a timely manner.

61. The alteration, extension, removal or relocation of any Apparatus shall not be implemented until—

- (a) any requirement for any permits under the Environmental Permitting (England and Wales) Regulations 2010 or other legislation and any other associated consents are obtained, and any approval or agreement required from Anglian Water on alternative outfall locations as a result of such relocation are obtained, such approvals or agreements from Anglian Water not to be unreasonably withheld or delayed; and
- (b) the relevant undertaker has given to Anglian Water written notice of its requirement to alter, extend, remove or relocate Apparatus together with a plan and description of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and such works to be executed only in accordance with the plan and description submitted and in accordance with such reasonable requirements as may be made by Anglian Water for the alteration or otherwise for the protection of the Apparatus, or for securing access to it.

62. If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of the relevant undertaker, Anglian Water must, on receipt of a written notice to that effect from the relevant undertaker, as soon as reasonably possible use its best endeavours to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed.

63. Any alternative apparatus to be constructed in land of the relevant undertaker under this part of this Schedule is to be constructed in such manner and in such line or situation as may be agreed between Anglian Water and the relevant undertaker or in default of agreement settled by arbitration in accordance with article 42 (arbitration).

64. In the situation, where in exercise of the powers conferred by the Order, the relevant undertaker acquires any interest in any land in which Apparatus is placed and such Apparatus is to be relocated, extended, removed or altered in any way, no alteration or extension shall take place until Anglian Water has established to its reasonable satisfaction, contingency arrangements in order to conduct its functions for the duration of the works to relocate, extend, remove or alter the Apparatus. Anglian Water shall use reasonable endeavours to establish contingency arrangements in a timely manner.

65. Regardless of any provision in the Order or anything shown on any plan, the relevant undertaker must not acquire any Apparatus otherwise than by agreement, and before extinguishing any existing rights for Anglian Water to use, keep, inspect, renew and maintain its Apparatus in the Order land, the relevant undertaker shall, with the agreement of Anglian Water, create a new right to use, keep, inspect, renew and maintain the Apparatus that is reasonably convenient for Anglian Water such agreement not to be unreasonably withheld or delayed, and to be subject to arbitration under article 42 (arbitration).

66. If in consequence of the exercise of the powers conferred by the Order the access to any Apparatus is materially obstructed the relevant undertaker shall provide such alternative means of access to such Apparatus as will enable Anglian Water to maintain or use the Apparatus no less effectively than was possible before such obstruction.

67. If in consequence of the exercise of the powers conferred by the Order, previously unmapped sewers, lateral drains or other Apparatus are identified by the relevant undertaker, notification of the location of such assets will be given to Anglian Water as soon as reasonably practicable and, if identified by Anglian Water as being within its responsibility, will be afforded the same protection as other Anglian Water assets.

68. If for any reason or in consequence of the construction of any of the works referred to in paragraphs 60 to 65 and 67 above 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 Anglian Water, or there is any interruption in any service provided, or in the supply of any goods, by Anglian Water, the relevant undertaker shall—

- (a) bear and pay the cost reasonably incurred by Anglian Water in making good any damage or restoring the supply; and
- (b) make reasonable compensation to Anglian Water for any other expenses, loss, damages, penalty or costs properly and reasonably incurred by Anglian Water

by reason or in consequence of any such damage or interruption.

69. The relevant undertaker must repay Anglian Water the reasonable expenses incurred by Anglian Water in executing the works reasonably required under paragraph 60(6) and paragraph 61 and in complying with a written notice under paragraph 62.

70. Nothing in paragraph 68 above shall impose any liability on the relevant undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of Anglian Water, its officer, servants, contractors or agents.

71. Any difference or dispute arising between the undertaker and Anglian Water under this Part of this Schedule shall, unless otherwise agreed in writing between the undertaker and Anglian Water, be determined by arbitration in accordance with article 42 (arbitration).

PART 7

For the protection of Centrica Plc

72. For the protection of Centrica the following provisions, unless otherwise agreed in writing between the undertaker and Centrica, have effect.

73. In this Part of this Schedule—

“access road” means the road providing access to Centrica’s power station from Chase Hill Road;

“apparatus” means Centrica’s pipelines, cables, structures, or other electrical, gas or telecommunication infrastructure owned, occupied or maintained by Centrica for the purposes of its undertaking;

“Centrica” means Centrica Plc and all of its subsidiaries and group companies including but not limited to Centrica KPS Limited, Centrica Storage Limited and Centrica Energy or any successor company or companies in title and function; and

“relevant undertaker” means—

- (a) in relation to works which are Project A works or associated development or ancillary works relating to Project A works, Optimus Wind;
- (b) in relation to works which are Project B works or associated development or ancillary works relating to Project B works, Breesea; and
- (c) in relation to works which are shared works or associated development or ancillary works relating to shared works, Optimus Wind or Breesea.

74. Before extinguishing any existing rights for Centrica to place, install, keep, inspect, renew and maintain its apparatus on, over or in the Order land or to cross the Order land to access its apparatus,

the relevant undertaker, with the agreement of Centrica, must create a new right, which is consistent with the existing right being extinguished, to place, install, keep, inspect, renew and maintain the apparatus in the same location or a new right of access that is reasonably convenient for Centrica, such agreement not to be unreasonably withheld or delayed.

75.—(1) Save where paragraph 76 of this Part applies, no works are to commence within 10 metres of apparatus, or on, to or within 10 metres in any direction of the access road until a construction method statement to protect the apparatus and/or the access road as the case may be has been prepared by the relevant undertaker and submitted to and agreed with Centrica (provided that Centrica must not unreasonably withhold or delay such agreement).

(2) The construction method statement must include provisions in respect of—

- (a) the location and methods of reinforcement of crossing points over the apparatus and restrictions on building and altering the ground level over the apparatus elsewhere;
- (b) a mechanism for the enforcement of the relevant undertaker's use of designated crossing points over the apparatus and the agreed reinforcement methods; and
- (c) adoption of a prior notification and consent regime which would require the relevant undertaker to—
 - (i) seek Centrica's consent to the carrying out of the proposed development within the vicinity of the apparatus or on or to the access road, such consent not to be unreasonably withheld and comply with any reasonable conditions attached by Centrica to its consent; and
 - (ii) notify Centrica of its intention to carry out any development within the vicinity of the apparatus or on or to the access road, such notification to be provided at least 48 hours prior to any such development occurring; and

the authorised development must be carried out in accordance with the approved construction method statement.

76.—(1) If the relevant undertaker acquires or overrides any interest in any land in which apparatus is laid, the apparatus must not be removed under this part of this Schedule and any right of Centrica to maintain the apparatus in that land must not be extinguished until alternative apparatus has been constructed at the relevant undertaker's expense, and is in operation to the reasonable satisfaction of Centrica in accordance with sub-paragraphs (2) to (5) inclusive.

(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 relevant undertaker requires the removal of apparatus in that land, it must give to Centrica 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 Centrica reasonably needs to remove the apparatus) the relevant undertaker must, subject to sub-paragraph (3), afford to Centrica to their satisfaction (taking into account paragraph 77(1) below) the necessary facilities and rights for—

- (a) the construction of an alternative apparatus in other land of the relevant undertaker or Centrica; 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 the relevant undertaker or Centrica, or the relevant 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, Centrica must, on receipt of a written notice to that effect from the relevant undertaker, take such steps as are reasonable in the circumstances in an endeavour to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed save that this obligation must not extend to the requirement for Centrica to seek compulsory purchase powers to this end unless it elects to so do.

(4) Any alternative apparatus to be constructed in land of the relevant undertaker or Centrica under this part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between Centrica and the relevant undertaker.

(5) Centrica must, after the alternative apparatus to be provided or constructed has been agreed, and subject to the grant to Centrica of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to, at the cost of the relevant undertaker, construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the relevant undertaker to be removed under the provisions of this part of this Schedule.

77.—(1) Where, in accordance with the provisions of this part of this Schedule, the relevant undertaker affords to Centrica facilities and rights for the construction and maintenance in land of the relevant undertaker of alternative apparatus in substitution for the apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the relevant undertaker and Centrica and must be no less favourable on the whole to Centrica than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless agreed by Centrica.

(2) If the facilities and rights to be afforded by the relevant undertaker and agreed with Centrica under sub-paragraph (1) above 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 Centrica 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 must be referred to arbitration and, the arbitrator must make such provision for the payment of compensation by the relevant undertaker to Centrica as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

78. If for any reason or in consequence of the construction or operation of the authorised development, 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 Centrica, or to the access road, the relevant undertaker must bear and pay the cost reasonably incurred by Centrica in making good any damage by reason or in consequence of any such damage. Provided That the maximum liability of the relevant undertaker or the maximum liability of the relevant undertakers (in aggregate) must be limited to £50,000,000 per claim or series of claims arising from one event.

79. The relevant undertaker must use its best endeavours to co-ordinate the execution and operation of the works in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of Centrica's undertaking and Centrica must use its best endeavours to co-operate with the relevant undertaker for that purpose.

80. Regardless of any provision in this Order or anything shown on the land plans or contained in the book of reference, the undertaker must not acquire any apparatus or override any easement or other interest of Centrica or acquire any land or other interest of Centrica or create any new rights over the same otherwise than by agreement of Centrica, which agreement must not be unreasonably withheld.

81. Any dispute arising between the undertaker and Centrica under this Part of this Schedule must be determined by arbitration as provided in article 42 (arbitration).

PART 8

For the protection of VPI Immingham LLP

82.—(1) For the protection of VPI the following provisions, unless otherwise agreed in writing between the undertaker and VPI, have effect.

(2) In this Part of this Schedule—

“VPI” means VPI Immingham LLP (Company number OC300980);

“the pipeline” means the gas pipeline crossing the Order land owned and operated by VPI used at various times for the passage of gas and all ancillary apparatus including such works

and apparatus properly appurtenant to the pipeline as are specified by section 65(2) of the Pipe-Lines Act 1962(a); and

“relevant undertaker” means—

- (a) in relation to works which are Project A works or associated development or ancillary works relating to Project A works, Optimus Wind;
- (b) in relation to works which are Project B works or associated development or ancillary works relating to Project B works, Breesea; and
- (c) in relation to works which are shared works or associated development or ancillary works relating to shared works, Optimus Wind or Breesea.

83. Before commencing any part of the authorised development or the operation of the authorised undertaking which would have an effect on the operation and maintenance of the pipeline and access to it, the relevant undertaker must submit to VPI plans and sections of the proposed works and such further particulars as VPI may, within 28 days from the day on which plans and sections are submitted under this paragraph, reasonably require.

84. No works comprising any part of the authorised development or the operation of the authorised undertaking which would have an effect in full or in part on the operation, maintenance, repair, replacement and abandonment of the pipeline and access to it are to be commenced until plans and sections in respect of those works submitted under paragraph 83 have been approved by VPI.

85. Any approval of VPI required under paragraph 84 must not be unreasonably withheld or delayed but may be given subject to such reasonable requirements as VPI may require to be made for—

- (a) the continuing safety and operational viability of the pipeline; and
- (b) the requirement for VPI to have uninterrupted and unimpeded access to the pipeline at all times.

86.—(1) Subject to sub-paragraphs (2) and (3) below, if, by reason or in consequence of the construction of any of the works referred to in paragraph 83, any damage is caused to any apparatus or property of VPI, or there is any interruption in any service provided, or in the supply of any goods, by VPI, the relevant undertaker must—

- (a) bear and pay the cost reasonably incurred by VPI in making good such damage or restoring the supply; and
- (b) make reasonable compensation to VPI for any other expenses, loss, damages, penalty or costs incurred by VPI

by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the relevant undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of VPI, its officers, servants, contractors or agents.

(3) VPI must give the relevant undertaker reasonable notice of any such claim or demand and no settlement or compromise may be made without the consent of the relevant 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.

87. Any dispute arising between the undertaker and VPI under this Part of this Schedule must be determined by arbitration as provided in article 42 (arbitration).

(a) 1962 c.58. Section 65(2) was amended by paragraph 6 of Schedule 2 to the Energy Act 2011 (c.16), by S.I. 2000/1937 and by S.I. 2011/2305.

PART 9

For the protection of Phillips 66 Limited

88.—(1) For the protection of P66 the following provisions, unless otherwise agreed in writing between the undertaker and P66, have effect.

(2) In this Part of this Schedule—

“P66” means Phillips 66 Limited (Company number 529086);

“the pipeline” means the crude oil pipeline owned and operated by P66 used at various times for the passage of multi-purpose hydrocarbon fuels and all ancillary apparatus including such works and apparatus properly appurtenant to the pipeline as are specified by section 65(2) of the Pipe-Lines Act 1962; and

“relevant undertaker” means—

- (a) in relation to works which are Project A works or associated development or ancillary works relating to Project A works, Optimus Wind;
- (b) in relation to works which are Project B works or associated development or ancillary works relating to Project B works, Breesea; and
- (c) in relation to works which are shared works or associated development or ancillary works relating to shared works, Optimus Wind or Breesea.

89. Before commencing any part of the authorised development or the operation of the authorised undertaking which would have an effect on the operation and maintenance of the pipeline and access to it, the relevant undertaker must submit to P66 plans and sections of the proposed works and such further particulars as P66 may, within 28 days from the day on which plans and sections are submitted under this paragraph, reasonably require.

90. No works comprising any part of the authorised development or the operation of the authorised undertaking which would have an effect in full or in part on the operation, maintenance, repair, replacement and abandonment of the pipeline and access to it are to be commenced until plans and sections in respect of those works submitted under paragraph 89 have been approved by P66.

91. Any approval of P66 required under paragraph 90 must not be unreasonably withheld or delayed but may be given subject to such reasonable requirements as P66 may require to be made for—

- (a) the continuing safety and operational viability of the pipeline; and
- (b) the requirement for P66 to have uninterrupted and unimpeded access to the pipeline at all times.

92.—(1) Subject to sub-paragraphs (2) and (3) below, if, by reason or in consequence of the construction of any of the works referred to in paragraph 89, any damage is caused to any apparatus or property of P66, or there is any interruption in any service provided, or in the supply of any goods, by P66, the relevant undertaker must—

- (a) bear and pay the cost reasonably incurred by P66 in making good such damage or restoring the supply; and
- (b) make reasonable compensation to P66 for any other expenses, loss, damages, penalty or costs incurred by P66

by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the relevant undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of P66, its officers, servants, contractors or agents.

(3) P66 must give the relevant undertaker reasonable notice of any such claim or demand and no settlement or compromise may be made without the consent of the relevant 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.

93. Any dispute arising between the undertaker and P66 under this Part of this Schedule must be determined by arbitration as provided in article 42(arbitration).

PART 10

For the protection of ConocoPhillips (U.K.) Limited

94.—(1) For the protection of ConocoPhillips the following provisions, unless otherwise agreed in writing between the undertaker and ConocoPhillips, have effect.

(2) In this Part of this Schedule—

“ConocoPhillips” means ConocoPhillips (U.K.) Limited (Company number 00524868);

“the pipeline” means the condensate pipeline running from the ConocoPhillips Theddlethorpe Gas Terminal to the Humber Oil Refinery, operated by ConocoPhillips on behalf of the pipeline owner(s) and all ancillary apparatus including such works and apparatus properly appurtenant to the pipeline as are specified by section 65(2) of the Pipe-Lines Act 1962; and

“relevant undertaker” means—

- (a) in relation to works which are Project A works or associated development or ancillary works relating to Project A works, Optimus Wind;
- (b) in relation to works which are Project B works or associated development or ancillary works relating to Project B works, Breesea; and
- (c) in relation to works which are shared works or associated development or ancillary works relating to shared works, Optimus Wind or Breesea.

95. No less than 28 days before commencing any part of the authorised development or the operation of the authorised undertaking which is near to and would or may have an effect on the operation and maintenance of the pipeline and access to it, the relevant undertaker must submit to ConocoPhillips plans and sections of the proposed works and such further particulars as ConocoPhillips may, within 28 days from the day on which plans and sections are submitted under this paragraph, reasonably require.

96. No works comprising any part of the authorised development or the operation of the authorised undertaking which would have an effect in full or in part on the operation, maintenance, repair, replacement and abandonment of the pipeline and access to it are to be commenced until plans and sections in respect of those works submitted under paragraph 95 have been approved by ConocoPhillips.

97. Any approval of ConocoPhillips required under paragraph 96 must not be unreasonably withheld or delayed but may be given subject to such reasonable requirements as ConocoPhillips may require to be made for—

- (a) the continuing safety and operational viability of the pipeline; and
- (b) the requirement for ConocoPhillips to have uninterrupted and unimpeded access to the pipeline at all times.

98.—(1) Subject to sub-paragraphs (2) and (3) below, if, by reason or in consequence of the construction of any of the works referred to in paragraph 95, any damage is caused to any apparatus or property of ConocoPhillips, or there is any interruption in any service provided, or in the supply of any goods, by ConocoPhillips, the relevant undertaker must—

- (a) bear and pay the cost reasonably incurred by ConocoPhillips in making good such damage or restoring the supply; and
- (b) make reasonable compensation to ConocoPhillips for any other expenses, loss, damages, penalty or costs incurred by ConocoPhillips

by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the relevant undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of ConocoPhillips, its officers, servants, contractors or agents.

(3) ConocoPhillips must give the relevant undertaker reasonable notice of any such claim or demand and no settlement or compromise may be made without the consent of the relevant 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.

99. Any dispute arising between the undertaker and ConocoPhillips under this Part of this Schedule must be determined by arbitration as provided in article 42 (arbitration).

PART 11

For the protection of C.GEN Killingholme Limited

100.—(1) The following provisions apply to govern the relationship between the undertaker and C.GEN unless otherwise agreed in writing between the undertaker and C.GEN.

(2) In this Part of this Schedule—

“approving party” means the party from whom an approval should be, has been or should have been obtained under the terms of this Part, and shall be Optimus Wind and Breesea to the extent that they continue to have powers under the Order in respect of any part of the Order land shown numbered 503, 505, 506, 507 or 509 on the land plans, and any party who has powers under the Order in respect of that Order land by virtue of Article 35 (transfer of benefit of Order) in the case of specified work by C.GEN, and C.GEN in the case of specified work by the undertaker;

“C.GEN” means C.GEN Killingholme Limited (Company number 06422434), whose principal office is at 130 Shaftesbury Avenue, London W1D 5EU;

“C.GEN relevant land” means the area of land shown coloured yellow on the plan;

“construction” includes execution, placing, altering, replacing, reconstruction, relaying, maintenance, extensions, enlargement and removal and “construct” and “constructed” are construed accordingly;

“crossing zones” means those areas of land shown coloured green on the plan;

“dominant land” means the Order land shown numbered 500 and 506 on the land plans;

“drainage ditch” means the ditch shown by a black line marked ‘Drain’ on the plan;

“Hornsea Project Substation Site” means the site shown outlined in pink on the plan;

“grid connection land” means the C.GEN relevant land, the thermal buffer zone and the crossing zones;

“the plan” means the plan entitled the C.GEN Protective Provisions plan and certified as the C.GEN protective provisions plan by the Secretary of State for the purposes of this Part of this Schedule;

“plans” includes sections, drawings, specifications, designs, design data, software, 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 the grid connection land;

“promoting party” means the party who is seeking, has sought or should have sought an approval under the terms of this Part of this Schedule and shall be the undertaker in the case of specified work by the undertaker, and C.GEN in the case of specified work by C.GEN;

“servient land” means any pond, ponds or any watercourse on land under the ownership of C.GEN as at the date of this Order;

“specified work” means so much of any work or operation by the undertaker or C.GEN as is in, on, under or over the grid connection land; and

“thermal buffer zone” means the area of land shown coloured red on the plan.

101. The undertaker must not under the powers of the Order acquire—

- (a) new rights over the C.GEN relevant land; or
- (b) new rights over the thermal buffer zone, except for the purposes of access and maintenance; or
- (c) new rights over crossing zones,

without the consent of C.GEN, such consent not to be unreasonably withheld or delayed but which may be given subject to reasonable conditions.

102.—(1) The promoting party must give to the approving party not less than 28 days’ written notice of its intention to commence the construction of the specified works and at the same time must submit plans for those specified works to the approving party.

(2) Not more than 14 days after completion of the construction of the specified works the promoting party must give the approving party written notice of such completion.

103.—(1) Following receipt of the notification of the intention to commence the construction of the specified works under paragraph 102(1), the approving party must within 14 days give notice in writing to the promoting party that (acting reasonably)—

- (a) it approves the plans; or
- (b) it does not approve the plans and provide reasons for this.

(2) Where the approving party confirms that it does not approve the plans for the specified works then both parties shall, acting reasonably, enter into negotiations to seek to agree the plans. If following the expiry of 14 days from the date of notification under sub-paragraph (1)(b) no agreement has been reached, the matter shall be determined in accordance with paragraph 120.

104.—(1) Subject to sub-paragraph (3), any specified work must be constructed—

- (a) without unreasonable delay in accordance with the plans approved or settled under this Part of this Schedule; and
- (b) to the reasonable satisfaction of the approving party.

(2) If any part of the specified work is constructed otherwise than in accordance with the requirements of this Part of this Schedule, the approving party may by notice in writing require the promoting party at the promoting party’s own expense to comply with the requirements of this Part of this Schedule or (if the promoting party so elects and the approving party 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 approving party reasonably requires.

(3) Subject to sub-paragraph (4), if within a reasonable period, being not less than 28 days from the date when a notice under sub-paragraph (2) is served upon the promoting party, it 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 approving party may execute the works specified in the notice and any expenditure incurred by it in so doing is recoverable from the promoting party.

(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, the approving party must not except in an emergency exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined.

105. The promoting party must at all reasonable times during construction of the specified works and thereafter allow the approving party, its servants and agents, access to such work and all reasonable facilities for inspection of any such work.

106.—(1) After the purpose of any temporary works has been accomplished the promoting party must with all reasonable dispatch, or after a reasonable period of notice in writing from the approving party requiring the promoting party to do so, remove any such temporary works or any materials relating thereto which may have been placed in, on, under or over the grid connection land by or on behalf of the promoting party.

(2) If the promoting party fails to do so within a reasonable period after receiving such notice, the approving party may remove the same and may recover the reasonable costs of doing so from the promoting party.

107.—(1) If any damage to the grid connection land or any apparatus of any approving party upon such land or any interference or obstruction is caused by the carrying out of, or in consequence of the construction of a specified work, the promoting party must, notwithstanding any approval, make good such damage to the reasonable satisfaction of the approving party and must pay to the approving party all reasonable expenses to which the approving party may be put and compensation for any loss which it may sustain by reason of any such damage, interference or obstruction in accordance with paragraph 108.

(2) If the promoting party refuses or fails to do so, the approving party may cause the work to be done and may recover the reasonable cost of doing so from the promoting party.

108.—(1) Without prejudice to the other provisions of this Part of this Schedule, the promoting party is to be responsible for, and must make good to the approving party, all losses, costs, charges, damages and expenses however caused (including a reasonable and proper proportion of the overhead charges of the approving party) which may reasonably be incurred by or occasioned to the approving party by reason of or arising from or in connection with—

- (a) the perusal of plans and the inspection of the specified works by the approving party or its duly authorised representative;
- (b) the construction or failure of the specified works, or the undertaking by the approving party of works or measures to prevent or remedy damage to any property of the approving party arising from such construction or failure;
- (c) any act or omission of the promoting party or their servants or agents whilst engaged in the construction of any of the specified works.

(2) The approving party must give to the promoting party notice in writing of any claim or demand for which the promoting party may be liable under this paragraph and no settlement or compromise of any such claim or demand may be made without the consent in writing of the promoting party.

(3) Nothing in this paragraph imposes any liability on the promoting party to the extent that any losses, costs, charges, damages, expenses, claims or demands referred to in sub-paragraph (1) are attributable to negligence on the part of the approving party or of any person in its employ or of its contractors or agents.

109. The fact that any work or thing has been executed or done with the consent of the approving party and in accordance with any conditions or restrictions prescribed by the approving party or in accordance with any plans approved by the approving party or to its satisfaction or in accordance with any directions or award of any arbitrator, does not relieve the promoting party from any liability under the provisions of this Part of this Schedule.

110. Any consent or approval of an approving party required under this Part of this Schedule—

- (a) must not be unreasonably withheld or delayed; and
- (b) may be given subject to reasonable conditions.

111. Any consent or approval of an approving party required under this Part of this Schedule shall be deemed to have been given if it is neither given nor refused within 28 days beginning with the date on which the application for consent or approval was submitted to the approving party.

112. Without prejudice to the generality of paragraph 110 of this Part of this Schedule, it shall not be reasonable for an approving party to withhold or delay any consent or approval under this Part of

this Schedule in relation to specified work in, on, under, or over the grid connection land solely on the basis of thermal interaction between the circuit and any adjacent circuit, whether existing or proposed, where it has been demonstrated that there will be no material thermal interaction, which shall be deemed to have been demonstrated where the separation between such circuits is 6 metres or more (from the centre line of each circuit).

113. Without prejudice to the generality of paragraph 110, and in addition to the circumstances described in paragraph 112, it shall not be reasonable for the approving party to withhold or delay any consent or approval under this Part of this Schedule in relation to specified work in, on, under, or over the crossing zones solely on the basis of thermal interaction where the plans of the specified work submitted under paragraph 102 demonstrate that all reasonable steps have been taken to minimise thermal interaction between the circuit and any other circuit, whether existing or proposed.

114. With the exception of any duty owed by the approving party to the promoting party expressly provided for in the foregoing provisions of this Part of this Schedule, nothing in this Order is to be construed as imposing upon the approving party, either directly or indirectly, any form of duty or liability to which the approving party would not otherwise be subject which is enforceable by proceedings before any court.

115. Save as this Part of this Schedule permits, nothing in this Order affects prejudicially any statutory or other rights, powers or privileges vested in, or enjoyed by, the approving party at the commencement of this Order or any title of the approving party in, to or over any lands held or acquired by it.

116. In the event that the promoting party requires to alter the course of, modify, or remove any part of the drainage ditch such alteration, modification or removal works must be approved in writing by the approving party prior to the works being carried out, such approval not to be unreasonably withheld or delayed but may be given subject to reasonable conditions.

117. The undertaker must ensure that the rate and/or volume of water discharged from the dominant land onto, over, across or through the servient land will not result in a significant increase in the exercise of the rights of the easement enjoyed by the dominant land on, over, across and through the servient land other than with the prior written approval of C.GEN.

118. The undertaker must not exercise the powers conferred by article 18 (compulsory acquisition of land) or article 19 (compulsory acquisition of rights) in respect of the Order land shown numbered 510 on the land plans to extinguish any rights that C.GEN has to connect into the North Killingholme National Grid substation.

119. The provisions of this Part of this Schedule will enure for the benefit of the undertaker, C.GEN and any statutory successor of either which is licensed under section 6 of the 1989 Act and is in occupation or use of the Hornsea Project Substation Site, the grid connection land or any part thereof pursuant to their undertaking.

120. Any dispute or difference arising between Optimus Wind and/or Breesea and/or any other party having powers under the Order in respect of the Order land shown numbered 503, 505, 506, 507 or 509 on the land plans by virtue of Article 35 (transfer of benefit of Order) on the one hand and C.GEN on the other as to their respective rights, duties and obligations under this Part of this Schedule or as to any matters arising out of it or in connection with the subject matter of this Part of this Schedule shall be determined by a single arbitrator whose appointment is to be agreed upon between Optimus Wind and/or Breesea and/or any other party having powers under the Order in respect of any part of the Order land shown numbered 503, 505, 506, 507 or 509 on the land plans by virtue of Article 35 (transfer of benefit of Order) (as appropriate) and C.GEN or where agreement cannot be reached within 14 days to be appointed on the application of either party (after notice in writing to the other party) by the President or Deputy President of the Royal Institute of Chartered Arbitrators.

PART 12

For the protection of the Hornsea One Companies

121.—(1) The following provisions apply for the protection of the Hornsea One Companies unless otherwise agreed in writing between the undertaker and the Hornsea One Companies.

(2) In this part of this Schedule—

“apparatus” means the cables, structures, or other infrastructure owned, occupied or maintained by any Hornsea One Company and their successors in title, including any offshore transmission owner, within the Hornsea One Order Land;

“construction” includes execution, placing, altering, replacing, reconstruction, relaying, maintenance, extensions, enlargement and removal and “construct” and “constructed” are construed accordingly;

“Hornsea One Companies” means all of the undertakers with the benefit of all or part of the Hornsea One Order for the time being, each of which must be a licenced holder under section 6 of the Electricity Act 1989, each of which is a “Hornsea One Company”;

“Hornsea One Disposal Areas” means disposal site reference HU209 and HU210 whose coordinates are specified in the deemed marine licence in Schedule 11 of the Hornsea One Order;

“Hornsea One Order” means the Hornsea One Offshore Wind Farm Order 2014, as corrected by the Hornsea One Offshore Wind Farm (Correction) Order 2015 and as it may be amended from time to time;

“Hornsea One Order Land” means the land within the Order limits defined in the Hornsea One Order together with the land edged red on plan HOW01095_4 submitted to support planning application reference PA/2015/0398 submitted to North Lincolnshire Council;

“Hornsea One” means the wind farm(s) to be constructed pursuant to the Hornsea One Order including, whether pursuant to the Hornsea One Order or otherwise, all elements of the connection of the wind farm(s) to the national grid at Killingholme substation;

“plans” includes sections, drawings, specifications, designs, design data, software, 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 the Hornsea One Order Land;

“proposed Hornsea One Circuit Route” means the proposed route for any electrical circuit to serve Hornsea One as shown on plans produced to the undertaker by the relevant Hornsea One Company pursuant to paragraph 135 of this Part;

“relevant Hornsea One Company” means the Hornsea One Company whose undertaking includes the part of Hornsea One or the part of the Hornsea One Order Land affected by the particular proposals of the undertaker;

“specified works(s)” means so much of any work or operation authorised by this Order (or any amendment to this Order or authorised by any planning permission or marine licence intended to operate in conjunction with this Order) as is—

- (a) in, on, under, over, or within 500 metres of a proposed Hornsea One Circuit Route and/or existing installed electrical circuit (seaward of MHWS); or
- (b) in, on, under, over, or within 25 metres of a proposed Hornsea One Circuit Route and/or existing installed electrical circuit (landward of MHWS); or
- (c) in, on, under, over, or within 1000 metres of other apparatus installed or to be installed as part of Hornsea One.

122. The consent of a Hornsea One Company under this Part shall not be required where the Hornsea One Order has expired without the authorised development having been commenced pursuant to requirement 3 of the Hornsea One Order and/or the project has been abandoned.

123. Where conditions are included in any consent granted by a Hornsea One Company pursuant to this Part, the undertaker must comply with such conditions if it chooses to implement or rely on the consent, unless those conditions are waived or varied in writing by the relevant Hornsea One Company.

124. It shall be reasonable for the relevant Hornsea One Company to require as a condition of granting consent under this Part that the undertaker enter into a cable proximity agreement on reasonable terms reflecting industry good practice if the undertaker proposes to install an electrical circuit at any point closer than 500 metres to the centre line of any electrical circuit installed to serve Hornsea One or is to cross a proposed Hornsea One Circuit Route.

125. The undertaker must not under the powers of this Order—

- (a) acquire any of the Hornsea One Order Land or acquire new or existing rights or interfere with existing rights or impose restrictive covenants or acquire any rights of temporary use over or in relation to the Hornsea One Order Land without the consent of the relevant Hornsea One Company, not to be unreasonably withheld or delayed but which may be made subject to reasonable conditions;
- (b) carry out any of the specified works without the consent of the relevant Hornsea One Company, not to be unreasonably withheld or delayed but which may be made subject to reasonable conditions.

126.—(1) Subject to obtaining consent pursuant to paragraph 125(b) above and before beginning to construct any specified work, the undertaker must submit plans of the specified work to the relevant Hornsea One Company and shall submit such further particulars available to it that such company may reasonably require.

(2) Any specified work must be constructed without unreasonable delay in accordance with the plans approved in writing by the relevant Hornsea One Company under this Part.

(3) Any approval of the relevant Hornsea One Company required under this paragraph 126 may be made subject to such reasonable conditions as it may make for the protection of the Hornsea One Order Land and the apparatus, and apparatus for Hornsea One not yet installed.

(4) If any part of the specified work is constructed otherwise than in accordance with the requirements of this Part the relevant Hornsea One Company may by notice in writing require the undertaker at the undertaker's own expense to comply with the requirements of this Part.

127. The undertaker must give to the relevant Hornsea One Company not less than 28 days' written notice of its intention to commence the construction of the specified works and, not more than 28 days after completion of such construction, must give the relevant Hornsea One Company written notice of such completion.

128. The undertaker must at all reasonable times during construction of the specified works and thereafter allow the relevant Hornsea One Company, their servants and agents, access to such work and all reasonable facilities for inspection of any such work.

129. After the purpose of any temporary works has been accomplished the undertaker must with all reasonable dispatch, or after a reasonable period of notice in writing from the relevant Hornsea One Company requiring the undertaker so to do, remove any such temporary works or any materials relating thereto which may have been placed by or on behalf of the undertaker—

- (a) in, on, under, over, or within 500 metres of a proposed Hornsea One Circuit Route and/or existing installed electrical circuit (seaward of MHWS); or
- (b) in, on, under, over, or within 25 metres of a proposed Hornsea One Circuit Route and/or existing installed electrical circuit (landward of MHWS).

130. With the exception of any duty owed by the relevant Hornsea One Company to the undertaker expressly provided for in the foregoing provisions of this Part, nothing in this Order is to be construed as imposing upon the relevant Hornsea One Company, either directly or indirectly, any form of duty or liability to which the relevant Hornsea One Company would not otherwise be subject which is enforceable by proceedings before any court.

131. The undertaker must consult the relevant Hornsea One Company in relation to any draft disposal plan which proposes to deposit material within the Hornsea One Disposal Areas and must make such amendments as are reasonably requested by the relevant Hornsea One Company prior to submission to the MMO for approval.

132. Subject to complying with all relevant health and safety considerations, the undertaker must permit representatives of the relevant Hornsea One Company on any vessel carrying out dredging and/or disposal activities related to the Hornsea One Disposal Areas to monitor and verify the dredging and disposal carried out in terms of location, method, timing, quantity, nature of materials and other relevant matters.

133. The undertaker must give reasonable notice in writing to the relevant Hornsea One Company of the intended departure of all such vessels referred to within paragraph 132 together with written information concerning the proposed dredging and disposal activities and shall comply with all reasonable requests from the relevant Hornsea One Company to enable such verification referred to be carried out effectively and efficiently.

134. The undertaker must provide to the relevant Hornsea One Company a copy of each disposal return required to be submitted to the MMO pursuant to the approved disposal plan under the Order relevant to the Hornsea One Disposal Areas, such returns to include, without limitation, the actual volumes of materials disposed of, the disposal locations, the approved monitoring plan and the results of monitoring conducted.

135. To ensure its compliance with the provisions of this Part, undertaker shall prior to carrying out any works or operations pursuant to this Order request up to date written confirmation from the relevant Hornsea One Company of the precise route of any existing installed apparatus and any proposed Hornsea One Circuit Route or other apparatus to be installed by the relevant Hornsea One Company.

136. The undertaker and Hornsea One Companies shall each act in good faith and use reasonable endeavours to co-operate with, and provide assistance to, each other as may be required to give effect to the provisions of this Part.

137. Any dispute arising between the undertaker and the relevant Hornsea One Company under this part of this Schedule is to be determined by arbitration under article 42 (arbitration).

PART 13

For the protection of E.ON E&P UK Limited and Bayerngas Europe Limited

138. For the protection of E.ON E&P and BEL, unless otherwise agreed in writing between the undertaker, E.ON E&P and BEL the provisions of this part of this Schedule have effect.

139. In this part of this Schedule—

“apparatus” means the infrastructure installed owned, occupied or maintained by, or on behalf of, E.ON E&P or BEL or which will be installed owned, occupied or maintained by, or on behalf of, E.ON E&P or BEL or other seismic or drilling activities carried out by, or on behalf of E.ON E&P or BEL pursuant to the seaward production licence and which in each case which is located or which will be located within the area coloured green on the Protective Provisions Plan (that area coloured green being delineated by a line drawn between the points in the Table of Co-Ordinates) and for which E.ON E&P and/or BEL have all necessary consents authorising the carrying out, construction, operation and/or maintenance;

“BEL” means Bayerngas Europe Limited (company number 05735294) and includes its successors to the seaward production licence;

“DECC guidance” means the ‘Oil and gas clause in Crown Estate leases, Guidance on procedures for independent valuation where necessary’ published by the Department of Energy and Climate Change in June 2014, or any similar supplementary or replacement policy;

“E.ON E&P” means E.ON E&P UK Limited (company number 02761032) and includes its successors to the seaward production licence;

“the licence holders” means E.ON E&P and BEL;

“the marine licence works” means any works authorised by the marine licences contained in Schedules H to K to this Order deemed to be granted by article 36;

“Ministerial statement” means the written statement given by the then Secretary of State for Energy and Climate Change to the UK Parliament regarding Crown Estate Leases for Offshore Renewables Project on 12 July 2011, or any similar supplementary or replacement policy;

“plans of the proposed works” includes sections, drawings, specifications and method statements and any other details as reasonably required by the licence holders;

“the Protected Area” means any area within the area coloured green on the Protective Provisions Plan within which E.ON E&P and/or BEL have, at the relevant time, apparatus;

“the Protective Provisions Plan” means the plan entitled Protective Provisions Plan for E.ON E&P and BEL and certified as the Protective Provisions Plan for E.ON E&P and BEL by the Secretary of State under article 40 for the purposes of this Part of this Schedule;

“the seaward production licence” means the licence granted to E.ON E&P and BEL under the Petroleum Act 1998 by the Secretary of State for Energy and Climate Change licence bearing the reference P2290; and

“the Table of Co-Ordinates” means the following table:

LABEL	LATTITUDE	LONGITUDE
A	54° 0' 31.626" N	1° 26' 19.993" E
B	54° 0' 29.137" N	1° 28' 45.154" E
C	53° 50' 6.926" N	1° 29' 7.787" E
D	53° 50' 7.006" N	1° 28' 33.101" E
E	53° 50' 7.024" N	1° 28' 25.149" E
F	53° 50' 7.210" N	1° 26' 59.953" E
G	53° 55' 2.280" N	1° 26' 41.118" E
H	53° 59' 57.346" N	1° 26' 22.197" E

140.—(1) Subject to sub-paragraph (3), the undertaker must not construct any of the authorised project or the marine licence works (including the placing of any anchor or the laying of any chains or cables) within the Protected Area without having first submitted to, and obtained approval from the licence holders in respect of, plans of the proposed works within that area, such approval not to be unreasonably withheld or delayed and which approval can only be withheld or delayed where necessary for the protection of apparatus but which may be granted subject to reasonable conditions.

(2) The undertaker must construct the authorised project and the marine licence works in accordance with the plans approved by the licence holders under sub-paragraph (1) and any terms and conditions reasonably specified by the licence holders when approving those plans.

(3) Sub-paragraph (1) only applies to the extent that the seaward production licence extends to the area coloured green on the Protective Provisions Plan or if later until completion of activities required under any statutory decommissioning plan required under the Petroleum Act 1998 in relation to the seaward production licence and taking place within the area coloured green on the Protective Provisions Plan.

(4) Nothing in this Part of this Schedule shall affect any assessment of compensation in accordance with the Ministerial statement and the DECC guidance.

SCHEDULE M

Article 40

Documents to be certified

The land plans listed below—

<i>PINS Document No.</i>	<i>Description of plan</i>	<i>Report No.</i>	<i>Version</i>
4.1	Land Plan Key Plan	UK06-060700-DRW-0001	2
4.1	Land Plan Offshore Plans Page 1 of 3	UK06-060700-DRW-0001	2
4.1	Land Plan Offshore Plans Page 2 of 3	UK06-060700-DRW-0001	1
4.1	Land Plan Offshore Plans Page 3 of 3	UK06-060700-DRW-0001	1
4.1	Land Plan Intertidal Plans Page 1 of 3	UK06-060700-DRW-0001	1
4.1	Land Plan Intertidal Plans Page 2 of 3	UK06-060700-DRW-0001	1
4.1	Land Plan Intertidal Plans Page 3 of 3	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 4 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 5 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 6 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 7 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 8 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 9 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 10 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 11 of 27	UK06-060700-DRW-0001	2
4.1	Land Plan Onshore Plans Page 12 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 13 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 14 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 15 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 16 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 17 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 18 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 19 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 20 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 21 of 27	UK06-060700-DRW-0001	2
4.1	Land Plan Onshore Plans Page 22 of 27	UK06-060700-DRW-0001	2
4.1	Land Plan Onshore Plans Page 23 of 27	UK06-060700-DRW-0001	2
4.1	Land Plan Onshore Plans Page 24 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 25 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 26 of 27	UK06-060700-DRW-0001	1
4.1	Land Plan Onshore Plans Page 27 of 27	UK06-060700-DRW-0001	2
4.1	Land Plan Inset Plans Page 1 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 2 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 3 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 4 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 5 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 6 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 7 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 8 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 9 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 10 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 11 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 12 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 13 of 26	UK06-060700-DRW-0001	2

4.1	Land Plan Inset Plans Page 14 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 15 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 16 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 17 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 18 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 19 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 20 of 26	UK06-060700-DRW-0001	2
4.1	Land Plan Inset Plans Page 21 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 22 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 23 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 24 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 25 of 26	UK06-060700-DRW-0001	1
4.1	Land Plan Inset Plans Page 26 of 26	UK06-060700-DRW-0001	1

The offshore works plans listed below—

<i>PINS Document No.</i>	<i>Description of plan</i>	<i>Report No.</i>	<i>Version</i>
5.1	Work Plans – Master Index Sheets	UK06-060700-DRW-0003	3
5.1	Offshore Work Plans – Map Index Sheet	UK06-060700-DRW-0002	3
5.1	Offshore Work Plans – Sheet 1 of 4	UK06-060700-DRW-0002	3
5.1	Offshore Work Plans – Sheet 2 of 4	UK06-060700-DRW-0002	3
5.1	Offshore Work Plans – Sheet 3 of 4	UK06-060700-DRW-0002	2
5.1	Offshore Work Plans – Sheet 4 of 4	UK06-060700-DRW-0002	2
5.1	List of co-ordinates for offshore works and disposal areas, pages i to xi	UK06-060700-DRW-0002	2

The intertidal works plans listed below—

<i>PINS Document No.</i>	<i>Description of plan</i>	<i>Report No.</i>	<i>Version</i>
5.3	Work Plans - Master Index Sheets	UK06-060700-DRW-0003	3
5.3	Intertidal Work Plans – Map Index Sheet	UK06-060700-DRW-0004	1
5.3	Intertidal Work Plans – Sheet 1 of 4	UK06-060700-DRW-0004	1
5.3	Intertidal Work Plans – Sheet 2 of 4	UK06-060700-DRW-0004	1
5.3	Intertidal Work Plans – Sheet 3 of 4	UK06-060700-DRW-0004	1
5.3	Intertidal Work Plans – Sheet 4 of 4	UK06-060700-DRW-0004	1
5.3	List of co-ordinates for intertidal works	UK06-060700-DRW-0004	1

The onshore works plans listed below—

<i>PINS Document No.</i>	<i>Description of plan</i>	<i>Report No.</i>	<i>Version</i>
5.2	Works Plans – Master Index Sheets	UK06-060700-DRW-0003	3
5.2	Onshore Work Plans – Map Index Sheet	UK06-060700-DRW-0003	2
5.2	Onshore Work Plans – Sheet 1 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 2 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 3 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 4 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 5 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 6 of 27	UK06-060700-DRW-0003	1

5.2	Onshore Work Plans – Sheet 7 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 8 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 9 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 10 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 11 of 27	UK06-060700-DRW-0003	2
5.2	Onshore Work Plans – Sheet 12 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 13 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 14 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 15 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 16 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 17 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 18 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 19 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 20 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 21 of 27	UK06-060700-DRW-0003	2
5.2	Onshore Work Plans – Sheet 22 of 27	UK06-060700-DRW-0003	2
5.2	Onshore Work Plans – Sheet 23 of 27	UK06-060700-DRW-0003	2
5.2	Onshore Work Plans – Sheet 24 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 25 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 26 of 27	UK06-060700-DRW-0003	1
5.2	Onshore Work Plans – Sheet 27 of 27	UK06-060700-DRW-0003	2
5.2	List of co-ordinates for onshore works, pages i to iv	UK06-060700-DRW-0003	2

The compensation compounds plans listed below—

<i>PINS Document No.</i>	<i>Description of plan</i>	<i>Report No.</i>	<i>Version</i>
7.4.5.6	Compensation Compounds Plan Sheet 1 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 2 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 3 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 4 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 5 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 6 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 7 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 8 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 9 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 10 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 11 of 27	UK06-050709-DRW-0001	2
7.4.5.6	Compensation Compounds Plan Sheet 12 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 13	UK06-050709-DRW-0001	1

7.4.5.6	of 27 Compensation Compounds Plan Sheet 14 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 15 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 16 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 17 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 18 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 19 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 20 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 21 of 27	UK06-050709-DRW-0001	2
7.4.5.6	Compensation Compounds Plan Sheet 22 of 27	UK06-050709-DRW-0001	2
7.4.5.6	Compensation Compounds Plan Sheet 23 of 27	UK06-050709-DRW-0001	2
7.4.5.6	Compensation Compounds Plan Sheet 24 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 25 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 26 of 27	UK06-050709-DRW-0001	1
7.4.5.6	Compensation Compounds Plan Sheet 27 of 27	UK06-050709-DRW-0001	1

The Environmental Statement which accompanied the application to the Secretary of State for an order granting development consent.

The book of reference dated December 2015 (Version 4).

The outline code of construction practice dated December 2015 (Version 2).

The outline ecological management plan dated November 2015 (Version 2).

The outline landscape scheme and management plan dated January 2015.

The outline employment and skills plan dated November 2015.

The in-principle monitoring plan dated November 2015 (Version 2).

The C.GEN protective provisions plan submitted 24 September 2015 and referred to as “Hornsea Protective Provisions Plan”.

Plan HOW01095_4 submitted to North Lincolnshire Council to support planning application reference PA/2015/0398 and referred to in paragraph 121 of Schedule L, Part 12 of this Order.

Protective Provisions Plan for E.ON E&P and BEL submitted 10 December 2015.

EXPLANATORY NOTE

(This note is not part of the Order)

This Order grants development consent for, and authorises the construction, operation and maintenance of up to two generating stations in the sea approximately 89 kilometres off the coast of Yorkshire together with the necessary and associated development. The Order imposes

requirements in connection with the development for which it grants development consent. The Order also grants deemed marine licences for the marine licensable activities, being the deposit of substances and articles and the carrying out of works, involved in the construction of the generating stations and associated development. The deemed marine licences impose conditions in connection with the deposits and works for which they grant consent.

A copy of the plans and book of reference referred to in this Order and certified in accordance with article 40 (certification of plans, etc) of this Order may be inspected free of charge at the offices of Dong Energy at 5 Howick Place, London, England, SW1P 1WG.