



The Planning Inspectorate Yr Arolygiaeth Gynllunio

The Planning Act 2008 (as amended)

Hornsea Project One

Examining Authority's Report of Findings and Conclusions

and

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

10 September 2014

Robert Upton

Peter Widd John Glasson

Examining Authority



ERRATA SHEET – Hornsea Project One - Ref. EN010033

Examining authority's Report of Findings and Conclusions and Recommendation to the Secretary of State for the Department of Energy and Climate Change.

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

Page No.	Paragraph	Error	Correction
28	Para 4.5	reference to paras "3.61 to 3.65"	should be "3.75 to 3.80"
37	Para 4.39	reference to paras "8.111 to 8.123"	should be "8.123 to 8.128"
37	Para 4.39	reference to "Schedule I"	should be "Schedule L"
103	Para 5.126	line 6 – typographical error - "capacity ;"	delete space after capacity
105	Para 5.136	line 3- typographical error - "AAuk	Delete extra 'A'
173	Para 9.40	reference to "Annex ZZ"	should be Appendix E

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File Ref EN010033

The application, dated 30 July 2013, was made under section 37 of the Planning Act 2008 and was received in full by The Planning Inspectorate on 30 July 2013.

The applicant is SMart Wind Limited.

The application was accepted for examination on 22 August 2013. The examination of the application began on 10 December 2013 and was completed on 10 June 2014.

The development proposed comprises up to three offshore wind farms in the North Sea, and all offshore and onshore infrastructure necessary to connect the wind farms to the National Grid. The installed generating capacity would be up to 1200MW.

Summary of Recommendation:

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

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Note to reader: All references to the Development Consent Order And Deemed Marine Licences within this report refer to the Examining Authority's Development Consent Order appended to the report at appendix E unless included as part of a quotation or otherwise stated.

1 INTRODUCTION

The application

- 1.1 The application, dated 30 July 2013, was made under section 37 of the Planning Act 2008 (as amended) (PA 2008) and was received in full by The Planning Inspectorate on the same day.
- 1.2 The applicant is SMart Wind Limited, acting on behalf of Heron Wind Limited, Njord Limited and Vi Aura Limited. The application was accepted for examination on 22 August 2013. The examination of the application began on 10 December 2013 and was completed on 10 June 2014 [PD-023].
- 1.3 The proposed development for which consent is required under s.31 of PA 2008 comprises construction and operation of Project One which comprises up to three wind farms within the Hornsea Round 3 Zone of the North Sea and all offshore and onshore infrastructure necessary to connect the wind farms to the onshore National Grid.

Appointment of Examining Authority

The panel

- 1.4 On 24 October 2013 the Secretary of State for Communities and Local Government (SSLG) appointed the following Panel of three Examining Inspectors as the Examining Authority (ExA) for the application under section 65 of the PA 2008 [PD-014]:
- Robert Upton - Lead Member of the Panel
 - John Glasson – Panel Member
 - Peter Widd – Panel Member

- 1.5 This document is the ExA's Report to the Secretary of State for Energy and Climate Change (SSECC). It sets out the Panel's findings and conclusions and the recommendation, as required by s.74(2)(b) of PA 2008.

Nature of the application

- 1.6 The application project is a nationally significant infrastructure project (NSIP) as defined by s.14(1)(a) of PA 2008, as confirmed in para 3.3 below.
- 1.7 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.

Relevant representations

- 1.8 The applicant gave notice [Cert-002] under s.56 of PA 2008 to the persons prescribed that the application had been accepted and gave them an opportunity to make Relevant Representations. 38 Relevant Representations were received [REP-006 to REP-043]. It certified [Cert-003] on 24 October 2013 that this has been carried out.
- 1.9 A list of procedural decisions [PD-001 to PD-023] made by the ExA is shown in the examination library at appendix A.

Preliminary Meeting

- 1.10 A Preliminary Meeting was held on 10 December 2013 at which the applicant and all other interested parties and statutory parties were able to make representations about how the application should be examined. The ExA invited a number of organisations to the Preliminary Meeting. Letters were sent to; the Region of Brussels: the Federal Authority, Brussels; Walloon Region; France; Norway; Iceland; Germany; Netherlands; Belgium; Denmark and Scottish Natural Heritage.
- 1.11 The timetable for the examination, a procedural decision of the ExA under Rule 8 of the Infrastructure Planning (Examination Procedure) Rules 2010 (EPR) was issued to the applicant and all other interested parties and statutory parties on 18 December 2014 [PD-015]. It was accompanied by the ExA's first round of written questions and notification of the publication of the note of the Preliminary Meeting [H-004]. Other procedural decisions, including those to vary the timetable, are explained below.

Site visits and hearings

- 1.12 An onshore inspection of sites to which the application related was carried out in the company of interested parties at the proposed landfall near North Coates Village, along the proposed cable route and at the site for the substation on 12 February 2014 [ASV-001 to ASV-003].
- 1.13 As set out in the timetable for the examination as notified on 18 December 2013 [PD-015], and in order to ensure adequate examination of certain issues (as required under s.91 PA 2008) Specific Issue Hearings (ISH) on the draft Development Consent Order (DCO) and Related Matters were held on the following dates:
- 13 February 2014 – draft DCO matters
 - 11 and 12 March 2014 – Habitats Regulations Assessment (HRA): ornithology, marine mammals and onshore construction impacts; impacts on fishing and navigation, and socio-economic impacts
 - 29 and 30 April 2014 - draft DCO matters.

All hearings were held at the Royal Humber Hotel, Grimsby.

- 1.14 As required under s.93 of PA 2008, following a request from an interested party an Open Floor Hearing was held on 11 February 2013 at the Royal Humber Hotel, Grimsby.
- 1.15 As required under s.92 of PA 2008, following a request from an affected person a Compulsory Acquisition Hearing was held on 13 March 2014 at the same venue.

Local Impact Reports

- 1.16 Under s.60 of PA 2008 an invitation was issued to the relevant local authorities to submit a Local Impact Report (LIR). The following authorities submitted LIRs -

- East Lindsey District Council [REP-216];
- North Lincolnshire Council [REP-217];
- North East Lincolnshire Council [REP-218].

Questions in writing

- 1.17 The ExA issued two rounds of written questions on 18 December 2013 [PD-016] and 20 March 2014 [PD-020].
- 1.18 The ExA also issued five requests for further information or written comments under Rule 17 of the Infrastructure Planning (Examination Procedure) Rules 2010 (EPR), which each constituted an amendment to the examination timetable. The requests issued were -
- 5 February 2014 – a request for further information and comments on supplementary environmental information [PD-018];
 - 18 February 2014 – amended timetable, including additional dates for submission of documents [PD-019];
 - 12 May 2014 - further questions for the applicant on outstanding matters requiring clarification, following the ExA's second round of written questions and the final hearings [PD-021]; and
 - 2 June 2014 – request for further information in relation to the splitting of deemed Marine Licences (DMLs) and charging of fees [PD-022].

- 1.19 Issues relating to the status and import of the information received are considered within the Issues in the Examination in Chapter 4 below.

Habitats Regulation Assessment

- 1.20 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 relevant Secretary of State (SoS) to meet his statutory duties as the competent authority under the Habitats and Marine Regulations relating to European Sites.

- 1.21 A Habitats Regulations Assessment (HRA) Report [APP-171] was therefore submitted with the application. In order to inform the Panel's Report and recommendation to the SoS for Energy and Climate Change (SoS from here on) on the application under s74 of PA 2008 and to provide standalone information for him to carry out his statutory duties, the applicant subsequently submitted documents as part of Deadline II [REP-177 and REP-190] to inform the Report on the Implications for European Sites (RIES). The documents included the complete model matrices. They were populated with data summarising the screening for likely significant effects and the implications for the integrity of the site.
- 1.22 The matrices were consequently updated to produce the RIES. The RIES compiles, documents and signposts the information received with the application and during examination [RIES-02].
- 1.23 Following the completion of the RIES [RIES-02], all interested parties were advised in a Rule 17 letter issued on 20 March 2014 [PD-020] of the opportunity to comment on the RIES on 14 May 2014 with a deadline of 28 May 2014. These dates had previously been discussed at a Specific Issue Hearing. A number of comments were received on the RIES [REP-419, REP-420 and REP-430]. This information would enable the SoS to carry out an appropriate assessment (AA) if required as part of his statutory duties as the competent authority under the Habitats and Marine Regulations.

Other consents required

- 1.24 In addition to consent under PA 2008, a list of other consents required was provided, by the applicant, as part of the application [APP-170]. The final updated version of this document is at REP-434. The ExA's consideration of the likelihood that such consents would be forthcoming is reported within the DCO and Other Matters Chapter of this Report.
- 1.25 The ExA received requests under s.102A of PA 2008 from two persons who wished to be interested parties. Both persons were representing organisations already listed in the Book of Reference [APP-019 to APP-022], and therefore already had that status. They were Anglian Water Services Limited and Associated British Ports.

Applications under s.127

- 1.26 The ExA received four documents relating to s.127 of the PA 2008. They were from -
 - Anglian Water [S127-01 and S127-02]

- Associated British Ports [S127-03 and S127-04].

These issues are considered in Chapter 7 dealing with compulsory acquisition.

Structure of Report

- 1.27 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 acquisitions powers applied for and finally the ExA's overall conclusions and recommendation to the SoS.
- 1.28 The Order as recommended to be made by the SoS is attached at appendix E as are -
 - The Examination Library at appendix A,
 - Lists of Other Consents Required at appendix B
 - Events in the Examination at appendix C and;
 - Abbreviations at appendix D

2 MAIN FEATURES OF THE PROPOSAL AND SITE

The present application

- 2.1 The application was made by Smart Wind Ltd, a 50/50 joint venture between International Mainstream Renewable Power (Offshore) Limited (IMRPOL) and Siemens Project Ventures GmbH (Siemens) and was established specifically for the development of the Hornsea Zone. Smart Wind Ltd on behalf of Heron Wind Limited, Njord Limited and Vi Aura Limited was established specifically for promoting the development of the Hornsea Round 3 Zone (the Hornsea Zone), within which Project One is located. Project One comprises up to three offshore wind farms in the North Sea, with a maximum total capacity of 1200MW and will include all associated offshore and onshore infrastructure [APP-002].
- 2.2 There will be up to 332 turbines (depending on turbine type) within Project One, with capacities ranging from 3.6MW to 8MW being considered. During the examination the applicant reduced the total number of turbines proposed to 240 by restricting the range of capacities to between 5MW and 8MW (para 3.76 and para 7.41).
- 2.3 In December 2011, Smart Wind entered into a partnership with DONG Energy whereby DONG Energy was prepared to acquire a 33.3% stake in Project One. The funding statements sets out the structure of the companies taking the project forward [APP-018].

The proposed application site

- 2.4 Under the Round 3 offshore wind licensing agreements, the Crown Estate (TCE) awarded Smart Wind Ltd the right to develop wind energy generation in the Hornsea Zone, located off the east coast of England, pursuant to the Zone Development Agreement (ZDA). Through the ZDA, a target capacity of 4,000 megawatts (MW) i.e. a 4GW of offshore wind power has been established.
- 2.5 The Hornsea Zone is located in the southern North Sea, covering an area of 4,735 km². The East Riding of Yorkshire coast lies 31km to the west of the Zone's boundary. The Zone's eastern boundary is 1km from the median line between UK and Netherlands waters.
- 2.6 Hornsea Project One consists of the infrastructure contained in Subzone 1, offshore export cable route, offshore reactive compensation substation, offshore accommodation platform(s) and landfall as well as the onshore cabling, an onshore High Voltage Alternating Current (HVAC) substation or high Voltage Direct Current (HVDC) converter station, and associated infrastructure and offshore works.
- 2.7 The Subzone 1 is situated within the centre of the Hornsea Zone with a total area of 407km². Its western boundary lies 103km off

East Riding of Yorkshire coast and the eastern boundary is 43.6km from the median line between UK and Netherlands waters.

- 2.8 The offshore cable route extends from the proposed landfall at Horseshoe Point in Lincolnshire, offshore in a north-easterly direction to the southern boundary of Subzone 1. The route is approximately 150km in length. The applicant states that the process of selection and routing of the offshore cable route has avoided, where possible, significant engineering and environmental constraints, such as deep water and aggregate extraction areas.
- 2.9 From the proposed landfall point at Horseshoe Point, onshore cables will connect the offshore wind farms to the existing National Grid substation at North Killingholme (400 kilovolt (kV)) in North Lincolnshire in the Humber region. The onshore cable route is approximately 40km long.
- 2.10 The onshore substation is located on greenfield, arable land, adjacent to the North Killingholme National Grid Substation and the E.ON and Centrica Combined Cycle Gas Turbine (CCGT) power stations. It is bordered on the south by high voltage overhead power lines and on the northwest by a bund, erected as mitigation for the visual impacts of the Centrica power station. To the north, it is bordered by the consented 'Marine Energy Park' at Able Humber Port.

Principal works

- 2.11 The distribution of turbines between the three works is as follows -
- Work no. 1 - up to 80 turbines, or up to 120 if no part of Work no. 3 is built;
 - Work no. 2 - as Work no. 1;
 - Work no. 3 - up to 80 turbines, but (clause 3) none if either Work no. 1 or Work no.2 exceed s 80 turbines.
- 2.12 The works that would be authorised by the recommended Order are listed in Parts 1 and 2 of Schedule A, within each of which these works are limited to the extents that they were assessed as recorded in the Environmental Statement (ES) [APP-009, APP-023, APP-025 and APP-027].
- 2.13 The use of three wind farm areas is explained in the Explanatory Memorandum (EM), stating in paragraph 43.1 that -
- 'Part 1 of the Schedule describes the authorised development comprising of numbered works. There will be up to three wind farm areas with a total overall capacity of up to 1,200MW' [APP-010]
- 2.14 The EM provides the reasoning behind the applicant's approach, which relies heavily on the 'Rochdale Envelope'. The applicant

states that, while having had regard to the Planning Inspectorate's Advice Note Nine, it has declined to specify a minimum number of turbines. The applicant argues that a minimum number is unreasonable; and that as the project is defined by the Order limits, it will not be -

'... so wide ranging as to represent effectively different schemes.'
(*ibid*)

2.15 Further paragraphs 43.6 – 43.7 state -

'the works are described in such a way as to allow flexibility as to whether they form two or three wind generating stations. Works number 1 and 2 are described so as to include as a maximum the total number of wind turbines of the whole project (i.e. the construction of 332 turbines) and the limits of deviation for works number 1 and 2 overlap with the limits of deviation for Work no. 3' (*ibid.*).

2.16 The principal works that would take place and for which development consent is required are set out as Works No 1, No 2 and No 3 in Authorised Development in Part 1 of Schedule A of the draft Order.

2.17 Paragraph 2 of Schedule A states that proposed Nationally Significant Infrastructure Project comprises two or, subject to paragraph 3, three offshore wind generating stations with a combined gross electrical output capacity of up to 1,200MW.

2.18 In the original application Work no 1 within Wind Farm Area 1 would comprise up to 111 (inclusive), or if no part of Work no. 3 is constructed, up to 166 (inclusive) wind turbine generators fixed to the seabed; and also a network of subsea inter-array electrical circuits connecting the structures comprised in Work no. 1, with each other, with any other structure located within Wind Farm Area 1, and with the network of electrical circuits comprised in Works Nos. 2, 3 and 4. These figures were later modified to 80 and 120 respectively, as set out in para 2.11 above.

2.19 Work no. 2 within Wind Farm Area 2 would comprise up to 111 (inclusive), or if no part of Work no. 3 is constructed, up to 166 (inclusive) wind turbine generators fixed to the seabed; and also a network of subsea inter-array electrical circuits connecting the structures comprised in Work no. 2, with each other, with any other structure located within Wind Farm Area 2, and with the network of electrical circuits comprised in Works Nos. 1, 3 and 4. These figures were also later modified to 80 and 120 respectively.

2.20 Work no. 3 within Wind Farm Area 3 would comprise up to 110 wind turbine generators fixed to the seabed; and also a network of subsea inter-array electrical circuits connecting the structures comprised in Work no. 3, with each other, with any other structure located within Wind Farm Area 3, and with the network of

electrical circuits comprised in Works Nos. 1, 2 and 4. As modified, the scheme would allow up to 80 turbines, but none if either Work no. 1 or Work no. 3 exceeds 80 turbines.

- 2.21 Subject to paragraph 4 of Schedule A, which specifies a maximum of two accommodation platforms for all three possible Works, for each Wind Farm Area an offshore accommodation platform fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter stations within Work no. 4 by an unsupported bridge.

Ancillary works

- 2.22 Proposed ancillary works are set out in Part 2 of Schedule A of the recommended DCO (appendix E), and would include temporary anchorage of vessels, and buoys, beacons, fenders and other navigational warning and ship impact protection works.

Associated development

- 2.23 Paragraphs 5 and 6 in Part 1 of Schedule A 'Authorised Development' describe the associated development which would include Works Nos. 4 to 12.

Offshore works

- 2.24 Work no. 4 would comprise up to five offshore HVAC collector substations, and in the event that the mode of transmission is HVDC, up to two offshore HVDC converter stations together with a network of electrical circuits connecting structures within Work no. 4.
- 2.25 Work no. 5 would comprise, in the event that the mode of transmission is HVAC, an offshore reactive compensation substation fixed to the seabed at latitude given in paragraph 5.
- 2.26 Work no. 6 is described as a marine connection to the shore, including cable and pipeline crossing works, which if the mode of transmission is HVAC, would consist of up to four subsea electrical circuits proceeding from the offshore HVAC collector substations to Wind Farm Areas 1, 2 and 3 via and connecting with the offshore reactive compensation substation comprised in Work no. 5.
- 2.27 If, however, the final selected mode of transmission is HVDC, then these works would consist of up to two subsea electrical circuits proceeding from the offshore HVDC converter station or stations within Wind Farm Areas 1, 2 and 3. In either case Work no. 6 would terminate at the commencement of Work no. 7.
- 2.28 Work no. 7 would comprise a foreshore connection consisting of an extension of the electrical circuits comprised in Work no. 6, including cable crossing works, crossing through or under the existing sea wall using the horizontal directional drilling method

and terminating at the electrical circuit transition joint bays (Work no. 8).

Onshore works

- 2.29 Work no. 8 would comprise up to four underground electrical circuit transition joint bays in the vicinity of Horseshoe Point in the parish of North Coates, within the district of East Lindsey, in the county of Lincolnshire, housing the connections between the offshore and the onshore electrical circuits.
- 2.30 Work no. 9 is described as a connection consisting of two underground transmission electrical circuits if the mode of transmission is HVDC and up to 4 underground transmission electrical circuits if the mode of transmission is HVAC, proceeding from Work no. 8 and Work no. 10.
- 2.31 Work no. 10 would comprise an electrical transmission station including building abutting an open yard (which may be partitioned with concrete or steel walls or fences containing switchgear, electrical reactors and other electrical equipment) on land adjoining the North Killingholme National Grid substation. If the electrical circuits in works nos. 6, 7 and 9 are HVDC, the electrical transmission substation will include facilities to convert current to HVAC.
- 2.32 Work no. 11 would comprise a connection consisting of up to 2 underground electrical circuits between Work no. 10 and the North Killingholme National Grid substation, including a connection above ground and electrical engineering works within the National Grid substation buildings and compound.
- 2.33 Work no. 12 covers the 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.
- 2.34 The associated development also 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 ES. The proposed works would include -
- Scour protection around the foundations of the offshore structures;
 - Cable protection measures such as rock placement and the placement of concrete mattresses and frond mattresses;
 - The disposal of seabed sediments dredged during installation of the foundations of the offshore structures;
 - Works to alter the position of apparatus, including mains, sewers, drains and cables;
 - Works to alter the course of, or otherwise interfere with, non-navigable rivers, streams or watercourses;

- Landscaping and other works to mitigate any adverse effects of the construction, maintenance or operation of the authorised project;
- Works for the benefit or protection of land affected by the authorised project;
- Working sites in connection with the construction of the authorised project;
- Works to secure means of access; works to construct surface water drainage systems;
- Private roads and hardstanding for parking in connection with Work no. 10;
- Jointing pits (including link and/or earthing boxes) in the immediate vicinity of Work no. 8;
- A temporary haul road and temporary access track, both alongside and used for the purpose of constructing Work no. 9;
- Works to enable utility services to be run from Chase Hill Road to Work no. 10; and
- Such other works and apparatus, plant and machinery of whatever nature as may be necessary or expedient for the purpose of or in connection with the construction of the authorised project.

Key location maps and plans

- 2.35 The applicant submitted the original plans with the application documents, including the Land Plans and Works Plans (intertidal, offshore and onshore) [APP-011 to APP-016].
- 2.36 During the course of examination further plans were submitted, including updated Land Plans and Works Plans [UAPP-56 to UAPP-58].

Planning history

- 2.37 The Local Impact Report (LIR) submitted by North Lincolnshire Council [REP-217] provides a site history within the Council's area, since 1974.
- 2.38 Chapter 8 of this document refers to another project in the vicinity of the proposed development A160/A180 Port of Immingham Improvement Scheme (TR010007), currently under examination, which potentially could be under construction simultaneously with Hornsea Project One.
- 2.39 Chapters 7 and 8 also refer to the proposed generating station at North Killingholme, Planning Inspectorate reference EN010038, currently under consideration by the SoS.

3 LEGAL AND POLICY CONTEXT

Policy framework

- 3.1 The Planning Statement [APP-169] is the primary application document in which policy is set out. This document includes at Table 2.1 an assessment of the project against the policy requirements of National Policy Statements EN-1, EN-3 and EN-5.
- 3.2 The Policy and Legislation Chapter of the ES [APP-026] also explains the policy position, focussing on international obligations and the national policy context. Individual chapters of the ES provide specific policy background relating to particular topics.

Planning Act 2008, as amended by the Localism Act 2011

- 3.3 The application is for a Nationally Significant Infrastructure Project, namely an offshore generating station with a gross electrical output capacity of up to 1,200 MW comprising up to 332 wind turbine generators. The ExA finds that the proposal falls within the terms of s.14(1)(a) of PA 2008 in that it consists of the construction of a generating station and is within s15(3) as the capacity exceeds 100 megawatts. Section 104 of PA 2008 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 in paragraph 3.6 *et seq* below.
- 3.4 Section 104(2) of PA 2008 sets out the matters to which the SoS must have regard in deciding an application submitted in accordance with PA 2008. In summary, the matters set out in s.104(2) include any relevant NPS, any appropriate marine policy documents, any local impact report and any other matters the SoS thinks are both important and relevant to the decision.
- 3.5 This Report sets out the Panel's findings and conclusions and recommendation taking these matters fully into account.

National Policy Statements

- 3.6 The NPSs most relevant to this application are EN-1, EN-3, and EN-5 which were designated by the SoS on 19 July 2011 in accordance with s5 of PA 2008.

NPS EN-1 (Overarching NPS for Energy)

- 3.7 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. The Panel has applied the tests set out in EN-1 as one of the primary basis for its examination of the application.

3.8 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.'

3.9 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.

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

NPS EN-3 (Renewable Energy Infrastructure)

3.11 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.

3.12 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 no necessarily only, 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.
- 3.13 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.
- 3.14 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” (paragraph 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.
- 3.15 Further aspects of NPS EN-3 are referred to as relevant throughout this Report.

NPS EN-5 (Electricity Networks Infrastructure)

- 3.16 This NPS (paragraph 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.
- 3.17 The NPS is therefore relevant to this application insofar as it applies to sub-sea interconnecting cables, sub-sea export cables, onshore undergrounded cables, offshore collector stations and converter stations and the onshore HVDC converter station or HVAC substation.
- 3.18 The ExA 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 no. 1, 2, and 3 in Part 1 of Schedule A of the recommended Order). However, the ExA 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 sub-stations is capable of being either integral to a project or associated development.
- 3.19 EN-5 specifically identifies electric magnetic 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-routeing 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.”

- 3.20 EN-5 also establishes the need for applicants to address possible issues arising from electro-magnetic fields that would be created by high-tension cables.
- 3.21 The applicant included a report on electro-magnetic field effects in the ES [APP-159], and this data has been considered by Public Health England in its appraisal of the scheme's effect (see paras 4.119 *et seq.*)

European Requirements and Related UK Regulations

Renewable Energy Directive 2009

- 3.22 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.
- 3.23 This Directive is relevant to the applicant's case for the need for the project, and most clearly articulated in the applicant's answer to the ExA's question EO25, as set out in section 4, and most specifically section 4.2, of REP-342, in which the applicant makes the case that there is, by virtue of the Directive and other policy, an 'unconstrained need' for renewable energy.

Habitats Directive (Council Directive 92/43/EEC)

- 3.24 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 over 1000 animals and plant species and over 200 habitat types (for example: special types of forests; meadows; wetlands; etc.), which are of European importance.

Birds Directive (Council Directive 2009/147/EC)

- 3.25 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.

- 3.26 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.
- 3.27 The engagement of these Directives by this application is set out in Chapter 5.

***Conservation and Species Regulations 2010 (as amended)
the Habitats Regulations***

***Conservation of Habitats and Species (Amendment)
Regulations 2012***

- 3.28 The Conservation of Habitats and Species Regulations 2010 replaced The Conservation (Natural Habitats, &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 consolidate all the many amendments which have been made to the regulations since they were first made in 1994.
- 3.29 The Conservation of Habitats and Species Regulations 2010 apply in the terrestrial environment and in territorial waters out to 12 nautical miles (nm). The EU Habitats and Wild Birds Directives are transposed in UK offshore waters by separate regulations – The Offshore Marine Conservation (Natural Habitats &c.) Regulations 2007 (as amended).
- 3.30 The Conservation of Habitats and Species (Amendment) Regulations 2012 came into force on 16 August 2012.
- 3.31 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.
- 3.32 The engagement of these Regulations in this application is set out in Chapter 5.

Offshore Marine Conservation (Natural Habitats, etc.) Regulations 2007 (as amended) (the 2007 Offshore Regulations)

Offshore Marine Conservation (Natural Habitats etc.) (Amendment) Regulations 2012

- 3.33 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 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.
- 3.34 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.
- 3.35 The Offshore Marine Conservation (Natural Habitats, etc.) (Amendment) Regulations 2012 came into force on 16 August 2012.
- 3.36 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 SoS 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.
- 3.37 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 or 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.

Water Framework Directive

- 3.38 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.
- 3.39 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 2000¹.
- 3.40 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 download².
- 3.41 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.'
- The applicant describes and justifies their water quality data in ES Annex 5.2.2 the WFD Assessment. This document concludes that -
- 'Following a review of the relevant Environmental Statement chapters and associated technical reports, it is concluded that Project One is not likely to have a non-temporary effect on the status of WFD parameters that is significant at the water body level.'
- Further consideration of water quality is contained in Chapter 4 of this report.

European Marine Strategy Framework Directive

- 3.42 The Marine Strategy Framework Directive (MSFD) 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.

¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:02000L0060-20090625:EN:NOT>

² http://ec.europa.eu/environment/water/participation/notes_en.htm

3.43 The MSFD is transposed into UK legislation through the Marine Strategy Regulations 2010. Key requirements of the legislation are the -

' ... establishment of a monitoring programme to measure progress toward Good Environmental Status (as defined by 11 high level descriptors) by July 2014 and;

establishment of a programme of measures for achieving Good Environmental Status by 2016.'

3.44 The ExA has therefore had regard to the MSFD in its examination of the application, particularly in relation to the matters considered in Chapters 4, 5 and 6.

MARINE AND COASTAL ACCESS ACT 2009

UK Marine Policy Statement

3.45 The UK Marine Policy Statement (MPS) was prepared and adopted for the purposes of s44 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.

3.46 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 creeks³.

3.47 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, 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.

3.48 The MPS thus provides a policy context for the ExA's consideration of the application offshore works and deemed Marine Licence (DML).

³ see Marine and Coastal Access Act 2009 s.42(3) and (4)

East Inshore and East Offshore Marine Plans

- 3.49 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 Hornsea project One wind farm will be entirely within the areas covered by the marine plans.
- 3.50 The ExA 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'.
- 3.51 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.
- 3.52 Under s.104(2)(aa) of PA 2008 the Secretary of State must have regard to ' ...the appropriate marine policy documents.' The appropriate marine policy documents are therefore the MPS and the adopted East Inshore and East Offshore Plans (para 4.9).

Other Legal and Policy Provisions

The National Parks and Access to the Countryside Act 1949

- 3.53 The National Parks and Access to the Countryside 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, to notify Sites of Special Scientific Interest (SSSIs) and for local authorities to establish Local Nature Reserves (LNRs).
- 3.54 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.
- 3.55 In relation to this application, the ExA has given consideration to the effects of the proposed application on the Lincolnshire Wolds

AONB, both in terms of landscape value and ecological matters. The Biodiversity matters and the Landscape value issues are detailed in the relevant subchapters 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)

- 3.56 The Wildlife and Countryside Act 1981(as amended) (1981 Act) is the primary legislation which protects animals, plants, and certain habitats in the UK. The 1981 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). The 1981 Act also contains measures for the protection and management of SSSIs.
- 3.57 The 1981 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 license will be required from Natural England.
- 3.58 This has relevance to consideration of impacts on SSSIs and on protected species and habitats. With regard to the current application, the Ecology and Nature Conservation Chapter of the ES [APP-046] sets out at para 3.5.69 that the following SSSI's have been identified within 5km of the cable route 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

- 3.59 The Countryside and Rights of Way Act 2000 (2000 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.
- 3.60 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 2000 Act also brought in improved provisions for the protection and management of SSSIs.
- 3.61 This is relevant to the examination of effects on and mitigation in relation to possible impacts on the Lincolnshire Wolds AONB.

Paragraph 4.3.11 of the applicant's 'Landscape and Visual Resources Part 1 of 7' [APP-047] states that the HVDC converter and HVAC substations lie approximately -

'... 14km to the north of the Lincolnshire Wolds AONB (...) and as such has the potential to have a visual impact upon them.'

An Impact Assessment in regards to this AONB and other designated areas is set out by the applicant at section 4.7 of 'Landscape and Visual Resources Part 6 of 7' of the ES [APP-052].

Natural Environment and Rural Communities Act 2006

3.62 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.

3.63 This is of relevance to biodiversity, biological environment and ecology and landscape matters in the proposed development, reported in Chapter 4.

Transboundary Effects

3.64 Under Regulation 24 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) (EIA Regulations) the SoS has undertaken two screenings. The first screening was undertaken on 14 January 2013 following the applicant's request for a scoping opinion. The second screening was undertaken on 15 November 2013 after the submission of the application [Trans- 01].

3.65 With regards to the first screening a notice was placed in the London Gazette on 13 March 2013 and letters were sent to the following states -

- Denmark;
- Netherlands;
- Norway;
- Germany
- France;
- Belgium; and
- Iceland.

3.66 Following the first screening the SoS concluded that the development is likely to have a significant effects on the environment in other European Economic Area (EEA) States, those being -

- Denmark;
- Netherlands;
- Norway;
- Germany;
- France;
- Belgium; and
- Iceland.

Impacts include those to *Natura 2000* sites such as:

- Doggersbank SCI (Netherlands)
- Doggerbank SAC (Germany)
- Klaverbank SCI (Netherlands)

Also potential impacts were identified in relation to fishing activities and navigation.

- 3.67 A response was received from the Netherlands, dated 3 April 2013, expressing an interest in participating in the examination but making no substantive comments.
- 3.68 The same states were identified for the second screening and further letters were sent. The second screening identified species and qualifying features not identified in the first screening, those being -
- The Wash and North Norfolk Coast SAC in relation to Harbour Seal
 - Various pSCI, SCI and SAC in relation to Harbour Porpoise
 - Farne Islands SPA and Coquet Island SPA in relation to Common Tern
 - Firth of Forth Islands SPA in relation to Gannet
- 3.69 The second screening therefore concluded that under Regulation 24 of the EIA Regulations the SoS remained of the view that the proposed development is likely to have a significant effect on the environment in another EEA state.
- 3.70 In reaching this view the precautionary approach has been applied throughout (as explained in the Planning Inspectorate Advice Note 12, Transboundary Impacts Consultation).
- 3.71 The ExA has had regard to the on-going 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 biodiversity matters have been addressed and there are no matters outstanding that would argue against the Order being confirmed.

United Nations Environment Programme Convention on Biological Diversity 1992

- 3.72 As required by Regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010, the ExA has had regard to this Convention and in particular Articles 14 in its consideration of the likely impacts of the proposed development and appropriate objectives and mechanisms for mitigation and compensation. Compliance with the UK provisions on environmental impact assessment, habitats regulation assessment, and transboundary consultation satisfies with regards to impacts on biodiversity, the requirements of Article 14.

Local Impact Reports (LIR)

- 3.73 There is a requirement under s.60(2) of PA 2008 to give notice in writing to each local authority falling under s.56A inviting them to submit LIRs. This notice was given on 18 December 2013 [PD-015].
- 3.74 LIRs have been submitted by East Lindsey District Council, North Lincolnshire Council and North East Lincolnshire Council [REP-216, REP-217 and REP-218].
- 3.75 East Lindsey District Council are 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 hedgerow and trees, and the issue relating to wider community benefits.
- 3.76 North Lincolnshire Council are 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 water courses.
- 3.77 North East Lincolnshire Council state 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.

The Development Plans

- 3.78 East Lindsey District Council set out in their LIR [REP-216] that the East Lindsey Local Plan Alteration 1999 is, in their view, a material consideration, specifically saved policies -
- A4 – Protection of General Amenities
 - A5 - Quality and Design of Development
 - ENV20 - Protection of Habitats
- together with policies from the Emerging Core Strategy, as follows -

- Policy 15 - Landscape
 - Policy 16 - Biodiversity and Geodiversity
- 3.79 North Lincolnshire Council considers the North Lincolnshire Core Strategy is an important and relevant matter. It is stated in the Council's LIR that Policy CS17 is relevant in respect of biodiversity as it encourages development that not only mitigates for harm to wildlife but also provides biodiversity enhancement.
- 3.80 North East Lincolnshire Council submitted an LIR stating that the North East Lincolnshire Local Plan, adopted in 2003, (saved policies) is the relevant Development Plan for the area, relevant policies being -
- GEN2 – Development in Open Countryside
 - NH5 – Protection of Trees
 - NH6 – Protection of Hedgerows
 - NH9 – Landscape Areas of Strategic Importance
- 3.81 Para 4.1.5 of EN-1 states that -
- 'Other matters that the IPC may consider both important and relevant to its decision-making may include Development Plan Documents or other documents in the Local Development Framework. In the event of a conflict between these or any other documents and an NPS, the NPS prevails for purposes of IPC decision making given the national significance of the infrastructure.'

The ExA has therefore had appropriate regard to the relevant Development Plan Documents listed in examining and reporting on this application.

National Planning Policy Framework and Guidance

- 3.82 On 27 March 2012 a final approved National Planning Policy Framework (NPPF) was published. The NPPF replaced a number of policy documents including Planning Policy Guidance (PPG) and Planning Policy Statements (PPS).
- 3.83 The NPPF does not contain policies specific to NSIPs, but does re-affirm the requirement in PA 2008 that NSIPs should be determined in accordance with the PA 2008 and relevant NPS. The NPPF however may be considered as a matter both important and relevant to the application, as set out in NPPF paragraph 3. Several core principles are set out in the NPPF, including the importance of sustainable growth and development, and of preserving the natural and built environment.
- 3.84 The NPPF was published before the application was submitted on 30 July 2013.

- 3.85 The National Planning Policy Guidance (NPPG) was published on 6 March 2014 and cancels and replaces various circulars and guidance documents. The publication of the NPPG occurred during the examination and therefore the NPPG is capable of being an important and relevant consideration.
- 3.86 The following cancelled documents which have now been replaced by the NPPG were of relevance to this examination -
- Planning for Biodiversity & Geological Conservation: A guide to good practice (2006);
 - Circular 02/99 – Environmental Impact Assessment; and
 - Circular 11/95 – Use of conditions in planning permissions.
- 3.87 The ExA has therefore had appropriate regard to the NPPF and NPPG in examining and reporting upon this application.

Other law and policy

National policy

- 3.88 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;
 - The National Infrastructure Plan update 2012, and
 - The National Infrastructure Plan 2013.

The Secretary of State's powers to make a DCO

- 3.89 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 PA 2008 to make a DCO having regard to the development consent applied for.
- 3.90 The Secretary of State 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 that s.114(1) places the responsibility for making a DCO on the decision-maker, and does not limit the terms in which it can be made.
- 3.91 During the course of the examination the applicant decided to restrict the size of the turbines to the range 5MW to 8MW (see para 4.22 and 5.90). The effect of this was necessarily to reduce

the potential environmental impacts of the scheme. The ExA does not regard this reduction as engaging s.114 of PA 2008.

4 FINDINGS AND CONCLUSIONS IN RELATION TO POLICY AND FACTUAL ISSUES

4.1 This section deals with the generality of issues covered in the examination. Issues relating specifically to ornithology and Habitats Regulation Assessment (HRA) are covered in the subsequent section.

MAIN ISSUES IN THE EXAMINATION

Preliminary Identification of Principal Issues

4.2 The ExA made an initial assessment of principal issues in accordance with s.88(1) of PA 2008, and issued these to all interested parties together with the Rule 6⁴ letter giving notice of the Preliminary Meeting on 18 November 2013 [PD-014].

4.3 The principal issues are set out at Annex C of the Rule 6 letter. In essence they relate to -

- The rationale behind the proposals (the 'principle of the development');
- Future-proofing over the life of the development;
- The methodologies used in the assessment of ecological concerns, and mitigation measures arising from them;
- Onshore matters related to choices made and impacts assessed;
- Offshore matters related to marine safety, fishing and impacts on the sea-bed;
- Socio-economic matters, primarily as they related to the Humber region.

4.4 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-round written questions.

Issues arising in Local Impact Reports (LIRs)

4.5 The matters raised by the three relevant local authorities (North Lincolnshire Council, North East Lincolnshire Council and East Lindsey District Council) are set out in paras 3.61 to 3.65 above.

4.6 None of the matters raised in the LIRs were considered by the ExA to be of a critical nature, or to be a major consideration for the SoS in relation to his obligations under s.104(2)(b).

⁴ The Infrastructure Planning (Examination Procedure) Rules 2010

Conformity with local plan and marine plan policies

- 4.7 As noted in paras 3.73 to 3.81 above, the local authorities made reference to their local plans in their LIRs, and conformity with local plans was the subject of OP1 and OP2 in the ExA's first written questions [PD-016].
- 4.8 East Lindsey (REP-178) and North East Lincolnshire [REP-182] confirmed that they saw no conflict with their local plans, and this has not been contested by any party. North Lincolnshire has raised no issues of non-conformity.
- 4.9 In REP-345, section 5, Marine Management Organisation (MMO) confirms that -

'The project is compliant with the draft offshore and inshore East Marine Plans and the Marine Policy Statement.'

- and this has not been contested by any party.

The principle of the development

- 4.10 The application qualifies as a NSIP by virtue of s.15 of PA 2008, and is designed to meet the policy objectives specified in NPS EN-1, EN-3, EN-3 and EN-5.
- 4.11 The case for the development is summarised by the applicant in REP-342 in paras 6.36 *et seq*, and the applicant's case can be further summarised thus -
- (a) There is an overarching European and National policy requirement for sustainable energy supply from renewables;
 - (b) That need is the subject of national planning and energy policy and is unconstrained;
 - (c) Site appraisal was initiated by the Government through Strategic Environmental Assessments (SEA);
 - (d) Site appraisal and delivery was refined by The Crown Estate through SEA and Zone Appraisal Process (ZAP) studies;
 - (e) Delivery of national energy policy in the public interest is to be by the private sector;
 - (f) The Applicant has identified Subzone 1 within the Hornsea Zone for development;
 - (g) No one has identified an alternative site capable of meeting the National public interest. Any and every alternative site will be required to meet the public interest if the European and National policy for electricity to be derived from offshore renewables is to be met;
 - (h) This application is founded on compelling imperative reasons of overriding public interest identified in:
 - the policy requirement to achieve and exceed the set targets for energy from renewables; and

- the extensive and rigorous site selection process undertaken by the Secretary of State, The Crown Estate and the Applicant;
 - (i) It is of both social and economic importance in combating climate change and in contributing to the provision of a sustainable future.
- 4.12 No planning obligations have been sought by any Local Planning Authority (LPA) or offered by the applicant.

Environmental Statement and Environmental Impact Assessment (EIA)

Adequacy of the Environmental Statement

- 4.13 Section 4.2 of EN-1, the Overarching National Policy Statement for Energy, sets out the need for and the tests of adequacy of the Environmental Statement.
- 4.14 The applicant submitted a substantial ES [APP-023 to APP-160 inclusive]. Various parties commented on details of the ES (e.g. EA at REP-030, NE at REP-035 and RSPB at REP-037. Matters relating to ornithology in particular formed a large part of the examination.
- 4.15 Although much of the detail in the ES, particularly relating to ornithology, was challenged, and considerable quantities of supplementary environmental information was adduced, at no time was there any fundamental challenge to the adequacy of the ES as an evidence base from any interested party. The ExA considers that the ES is sound and meets the tests of adequacy

Habitats Regulations Assessment (HRA)

- 4.16 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 Regulations⁵, which implement the relevant parts of the Habitats Directive and the Birds Directive⁶ in England and Wales.
- 4.17 HRA was fully engaged in this examination by virtue of the potential impacts on Flamborough Head and Bempton Cliffs SPA, Flamborough Head and Filey Coast pSPA, Humber Estuary SPA, Humber Estuary Ramsar, and Humber Estuary SAC, and the applicant submitted an HRA Assessment at APP-171.
- 4.18 This matter is considered in detail in Section 5 of this report, and paras 5.19 to 5.21 explain how agreement was reached on which European sites qualified under HRA.

⁵ The Conservation of Habitats and Species Regulations 2010 (SI2010/490).

⁶ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora; Council Directive 2009/147/EC on the conservation of wild birds.

Consideration of alternatives

- 4.19 Section 4.4 of EN-1 sets out the requirement to consider alternatives in relation to the ES and the Habitats Regulations.
- 4.20 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 that site's conservation objectives'. Anyone applying for development consent for an 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.
- 4.21 Paragraph 4.4.3 of NPS EN-1 also specifies other guiding principles that the Secretary of State 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 [Secretary of State] 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;'
- 4.22 It has been the applicant's case throughout the examination that the project would not have a significant adverse effect on any European site, and that therefore alternatives did not need to be considered in relation to the Habitats Regulations. It will be seen from Section 5 following that this contention was tested and argued through in great detail. The ExA's conclusion on the position reached at the end of the examination, including the applicant's decision to restrict wind-turbines to the range 5MW to 8mw, is that the SoS should be able to conclude after making an appropriate assessment that there will be no significant adverse impact on any European site.
- 4.23 Nevertheless, during the examination the ExA considered that the implications of the alternative case, that the SoS could *not* conclude no significant impact, also needed to be tested, and in its second-round questions probed this, including the question -
- 'On what grounds would the applicant consider that no alternative solution is possible, including locating the proposals in different regions/countries?' [PD-020, question EO25 (a)]
- 4.24 The applicant responded to these questions in full, in an evidenced and closely argued submission [REP-342]. Section 4 of that

submission deals in detail with the question of alternatives, within which two key passages are -

'4.2.5 By a matter of straightforward logic, there can be no ruling out of projects meeting an unconstrained need on the basis that there are alternative solutions. All available solutions i.e. all relevant projects are needed'.

'4.2.6 The need arises from a UK legal obligation. Different EU countries have different binding targets. Projects outside the UK cannot count towards the need identified. Accordingly, the issue raised in the question about proposals in different countries simply does not apply'.

- 4.25 The ExA in fact concludes that there is no significant adverse effect (Chapter 5) and that therefore there is no need for the Secretary of State to consider the case for alternatives or the application of IROPI.
- 4.26 The applicant addressed the requirement under the EIA Regulations to consider alternatives as part of the ES in APP-028, which sets out in detail the process by which the options for cable routes and land-falls were assessed. None of this was subject to challenge from any statutory consultee, interested person or affected party, and the ExA's view is that the approach taken in terms of consultation and methodology is robust and sound.

Mitigation measures

- 4.27 Possible mitigation measures, primarily in relation to the offshore works, were considered throughout the examination. The applicant has summarised in REP-322 the mitigation measures proposed, including additional proposed measures arising as a result of the examination.

Fishing

- 4.28 EN-3 paras, 2.6.121-2.6.136 and MPS paras 3.81- 3.88 set out the policy on commercial fisheries and fishing. In particular -

'The ExA should be satisfied that the selection process has been undertaken in a way that reasonably minimises adverse effects on fish stocks, including peak spawning periods and the activity of fishing itself (2.6.132)'.

'The ExA should be satisfied that the Applicant has 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 (2.6.133)'.

'Any mitigation proposals should result from the Applicant having detailed consultation with the fishing industry (2.6.134)'.

'The ExA will need to consider the extent to which disruption to the fishing industry...has been mitigated where reasonably possible (2.6.136)'.

- 4.29 The Hornsea Zone has a relatively low fishing density in comparison to the surrounding areas [APP-037] Nevertheless, several nationalities fish in these waters. The type of gear used and species caught are given below.
- Danish demersal/semi-pelegic 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;
 - German beam trawlers targeting sole and plaice;
 - German demersal/semi-pelegic trawlers targeting sandeel and herring;
 - French demersal trawlers targeting whiting;
 - Belgian beam trawlers targeting sole and plaice.
- 4.30 The applicant consulted with all the relevant fishermen's organisations resulting in Relevant Representations from -
- VisNed (Dutch Fisheries Organisation)[REP-013];
 - Eastern Inshore Fisheries and Conservation Authority[Rep-034];
 - National Federation of Fishermen[REP-038];
 - Danish Fisheries Association[REP-039];
 - Rederscentrale(Belgian Fisheries)[REP-042];
 - MMO [REP-008]. Danish Fisheries Association.
- 4.31 In their SoCG [REP-219] the applicant and the Danish Fisheries Association agreed the following -
- That there are not anticipated to be any significant cumulative impacts upon Danish fishing vessels;
 - That fishing vessels cannot operate within construction safety zones;
 - That the cables shall be installed using a best practice approach;
 - That a detailed cable specification and installation plan will be prepared which incorporates a burial risk assessment to ascertain suitable depths in accordance with DCO Schedule H, Part 2, 9(2)(f) with the objective of achieving the maximum level of cable burial;That guard vessels will be employed to assist in the protection of exposed cables;
 - That construction related seabed debris will be removed;
 - That as part of good practice pre and post construction monitoring of the seabed within the project site is proposed on technical and safety grounds;

- That as part of the Fisheries Liaison Plan, communication strategies and operational policies will be implemented to minimise the risk of construction and maintenance vessels interacting with static gear deployed at sea;
- That Danish-owned and operated commercial fishing vessels will be able to fish within the wind farm in safe conditions;
- That an Emergency Response Co-ordination Plan (ERCoP) will be implemented as required under Schedule A, Part 3, 5(3) of the DCO;
- That 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;
- That suitable arrangements would be established for attributable gear damages and losses in line with standard procedures as outlined in the FLOWW guidance wherever possible.

Rederscentrale

4.32 In addition to the issues agreed with the Danish fishermen in their SoCG with the Applicant the following additional measures were agreed in the SoCG between the applicant and Rederscentrale (Belgian Fisheries) -

- That during operation, Belgian owned and operated 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 924m to its neighbour. In reality now that the Applicant has decided to reduce the number of WTGs to 240 the spacing between WTG's is likely to be greater;
- That 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 Belgian owned and operated commercial fishing vessels;
- That, as presented in APP-038 para, 8.8.94 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 [REP-220].

4.33 There was one matter not agreed - Redercentrale is of the view that a yearly fishing community benefit fund should be established by the Applicant for the length of the operation of the project. This, the applicant has declined to do on the grounds that there is limited fishing activity in the area with no significant impacts assessed in the ES.

Dutch fisheries organisations

4.34 In addition to the matters agreed by the applicant with the Belgian and Danish Fishery Organisations, the National Federation of Fishermen's Organisations (NFFO) and VisNed (Dutch Fisheries) in a joint SoCG [REP-234] agreed with the applicant -

- That the Fisheries Liaison Officer (FLO) as part of his normal duties to develop a Fisheries Liaison Plan to ensure that relevant fishing fleets are notified of planned and on-going works;
- That the Fisheries Liaison Plan will be developed in consultation with relevant fisheries stakeholders and in accordance with Fisheries Liaison Offshore Wind and Wet (Guidance) recommendations;
- That, if necessary, NFFO would assist in engagement with affected individual fishermen if so requested by the applicant in order to progress the Fisheries Liaison Plan;
- That the Fisheries Liaison Plan will include a co-existence plan which will be established between the applicant and VisNed/NFFO and that the co-existence plan will address potential issues that may arise during pre-construction, construction, operational and de-commissioning activities with the aim of minimising impacts, as far as practicable;
- That 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.

4.35 However, there were five areas of disagreement between the Applicant and NFFO/VisNed -

- (a) Significance of effects on Dutch and UK fisherman as a result of the project alone: NFFO/VisNed 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;
- (b) 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 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;
- (c) NFFO/VisNed both 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 and post construction monitoring so as not to require a post construction installation trawl survey;

- (d) NFFO/VisNed consider a transparent process to make up for any attributable loss of earnings and/or costs associated with relocating gear are needed. The Applicant is of the view that they will continue to follow 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;
- (e) NFFO/VisNed, see the need for a community benefit fund in relation to potential impacts upon the fishing industry. This has already being dealt with by the applicant in their reply to Rederscentrale (para 4.33 above).

Eastern Inshore Fisheries and Conservation Authority

4.36 In their SoCG [REP-231] the applicant and The Eastern Inshore Fisheries and Conservation Authority agreed on the following -

- That the main commercial fishing activity occurring in the northern half of the Eastern IFCA's district comprises of UK potters targeting lobster, crab and whelks; UK shrimpers targeting brown and pink shrimp, cockle, mussels and oyster fisheries and long lining for cod and rays. Netting for bass and herring is also important;
- That there is not anticipated to be any significant impacts upon commercial fisheries as a result of the project;
- That the significance of impacts on commercial fishing activity which occurs within the Eastern IFCA district are no greater than minor adverse which is not significant in EIA terms;
- That the mitigation measures to be employed include the appointment of a Fisheries Liaison Officer, Notice to Mariners, marking of gear and the removal of debris or temporary structures upon the completion of the construction phase;
- That a FLO with appropriate experience of the local fishing industry will be appointed at the start of the pre-construction phase to ensure the appropriate liaison with the commercial fisheries industry;
- That based on the outcome of the assessment no specific commercial fisheries monitoring is required, and there is not anticipated to be any significant cumulative impacts upon commercial fisheries;
- That the existing cockle beds at Horseshoe Point are currently not open to commercial fishing [but that] the beds could in future offer a commercial fishery resource;
- That targeted liaison with fishing vessel operators that do target the cable route area will continue in order to minimise disruption to fishing activity during cable laying, surveying and remedial burial works. It is anticipated that cable

protection (up to 25% of 150km of export cable) is expected. That the FLO will be involved from the early stages of discussions when cable protection is required.

- 4.37 There were no areas of disagreement between the parties regarding commercial fishing.

Marine Management Organisation (MMO)

- 4.38 In their SoCG [REP-236] the Applicant and the MMO agreed the following -

- That there is not anticipated to be any significant impacts upon commercial fisheries as a result of the project;
- The agreed mitigation is set out in REP-233;
- That there is not anticipated to be any significant cumulative impacts upon commercial fisheries;
- That with respect to cumulative effects within the MCZs the assessment is overly precautionary as none of the sites identified within the Hornsea Project One vicinity have been recommended for future designation, and on this basis it is agreed that no significant cumulative effects are predicted for any fleet;
- That there is not anticipated to be any significant inter-related impacts on commercial fisheries as a result of the project.

- 4.39 There was one area of disagreement between the Applicant and the MMO as regards fishing. The MMO require pre- and post-construction fish monitoring and this requirement is sought in Conditions 18 and 20 of all DMLs. The applicant considers this is only necessary where there are specific areas of concern or significant impacts predicted. This point is considered in paragraphs 8.111 to 8.123 dealing with the Deemed Marine Licences in the draft Order.

ExA's conclusions

- 4.40 The ExA sought to probe the areas of disagreement at the Specific Issue Hearing commencing on 11 March 2014, and, in the cases of the MMO, at the second Specific Issue Hearing on the draft Order on commencing 30 April 2014. A point made consistently by the applicant was that where there is no scientific evidence arising from the ES that suggests impacts will be other than 'not significant', and this has not been challenged by other parties, then it is not reasonable to impose requirements or conditions on the undertaker designed to off-set chance contingency.
- 4.41 The ExA notes that the MMO and Maritime Coastguard Agency (MCA) are, overall, both satisfied with the assessment of the impacts by the applicant, and concludes that in addressing the potential impacts on the commercial fishing sector during

construction, operation and de-commissioning the requirements of EN-3, 2.6.133 have been met adequately.

Export and Inter-Array Cables

Policy context

- 4.42 The Policy regarding the cabling under and on the sea bed is referred to in several places in EN-3 -
- EMF during operation may be mitigated by the 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 ExA should be satisfied that cable installation and decommissioning has been designed sensitively taking into account intertidal habitat (2.6.85);
 - The ExA 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 example, minimising the quantities of rock that are used to protect cables whilst taking into account other considerations such as safety (2.5.196);
 - As mitigation the ExA should expect Applicants to have considered burying the cable to a necessary depth and using scour protection techniques as necessary (2.6.197).

The current application

- 4.43 The applicant is not required to 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 until four months before construction starts. This will include details of the steps to be taken where the cables cross the intertidal zone, to ensure the sediment profile is maintained in so far as it is reasonably practicable [APP-455, DML 4, (9)(2)(f)(ii&iii)].
- 4.44 The export cables would cross four pipelines and be in proximity to another four pipelines. The applicant expects to conclude the industry-standard crossing and in proximity agreements with the owners of these pipelines, but does not need to do so until four months after any consent is granted [APP-067]. In order to protect the cables and pipelines at crossing points, cable protection is to be placed on the seabed between and/or over the top of the cables and pipelines. This is set out at 3.2.120 of APP-027.
- 4.45 The inter-array cables will be buried to a depth of between 1 and 3m. Cable protection will be needed where the cable exits the sea bed and enters the 'J' tube of the WTG [Table 3.13 of APP-027].

- 4.46 A burial depth below a stable seabed of 3m is anticipated by the applicant for the majority of the export cable route with a maximum width of 10m. Near the mouth of the Humber Estuary a burial depth of 5m is anticipated for approximately 30km (20% of cable route length) due to mobile sediments and the risk of ship's anchors snagging the cable. However, where cable burial is not possible cable protection measures will be used. As a realistic worst case this is assumed to be 25% of the cable length.
- 4.47 If cable protection is required within the Humber Estuary SAC subtidal area or in the shallow water subtidal area frond mattressing will be used. However, no cable protection will be used within the Humber Estuary SAC inter-tidal area [APP-028].
- 4.48 In the inter-tidal area the cable will be buried to a depth of between 0.5 and 3m. The 3m is allowed to account for crossing the drainage channel across the lower inter-tidal area [APP-080].
- 4.49 EMF emissions from the inter-array and export cables are predicted to be of minor adverse effect, and thus not significant in EIA terms. This is due to the localised spatial extent of the effects and the fact that they are not anticipated to create a barrier effect across the Humber Estuary to migrating species [APP-033].

Agreement with MMO

- 4.50 The applicant reached substantive agreement on all matters relating to the offshore cabling with MMO during the examination (REP-236 and REP-444), notably marine processes, seabed monitoring, cumulative impacts and disposal of arisings, save for the issue of fish monitoring requirements. This is addressed in paras 8.123 *et seq* below.
- 4.51 The need for appropriate scour protection is discussed in paras 4.112 *et seq* below.
- 4.52 The mitigation measures to be adopted in respect of the cables and the fishermen have been detailed in the section on Commercial fishing (para 4.38 above).

ExA's conclusions

- 4.53 The ExA is satisfied that the application now complies substantially with the requirements of EN-3.

Good design

- 4.54 The ExA was concerned to examine with the applicant consideration of how the design processes for the various components of the project, onshore and offshore, met the principles of good design set out in NPS EN-1, para 4.5. The applicant provided an extended response in REP-203.

- 4.55 For the onshore components the applicant noted that, in terms of location, the HVDC convertor/HVAC substation is not out of character with the surrounding landscape. The visual appearance of, and mitigation measures for the facility have been extensively discussed and agreed with North Lincolnshire Council. The ExA was content with the approach to the design process for the onshore components.
- 4.56 The ExA followed up with further examination of design in its second round of Written Questions (PD-020 question PN-14). The applicant responded that it had -
- '... limited choice as to the physical appearance of the Project: all of the WTGs and electrical infrastructure available and under consideration are broadly the same. The appearance of WTGs is limited to a degree through standardization of markings for the safety of navigation and aviation interests' [REP-307].
- 4.57 The applicant also noted that anticipated effects of climate change, including sea level rise, and safety standards will be introduced into the design [REP-307].
- 4.58 The ExA is satisfied that, although detailed design has yet to take place, the approach taken by the applicant overall is sufficient to achieve the necessary functionality and fitness for purpose required.

Grid connection

- 4.59 Section 4.9 of EN-1 sets out considerations in relation to grid connections, and the need for the applicant to either secure a grid connection or explain why it is not appropriate to do so at the time of application. Specifically para 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'.
- 4.60 EN-3 paras 2.6.36 *et seq* set out parameters of uncertainty about precise routes, but make it clear that routes to connections must be assessed in the ES.
- 4.61 In para 3.1 of REP-354 National Grid state with specific regard to its North Killingholme Substation that -
- 'At the present time, there are two vacant bays at the western end of the sub-station. The next contracted connections at the present time are North Killingholme Power Plant and Hornsea Offshore Project One.'
- 4.62 National Grid was engaged throughout the examination, and although it expressed reservations about the applicant's preferred

route to the substation (see Chapter 7, para 7.103, it never cast any doubt on its agreement to accept the connection.

- 4.63 The ExA considers that the requirements of EN-1 and EN-3 have been met by the application.

Navigation and Shipping, both Commercial and Recreational

Policy context

- 4.64 The policy issues to be considered in relation to navigation and shipping are set out in NPS EN-3 paras 2.6.147 to 2.6.175 and MPS para 3.4.7; in particular -
- Development consent should not be granted if the OWF interferes with the recognised sea lanes essential to international navigation (2.6.161);
 - The ExA should be satisfied that the site selection has been made with a view to avoiding or minimising disruption or economic loss to the industry with regard to approaches to ports, strategic routes and recreational users of the sea (2.6.162);
 - Where an OWF is likely to affect less strategically important shipping routes a pragmatic approach should be employed. The Applicant should be expected to minimise negative impacts to 'As Low as Reasonably Practicable'(ALARP) (2.6.163);
 - The OWF should be designed to minimise the effects on recreational craft with necessary mitigation measures (2.6.166);
 - The ExA should have regard to the extent and nature of any obstruction or of a danger to navigation which is likely to be caused by the development (2.6.168);
 - The ExA should have regard to the likely overall effect of the development and to any cumulative effects of other proposed relevant, consented and operational OWF (2.6.169).

- 4.65 The applicant deals with the navigation and shipping aspects of the proposed development in Chapter 7.2.8 of the ES [APP-037].

Risk assessment

- 4.66 As required by EN-3 para 2.6.157, a full risk assessment was carried out for Subzone 1 and the Offshore Cable Route (7.5.8.1) [APP-088] and for the Offshore HVAC Reactive Substation (7.5.8.2) [APP-089].
- 4.67 No impacts were identified during the commissioning and decommissioning phases of the project. However, some impacts were identified as being of significant effect during the operational and maintenance phase of the project. These relate to the physical presence of wind turbines, HDVC converter stations or HVAC collector substations, accommodation platforms and bridge links,

all of which might displace commercial shipping, fishing vessels and recreational craft, thus leading to increased vessel to vessel collision risk and the risk of a vessel-to-structure collision.

- 4.68 The mitigation includes Notice to Mariners, use of Safety zones where applicable, IALA lighting under the direction of Trinity House Lighthouse Service (THLS) and will be designed to minimise the danger to navigation [APP-038]. With these mitigation measures these risks would be reduced to the status of 'as low as reasonably practicable' (ALARP).
- 4.69 No impacts have identified with regard to the HVAC Reactive Substation. Lighting and marking will be discussed with Trinity House to ensure the structure is visible and does not become a isolated navigational hazard.

Commercial shipping interests

- 4.70 The applicant received three replies from shipping companies during the consultation process -
- DFDS, who operate a daily ferry from Newcastle to Amsterdam
 - P&O
 - BP Shipping
- 4.71 DFDS had limited issues with the need to deviate around the project. P&O were positive regarding mitigation and had no further comments. BP Shipping found the routes around the Project acceptable [APP-038].

Royal Yacht Association

- 4.72 In their SoCG [REP-227] the Royal Yacht Association (RYA) and the applicant agreed on the following -
- The concept of edge weighted layouts will not have a significant effect on Search and Rescue (SAR) operations;
 - Irregular layouts where the inter array turbine layout shows no clear line of orientation will not be adopted;
 - The final turbine layout will be agreed with the MMO, MCA and Trinity House Lighthouse Service (THLS) under Condition 9(1)(a) of the Marine Licences 1,2 and 3. Curved layouts will not be adopted;
 - In ensuring a safe navigational depth a Cable Specification and Installation Plan will be submitted to the MMO in compliance with Condition 16(2)(f) of Marine Licence 4;
 - 500m safety zones will be applied for during construction of the Project. In addition, 500m safety zones will applied for all manned platforms during the operational life of the Project but no 50m safety zones for individual WTG's will be applied for.

4.73 There were no areas of disagreement between the applicant and the RYA.

Trinity House

4.74 In their SoCG [REP-232] the applicant and Trinity House (TH) agreed on the following -

- That the use of a 10nm buffer zone around the boundary of Subzone 1 and 5nm around the offshore cable route is the most appropriate study area for the NRA of Subzone 1 [APP-096];
- That the use of a 10mn buffer zone around the proposed location of the offshore HVAC Reactive Compensation Substation is the most appropriate study area for the NRA of the HVAC Reactive Compensation Substation;
- That the study area of the Cumulative Impact Assessment in 7.2.8 [APP-038] is appropriate for assessing the cumulative impacts on shipping and navigational safety;
- That in designing the final turbine layout to be agreed with the MMO in consultation with TH under Condition 9(1)(a) of the draft Deemed Marine Licences the measures adopted in 7.2.8 [APP-038] and the requirements of the DCO and Marine Licences are appropriate and when applied will reduce the impacts to ALARP;
- That in ensuring the impacts are reduced to ALARP the placement of aids to navigation will be agreed with TH through the compliance with Requirement 6 of the DCO;
- That in the indicative Turbine layouts presented in Figs. 9.2-9.5 of 7.5.8.1 [APP-096] and the Cable Route NRA [APP-096] that turbine Layout 1 represents the worst case scenario in terms of collision/allision risk to vessels;
- That in assessing the identified impacts on shipping and navigation the turbine layout principles allow for the mechanism to give comfort to TH that the final detailed design will be informed by these principles and when adopted mitigation as detailed in 7.2.8 [APP-038] is applied, this will ensure that the impacts are reduced to ALARP;
- That edge-weighted layouts are in accordance with the principles referred to above;
- That the conditions of the draft Deemed Marine Licences are satisfactorily detailed to ensure the safety of vessels during the construction and operation of the wind farm.
- That Requirements 5, 6 and 7 within Part 3 of the DCO are satisfactory to TH;
- That Article 37 of the DCO is acceptable to TH.

4.75 There were no areas of disagreement between the applicant and Trinity House.

Maritime and Coastguard Agency (MCA)

- 4.76 In their SoCG [REP-230] the Applicant and the MCA agreed that many of the topics of agreement were shared with the SoCG with TH, but the topics agreed between the applicant and MCA alone were -
- That the shipping and navigational baseline environment has been accurately described in APP-038 and has met the standards set down by MGN 371 in the application of Automatic Identification System and Radar surveys to inform the baseline environment;
 - That the baseline methods and characterisation information described in APP-038 are in compliance with MGN 371 and appropriate for informing the assessment;
 - That the key navigational hazards identified are relevant to informing the impact assessment on shipping and navigation;
 - That in the identification of a preferred location for the HVAC Reactive Compensation Substation the methodology as detailed in APP-038 and APP-097 is acceptable;
 - That in designing the final turbine layout to be agreed with the MMO in consultation with the MCA the use of curved layouts will not be adopted.
 - The Project requires the confidence it can model and develop the intended layout(s) including an edge weighted layout from an early stage post-consent and such layouts will be approved under the DMLs;
 - That the principal purpose of approval of the final layouts under the DMLs is to ensure the project remains within the envelope assessed in the ES and the project parameters are controlled by the DCO requirements;
 - That the requirement to produce an Emergency Response and Co-operation Plan (ERCOP) to be submitted for the approval of the SoS in consultation with the MCA, prior to any works commencing on the authorised development seaward of MHWS, exists within the Condition 9 of the DMLs;
 - That the requirement for an agreed construction plan exists as the Code of Construction Practice within the DCO under the DMLs Schedule H, Condition 13(2);
 - That in ensuring safe navigational depth within coastal waters a Cable Specification and Installation plan will be submitted to the MMO for approval in compliance with Condition 13 (2)(f) of DML 4 which will comprise of a detailed cable laying plan to include geotechnical data, cable laying techniques and a cable burial risk assessment.
- 4.77 There were, however, two areas of disagreement between the parties. First, the MCA wanted post-construction traffic monitoring to validate the NRA [APP-096 and APP-097] on traffic levels. The applicant resisted this requirement. Second, the MCA wanted a cable protection threshold of 5% of the navigable depth to be included as a Condition within the DMLs.

- 4.78 The applicant resisted this on the grounds that it was already covered by Condition 20(2)(d) in the DMLs. The applicant later conceded the points to the MCA and they are now covered by Condition 20(2)(d) in the DMLs in respect of the post construction traffic survey and Condition 13(2)(f)(ii) in the DMLs in respect of the 5% threshold of navigable depth.
- 4.79 There were no areas of disagreement outstanding at the end of the examination [REP-230].

UK Chamber of Shipping

- 4.80 In their SoCG [REP-229] the applicant and the UK Chamber of Shipping (CoS) agreed on the following -
- That the main shipping route deviations caused by the project are tolerable with regard to efforts to promote co-existence between the shipping and offshore wind farm industries in the region;
 - That the cumulative deviations within the cumulative assessment presented in APP-038 have in so far as is reasonably possible taken Hornsea Project Two into account;
 - That the assessment of cumulative deviations will be subject to further assessment within the NRA for Hornsea Project Two and further consultations will be undertaken;
 - That the future routing scenario detailed in APP-038 is subject to on-going consultation with navigation stakeholders through the Southern North Sea Offshore Wind farm Forum (SNSOWF) and the project level consultation on projects within the Hornsea Zone that require the creation of shipping lanes to ensure safe passage of vessels through the Hornsea Zone;
 - That an updated version of the SNSOWF Navigational Regional Study shall be published for consultation in early 2014;
 - That P&O have no concern in relation to adverse weather routes;
 - That the assessment on shipping deviations includes the consideration of 'adverse weather' routes, which conclude that impacts on these routes from Hornsea Project One in isolation are tolerable;
 - That in assessing the worst case risk in terms of collision between wind turbines, gas platforms and commercial shipping vessels 1nm is the most appropriate separation distance used as this would represent the likely minimum distance a vessel would sail in proximity to a fixed radar contact;
 - That based on MGN 371 the MCA and TH have not requested during formal consultation a 2nm minimum separation distance to be used within the NRA;

- That traffic levels do include an allowance for identifying additional vessels of less than 300gt through manual observation as detailed in APP-096;
- The assessment does allow for a general 10% increase in shipping density which is sufficient to inform the NRA and is in line with the requirements of MGN 371.

4.81 The applicant and the CoS remain in disagreement over the separation distance used in the assessment, 1nm as against 2nm. However, as noted already, MCA and TH are satisfied with 1nm being used (paras 4.75, 4.77 and 4.81).

British Petroleum

4.82 In their SoCG [REP-235] the applicant and British Petroleum (BP) agreed on the following -

- In their RR [REP-019] BP stated that they hold an interest in a number of licence blocks within the Hornsea Wind farm Development Area and were concerned that their requirements for seismic acquisition be compromised by the Hornsea Development;
- That BP's seismic and drilling operations within the lower area licences will be restricted for a limited time during construction activities in these areas. However, communications and project timing will ensure that any restriction can be minimised;
- That it is unlikely that seismic data acquisition will be restricted over any of BP's licences during the operation and maintenance phase of the Project as long as the parties co-operate at an operational level.

4.83 There were no areas of disagreement outstanding.

Conoco Phillips

4.84 In 'Infrastructure and Other Users' (7.2.12) [APP-041] ConocoPhillips expressed concern that an increase in vessel rerouting in closer proximity to the Saturn, Mimas and Tethys platforms located to the Closest Point of Approach south of the project, would result in an increase in the Closest Point of Approach (CPA) and Time to Closest Point of Approach (TCPA) alarms on the Radar Early Warning System (REWS) being triggered.

4.85 In answer to a written question from the ExA [PD-016, Question NS-2] the applicant responded that further REWS modelling had been undertaken by Manchester University and the results showed a slight increase in alarms being triggered, but this was not identified as a significant increase. DFDS also confirmed that their practice would be to sail at a greater distance from the platforms than shown in the assessment. This would, therefore, serve to reduce the effect of rerouted vessels on the ConocoPhillips

platforms and reduce the effect on the TCPA and CPA alarms to within tolerable limits.

ExA's conclusions

- 4.86 The ExA is satisfied that the issues raised in EN-3 and by the IPs as regards navigation matters and the safety of shipping have been assessed adequately and addressed satisfactorily by the Applicant as of the end of the examination.

Air quality, emissions and dust

- 4.87 Section 5.2 of EN-1 sets out the parameters for the assessment and management of air quality and emissions, observing that -

'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' (para 5.2.1).

- 4.88 The applicant has assessed the potential offshore and onshore impacts on air quality during the construction, operation and decommissioning phases in APP-042. These are summarised in Table 13.31. None of the impacts is assessed as more than 'minor adverse (not significant)'.

- 4.89 This assessment was not challenged during the examination. The ExA considers that the methodology used is appropriate and robust, and accepts the applicant's findings.

- 4.90 Requirement 7 in Schedule A of the draft DCO relating to the Code of Construction Practice (CoCP) for onshore works has been developed during the examination, and that Requirement 7(c) now stipulates the need for it to cover -

'air quality and dust management measures during construction'

In the ExA's judgment this now meets adequately the need for mitigation in the most sensitive phase of the project.

Biodiversity and geological conservation

Biodiversity

- 4.91 Section 5.3 of EN-1 and MPS 2.6.1 stress the importance of biodiversity and geological conservation, giving as context -

'Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part. Geological conservation relates to the sites that are designated for their geology and/or their geomorphological importance' (5.3.1).

- 4.92 The primary issue in relation to biodiversity is the potential impact of the wind turbines on ornithology and marine mammals, and this is dealt with separately in the subsequent section.
- 4.93 The applicant's approach to biodiversity is summarised in sections 8.7 (offshore) and 9.3 (onshore) of APP-023. The extent of the agreement between the applicant and Natural England (NE) on the assessment of impacts on biodiversity and related issues other than ornithology is set out in REP-224, and NE's final position is set out in REP-304.
- 4.94 The ExA sought during the examination to explore the potential for increasing biodiversity, in line with 5.3.4 of EN-1 which states that the applicant -
- '... should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests'⁷.
- The ExA accordingly asked a question on this point. (REP-189, Question EL6) (These arguments are further developed in Chapter 6 of this Report).
- 4.95 The applicant confirmed that it has included the following enhancement measures, in line with the requirements set out in EN-1 (Table 3.15 of Volume 3, Chapter 3: Ecology and Nature Conservation of the ES (APP-046) -
- With the permission of the relevant landowners, the restoration or gapping up and enhancement of existing hedgerows, using native hedgerow species typical of the area, within a 100m wide corridor, extending the full length of the cable route;
 - Enhancement for bats including installation of bat boxes;
 - The reinstatement of ditches to provide favourable habitat to water voles and where practicable land will be returned to agricultural management;
 - If European Protected Species (EPS) licences are needed for water voles and/or Great Crested Newts then habitat enhancement will be considered as part of licence discharge.
- 4.96 The Ecological Management Plan as now developed in Requirement 6 of Schedule A of the draft DCO, together with the provisions of the Deemed Marine Licences in Schedules H-K (Condition 13), are in the ExA's judgement sufficient to provide the necessary protection for biodiversity and to secure the improvements identified in para 4.64 above.

⁷ Although EN-1 also acknowledges in paragraph 4.5.1 that "... the nature of much energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area".

Geology

- 4.97 The policy requirements relating to geology are amplified in paragraphs 2.8 of EN-5.
- 4.98 The applicant has assessed the issues relating to geology in APP-044, and the impacts are summarised in Table 1.15. These were not challenged during the examination.
- 4.99 Two key points noted by the applicant are -
- (a) The ES assesses that no internationally, nationally and locally designated sites of geological conservation importance are affected;
 - (b) Due to the nature of the proposed development and absence of designated sites there are no significant opportunities to conserve or enhance any geological conservation interests as no geological exposures can feasibly be left post-development (Table 1.1).
- 4.100 The ExA is satisfied that all policy requirements in relation to geology are met in the application.

Civil and Military aviation and Defence interests

- 4.101 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.
- 4.102 The applicant has assessed the impacts on aviation and communication in APP-090. The applicant notes that -
- 'Donna Nook Danger Area (EG D307) is located within the cable route corridor near the landfall point. Live firing, bombing and demolition activities occur in this area. Consultation with Defence Infrastructure Organisation (DIO) has indicated that DIO need to be briefed on the nature of and the timing of any cable laying operations that will occur within the extent of EG D307' (para 3.1.6).
- 4.103 The DIO registered as an interested party [REP-028] but took no active part in the examination. However -
- 'Consultations with MoD and the receipt of the results of the operational assessment from MoD Defence Estates Organisation (DIO) has confirmed there is no impact on MoD operations as a result of developing Project One' (APP-090, para 8.2.1).
- 4.104 NATS Safeguarding confirmed that it '... has no objections to the Project 1 element of the Hornsea wind farm' (REP-383).
- 4.105 The defence interests represented in the pipelines owned by the Oil and Pipelines Agency, running from former Admiralty Oil Jetty

at Killingholme, are covered in para 7.17 below relating to the draft DCO.

Climate change adaptation and Flood risk

- 4.106 Section 4.8 of EN-1 sets out standards for meeting the requirements of climate change, and states specifically that -

'Applicants for new energy infrastructure must take 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 [para 4.8.6 NPS EN-1]⁸.

- 4.107 In this case the primary concern related to climate change is flood risk, which is also addressed in Section 5.7 of EN-1. In APP-045 the applicant states that -

'The characterisation of the flood risk baseline and future baseline has been established using Environment Agency (EA) Flood Hazard Maps and North East and North Lincolnshire Councils' Strategic Flood Risk Assessment, which take into account climate change (see paragraph 2.5.4). A site specific flood risk assessment (FRA) has been undertaken for the HVDC converter / HVAC substation site in line with the National Planning Policy Framework (NPPF) and includes a climate change allowance based on findings of the UK Climate Projections report (2010)'.

- 4.108 In Section 6/7 of REP-235 the Environment Agency (EA) agrees with the methodology applied by the applicant and the assessment of negligible to minor risk.
- 4.109 The ExA is satisfied that the application has addressed the potential impacts of climate change adequately.

Coastal change and marine processes

- 4.110 The policy issues relating to this are covered in Sections 5.5 of EN-1, and 2.6 of EN-3⁹. The applicant has assessed the potential impacts in APP030, and these are summarised in Table 1.24.
- 4.111 The only effect that was assessed as not being either non-applicable or 'negligible (insignificant)' related to the scour protection for the export cable, which was assessed as 'minor

⁸ See also MPS 2.6.8

⁹ See also MPS 2.6.8

(negligible)'. During the examination this point was pursued by both MMO and EA in negotiations with the applicant.

4.112 As a result, Requirement 4(8) in Schedule A of the draft DCO now contains a provision limiting the combined total volume of scour protection, and further restriction is specified in Conditions 5(4) and 5(5) of Deemed Marine Licences (DML) 1,2 and 3, and Condition 2 of DML 4. Condition 13(2) of DML 4 has also been modified to clarify the agencies to be involved in approving the details of scour protection.

4.113 The ExA is satisfied that the issues relating to coastal change and marine processes have been assessed adequately, and that the draft DCO as developed during the examination now provides an appropriate regime for managing them.

Dust and other potential nuisance

4.114 Section 5.6 of EN-1 specifies the approach to be taken to a wide range of possible nuisances.

4.115 In APP-058 the applicant assesses the potential implications of air quality and health, which includes the risk from dust. The applicant concludes -

'Using th[e] approach described in detail in section 9.7, the overall significance of dust effects associated with construction activity after implementation of the proposed control measures would be negligible ... The levels of dust are predicted to be below the level at which ecological receptors are expected to be affected. (paras 9.11.2, 9.11.3)

4.116 As noted in para 4.59 above, the draft DCO now specifies the need for agreed measures relating to air quality and dust management in the CoCP.

4.117 The only other nuisance in this category is the possible risk from lighting around the onshore construction compounds. Requirement 7(1) similarly includes the proviso that the CoCP must include -

'an external lighting scheme for the construction phase' (7(1)(a))

4.118 The ExA believes that there is now adequate provision in the draft DCO to deal with any likely effects in this category. No issues were raised

Health

4.119 Section 4.13 of EN-1 deals with potential health impacts.

4.120 In REP-026, Public Health England (PHE) observes that -

'The information submitted by the applicant included assessments on Geology and Ground, Hydrology, Landscape, Land use, Air Quality and Onshore Electric and Magnetic Fields. On the basis of the information provided PHE is satisfied that the proposed development should pose no significant risk to public health'.

- 4.121 No issues relating to health emerged during the examination, or were put forward by any interested parties, and the ExA is content with PHE's assessment.

Historic environment

- 4.122 Section 5.8 of EN-1 sets out consideration in relation to the historic environment¹⁰.
- 4.123 North Lincolnshire Council was unable to confirm the applicant's level of impact assessment for the project on (i) Baysgarth Farm moated site, as no visualisation had been presented, and (ii) on the setting of Thornton Abbey [REP-217 and REP-275].
- 4.124 The applicant subsequently produced a photomontage and technical clarification note in respect of Baysgarth Farm [REP-273] again concluding that the proposed development would have little effect, either beneficial or harmful, on the heritage asset. In both cases, further to the examination, the ExA saw no reason to disagree with the original impact assessments made in the applicant's ES.
- 4.125 The applicant confirmed that, in consultation with English Heritage, the geophysical and geotechnical surveys' results from the baseline marine archaeological studies for the project have been made available through OASIS, which is the publicly available information archive operated by English Heritage. The further development of the knowledge base has been written into the draft Written Schemes of Investigation (WSI). A Retained Archaeologist will ensure that the results of important archaeological investigations undertaken in connection with the project will be published [REP-189].
- 4.126 In a SoCG with English Heritage [REP-230], it was agreed, where feasible, that the applicant will seek approval of a single WSI covering Work nos. 1-7, rather than seeking approval of a separate WSI under each Deemed Marine Licence (Condition 13) and the DCO (Requirement 5).

Land use

- 4.127 Apart from 25 road crossings, and two railway crossing [APP-064], the land through which the cable(s) would run and on which the converter station would be built is all agricultural. Section 5.10 of

¹⁰ See also MPS 2.6.6

EN-1 puts emphasis on the need to minimise the effects of energy projects on good agricultural land.

4.128 It is stated in para 3.3.55 of APP-027 that once the onshore cable route corridor is fully installed, the temporary works will be removed and the land reinstated to as good a condition as before work commenced, so far as reasonably possible; and that when the cable route passes through agricultural land, it is expected that agricultural activity may resume above the buried cables.

4.129 The ExA therefore asked in its first written questions [PD-016, Question CL5] whether there would be any restrictions necessary on the type of agriculture that could safely be practised.

4.130 The applicant replied that -

'Following cessation of the construction works and reinstatement of the land, all landowners will be able to undertake agricultural activities up to 0.7m depth. There will be no restriction on the type of agricultural practices that can be safely undertaken as no agricultural operation (other than drainage, which is not an agricultural operation) is deeper than 0.7 m' [REP-189, Question CL5].

4.131 Other than the necessary use of agricultural land for the HVDC converter station/HVAC substation, there should thus be no permanent loss of present use. The ExA is satisfied that the relevant provisions of EN-1 are met adequately.

Landscape and visual impacts

Policy context

4.132 In relation to potential landscape and visual impacts, NPS EN-1, para 5.9.8 states that -

'Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.'

4.133 In NPS EN-3, para 2.4.2 also requires that -

'proposals for renewable energy infrastructure should demonstrate good design in respect of landscape and visual amenity.'

Applicant's ES content

4.134 The applicant undertook a landscape and visual resources assessment as part of its ES [APP-047 to APP-053]. The assessment included a 2km wide corridor study area along the length of the cable route, including the landfall site and the intertidal area, and a 15km radius study area around the onshore HVDC convertor/HVAC sub-station site. A Landscape Scheme and

Management Plan focused particularly on the management of impacts on hedgerows and trees, and the screening of the convertor/sub-station [APP-136].

- 4.135 Within the study areas there are a number of designated landscapes. The applicant estimated that these would experience distant, negligible to minor effects during the project construction stage. During the Operations and Maintenance stage the applicant considered it unlikely that the convertor/sub-station site would be visible amidst the other industrial development on the south bank of the Humber; if any parts are visible they will be seen in the context of this industry. The undergrounding and careful siting of the cable route were seen as significant mitigation measures in minimizing any impacts from the operational onshore cable. The integrity of the landscape of the Lincolnshire Wolds AONB and other designated areas were seen as not compromised by the Hornsea Project One project during any of the stages of the lifecycle of the project.
- 4.136 For undesignated landscapes and visual resources, the applicant estimated that there will be some direct and localised temporary impacts in areas where there is land take for the onshore convertor/sub-station, along the cable route and at associated work compounds and access and haul roads. Although these would be significant in EIA terms, they would be of a short term nature. Relevant mitigation measures are discussed in para 8.102 in this report. No significant effects on the landscape resource were anticipated for the Operations and Maintenance phase.
- 4.137 The applicant's assessment of offshore impacts [APP-40, para 11.10.1] concluded that -
- '... all construction, operational and decommissioning effects to present day and historic seascape character and visual resources, including cumulative effects, in relation to Project One are not considered significant.'
- 4.138 The applicant also undertook an assessment of heritage assets along the 2km wide corridor study area of the cable route, including the landfall site and the intertidal area, and a 5km radius study area (2km for archaeology) around the onshore HVDC convertor/HVAC sub-station site. These assets included: buried archaeology; designated heritage assets of the highest significance (including Scheduled Monuments and Grade 1 and 2* Listed Buildings); and other designated assets (e.g. Conservation Areas).
- 4.139 A series of desk-based and field surveys were undertaken for the study areas. These revealed a number of sites, including Iron Age remains north of North Killingholme; four Scheduled Monuments between North and South Killingholme - moated sites at Baysgarth Farm, North Garth, Manor Farm, and East Halton; plus Thornton Abbey - a medieval Augustinian foundation under the care of

English Heritage. An intertidal survey revealed few remains within the order limits of the proposed landfall.

- 4.140 The Historic Landscape Character is largely one of former marshland, now fields. Overall, the applicant's assessment concluded that, with designed-in mitigation measures, the effects of the Hornsea Project One project on heritage assets in the study areas would be none to moderate adverse during construction, and none to minor adverse during operation and maintenance.

Responses from other parties

- 4.141 In Relevant and Written Representations [REP-040 and REP-180] English Heritage noted the importance of the applicant providing archaeological Written Schemes of Investigation (WRI) for both the onshore and offshore developments, to be approved by the relevant bodies (MMO, English Heritage and Local Authorities)¹¹.
- 4.142 English Heritage did express some concern about the limited appreciation in the ES of the wider setting of heritage assets, such as the moated sites, but also noted that -

'... given the degradation of the historic setting resulting from the location of the oil refinery and other existing industrial development it is likely that the additional negative impacts will be limited' [REP-040].

- 4.143 In its LIR [REP-217], North Lincolnshire Council also emphasised the importance of the archaeological WSI. The Council also expressed some concern with the applicant's assessment of low impact on some heritage assets, including the moated sites (especially Baysgarth Farm) and Thornton Abbey.

Issues

- 4.144 Whilst landscape concerns did not feature strongly in the examination, a number of issues were identified by the ExA for further examination. These included -
- Screening of the proposed substantial HVDC/HVAC facility at North Killingholme;
 - Mitigation of the landscape and visual impacts of cable installation, onshore and in particular on the coastal salt flats;
 - Impacts on particular heritage features, including the moated sites and Thornton Abbey;
 - The scope for any beneficial effects on the historic marine environment through, for example, access to new knowledge arising from archaeological investigations;

¹¹ Secured by Requirement 5 of the draft DCO.

- Consideration of how the design processes for the various components of the project met the principles of good design set out in NPS EN-1, para 4.5.

Landscape and visual impact

- 4.145 The ExA was concerned about the local landscape and visual impacts of the proposed substantial HVDC/HVAC facility at North Killingholme and the scope for enhanced mitigation measures. However in the SoCG with North Lincolnshire Council there was agreement that -
- '... the designed-in mitigation measures adopted as part of the Project in relation to landscape and visual resources, as presented in Table 4.13 of Volume 3, Chapter 4, are sufficient to reduce the potential for impacts relating to landscape and visual resources during each stage of development' [REP-238].
- 4.146 The applicant noted in response to first-round Written Questions that there would be localised temporary significant effects on the coastal saltmarshes and mudflats during construction, and that these effects cannot be mitigated in the short timescale of the construction project. However because of the short timescale involved, the applicant considered that the effects were considered acceptable. The assessment further concluded that there would be no significant effects on landscape resources during the Operations and Maintenance phase [REP-189]¹².
- 4.147 Further to the examination, and from the responses of relevant parties (especially English Heritage, see para 4.143 above), the ExA was content that the features and settings of the listed buildings, scheduled monuments and conservation areas discussed, would not suffer any significant negative impacts.
- 4.148 The ExA concluded that, with the use of appropriate mitigation as specified in the applicant's draft Landscape Scheme and Management Plan¹³, there were no significant outstanding matters on landscape and visual issues, and that the application meets the requirements of EN-1 (4.132 above) and EN-3 (4.133 above).

Noise and vibration, pollution control and other environmental regulatory regimes

- 4.149 Section 5.11 of EN-1 sets the context for the examination of issues relating to noise and vibration -

'Excessive noise can have wide-ranging impacts on the quality of human life, health (for example owing to annoyance or sleep

¹² See also section 14 of Biodiversity: European Sites and Habitat Regulations with regard to impacts on the Humber Estuary European sites

¹³ Secured by Requirements 11 and 12 of the draft DCO.

disturbance) and use and enjoyment of areas of value such as quiet places and areas with high landscape quality It promotes good health and good quality of life through effective noise management. Similar considerations apply to vibration, which can also cause damage to buildings.'

- 4.150 Paragraph 5.11.6 of EN-1 refers to the need to assess operational and construction noise using the principles of the relevant British Standards (BSs).
- 4.151 The applicant has assessed the possible onshore impacts in APP-057. All the impacts are assessed as not greater than 'low' before mitigation, and not greater than 'negligible to minor' after mitigation (Table 8.15).
- 4.152 The main areas of possible concern relate to the construction of construction site access routes and movement of vehicles along them. The ExA sought to understand the noise contours or noise buffers that would arise through further questioning at a Specific Issue Hearing, and in the applicant's representations made subsequently [REP-314, para 2.38 to 3.40].
- 4.153 As noted already, Requirement 7(1) sets out a developed Code of Construction Practice. This now covers -
- (b) construction noise and vibration management measures;
 - as well as a range of measure relating to vehicle movements (see para 8.102).

Security considerations

- 4.154 The need to consider security implications is set out in Section 4.15 of EN-1.
- 4.155 No issues relating to security were raised or became apparent during the examination.

Socio-economic impacts

- 4.156 Section 5.12 of EN-1 deals specifically with the potential regional and local impacts of energy NSIPs¹⁴.

Policy/plan context

- 4.157 The proposed Hornsea Project One would contribute to meeting a nationally recognised need for renewable energy; it could also have significant positive socio-economic impacts at the regional, sub-regional and local levels as a result of the construction and operation of the project. There will be implications for supply

¹⁴ See also MPS 2.5.5

chains, employment and a range of community services. Consequently the consideration of socio-economic impacts was a significant concern in the examination of the proposed development.

4.158 EN-1 emphasises the enhancement of local economic opportunities as relevant considerations for decision makers. Paras 4.1.2 to 4.1.4, emphasise that there is an urgent need for infrastructure development and that the decision maker should take into account the environmental, social and economic benefits as well as the adverse impacts at national, regional and local levels. Para 5.12.3, 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.'

Applicant's socio-economic assessment

4.159 The applicant undertook a socio-economic assessment as part of its ES [APP-059]. The focus was on a Local Impact Area including six local authority areas which immediately border the coastline adjacent to the Hornsea Project One development area and which surround the Humber Estuary.

4.160 The assessment included a socio-economic baseline analysis which highlighted some of the key socio-economic challenges in the Local Impact Area, including: some very high rates of unemployment and economic inactivity (especially in Hull and NE Lincolnshire), a poor skills and occupational profile, and below average rates of wealth creation. The assessment noted the policy context where -

'The opportunities presented by the renewable energy sector are highlighted as having potential to contribute to local and national economic development Locally, opportunities in relation to renewable energy are highlighted as being central to the economic development of the area' [APP-059, p10-21].

- 4.161 The applicant's assessment considered three impact scenarios (low, medium and high impact) across both the construction and the operation and maintenance (O&M) stages of the project; cumulative impacts and decommissioning impacts were also considered. There was considerable uncertainty attached to the relative likelihood of the various scenarios, partly caused by the inability of the applicant to offer much clarification on the key issue of the likely operational port for the project. In general, the initial position of the applicant on predicted positive socio-economic impacts for the Local Impact Area appeared to be low, for the construction stage, and low/medium for the O&M stage.

Inputs from other parties

- 4.162 The boosting of local economies, employment and skills feature strongly in the strategic aims of local authorities in the Local Impact Area (see 4.131 above), and the importance of the renewable energy sector to economic development objectives is reflected in the economic development strategies of some of the local authorities in the area [APP-059]. However the ExA was surprised that such issues did not feature particularly strongly in the Relevant Representations and Local Impact Reports (LIR) [REP-216, 217 and 218] of those local authorities. In the first ISH North Lincolnshire Council did outline details of the proposed Humber University Training College facility to be developed at Scunthorpe, which should provide an important training resource for the local offshore renewables sector.
- 4.163 The Humber Local Economic Partnership (LEP) initially helped to provide some local/sub-regional perspective on the socio-economic issues of the area. The Humber LEP covers all local authorities in the Local Impact Area, with the exception of East and West Lindsey; it is an area which has the second highest incidence of youth unemployment of all 39 LEPs. A representative of the LEP attended the Preliminary Meeting, but not subsequent Specific Issue Hearings when socio-economic issues were discussed.
- 4.164 LEP documentation was submitted to the examination, including 'A Plan for the Humber 2012-2017' and the 'Hull and Humber City Deal' application [REP-290]. The former document notes -

'The Humber has a once in a generation opportunity to create a super cluster of new industry on both banks of the Estuary in an emerging sector, renewable energy. The Humber is uniquely well suited to offshore wind, with: three of the largest Round 3 offshore wind farm zones and many of the large Round 2 zones within 12

hours' steaming time of the Humber; existing and planned port infrastructure with deep water access next to large available development sites; and Grimsby already well-established as a major O&M hub with further growth potential'.

4.165 The latter document provides some aspirational socio-economic targets, including -

' ... more than 4,000 jobs in offshore wind related industries; at least 1,100 unemployed young people supported into work; 3,400 construction jobs and accelerated development of key growth sites on the Humber Estuary' (*ibid.*).

4.166 Further documentation was provided later in the examination in the form of the Humber LEP's Strategic Economic Plan [REP-299]. The Plan sees the Humber Estuary, particularly Grimsby, as a key future national energy hub. It is already home to influential energy leaders including E.ON, Dong Energy, Siemens, Centrica, Renewable Energy Systems, Vestas and Geosea; from 2017 the Humber will also be the home of major Siemens offshore wind plant manufacturing sites at Green Port Hull, and at Paull in the East Riding.

Key socio-economic issues

4.167 Key socio-economic issues identified by the ExA include the following -

- the local impact scenarios, their underpinning evidence, and the key determinant of the likely operational port for the Hornsea Project One project;
- delivering local area supply chain benefits;
- delivering local area employment and skills benefits;
- other potential socio-economic impacts, and community benefits fund.

4.168 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 [REP-277 and REP-336].

Local impact scenarios

4.169 The applicant's ES [APP-059] contains wide-ranging scenarios about predicted local economic impacts from, for example, 1% value of local direct technical employment under the low impact scenario to 100% under the medium scenario for the O&M stage. In the examination, the ExA sought to explore the determinants of the scenarios, the relevant evidence on which they had been based, and the scope for refining and narrowing the range of predictions. These issues were explored over two ISHs and the applicant provided additional information on the methods used in REP-277 and REP-336. This helped to clarify some of the issues,

and the ExA accepts that various uncertainties make prediction difficult in this field of socio-economic impacts. Over the examination there was some small shift in the applicant's predictions towards the medium/low socio-economic impact scenario for the construction stage and the medium socio-economic impact scenario for the Operations and Maintenance stage.

4.170 A particular issue for the examination, and for the uncertainty of the socio-economic predictions, was what would be the most likely location for the supply port(s) for the construction and O&M stages of Hornsea Project One. In response to the first round of written questions [REP-189], the applicant noted that -

' ... a number of ports located on the east coast of England and the west coast of continental Europe may be suitable for much of the construction and operation activities required for the Project. It remains the case that at the current stage in the development process the applicant is not in a position to make commitments with regard to identifying a specific port or ports from which to conduct either construction or O&M activities'.

4.171 The ExA questioned the applicant on the potential implications of the shift towards a more local wind farm manufacturing presence and local port development in the Humber estuary area. These included, for example, Dong Energy's investment at Royal Dock, Grimsby to support the Westernmost Rough OWF; Siemens planned manufacturing facilities at Hull and Paull; and the selection by the Lincolnshire OWF of Hull as the key supply port. There is also an array of other potential cumulative development activities noted in the socio-economics section of the ES [APP-059], plus policy initiatives—including an Enterprise Zone.

4.172 In response to first round written questions, the applicant noted -

'Local economic development policy and the range of supporting investments proposed around the Humber Estuary point towards a local economic development environment that is favourable for the development of infrastructure, growth of the renewable energy supply chain and development of relevant skills. However, it is early days in terms of the implementation of many of these public sector led projects and it is not yet clear whether some of the investments (notably Siemens) will be made, or what their timing might be' [REP-189].

4.173 In a subsequent response to the ExA's second round written questions [REP-307], the applicant reiterated the position on construction stage ports -

' ... the selection of ports to support construction activity cannot be made until a competitive procurement process has been followed.'

However the applicant also added -

'While the applicant is able to be more confident that there will be a local O&M base within the Local Impact Area, the exact function that this would serve (and whether this would be located at the Royal Dock) is yet to be determined'.

4.174 In the second ISH [REP-359] the applicant further stated that -

' ... it is likely that there will be a base port within the Humber area, however it is the function of the base port which is uncertain at this stage'.

4.175 Overall, the ExA remained concerned that the applicant was unable or unwilling to narrow the port options, and thought that such uncertainty might have deleterious effects on potential socio-economic benefits, limiting the commitment of potential linked activities.

Local area supply chain benefits

4.176 As noted in para 4.125 above, NPS EN-1 indicates that the decision maker should take into account socio-economic benefits from projects such as Hornsea Project One. This is further reinforced by the LEP *City Deal* and *Strategic Economic Plan* and by local authority plans. In this context the applicant was asked to provide additional details on the measures planned to deliver both construction stage and O&M stage supply chain benefits for the Local Impact Area.

4.177 The applicant sought to reassure the ExA that it recognised the policy emphasis placed on securing local economic benefits through projects such as Hornsea Project One. It was already engaged in activities designed to encourage local involvement in the construction and O&M supply chains, including a SMart Wind Supplier Portal and staff proactively networking with businesses to raise the profile of Hornsea Project One development opportunities. It also indicated that it would be working with the Humber LEP to realise local economic benefit. To that end an 'initial conversation' with the LEP in April 2014 had identified a number of themes as priorities [REP-307]. These included -

- provide information and communication to the LEP on the scale and nature of local economic opportunities from the Hornsea Project One project;
- understand intervention needs and possible targeted actions to develop supply chain capability;
- web-portal to be further developed to advise businesses on local opportunities;
- communicate with business groups using the web-portal;
- encourage engagement via applicant hosting of supply chain events; and
- general awareness raising, working with the LEP to keep local businesses up to date on the progress of the project.

Local area employment and skills benefits

- 4.178 There is a similar policy context highlighting the significance of seeking local employment and training opportunities from major energy projects such as Hornsea Project One. In this context the applicant was asked to provide additional details on the measures planned to deliver both construction stage and O&M stage employment and training benefits for the Local Impact Area.
- 4.179 In the second round of Written Questions, the applicant was asked (a) to further clarify the measures planned to match the supply and demand for local area skills for both construction and O&M in relation to Hornsea Project One; (b) to indicate whether it intended to produce an Employment and Skills Strategy for the project; and (c) to indicate what particular provision might be made for disadvantaged groups in the population to gain access to training and employment for the project.
- 4.180 The applicant sought to reassure the ExA that positive steps had already been taken (e.g. working with local schools in STEM¹⁵-related subject areas; developing a close partnership with the Humberside Engineering Training Association (HETA), which provides advanced apprenticeship training for wind energy companies). The applicant also noted, and the ExA agrees, that there are many training initiatives now underway, or planned for the Humberside area, associated with the LEP, with the Regional Growth Fund programmes in Humber, with the Enterprise Zone, with the Humber Energy Skills Centre of Excellence and with the Hull College Group Energy and Climate Centre.
- 4.181 In addition the applicant also confirmed that, following the April 2014 initial conversation with the LEP, an Employment and Skills Plan would be developed post consent, with the following identified as priorities [REP-307] -
- communicate demands effectively for skills needs for the Hornsea Project One project;
 - communicate strategic messages about general skills demands to the LEP including wider market insight and intelligence;
 - promote job opportunities locally both to job seekers and those currently in education;
 - communicate with businesses to identify skills needs associated with the various supply chain opportunities; and
 - identify skills development needs.
- 4.182 In the context of the Employment and Skills Plan, the applicant also confirmed that specific interventions to provide benefits for disadvantaged and unemployed people would be the subject of discussions with the LEP.

¹⁵ Science, technology, engineering, mathematics

ExA's conclusions on the principal socio-economic issues examined

- 4.183 The ExA was assisted by some amplification provided by the applicant on methodology used in the socio-economic assessment, and noted some shift towards a more medium local benefits (supply chain and employment) impacts construction and O&M scenarios. However there was still considerable uncertainty around the issue of port(s) location for the Hornsea Project One; a local base would be likely to be the most significant factor in positively shifting further the potential level of local economic benefits from the project.
- 4.184 The ExA was concerned to ensure that enhancement measures to deliver local supply chain and employment and training benefits were implemented in practice, if the project was consented and developed. To this end the ExA included a proposed DCO Requirement for a Workforce and Supply Chain Strategy in the agenda to the Specific Issue Hearing held week commencing on 28 April 2014 concerning the DCO [H-023]. This included proposals for developing the strategy; advertising local supply chain and employment opportunities; providing outreach employment presentations; providing apprenticeships and national vocation qualifications; and providing information on the operation of the strategy.
- 4.185 In the second ISH the applicant raised concerns about approval arrangements for the Workforce and Supply Chain Strategy, and also about some of the elements in the proposed DCO Requirement. The applicant welcomed the assistance of the Humber LEP in identifying and promoting opportunities across the Humber region, but argued that the approval of any socio-economic requirement should rest with the local authority. However the applicant sought to avoid multiple local authority approvals by recommending that -
- '... it is appropriate to designate North Lincolnshire as the approving authority as they have internal socio-economic expertise and it removes the very real prospect of delay and/or multiple conflicting plans which could not be avoided in a multiple authority approval process'.
- 4.186 The applicant produced its own draft requirement [REP-360] which includes North Lincolnshire as the 'lead' approval authority, in consultation with the Humber LEP (so long as it remains in existence). The draft requirement also included provisions for an 'employment and skills plan' as follows -
- 'The plan must include -
- (a) proposals for the provision of information to the Humber LEP 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;

(d) proposals for local advertising of employment and supply chain opportunities during the operation of the authorised development; and

The approved employment and skills plan must be implemented and maintained during the construction and operation of the authorised development’.

- 4.187 The ExA has given due consideration to the applicant’s draft requirement proposal in the final drafting of its DCO Requirement (see Requirement 21). On balance the ExA considers that this does as much as can reasonably be done in the conditions of uncertainty that the applicant contends must apply to secure appropriate benefits for the sub-region, and meets the requirements of EN-1.

Traffic and Transport

- 4.188 Section 5.13 of EN-1 sets 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).

- 4.189 In the present case, the main issues arise from onshore construction traffic. Given that the applicant has not identified any specific port, British or foreign, as having a role in either the construction or the operations and maintenance phases, it is not possible to assess any impacts that might arise in relation to traffic to and from any such port. Requirement 18 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.

- 4.190 The applicant's assessment of the likely impacts is in APP-056, and the potential effects are summarised in Table 7.15. They range

from 'negligible' to 'minor adverse' but in all cases are assessed as 'not significant'. None of the statutory consultees or interested parties challenged this appraisal.

4.191 The ExA wanted to understand the assumptions on which part of this assessment was made, and queried the likely provenance of commuting workers [PD-016, Question CL2], the likely impacts related to each construction site, the likely impacts from maintenance requirements [PD-016, both Question CL7] and the forecast numbers of workers at each construction site [PD-020, Question CL17]. The ExA is satisfied that the assessment is as robust and accurate as could reasonably be made at this stage, in advance of any actual contracts being let.

4.192 As before, Requirement 7(1) has however been developed to specify the relevant topics in a CoCP on which agreement must be reached with the relevant local planning authority in consultation where required with the relevant highways authority or the Highways Agency. These are -

'(e) a construction traffic management plan;

(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.'

4.193 The ExA is satisfied that these measures should ensure that the traffic and transport implications of the proposal are managed appropriately and in a manner that supports the government's sustainable transport objectives.

Waste management

4.194 As required by para 5.14.6 of EN-1, the applicant has assessed the likely waste arising primarily from the construction of the project, and prepared a Site Waste Management Plan [APP-063]. This assessment has not been challenged

4.195 This is secured in the draft DCO through Requirement 7(1A)(d), which specifies that the CoCP must include an agreed -

'(d) a site waste management plan detailing site waste management measures.'

4.196 The ExA considers that this fulfils adequately the requirement of the NPS.

Water quality and resources

4.197 Section 5.15 of EN-1 sets out requirements in relation 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 modifications to the water environment' (para 5.15.2).

4.198 The applicant's assessment is set out in full in APP-045. The baseline environment (Section 2.6) is described for the landfall, cable route and HVDC converter / HVAC substation. An assessment of the impacts on water quality, resources and physical characteristics is provided in Section 2.7. Baseline water quality and resources for the landfall, cable route and HVDC converter/HVAC substation are described in paragraphs 2.5.18 to 2.5.20, 2.5.38 to 2.5.40 and 2.5.54 of APP-045.

4.199 Watercourses in the study area have been identified and information on abstractions, discharges, pollution incidents and water quality has been provided. The impacts on surface water courses are described in Section 6. The impacts on Source Protection Zones are covered in APP-044.

4.200 A review of the Water Framework Directive (WFD) classifications for watercourses within 1 km of the proposed development was undertaken, as set out in Table 2-8.

4.201 Para 5.15.7 of EN-1 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.

4.202 In the applicant's final DCO, the expanded Requirement 7 dealing with the CoCP now states in 7(1A)(h) that the code to be approved must include -

'measures for the protection of surface and ground water during construction;'

4.203 The ExA is satisfied now that the application meets the requirements of EN-1 in this regard.

5 FINDINGS AND CONCLUSIONS IN RELATION TO HABITATS REGULATIONS

BIO-DIVERSITY: EUROPEAN SITES AND HABITATS REGULATIONS

- 5.1 The ExA's consideration of issues related to environmentally protected habitats and species includes a review of the effects of the Hornsea Project One proposal on European protected species and habitats, enabling the Secretary of State for Energy and Climate Change (SSECC) to carry out any necessary Appropriate Assessment (AA). A review of the effects of the proposal on other protected species and sites follows in Chapter 6.

Representations received and principal bio-diversity issues raised during the examination

- 5.2 During the examination, issues about the potential effects of the proposal on environmentally protected species, habitats and sites arose in representations from (but not limited to) the Statutory Nature Conservation Bodies (SNCBs) (Natural England and the Joint Nature Conservation Committee (NE/JNCC)¹⁶, the RSPB¹⁷, the Lincolnshire and Yorkshire Wildlife Trusts (LYWT)¹⁸, the Marine Management Organisation (MMO)¹⁹, the Environment Agency²⁰ and the local authorities²¹.
- 5.3 Statements of Common Ground (SoCGs) and Memoranda of Understanding (MoUs) were signed by the applicant, the SNCBs and others [REP-223, 224, 235, 237, 267, 379, 440 and 445].
- 5.4 The principal bio-diversity issues raised at the relevant representation stage included the following -
- (a) Data and methodological uncertainties that underpin the applicant's offshore ornithological assessments within the Habitats Regulation Assessment (HRA) and the Environmental Impacts Assessment (EIA). In particular, these relate to: the version of the Band Model used by the applicant in Collision Risk Assessment (CRA); the assessment of the Percentage of Birds at Collision Height (PCH); the approach used by the applicant to the assessment of Bird Displacement Impacts; and Species Population Scales against which collision and displacement impacts can be assessed;
 - (b) Cumulative and In-Combination Assessment in relation to the applicant's offshore ornithological assessments. Whilst the applicant's tiered approach to assessment was welcomed,

¹⁶ REP-035, 044, 054,055,188, 242, 286, 289, 294, 304, 357, 379, 385, 420, 440,442,445

¹⁷ REP-037, 057,246, 305, 358, 386-388, 419

¹⁸ REP-008,185,293, 303, 355

¹⁹ REP 036

²⁰ REP-030,056,184, 287, 292, 298, 353,441

²¹ REPs 010, 023, 032, 178, 182, 216-218,

issues related to a 'common currency' between developments and the amalgamation of quantitative and qualitative assessments were identified for further examination;

- (c) Assessment of the vulnerability of populations of the following species--kittiwakes, gannets, guillemots, razorbills and puffins--to collision and displacement impacts, as a result of the Hornsea Project One offshore wind farm, alone or in-combination with other developments, at SPAs considered in the HRA, namely the Flamborough and Filey Coast pSPA;
- (d) Assessment of the impacts of the project, alone and in-combination/cumulatively with other developments, on other ornithological species, in particular great black backed gulls (GBBG), lesser black backed gulls (LBBG) and Herring Gulls;
- (e) Concerns about the potential impacts on ornithological features of construction activity in the inter-tidal area on Humber Estuary SPA/Ramsar interest features;
- (f) Concerns about the potential impacts of the project, alone and in-combination with other projects, on a number of designated features in the Humber Estuary SAC, in particular on Salicornia, Atlantic salt meadows, and shifting dunes;
- (g) The impact of the proposal and others on marine mammals, including harbour seals, porpoises and minke whales, and opportunities for biodiversity enhancement;
- (h) Onshore impacts from the project cable route, including the need to protect and reinstate hedgerows, and to protect wildlife habitats—including for otters, voles, bats and newts.

5.5 All the issues above were examined by the ExA and are addressed in the remainder of this Section.

5.6 The applicant is required by section 5(2)(g) of the APFP Regulations (as amended) to provide sufficient information to enable the competent authority to make an AA of the implications for the European site(s) if required. The ExA is not the competent authority for the purposes of the HRA; the SoS is the decision maker and performs this role. The function of this section of the report is (i) to place the SoS in a position where all the information necessary to the carrying out of his duties as competent authority has been complied with and placed within a clear analytical framework; and (ii) to identify and respond to the relevant issues raised throughout the examination.

Background

5.7 In NPS EN-1, the decision maker is enjoined (paragraphs 5.3.7 – 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.'

- 5.8 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 candidate Special Areas of Conservation, potential Special Protection Areas, 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.
- 5.9 In response to the requirements of section 5(2) (g) of the APFP Regulations, the applicant provided an HRA Report [APP-171]. The information provided within this report was determined to be sufficient to accept the application for examination.
- 5.10 During the examination, some of the information and assessment contained in the HRA Report [APP-171] proved to be the subject of dispute, principally between the applicant, NE/JNCC and RSPB. Questions from the ExA sought to clarify various disputed issues as the examination progressed, through two Written Rounds of questions and in two Issue Specific Hearings on Ornithology and other Biodiversity issues. These resulted in each of the three parties submitting several new documents to support and to clarify their positions.
- 5.11 The applicant submitted many updated versions of clarification notes, SoCGs and MoUs for ornithological impacts during the examination; the evolving position of the applicant was summarised via the Environmental Information Signposting Document, the final one being Version 4 [Appendix O to the Response submitted for Deadline VII,—sections 7-9, 16 and 17, REP-437]. The additional documentation submitted by NE/JNCC, and RSPB, is as in para 5.2 above on representations. The ExA considered this information in detail in developing their lines of examination and recommendations. The three parties also submitted a number of SoCGs and Memoranda of Understanding, as also noted in para 5.3 above.
- 5.12 In addition, the ExA sought further information under Rule 17, some of which included requests on ornithological issues [PD-018 to PD-022]. These included requests for further information on the alternatives in respect of numbers and size of turbines in the Applicant's Environmental Statement (ES) Ornithological Technical Report [APP-086]; the relevance of the recent Scottish offshore wind farm decisions (Beatrice and Moray) and their comparability with Hornsea Project One; and the applicant's updated in-combination Auk displacement note and updated ornithological

summary. Updated information was provided by the applicant²², NE/JNCC²³ and RSPB²⁴.

5.13 Further to the presentation of information in the HRA report [APP-171] and to subsequent consideration in representations by the applicant, NE/JNCC and RSPB for the first Ornithology ISH, the ExA considered in detail the predicted impacts to designated features at the following sites -

- (a) Flamborough Head and Bempton Cliffs SPA,
- (b) Flamborough Head and Filey Coast pSPA,
- (c) Humber Estuary SPA,
- (d) Humber Estuary Ramsar, and
- (e) Humber Estuary SAC

In addition to the HRA assessment, the ExA also considered the predicted impacts on various EIA species.

Project location and European sites

5.14 Elements of the proposal²⁵ would be constructed within European protected sites: the Humber Estuary SPA and Ramsar site, and Humber Estuary SAC. There are no other physical connections to European sites. However, the proposal would be ecologically connected to several other European sites which were considered as part of the HRA process.

5.15 The impacts generated by the proposal which could affect European sites and features are considered by the applicant to be habitat loss, collision risk, disturbance/displacement, prey disturbance/abundance and barrier effect.

5.16 The Environmental Services Team of the Planning Inspectorate has worked with the ExA to produce a "Report on the Implications for European Sites" (RIES) for the proposal [RIES-02]. The report has been compiled from relevant material throughout the examination, including initial material produced by the applicant [RIES-01].

5.17 The report has sought to reflect the evolving material and the positions of various parties on main issues considered within the HRA process. It identifies the European sites, the likely biodiversity, and especially offshore ornithological, impacts of the proposal on those sites, and mitigation measures. The completed report was made available to interested parties for comment, and responses were submitted by the applicant [REP-430], NE [REP-420] and the RSPB [REP-419]. These are dealt with in subsequent sections of this report.

²² REP-262,263,389,406,410-414, 429, 432, 446,460 and 461

²³ REP-294, 357,385, 442, 450

²⁴ REP-358, 386-388

²⁵ The project is described in paras 2.4 *et seq*

5.18 The RIES compiles, documents and signposts information provided within the application, and the information submitted throughout the examination by various parties. The ExA's conclusions relevant to the steps taken by the applicant are discussed below.

Screening assessment

5.19 The screening assessment undertaken by the applicant considered numerous sites with the potential for biodiversity impacts. With the advice of the SNCBs, the applicant's HRA report identified 65 UK SPAs, 11 non-UK SPAs, 24 Ramsar sites, 11 UK SACs, 37 non-UK SACs and SCIs [APP-171, RIES-01 and RIES-02].

5.20 As a result of the screening assessment, the applicant concluded that Likely Significant Effects (LSE) could not be excluded from a smaller set of sites, comprising five UK SPAs, four UK SACs and 26 non-UK SACs and SCIs.

5.21 It was also concluded that the project was not connected with or necessary to the management for nature conservation of the European sites considered within the assessment.

5.22 A further consideration of the long list of sites resulted in a narrowing down of the European sites, with agreement between the applicant and NE in the first Specific Issue Hearing on ornithology (H-013, H-014), to those where a LSE cannot be discounted, as follows -

- (a) Flamborough Head and Bempton Cliffs SPA
- (b) Flamborough Head and Filey Coast pSPA
- (c) Humber Estuary SPA
- (d) Humber Estuary Ramsar
- (e) Humber Estuary SAC

5.23 Between 20 January 2014 and 14 April 2014, NE held a formal public consultation on the designation of the Flamborough Head and Filey Coast (FFC) potential (p) SPA. If confirmed by the Secretary of State for the Environment, Food and Rural Affairs, the FFC pSPA would represent a geographical extension to the existing Flamborough Head and Bempton Cliffs SPA. The FFC pSPA is based on a revised site boundary, revised interest features and new reference populations.

5.24 During the pre-application stages of the Hornsea Project One application NE advised the applicant of the proposed site alterations, which they subsequently included in their assessments. The FFC pSPA was included in the matrices updated by the applicant in response to the first round of written questions [REP-190]. The applicant further confirmed in their response to the RIES that '---for the purposes of this assessment the Flamborough and Filey Coast potential SPA incorporates the area, features, and conservation objectives of the existing Flamborough

Head and Bempton Cliffs SPA. The applicant confirms that the impact conclusions identified for the pSPA also apply to the existing SPA, because the features and conservation objectives of both have been considered' [REP-430 p.4].

- 5.25 The majority of the sites where Likely Significant Effects (LSE) cannot be discounted are designated due to ornithological interest features. The issues associated with the assessment of ornithology became a central theme during the examination. The ExA has obtained sufficient information through the examination for an Appropriate Assessment to be conducted in relation to the following sites where ornithological features are the relevant concern; the likely impact types are also provided (Table 1):

Table 1: Site and species screening

Site	Species for which the potential for LSE cannot be discounted	Impact type
Flamborough Head and Bempton Cliffs SPA	Kittiwake – migratory (breeding) and assemblage	Collision risk, displacement and in-combination
	Seabird assemblage of international importance during the breeding season -- including razorbill, guillemot, Herring Gull, gannet and kittiwake	Collision risk, displacement and in-combination
Flamborough Head and Filey Coast pSPA	Kittiwake – migratory (breeding) and assemblage	Collision risk, displacement and in-combination
	Gannet – migratory (breeding) and assemblage	Collision risk, displacement and in-combination
	Razorbill – migratory (breeding) and assemblage	Displacement and in-combination
	Guillemot – migratory (breeding) and assemblage	Displacement and in-combination
	Puffin – assemblage	Displacement and in-combination
	Herring Gull -- assemblage	Collision risk and in-combination
	Fulmar -- assemblage	Displacement and in-combination
Humber Estuary SPA	Bar-tailed godwit -- winter and assemblage	Habitat extent, disturbance and displacement, indirect effects and in-combination
	Golden plover – winter and assemblage	Habitat extent, disturbance and displacement, indirect effects and in-combination
	Dunlin – migratory (over winter/on passage) and assemblage	Habitat extent, disturbance and displacement, indirect effects and in-combination
	Knot – migratory (over winter/on passage) and assemblage	Habitat extent, disturbance and displacement, indirect effects and in-combination
	Redshank – migratory (over winter/on passage) and assemblage	Habitat extent, disturbance and displacement, indirect effects and in-combination
	Dark-bellied brent goose -- assemblage	Habitat extent, disturbance and displacement,

		indirect effects and in-combination
	Sanderling -- assemblage	Habitat extent, disturbance and displacement, indirect effects and in-combination
	Ringed plover -- assemblage	Habitat extent, disturbance and displacement, indirect effects and in-combination
	Oystercatcher -- assemblage	Habitat extent, disturbance and displacement, indirect effects and in-combination
Humber Estuary Ramsar ²⁶	Bar-tailed godwit (wintering)	Habitat extent, disturbance and displacement, indirect effects and in-combination
	Knot (wintering and on-passage)	Habitat extent, disturbance and displacement, indirect effects and in-combination
	Dunlin (wintering and on passage)	Habitat extent, disturbance and displacement, indirect effects and in-combination
	Waterbird assemblage	Habitat extent, disturbance and displacement, indirect effects and in-combination

5.26 The applicant's HRA report [APP-171] also identified a LSE at two sites with non-ornithological features, namely the Humber Estuary SAC and the Humber Estuary Ramsar. The ExA has obtained sufficient information through the examination for an Appropriate Assessment to be conducted in relation to the following sites and non-ornithological features; the likely impact types are also provided (Table 2) –

²⁶ The Humber Estuary Ramsar includes criterion which are also features of designation for both the Humber Estuary SPA and the Humber Estuary SAC

Table 2: Site and species screening

Site	Species for which the potential for LSE cannot be discounted	Impact type
Humber Estuary SAC	Estuaries	Habitat loss, water quality and in-combination
	Mudflats and sandflats not covered by seawater at low tide	Habitat loss, water quality and in-combination
	Salicornia and other annuals colonising mud and sand	Habitat loss, water quality and in-combination
	Atlantic salt meadows (Glaucopuccinellietalia maritimae)	Habitat loss, water quality and in-combination
	Embryonic shifting dunes	Habitat loss, water quality and in-combination
	Shifting dunes along the shoreline with Ammophila arenaria ('white dunes')	Habitat loss, water quality and in-combination
	Sea lamprey (Petromyzon marinus)	Habitat loss, water quality and in-combination
	River lamprey (Lampetra fluviatilis)	Habitat loss, water quality and in-combination
	Grey seal (Halichoerus grypus)	Disturbance, collision risk, change in prey distribution and abundance and in-combination
Humber Estuary Ramsar	Dune systems and humid dune slacks	Habitat loss, water quality and in-combination
	Intertidal mud and sand flats	Habitat loss, water quality and in-combination
	Saltmarshes	Habitat loss, water quality and in-combination
	Sea lamprey (Petromyzon marinus)	Barrier effect and in-combination
	River lamprey (Lampetra fluviatilis)	Barrier effect and in-combination
	Grey seal (Halichoerus grypus)	Disturbance, collision risk, change in prey distribution and abundance and in-combination

Integrity assessment

- 5.27 The ExA considered the issues raised in the applicant's HRA screening assessment and sought to examine relevant evidence to ensure that sufficient material was available to the SoS as decision-maker to produce an Appropriate Assessment if required. The following sections of the report explain the issues identified and the recommendations of the ExA in relation to the likely effects on the integrity of the specified European sites and species.
- 5.28 Differences between the positions of the applicant, NE and RSPB were investigated by the ExA, particularly in relation to offshore ornithological impacts. Through the examination the differences between NE and the applicant, with regard to the outcomes of the assessments of impacts on site integrity, narrowed considerably. Under the Habitats Regulations consultation with NE representing the SNCBs is mandatory. The narrowing in differences was much less between the positions of the applicant and RSPB. Table 3 provides a summary of the extent of agreement and remaining differences between the positions of the applicant and NE in relation to ornithological site features.

Table 3: Summary of extent of agreement and differences between the applicant and NE on ornithological species

European site	Relevant species—with a potential adverse effect on the integrity of the site	Extent of agreement and any remaining differences
Flamborough Head and Bempton Cliffs SPA	Kittiwake – migratory (breeding) and assemblage	See below
	Seabird assemblage of international importance during the breeding season -- including razorbill, guillemot, Herring Gull, gannet and kittiwake	See below
Flamborough Head and Filey Coast pSPA	Kittiwake – migratory (breeding) and assemblage	Agreement that adverse integrity effects can be discounted for the project alone and in-combination with other projects (building block approach), but not for in-combination (all projects)
	Gannet – migratory (breeding) and assemblage	Agreement that adverse integrity effects can be discounted for the project alone and in-combination with other projects (building block approach), but not for in-combination (all projects)

	Razorbill – migratory (breeding) and assemblage	Agreement that adverse integrity effects can be discounted for the project alone and in-combination with other projects (building block approach), but not for in-combination (all projects approach)
	Guillemot – migratory (breeding) and assemblage	Agreement that adverse integrity effects can be discounted for the project alone and in-combination with other projects (building block approach), but not for in-combination (all projects approach)
	Puffin – assemblage	Agreement that adverse integrity effects can be discounted for the project alone and in-combination with other projects (building block approach, and all projects)
	Herring Gull -- assemblage	Agreement that adverse integrity effects can be discounted for the project alone and in-combination with other projects (building block approach, and all projects)
	Fulmar -- assemblage	Agreement that adverse integrity effects can be discounted for the project alone and in-combination with other projects (building block approach, and all projects)
Humber Estuary SPA and Ramsar	All species	Agreement that adverse integrity effects can be discounted for all species for the project alone and in-combination with other projects (building block approach, and all projects)

5.29 Table 4 provides a summary of the extent of agreement and remaining differences between the positions of the applicant and NE in relation to impacts on sites with non-ornithological features -

Table 4: Summary of extent of agreement and differences between the applicant and NE on non-ornithological features

Site	Species for which the potential for LSE cannot be discounted	Impact type
Humber Estuary SAC	Estuaries	It is agreed that for non-ornithological features adverse impacts on integrity can be discounted, for the project alone and in-combination, subject to securing mitigation through DCO requirements and DML conditions
	Mudflats and sandflats not covered by seawater at low tide	
	Salicornia and other annuals colonising mud and sand	
	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	
	Embryonic shifting dunes	
	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')	
	Sea lamprey (<i>Petromyzon marinus</i>)	
	River lamprey (<i>Lampetra fluviatilis</i>)	
	Grey seal (<i>Halichoerus grypus</i>)	
Humber Estuary Ramsar	Dune systems and humid dune slacks	
	Intertidal mud and sand flats	
	Saltmarshes	
	Sea lamprey (<i>Petromyzon marinus</i>)	
	River lamprey (<i>Lampetra fluviatilis</i>)	
	Grey seal (<i>Halichoerus grypus</i>)	

Offshore ornithological impacts— Flamborough Head and Bempton Cliffs SPA, and Flamborough Head and Filey Coast pSPA

5.30 The Flamborough Head and Filey Coast (FFC) pSPA is a government (Defra) proposal to extend the Flamborough Head and Bempton Cliffs (FHBC) SPA, which is currently under consultation by NE. 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 an 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 E. Atlantic population of kittiwake (based on 1987 estimates). The majority of the SPA comprises sea cliff habitat with some grassland above the cliffs and a little deciduous woodland.

5.31 The conservation objectives for the FHBC site have been considered by the ExA. They were revised by NE and published in May 2012, and are as follows -

With regard to the individual species and/or assemblage of species for which the site has been classified ('the Qualifying Features'—ie black-legged kittiwake and seabird assemblage for this SPA):

Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.

Subject to natural change, to maintain or restore:

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 populations of the qualifying features;

The distribution of the qualifying features within the site.

5.32 In January 2014 NE opened the formal consultation on the proposals to extend the FHBC SPA and to rename it as the Flamborough Head and Filey Coast SPA. The proposals comprise changes to the designated site boundary and to the qualifying species, including the addition of northern gannet, common

guillemot and razorbill for supporting over 1% of the biogeographic population. In addition the seabird assemblage feature will increase to additionally include the northern Fulmar. Whilst the high level conservation objectives are in the public domain, the detailed objectives will not be available until 2016. In considering the impacts to these sites and features the ExA has regard to the conservation objectives for FHBC.

Offshore ornithological impacts – methodological issues and the nature of evidence presented

Methodological context

- 5.33 Much of the examination of the likely offshore ornithological impacts of the proposed Hornsea Project One project focused on the relative merits of alternative methodological approaches to the assessment of those impacts.
- 5.34 The ExA was assisted in the examination by the evolving sets of responses to its questions, in particular from the applicant, NE and the RSPB, for the various stages and deadlines in the process, as detailed in para 5.2. Ornithological SoCGs, MoUs and Updates/Summaries were particularly helpful in clarifying the extent of agreement, and remaining differences, between the various parties [REP-223, 226, 237, 267, 345, 346, 379, 432, 440, 445].
- 5.35 The assessment of offshore ornithological impacts in relation to offshore wind farm development is a field where the predictive models, and their requisite parameters, currently appear to be well ahead of some of the underpinning evidence. In particular the ExA noted -
- (a) the uncertainty in relation to input data for the various models used in the ornithological assessment (e.g. in relation to the trends in bird species populations);
 - (b) the apparent complete lack of any empirical studies specifically intended to validate the various models in an offshore environment; and
 - (c) the lack of empirical studies specifically addressing the differential prevalence and behaviour of species within the various surveys that have been aggregated to date to produce a generic comparator model.
- 5.36 The ExA is aware that further work is in hand with the intention to reduce some of this uncertainty, and some of the findings of recent research were presented during the examination; but other studies, such as the findings of a Scottish Marine/Scottish Natural Heritage study (due to report in March 2014) were still not available at the close of the examination in June 2014, and therefore could not be used in this examination.

- 5.37 Notwithstanding the uncertainties and complexities involved in the predictive modelling and assessment of the impacts of offshore wind farms on bird species, the ExA wishes to acknowledge the considerable value to their examination of the efforts and outputs which were devoted to several rounds of the task to further refine and clarify offshore ornithological issues, contributed by the applicant, and tested by Natural England and RSPB [see para 5.2 for key references].
- 5.38 Key methodological issues covered in the examination included the nature of -
- (a) Collision Risk Assessment (CRA) — and the merits of alternative Band options
 - (b) Avoidance Rates (ARs), associated with the CRA
 - (c) Flight height estimation, associated with the CRA
 - (d) Bird displacement rates
 - (e) PBR and PVA sustainability assessment

Collision Risk Assessment and the Band Model Options

- 5.39 Throughout the examination it was clear that the current methodological standard for Collision Risk Assessment (CRA) was that developed over several years by Bill Band and Scottish Natural Heritage and the Strategic Ornithological Support Services (SOSS), and widely known as the Band Model (Band 2000, Band et al 2007, and Band 2012). The Band Model requires several input parameters: turbine details (e.g. number, size and blade rotation speed); bird details (e.g. anatomy and flight speed); bird survey information (e.g. flight height distribution); and bird behaviour (e.g. avoidance and attraction).
- 5.40 Band identified many sources of uncertainty in the CRA 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).
- 5.41 The uncertainty involved was recognised by the various parties. For example JNCC noted [REP-357, Section C, para 3.4] -
- 'We note that Collision Risk Monitoring and associated Avoidance Rates are a fast moving area of research, with many unanswered questions and considerable uncertainty surrounding their use'.
- 5.42 The *Basic Band Model* assumes flight heights are uniformly distributed within the zone of risk for the birds. There are two versions of the Basic Model. Option 1 uses the basic model, assuming a uniform distribution of flight height between the lowest and highest levels of the rotors, and using the proportion of birds at risk height as derived from site survey. Option 2 also uses the

basic model, but using the proportion of birds at risk height as derived from generic flight height information.

- 5.43 The *Extended Band Model* (Band 2012) takes account of the fact that seabirds at sea do not show a uniform distribution of flight heights; they may fly lower, thereby resulting in fewer birds being at collision risk height. There are also two versions of the Extended Model, known as Options 3 and 4.
- 5.44 Option 3 of the extended model uses generic flight height information, drawing on work by Cook *et al* (2012) on a compilation of flight height data, for various seabird species, from wind farm sites across the UK. Cook does urge caution on the deployment of generic flight height data, as it may not be typical of the particular site under consideration and may over-represent the number of birds flying at low levels.
- 5.45 Option 4 of the extended model uses site specific survey information to generate a flight height distribution. Band (2012, para 61) argues that -
- ‘ ... if the data is adequate to support an extended analysis taking account of flight heights, it is well worth doing so’.
- Band also argues for ‘best estimate’ rather than ‘worst case’ (which can lead to an overly pessimistic result); but he also argues for a sensitivity approach to assess the implications of variations around the best estimate²⁷ (Band 2012).
- 5.46 Throughout the examination there was a major disagreement between the applicant, on the one hand, and NE and RSPB on the other, as to which was the most appropriate Band model Option to use for the CRA for the Hornsea Project One project. 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 applicant deemed that there was enough site specific data to justify the use of the Band Option 4 model. This model incorporates detailed site specific information on the encounter rate and collision probability with the rotors. 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 Band Option 1 model was used; this model assumes equal mean collision probability for all flights at rotor height.
- 5.47 Both NE and RSPB advocated the use of the Basic Band models (Options 1 and 2) in preference to the Extended Band model used by the applicant for several bird species. NE said that it -

²⁷ Emphasis added

'... acknowledges that (while) the Extended Band Model is a more refined mathematical model that considers the effect of flight height distribution of birds within the rotor swept area on the probability of collision, there are two methodological issues that need to be resolved in order to validate outputs from the Extended Band Model in the context of its use in predicting the likelihood of adverse effects on populations and sites. (These are)—appropriate avoidance rates (ARs) to use with the Extended Band Model – (and) –how data on flight height of birds, collected by boat based observers, is used in the Extended Band Model' [REP-304].

5.48 RSPB similarly argued that the extended model -

- (a) does not allow for uncertainty
- (b) has not been adequately validated, raises concern as to the accuracy of input data on bird flight heights
- (c) makes inappropriate use of an elevated correction factor (Avoidance Rate) which is applied to the final outputs of the model [REP-305].

5.49 In response to questions and requests from the ExA (Written, Hearings, and Rule 17), and to the concerns of the SNCBs and the RSPB, the applicant produced a number of clarification notes on CRA [REP-325, 328, 377, 432]. A significant outcome of these notes was the provision of assessments of collision impacts for the various species using a range of Basic and Extended Band models, with varying ARs. This provided a useful element of sensitivity analysis for the collision risk assessments, allowing the differences between impacts from using different Band Option models to be compared.

5.50 Towards the end of the examination the ExA was informed of the details of the ornithological assessments used in two Scottish offshore wind farm projects, Moray and Beatrice, which had recently (March 2014) been granted consent by Marine Scotland. With the advice of Marine Scotland Science, Scottish Natural Heritage and the Joint Nature Conservation Committee, Scottish Ministers had consented the projects on the basis of CRAs which used the Extended Band model, Option 3, and applied a 98% AR. However, notwithstanding such decisions, NE and RSPB maintained their positions in this examination that the use of the extended Band models was not supported for the Hornsea Project One project, in particular because of the concerns related to ARs and to flight height distribution. The methodological issues related to these two concerns are now summarised below.

Avoidance Rates (ARs)

5.51 The relevant scientific community considers it likely that birds take avoiding action when faced with the turbines in a wind farm. This Avoidance Rate (AR) is thought likely to be high, and a rate of 98% is the now historically accepted norm for the Basic Band

model (Options 1 and 2). However, as noted by Band there are considerable uncertainties surrounding bird avoidance behaviour. Issues raised in the examination included, inter alia, the degree of transferability of (i) ARs derived from experience at onshore wind farms to offshore wind farms, and (ii) ARs calculated for the Basic model options to the Extended model options.

5.52 There was agreement between the parties that it was inappropriate to use the same ARs for what are essentially different models, the Basic and Extended Band CRA models. There was less agreement about what were the appropriate ARs for particular bird species for offshore wind farms.

5.53 There was discussion about the extent to which there was now a substantial accrual of evidence which pointed towards the case for using rates higher than 98% for some species for the Basic model options (Cook *et al*, 2012²⁸ ; Johnstone *et al* 2014²⁹), and that the use of the Basic model with a 98% AR was overly precautionary. In addition there was an argument that a source of model error in the Band model, when using onshore wind farm data, comes largely from a decay in the detectability of birds over observation distance (2,000m) and this is not applicable offshore because the observation sampling distance is considerably shorter (300m).

5.54 In comparison with onshore wind farms, there is also more possibility for offshore wind farms of a *macro* avoidance factor (where birds avoid wind farm altogether) as well as a *micro* avoidance factor (where birds duck and weave within the wind farm) which applies to both onshore and offshore sites. Attention was drawn to the recent use of an AR of 99% for gannets, for Band Option 1, which was deemed acceptable in the consented decision on the Triton Knoll offshore wind farm. The recent decision on Triton Knoll states that -

'... the SoS agrees with the SNCBs, and concludes that an avoidance rate of 99% for Gannets may be sufficiently precautionary for this species, based on the most recent evidence, although he notes that there would not be an adverse impact even with a 98% avoidance rate in this instance.' (Triton Knoll, Secretary of State's HRA Report, Section 5.15, July 2013)

5.55 As noted in para 5.49, a significant outcome of the examination was the provision of assessments of bird collision impacts for a range of ARs (98%, 99% and, in some cases, 99.5%) for the various species, across the range of Basic and Extended Band Options, thus providing a useful element of sensitivity analysis.

²⁸ Cook, A.S.C.P et al (2012), A review of Flight Heights and Avoidance Rates of Birds in Relation to Offshore Wind Farms. Crown Estate Strategic Ornithological Support Services, Project SOSS-02. BTO Research Report No 618. BTO, Thetford

²⁹ Johnstone, A et al (2014), Modelling flight heights of marine birds to more accurately assess collision risk with offshore wind turbines. Journal of Applied Ecology 51, pp 31-41

CRA and Flight-Height Data

- 5.56 The flight-height data used by the applicant to calculate the proportion of birds at Potential Collision Height (PCH) in the CRA was derived from extensive boat-based surveys carried out by experienced surveyors on a monthly basis over a period of two years (March 2010 to Feb 2012). The sample sizes for the various species used to calculate the flight height distribution were sizeable (e.g. almost 5,000 individual birds for gannets, and over 16, 000 for kittiwakes) [REP-165]. The flight heights were estimated in 5m categories. To provide height distributions at the 1m interval the birds were divided evenly within each 5m category; this information was then inputted to the Band Option 4 model.
- 5.57 Both NE and RSPB expressed concern about what they perceived as a spurious level of precision involved in the applicant's approach. There was concern about the ability of even experienced observers in a moving vessel to estimate the height of a flying bird to the nearest 5m with any degree of accuracy, further compounded by the partitioning into 1m bands. Other issues included, *inter alia*, concerns about the height of the lowest blade sweep used in the assessments, the potential impact of boat based surveys on the behaviour of birds, and the need to take into account the variations in the interdependencies between bird flight height and species, weather and season etc. The applicant defended the site-specific data as having an extensive temporal and spatial coverage and being scientifically robust and suitable for use in CRA.

Bird Displacement Rates

- 5.58 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 interim advice from NE and JNCC in 2013, which advocated a matrix approach, presenting a range of displacement and mortality levels for the species considered most at risk of displacement by offshore turbines.
- 5.59 The species assessed were the Auk species of guillemot, razorbill and puffin. The factors required to estimate the levels of additional mortality from displacement were: (i) extent of displacement impact around the wind farm (km); (ii) proportion of birds displaced by turbines [0-100%]; and (iii) proportion of mortality resulting from displacement [0-100%]. Discussion centred on the values used by the applicant for the three factors.
- 5.60 There was concern from NE and RSPB about the under-estimation of the size of the buffer, of 1km, for the Auk species. Following

discussion among the parties this was increased to an agreed 2km.

- 5.61 There was further concern about the measures used to assess the proportion of birds displaced (magnitude) and the proportion of resulting mortality (mortality). For magnitude the applicant used values of 40% for razorbill and 30% for guillemot and puffin; for mortality the values did not exceed 10%. NE believed magnitude should cover a range of 30-70%, and mortality a range up to 10%, with a focus on the worst case of 70 (magnitude):10 (mortality).
- 5.62 Drawing on studies at the Bligh Bank in Belgium, the RSPB thought it appropriate to consider the range of displacement magnitude up to and including 50% for all Auk species. The implications of these wider ranges of values were subsequently modelled by the applicant in further iterations of the offshore ornithological assessments, again providing a useful element of sensitivity analysis. There was also some concern about the method used by the applicant for apportioning the mortality to a site population.

Population Level Effects: PBR and PVA

- 5.63 An informative ornithological assessment should compare the expected outcomes for the populations of the various species under consideration, with and without the intervention of the offshore wind farm. Two principal methods are available for this: (i) Potential Biological Removal (PBR) and (ii) Population Viability Analysis (PVA) (REP-237,246,314,331,357,358,378,429 and 432).
- 5.64 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.
- 5.65 PVA calculations use simulation modelling of population processes and population size. They can use density dependence and density independence approaches (based on surrogate populations of the same species elsewhere or ecologically similar species).
- 5.66 The applicant used PBR to determine sustainable thresholds of additional mortality; an approach agreed with Natural England in an early Offshore Ornithology SoCG [REP-237]. NE stated that it recognised -
- `... PBR as one of several methods of assessing sustainability of impacts arising from offshore wind farms, it considers that the recovery factor (f) can be used to be 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, which is what is predicted with an f value of 0.1. NE also supports the use of PVA in cases where good data are available' [REP-365].

- 5.67 RSPB made representations objecting to the use of PBR, which they regarded as a flawed approach to assessing the impact of the project on bird populations. They saw PBR calculations as designed to identify threshold levels of additional mortality caused by the project that would almost certainly result in the decline of the species population(s) of interest to extinction, or at best to low levels [REP-246].
- 5.68 Both Ornithology ISHs devoted considerable time, including valuable inputs from expert consultants for the various parties, to the discussion of the relative merits of PBR and PVA (and the 'density dependence' and 'density independence' versions of PVA) [REP-314, 357 and 358].
- 5.69 The density dependent (DD) version links the reproductive rate to the population size on the assumption that competition for food among all age classes of birds will reduce the overall production of young. The density independent version (DI) simulates the population with no feedback between population size and demographic rates, and can lead to extreme predictions. The ISH discussions suggested to the ExA that the DD version of PVA had more persuasive value than the DI version.
- 5.70 In response to the concerns, particularly from RSPB, about the methods of assessing population level effects, it was agreed that both PBR and PVA approaches should be modelled by the applicant. This was undertaken, using both DD and DI versions of PVA [REP-331, 378 and 432]. The applicant also modelled the PBR calculations and DI versions of PVA models using a range of recovery f -factors. In general NE advocated lower f -factors than those advocated by the applicant. NE viewed the results of the PVA work undertaken as agreeing broadly with the results of the PBR, with the exception of those for gannet species, which needed further consideration. RSPB was less sanguine and did not consider the PVA approach taken by the applicant, especially the approach to how DD was modelled, to be appropriate. For example, the RSPB raised concern about how the values for the strength of density dependence had been calculated by the applicant, including the lack of a review of empirical evidence in the values used by the applicant [REP-358].
- 5.71 Overall the work by the various parties on PBR and PVA provided a further sensitivity analysis dimension for the ExA to the ornithological assessment of the impacts of the project.

Offshore wind farms to be included for ornithology cumulative/in-combination assessments

Tiers and constituent projects

- 5.72 In its ES Ornithological Assessment, and in the HRA, the applicant used a three-tiered approach to the identification of other projects to be considered cumulatively (EIA) and in-combination (HRA) with the Hornsea Project One project. Tier 1 included built and operational projects, and projects under construction; Tier 2 included consented and submitted applications; and Tier 3 included future submissions.
- 5.73 NE/JNCC by contrast adopted a six-tiered approach for such assessments, as set out in Table 3. In the first Ornithological ISH, questioning from the ExA clarified that the NE/JNCC tiering approach would be used by the applicant in the assessment.
- 5.74 The ExA probed the extent of agreement between the parties on which projects were included in which of the NE tiers. There was agreement on those listed in Table 5, with the exception that NE thought Blyth Demonstration and Scroby Sands should be added to Tier 1, although there was agreement that these were small projects.
- 5.75 There was more concern about the fact that the applicant had built in reduced capacities for several consented wind farms (Gallop by 30%; Triton Knoll by 25-50%; Beatrice by 25%; and Moray by 25%) and East Anglia One which was under examination (26% reduction in the original capacity applied for) [REP-328 and 377]. In a subsequent Rule 17 question the ExA sought additional information from the applicant through modelling the cumulative/in-combination effects also using the full consented capacity of these wind farms. This data was provided for Deadline 6 [REP-405].

Table 5 NE/JNCC tiered approach

Tier	Description of tier	Agreed list of projects in tier
1	Built or operational projects, where they have not been included within the environmental characterisation survey	Greater Gabbard Gunfleet Sands Lynn and Inner Dowsing Sheringham Shoal Thanet Lincs Kentish Flats Kentish Flats Extension Egmond aan Zee London Array
2	Projects under construction	Teesside Humber Gateway Westernmost Rough
3	Projects that have been consented (but construction has not yet commenced)	Dudgeon Gallopier Race Bank Aberdeen Offshore Wind Development Centre Triton Knoll Moray Firth Beatrice
4	Projects that have an application submitted to the appropriate regulatory body that have not yet been determined	East Anglia One Hornsea Project One Dogger Creyke Beck A&B Near na Gaoithe Seagreen Alpha Seagreen Bravo Inch Cape
5	Projects that the regulatory body is expecting that have not yet been determined	Hornsea Project Two Dogger Teesside A&B
6	Projects that have been identified in relevant strategic plans	

Relevant data

5.76 In the examination of material on cumulative/in-combination assessment, NE was keen to have a 'common currency' where possible to the assessments, but the applicant noted the great variability in the nature of relevant data on the various wind farms included in the assessment. For many, especially the early projects, there was little data on bird impacts (collisions and displacement); for some the data was qualitative; for others, including the more recent projects, there was a growing body of quantitative information. Even when it was possible to quantify

impacts, a variety of Band Options were used; these were primarily Options 1 and 2 for Tier 1 and 2 projects, but with Options 3 and 4 coming into play for Tiers 3 and 4 projects.

- 5.77 The nature of available relevant data was a particular issue in the assessment of the displacement impacts on the Auk species. For much of the examination the applicant used a short list of only eight projects for the cumulative/in-combination assessments, arguing that these were the most relevant, and had appropriate data, for this particular assessment.
- 5.78 RSPB and NE raised concerns about what they saw as a limited assessment; this was a concern also shared by the ExA. A fuller assessment was sought by the ExA, and this was provided by the applicant for Deadline 7, with the applicant collating further information for additional sites for which displacement had not been quantified, and estimating the likely magnitude of displacement using other available data (for example on species abundance and density). The latest assessment includes a full list of projects, including Scroby Sands and Blyth Demonstration, although the applicant raises concerns about the inclusion of four Firth of Forth sites in the assessment, one of which, Neart na Gaoithe, appears to have sizeable impacts if included [REP-446].

Building blocks and all projects approaches

- 5.79 The assessments of the cumulative/in-combination effects made use of two approaches. The 'building block' approach assesses each project cumulatively up to and including the project under consideration, in this case Hornsea Project 1, to provide an impact figure which can be compared with the PBR threshold for the species under consideration. As such it includes Tier 1, 2 and 3 projects, and Tier 4 projects up to and including Hornsea Project One. The 'all projects' approach, as the name implies, includes all projects - in this case Tiers 1-5 of those set out in Table 3. Again the aim is to provide an impact figure which can be compared with the PBR threshold for the species under consideration. This 'all projects' approach includes additional projects which are at a much earlier stage in their life cycle, and with therefore greater uncertainty as to whether, or to what extent, they will be realised.
- 5.80 NE and RSPB argued for the consideration of both approaches, and to provide a full assessment of possible cumulative/ in-combination effects the ExA required the applicant to model the various species collision and displacement cumulative/in-combination impacts using both approaches. This information provided the structure for the final assessments for the various species, with assessment of the impacts on each species for -
- (i) Hornsea Project 1 alone;
 - (ii) in-combination (building block approach); and
 - (iii) in-combination (all projects).

- 5.81 Various iterations of these assessments were provided for the ExA in the later stages of the assessment. In the final iterations for the Auk species assessment NE still raised concerns, including the placing of several Tier 4 Scottish projects after Hornsea Project One chronologically; as such their potential impacts were not included in the building block approach. The NE view is that they should be included, as decisions on them were expected in June/July 2014 [REP-450].

Relative significance of tiers and constituent projects

- 5.82 The relative weight to be assigned to the significance of projects in the various NE tiers was the subject of considerable discussion during the examination. Various tiers have associated issues. For Tier 1 projects, it could be argued that for those already in existence for several years the ornithological impacts might now be assumed to be incorporated into the ornithological baseline, and that therefore the projects should be excluded from the assessment. This view was not supported by NE and RSPB, and the applicant concurred with this. NE noted that the citation population figures against which the assessment is carried out pre-date the existing projects. However the ExA believes that, over quite a short period of time, this is likely to become a more significant consideration.
- 5.83 For some Tier 3 projects, there was the issue of substantial variations between the consented capacity of the project and the likely build-out in practice, especially in cases, such as those projects noted in Table 5 above, where the applicant had explicitly built in reduced capacities of at least 25%. NE and RSPB argued that as, legally, it was still possible for the full consented capacity to be built out, that full capacity should be included in the assessment. The ExA pursued this position in terms of requiring the applicant to model the impacts of the full capacities of all consented and, for East Anglia One (then in examination), proposals.
- 5.84 The degree of risk of achieving full project build-out is likely to be higher still for Tier 4 and 5 projects given, for example, increasing concern about North Sea environmental capacity issues, and the availability of financial support for large projects (including the availability or the lack of DECC Contracts for Difference support).
- 5.85 As noted in paras 5.75 and 5.76 above, there is also the issue of obtaining relevant data on impacts for some projects. In their representation for Deadline 8, NE noted that -

'... given there is considerable uncertainty regarding the appropriate Auk displacement figures to use for Dogger Bank Creyke Beck and Dogger Bank Teesside (as there is on-going discussion regarding the displacement impacts from these

projects), an in-combination assessment based on all projects up to Tier 5 is not appropriate at this time, and therefore NE is only considering impacts based on a building block approach up to and including Hornsea Project One' [REP-450, p 6].

- 5.86 In its consideration of the issue of the relative weighting of tiers in the cumulative/in-combination assessments for UK offshore wind farms, the ExA was also cognizant of the likely impact, in the near future, of the evolving European Union Environmental Impact Assessment legislation. The revised EU EIA Directive, adopted April 2014, to be implemented by Member States from 2017, defines cumulative impacts as '*the cumulation of the impact with the impact of other existing and/or approved projects*'. The ExA considers that this equates to NE Tiers 1 to 3. It should be noted, however, that the Directive is not yet in force, is subject to national transposition and that in-combination assessment is a separate consideration for the Habitats Directive.

Change in configuration of turbines: design parameters

- 5.87 As noted in para 5.36, one of the several input parameters for the Band models is the turbine details of the wind farm project (e.g. number, size and blade rotation speed). In the context of the Rochdale Envelope approach, the applicant adopted a 'worst case' scenario of 332 turbines x 3.6 MW in the ES, and the main assessment of ornithological impacts was based on this case. However, in an ES Ornithology Technical Appendix [APP-086], the applicant also usefully modelled the potential ornithological implications of alternative configurations of turbines, including 150 x 8MW and 240 x 5MW.
- 5.88 NE and all interested parties were requested to comment on the Ornithology Technical Appendix and specifically on the information regarding the ornithological impacts should the 150x8MW option be adopted. In the response NE noted that -
- '... the number of expected bird collisions with the turbines as presented by the Applicant would be reduced. However as these figures have not been taken through the assessment process, NE is at this time unable to quantify the impact that this level of reduction in collisions would have as this information has not been presented by the Applicant to date. The Applicant has not presented any evidence in the Ornithology Technical Report to indicate that having fewer, larger turbines would also change the number of birds affected via displacement, and given that the area of the OWF is the same for both turbine configurations, the predicted displacement impacts would be the same under both turbine configurations' [REP-294].
- 5.89 The ExA questioned the applicant on several occasions in the examination as to whether further attention was being given to the active consideration of these alternative configurations, partly

as a means of reducing the number of bird collisions. The applicant noted [REP-263] that '*limiting the turbine options available for selection (by excluding turbine classes), is not appropriate and may adversely affect the competitiveness of the procurement of the project*'. Although not responsive on such a consideration for much of the examination, in the second Ornithology ISH the applicant did indicate that it was investigating the suitability of a 5MW wind turbine.

- 5.90 Then, towards the end of the examination (Deadline 5), the applicant advised that, further to the investigations on the suitability of a 5MW wind turbine, it was now in a position to remove the 3.6MW proposal leaving a 5-8MW turbine envelope which would result in a 28% reduction in the overall maximum number of turbines within the Project, from 332 to 240. The applicant noted that this reduction would not prevent it from maintaining the maximum generation capacity of 1,200MW.
- 5.91 This was seen by the applicant as making a substantial contribution to reducing potential ornithological impacts -
- '... when applying the Extended Band model (Option 4) this mitigation will accrue a 38% reduction in predicted collisions for kittiwake and a 30% reduction for gannet attributed to the respective adult breeding populations of the FFC pSPA. It is noted that if the Basic Band model (Option 1) is applied then this mitigation will accrue 13% reduction in predicted collisions for both kittiwake and gannet' [REP-362].
- 5.92 NE welcomed the commitment by the applicant to the new configuration, although still requesting further information on how the conclusions on the reductions in ornithological impacts had been drawn [REP-442]. The ExA considers that the ES Ornithological Technical Report [APP-086] provides some of this information.
- 5.93 The implications of the examination of these various methodological (Band model, Avoidance Rates, Flight Height, Displacement Rates and Population Level Effects), in-combination/cumulative assessment and project configuration factors are now discussed for specific bird species in relation to the integrity of the FHBC/FFC sites.

Kittiwakes

Introduction - evolving positions of parties during the examination

- 5.94 The evolving positions of the applicant, NE and RSPB on the potential impacts on the FHBC SPS and FFC pSPA kittiwake population were reflected during the examination by the extent of agreement, or otherwise, in various SoCGs and MoUs requested by the ExA. These also highlighted key issues to be resolved, if possible.

- 5.95 Through the examination the ExA requested the testing of the relative sensitivity of the potential impacts on the kittiwakes to the use of a range of models (various Band models; PBR and PVA approaches) and model parameters (e.g. various Avoidance Rates, and f-values). Although there was not agreement on all the underpinning calculations, this approach did provide a common set of evolving information for the participants.

Key data issues on CRA, PBR thresholds and the kittiwake population

- 5.96 As noted in the section on methodological issues (paras 5.38 to 5.49 above), NE supported a Basic Band model while the applicant advocated the Band Extended model. NE did not consider that the generic avoidance rate of 98% proposed by the applicant was appropriate to use with the Band Extended model. However, NE did broadly agree that an AR greater than 98% might be appropriate for the Basic Band model for certain species, although further evidence/analysis was required [REP-304]. The applicant advocated an AR of 99.5% for kittiwakes using the Basic Band model [REP-326].
- 5.97 With regard to population threshold levels for kittiwakes using the PBR approach, the applicant considered an f-value of 0.2 was appropriate where the local and national populations are in decline, resulting in a PBR value of 1023; NE considered this to be too high and advised an f-value of 0.1 given the large population declines in the kittiwake populations both at the FFC and nationally, resulting in a PBR value of 512. NE suggested that the assessment of displacement for kittiwakes should be carried out using a 2km buffer. The applicant believed this was overly precautionary, and contradicted earlier advice given by NE. However, the applicant noted that even when using a 2km buffer, no adverse effects were predicted on the kittiwake feature of the FHBC/FFC sites as a result of displacement effects [REP-266]. NE continued to express concern about the robustness of the applicant's flight height data for kittiwakes, although NE agreed that the applicant had followed published guidance for undertaking the site specific bird surveys [REP-304].
- 5.98 A particular issue was raised in the examination about the size of the kittiwake population, and trends in that population, at the FHBC SPA and the FFC pSPA. NE noted that the kittiwake population had apparently decreased from 83,700 pairs in 1987 to 44,520 pairs (2008-11 mean used to classify the SPA/pSPA), thereby indicating that the Flamborough Head kittiwake population had undergone a significant decline [REP-304].

5.99 The applicant strongly disputed this, drawing on the work of John Coulson (2011) *The Kittiwake*³⁰. In his book Dr Coulson casts major doubt over some of the numbers of pairs reported for the Flamborough colony. The reported number of pairs fluctuated from 30,800 (1969), to 83,000 (1979), to 83,700 (1986) to 42, 659 (2000); the latter figure suggesting a dramatic mortality or emigration. Dr Coulson concludes -

'After careful consideration and search for more information, I now believe that the 1979 figure supplied was the actual numbers of adult kittiwakes at these colonies (i.e. double the number of pairs), and there were never anything like 83,000 pairs there at any time - thus reducing the numbers to about 41,500 pairs in 1979 and 1986. These numbers are much more consistent with the overall trends in kittiwake numbers in north-east England and would not require the huge increase, followed by a major decrease, neither of which is supported by an independent observer who recorded little change over this period' [REP-327].

5.100 In a subsequent email, following RSPB and NE disputing this analysis, and the discovery by JNCC of the long-lost 1979 counts, Dr Coulson commented further -

'The information I have as now still casts doubt on the accuracy of the 1979 numbers. In my opinion it is up to JNCC to make the case by supplying evidence that would convince me to withdraw my severe doubts of the large increase. So far JNCC have not done so, and I suggest that until they do so, considerable doubt must exist that 83,000 pairs of kittiwakes ever nested at Flamborough in or about 1979' [REP-380].

5.101 JNCC subsequently responded that -

'JNCC have examined all kittiwake count evidence available, including original paper survey forms and report, from the 1987 breeding seabird survey within the area now defined as FHBC SPA. We consider the count of 85,395 apparently occupied nests (AONs) to be correct' [REP-442].

5.102 It is obvious that two very knowledgeable scientific authorities take totally divergent views on this issue. Nonetheless the ExA comes to the conclusion on the basis of the evidence and arguments put before it that Dr Coulson's thesis is more persuasive to a significant degree. At the end of the examination the ExA therefore had very considerable doubt as to the accuracy of apparent fluctuations in the numbers of kittiwakes at the Flamborough colony, and felt unable to give any significant weight to them.

³⁰ *The Kittiwake*, Poyser Monographs, John C. Coulson, Publisher A& C Black, 2011; ISBN 1408152339, 9781408152331

Impact assessment of project alone

- 5.103 Table 6 is a summary provided by the applicant for Deadline 7 which adopts the sensitivity analysis sought by the ExA to assess predicted impacts across the range of models and ARs [REP-432]. It also builds in the reductions in impacts resulting from the adoption of the 240x5MW configuration for the project.
- 5.104 The applicant advocates Option 4 at 98% AR giving a collision risk estimate of 21; but if Band 1 is used as the default (as advocated by NE), then the applicant advocates a higher AR should be used – with 99.5% giving a similar collision risk estimate of 28. A comparison between Option 1 at 99% and Option 3 at 98% suggest similar levels of impacts; Option 3 at 98% AR was accepted for use in the recent Scottish cases. All the predictions are well within PBR threshold levels of 1023 (applicant) and 512 (NE).
- 5.105 The applicant further states that the PVA analysis also demonstrates that this scale of additional mortality is sustainable [REP-378], and NE accepted that the PVA analysis was broadly in line with the PBR analysis. Whilst NE has remaining concerns about some of the details of the applicant’s assessment, in its Updated MoU with the applicant [REP-445] for Deadline 7, NE advises theSoS, in relation to HRA, that there is no adverse effect on the integrity of the FFC pSPA.

Table 6 Summary of applicant’s predicted collision mortality rates for kittiwakes arising from Hornsea Project One alone for different modelling options for 240x5MW configuration

Species	Band Option 1			Band Option 2			Band Option 3			Band Option 4		
	Avoidance Rate %			Avoidance Rate %			Avoidance Rate %			Avoidance Rate %		
	98	99	99.5	98	99	99.5	98	99	99.5	98	99	99.5
Kittiwake-all birds	223	111	56	467	234	117	96	48	24	21	10	5
Kittiwake-SPA birds alone	110	55	28	231	116	58	48	24	12	10	5	3

Impact assessment of project in-combination

- 5.106 In response to NE's request for a common currency approach to in-combination collision assessment using the Band model, the applicant used the Basic Band model with 99% and 99.5% ARs. If the building block approach is used (all projects up to and including Hornsea Project One) the applicant predicts additional FFC pSPA adult kittiwake mortality of 143.5 to 159.5 for 99% AR and 71.5-79 for 99.5% AR. If all projects (including up to tier 5) are included, the applicant predicts 682-698 for 99% AR and 341-349 for 99.5 % AR. All these figures are within the PBR threshold of 1023 (applicant); the in-combination (all projects) predictions

at 99% exceeds the PBR threshold of 512 (NE) [REP-377 and REP-432].

5.107 NE raised several concerns with the applicant's approach including the ordering of projects, and the use of ARs of 99% and 99.5%, rather than the 98% default advocated by NE and RSPB [REP-441]. For the building block approach NE estimates were 357-472 collision mortality numbers, using 98% AR for Band model Option 1; for all projects estimates were 759-874 [REP-357]. As such, in its Updated MoU with the applicant [REP-445] for Deadline 7, NE advises, in relation to HRA, that there is no adverse effect on the integrity of the FFC pSPA, building block approach (this conclusion is inclusive of the contribution of the Scottish projects currently under determination). However for the all projects approach -

' ... the possibility of an adverse effect on the integrity of the FFC pSPA cannot be excluded, at this time, due to the potential effects of future projects. This conclusion arises because there is unavoidable uncertainty (until such time as the assessments for those projects are completed) about the magnitude of the impact that those projects will have on the interest features of the FFC pSPA.'

Conclusions of the ExA

5.108 The ExA concludes on the basis of its examination and objective scientific evidence that there is no adverse impact for the kittiwake species on the integrity of the FFC pSPA of the Hornsea Project One project alone, and in combination (building block approach).

5.109 The ExA does not agree with NE's conclusion on the in-combination (all projects) position, for several reasons. The rigid use of only a 98% AR for the Band model Option 1 assessment is considered over-precautionary and there is a strong case for sensitivity analysis in the use of a range of ARs; similarly, there may be a case for using other Band model options, and the ExA notes that Band model Option 3 has been used in recent Scottish cases. There is also scope for sensitivity analysis in the use of the f-factors in the PBR modelling.

5.110 In addition, the relative treatment of projects in the various in-combination tiers gives rise to other concerns. For example, in relation to which projects and their impacts might increasingly be included in the baseline; the position of some projects which are highly unlikely to be fully built out to consented capacity (but which are sitting on unused environmental headroom); and the inclusion of some tier 4 and 5 projects which, for whatever reason, might not materialise either at all or on a much reduced scale. Projects at tier 4 and above would also be subject to their own HRA process and would not be consented with impacts on integrity without engaging with Article 6(4) of the Habitats Directive. There

is also the evolving EU EIA Directive, with caveats as noted in para 5.85 above, with a definition of cumulative which equates with operational and consented projects only.

Gannet

Introduction—evolving positions of parties during the examination

- 5.111 As for the kittiwakes the evolving positions of the applicant, NE and RSPB on the potential impacts on the FHBC SPA and FFC pSPA gannet population were reflected during the examination by the extent of agreement, or otherwise, in various SoCGs and MoUs requested by the ExA. The examination again focused on testing the relative sensitivity of the potential impacts on the gannet population of the FHBC SPA and FFC pSPA to a range of models (various Band models; PBR and PVA approaches) and model parameters (e.g. various Avoidance Rates, and f-values).

Key data issues on CRA, PBR thresholds and the gannet population

- 5.112 The gannet colony at the FHBC SPA and FFC pSPA sites has grown rapidly since the 1980s when only a few hundred pairs were present. The gannet FFC pSPA population for 2011 was estimated at 9,947 pairs, with a regional growth trend of an estimated +289% (2000-2010) [APP-034].
- 5.113 The applicant's approach to PBR modelling [APP-171] showed that the FFC pSPA gannet population may sustain a mortality of 452 birds (using a conservative recovery factor of 0.5, considering the increase in the SPA population) without the carrying capacity of the population being affected). The applicant advocated a Band Option 1 AR of 99%, drawing on published empirical data that indicated ARs for gannet significantly greater than 98% will occur [APP-171]. As noted in 5.54 an AR of 99% for gannet, for Band Option 1 was deemed acceptable in the consented decision on the Triton Knoll offshore wind farm, and was also accepted for the recent Rampion and East Anglia One offshore wind farms.
- 5.114 In Written Representation [REP-054] NE raised a number of concerns about the gannet data and modelling used by the applicant. For PBR modelling, NE advocated the use of an f-factor of 0.4, which they note has been accepted in other OWF cases for northern gannet populations at Flamborough Head and Bempton Cliffs SPA (now FFC pSPA) as it represents a compromise for a rapidly expanding population that is associated with an SPA. This f-factor would result in a PBR of 362.
- 5.115 NE also queried the applicant's data on PCH for gannet and indicated that they regarded it as an underestimate, for example in comparison with Cook *et al* (2012) generic data, and with figures produced for other OWFs, including Triton Knoll and East Anglia One. NE also disagreed with the applicant's use of the Extended Band model, with a 99% AR, as the basis for CRA, and

considered impacts in its own assessments using the Basic Band model Option 1, with both 98% and 99% ARs. NE also advocated a 2km buffer, rather than no buffer as initially applied by the applicant.

5.116 In its written summary of its case at the Specific Issues hearing [REP-246], RSPB expressed its concerns about the robustness of the assessment undertaken by the applicant. Many of RSPB's concerns overlapped those raised by NE. There was also concern about the use of PBR as an approach to population thresholds, and the need to distinguish between breeding/non-breeding seasons in assessing the possible impacts to gannets using collision risk modelling. In general the RSPB was more critical of the applicant's approach to the assessment of the potential impacts of the Hornsea Project One project.

Impact assessment of project alone

5.117 Table 7 is a summary provided by the applicant for Deadline 7 which adopts the sensitivity analysis required by the ExA to assess predicted impacts across the range of models and ARs [REP-432]. It also builds in the reductions in impacts resulting from the adoption of the 240 x 5MW configuration for the project.

5.118 The applicant advocates an assessment based on the Extended Band model Option 4 at 98% AR giving a collision risk estimate of 9 birds; but if Band 1 is used as the default (as advocated by NE), then the applicant advocates a higher AR should be used – with 99% giving a collision risk estimate of 14. A comparison between Option 1 at 99% and Option 3 at 98% suggests similar levels of impacts; Option 3 at 98% AR was accepted for use in the recent Scottish cases. All the predictions are well within PBR threshold levels of 452 (applicant) and 362 (NE). The applicant also states that the PVA analysis also demonstrates that this scale of additional mortality is sustainable [REP-378].

5.119 Whilst NE has remaining concerns about some of the details of the applicant's assessment, in its Updated M MoU with the applicant [REP-445] for Deadline 7 NE advises the SoS, in relation to HRA, that there is no adverse effect on the integrity of the FFC pSPA.

Table 7 Summary of applicant's predicted collision mortality rates for gannets arising from Hornsea Project 1 alone for different modelling options for 240x5MW configuration.

Species	Band Option 1			Band Option 2			Band Option 3			Band Option 4		
	Avoidance Rate %			Avoidance Rate %			Avoidance Rate %			Avoidance Rate %		
	98	99	99.5	98	99	99.5	98	99	99.5	98	99	99.5
Gannet-all birds	120	60	30	88	44	22	73	36	18	38	19	10
Gannet-SPA birds only	28	14	7	20	10	5	17	8	4	9	4	2

Impact assessment of project in-combination

- 5.120 For a 'common currency' approach to in-combination collision assessment, the applicant used the Basic Band model with 99% and 99.5% ARs. If the building block approach is used (all projects up to and including Hornsea Project One), the applicant predicts additional FFC pSPA adult gannet mortality of 115 to 127 birds for 99% AR and 57 to 64 birds for 99.5% AR. If all projects (including up to tier 5) are included, the applicant predicts 157 to 169 for 99% AR and 78 to 85 for 99.5 % AR. All these figures are well within the PBR thresholds of 452 (applicant) and 362 (NE) [REP-377 and REP-432].
- 5.121 NE raised several concerns with the applicant's approach including the ordering of projects, and the use of the ARs of 99% and 99.5%, rather than the 98% default advocated by NE and RSPB [REP-442]. NE also used the in-combination assessment which they undertook as part of the East Anglia One assessment as the basis of their in-combination conclusions for gannets.
- 5.122 For the building block approach NE estimates were 281-565 collision mortality numbers, using 98% AR for Band model Option 1; for all projects estimates were 400-800 [REP-357]. As such, in its Updated Memorandum of Understanding with the applicant [REP-445] for Deadline 7, NE advises theSoS, in relation to HRA, that there is no adverse effect on the integrity of the FFC pSPA, building block approach, using 99% avoidance rate, but an adverse effect cannot be ruled out with 98% avoidance rate using the Basic version of the Band model (this conclusion is inclusive of the contribution from the Scottish projects currently under determination).
- 5.123 However, NE concludes for in-combination assessment for all projects that
- '... the possibility of an adverse effect on the integrity of the FFC pSPA cannot be excluded, at this time, due to the potential effects of future projects. This conclusion arises because there is unavoidable uncertainty (until such time as the assessments for those projects are completed) about the magnitude of the impact that those projects will have on the interest features of the FFC pSPA' [REP-445].

Conclusions of the ExA

- 5.124 The ExA agrees 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 (building block approach) at 99% AR. The ExA supports the use of the 99% AR for gannets, using Band model Option 1, having taken a balanced view of the sensitivity of

the outputs to the methodology used and to the levels of precaution built into the assessment process.

- 5.125 The ExA does not agree with NE's conclusion on the in-combination (all projects) position, for several reasons. The use of a 98% AR for the Band model Option 1 assessment, which provides the 800 collision mortality numbers top-line for the all projects in-combination assessment, is considered over-precautionary and there is a strong case for sensitivity analysis in the use of a range of ARs, and in particular the use of a 99% AR for gannets. Using a 99% AR, all the permutations of assessment undertaken by NE fit within the applicant's PBR threshold, and they are below or very close to the NE PBR threshold. Similarly, there may also be a case for considering the use of other Band model Options; the Band model Option 3 has been used in recent Scottish cases. There is also scope for a sensitivity analysis in the use of the f-factors (0.5 or 0.4) in the PBR modelling.
- 5.126 In addition, as for the kittiwake in-combination assessment, the relative treatment of projects in the various in-combination tiers gives rise to other concerns; for example, in relation to which projects and their impacts might increasingly be included in the baseline; the position of some projects which may not be fully built out to consented capacity ; and the inclusion of some Tier 4 and 5 projects which, for whatever reason, might not materialise either at all or only on a much reduced scale. Indeed, projects at Tier 4 and above would also be subject to their own HRA process and would not be consented with impacts on integrity without engaging with Article 6(4) of the Habitats Directives. There is also the evolving EU EIA Directive, with caveats as noted in para 5.85 above, with a definition of cumulative which equates with operational and consented projects only.

Auk species—guillemot, razorbill and puffin

Introduction—evolving positions of parties during the examination

- 5.127 As for the previously-discussed species, the evolving positions of the applicant, NE and RSPB on the potential impacts on the FHBC SPA and 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 and MoUs requested by the ExA.
- 5.128 The examination again focused on testing the relative sensitivity of the potential impacts on the Auk populations of the FHBC SPA and FFC pSPA to a range of factors (e.g. nature of relevant populations; PBR and PVA approaches) and model parameters (e.g. various displacement and mortality rates, and f-values). Towards the end of the examination there was also a focus, through a Rule 17 request [PD-021], on achieving a more

comprehensive and agreed approach to the projects to be included in the in-combination assessments for the Auk species.

Key data issues on displacement, PBR thresholds and the Auk populations

- 5.129 The applicant set out their initial key data on the Auk populations in the HRA report [APP-171]. The latest counts (2013) of pairs of species at the FFC pSPA were: guillemot 41,607; razorbill 10,570 and puffin 490. Estimated species numbers for the Hornsea Project One area, plus a 1km buffer, were provided for breeding, post breeding and non-breeding seasons; the peak numbers were over 19,000 guillemots, over 7,000 razorbills and over 1,200 puffins.
- 5.130 Drawing on some evidence from other offshore wind farms, % displaced x % mortality rates were estimated for each of the three seasons as follows: guillemot (30x10, 30x2, 30x1); and razorbill (40x10, 40x 2, 40x1). There was little evidence from other OWFs to predict displacement impacts for puffins; for the purposes of the assessment the applicant used a 40x10 rate for the breeding season.
- 5.131 To calculate PBRs, the applicant used the following f-recovery factors: guillemot (0.4); razorbill (0.5); and puffin (0.2). The higher figures for guillemots and razorbills were considered precautionary as the populations appeared to be stable at least; the lower figure for puffins was a precautionary recovery factor reserved for populations of high concern.
- 5.132 A number of concerns were raised by NE and RSPB, resulting in the applicant re-working the Auk displacement estimates. The reworking included the use of a 2km buffer around the OWF site; consideration of up to a worst case of 70% displacement and 10% mortality, and 0.3 recovery factors for both guillemots and razorbills. There was also concern about the method of apportioning Auk mortality to the FFC pSPA, especially in relation to puffin [REP-054]. RSPB highlighted continuing concerns with the reworked estimates, in particular in relation to the treatment of breeding birds, foraging ranges, and the relative merits of PBR and PVA analysis for the Auk populations [REP-305]. The applicant provided further re-working, including PVA modelling, in response to issues raised by both NE and RSPB [REP-330, 331,363 and 365].
- 5.133 As noted in paras 5.75 to 5.77, the nature of available relevant data was a particular issue in the assessment of the displacement impacts on the Auk species. For much of the examination the applicant used a short list of only eight projects for the cumulative/in-combination assessments, arguing that these were the most relevant, and had appropriate data, for this particular assessment [REP-330,376].

5.134 RSPB and NE raised concerns about what they saw as a limited assessment; this was a concern shared by the ExA. A fuller assessment was sought by the ExA, and this was provided by the applicant for Deadline 7, with the applicant collating additional information for additional sites, for which displacement had not been quantified, the likely magnitude of displacement using other available data (for example on species abundance and density). The latest assessment includes a full list of projects, including Scroby Sands and Blythe Demonstration, although the applicant raises concerns about the inclusion of four Firth of Forth sites in the assessment, one of which, Neart na Gaoithe, appears to have sizeable impacts if included [REP-446].

Impact assessment of project alone

5.135 The applicant, NE and RSPB largely maintained their respective positions on the various factors influencing impacts of the Hornsea Project One on the three Auk species, including displacement and mortality rates, f-recovery factors and the appropriate mix of age of birds and seasons for the analysis. For all the species, the applicant argued that the -

'... combination of the highest displacement value in the range put forward by NE (which exceeds that suggested by the RSPB in their submission to Deadline 3), the highest mortality level in the range advocated by NE together with the arbitrary summation of effects across all seasons (as advocated by NE) leads to a prediction that is so precautionary that it is effectively meaningless' [REP-367].

5.136 However, the adoption of differences in relevant factors provided a very useful range of assessment of the potential sensitivity of impacts on the AAuk species. Notwithstanding the remaining differences, this range of assessments illustrated that, even for the 'worst case' mix of factors, the impacts for all of the Auk species were considerably below the NE PBR thresholds of 970 guillemot, 364 razorbill and four puffin; and very considerably below the applicant's PBR thresholds of 1293 guillemot, 607 razorbill and 8 puffin. The applicant also noted that the PVA analysis demonstrated that the scale of additional mortality was sustainable. As such, in its Updated MoU with the applicant [REP-445] for Deadline 7, NE advises the Secretary of State, in relation to HRA, that there is no adverse effect on the integrity of the FFC pSPA from the impacts of the project alone on each of the three Auk species.

Impact assessment of the project in-combination

5.137 An in-combination assessment using a comprehensive set of projects was provided by the applicant on 3 June 2014 for the guillemot and razorbill species [REP-446]. For puffin, the potential mortality numbers were very low across a range of scenarios, and NE concluded for an earlier Deadline [REP-357, Deadline V] that

there were no adverse effects on the FFC pSPA in-combination (when considering any reasonably foreseeable projects) [REP-367].

- 5.138 For guillemot, in the Deadline 7 submission, the applicant modelled a range of scenarios. A point of issue was whether to include four Firth of Forth sites (Inch Cape, Neart na Gaoithe, Seagreen Alpha and Seagreen Bravo) for which the status of the applications was regarded by the applicant as uncertain. The applicant modelled impacts with and without these sites, at different displacement and mortality rates, using the NE PBR threshold of 970 birds ($f = 0.3$). The applicant's PBR threshold was 1,293 birds ($f = 0.4$). For example, a scenario using a building block approach (including the Firth of Forth sites), applying a 40% displacement rate and a 10% mortality rate, predicted a mortality of 947 - which did not exceed NE's PBR threshold [REP-446].
- 5.139 In response, in its Written Submission to the Rule 17 Letter of 2 June 2014 [REP-451], NE noted where the applicant had responded to earlier concerns, especially on the more comprehensive list of projects included in the assessment. However, NE argued that -
- mortalities predicted for each season should be summed to produce an annual mortality figure
 - a scenario where 60% of the birds recorded in the Hornsea project area during the breeding season should be assumed to be adult birds from FFC pSPA should be considered
 - the four Firth of Forth sites should be included in the assessment.
- 5.140 Unlike the applicant, though, NE excluded the Dogger Bank projects, on the grounds that there was on-going discussion and analysis regarding the assessment of their displacement impacts. Using these adjustments, NE modelled figures using a range of displacement and mortality rates. Again applying a 40% displacement rate and a 10% mortality rate, NE predicted mortality for guillemots, using a building block approach, was 1048 (i.e. somewhat above the NE PBR of 972).
- 5.141 A parallel analysis was undertaken for the razorbill population. The applicant's PBR threshold was 607 birds ($f = 0.5$). An applicant scenario using a building block approach (including the Firth of Forth sites), applying a 45% displacement rate and a 10% mortality rate, predicted a mortality of 359 birds - which did not exceed the NE PBR threshold of 365 birds ($f = 0.3$) [REP-446]. Using the adjustments noted above NE also modelled figures, using a range of displacement and mortality rates. Applying a 40% displacement rate and a 10% mortality rate, the NE predicted mortality for razorbills, using a building block approach, was 346 (i.e. again a little below the NE PBR of 365).

5.142 On this basis, in its Updated MoU with the applicant [REP-445] on 3 June 2014, NE advises the Secretary of State in relation to HRA that for puffins there is no adverse effect on the integrity of the FFC pSPA, using either the building block approach and or taking account of all projects. For guillemot and razorbill, NE advises the SoS that there is no adverse effect on the integrity of the FFC pSPA using the building block approach (this conclusion is inclusive of the contribution of the Scottish projects currently under determination at the relevant BDMPS). It also takes into account that

'... it is only when the displacement and mortality are at high levels that the PBR threshold is reached. Therefore, on balance we consider there would not be an adverse effect on site integrity from the project alone or in combination.'

5.143 NE concludes, however, that when applying the all projects approach to guillemot and razorbill -

'... the possibility of an adverse effect on the integrity of the FFC pSPA cannot be excluded, at this time, due to the potential effects of future projects. This conclusion arises because there is unavoidable uncertainty (until such time as the assessments for those projects are completed) about the magnitude of the impact that those projects will have on the interest features of the FFC pSPA.'

Conclusions of the ExA

5.144 Having taken a balanced view of the sensitivity of the outputs to the methodology used and to the levels of precaution built into the application process, the ExA agrees that, on the basis of its examination and of such objective scientific evidence as is available, there is no adverse impact for the Auk species on the integrity of the FFC pSPA of the project alone, and in combination (building block approach).

5.145 The ExA does not agree with NE's conclusion on the in-combination (all projects) position, for several reasons. As noted by NE above, it is only when a combination of high displacement and mortality rates are used that PBR thresholds are crossed. There is also scope for sensitivity analysis in the use of the f-factors in the PBR modelling.

5.146 In addition, as noted in paras 5.81 to 5.85 above, the relative treatment of projects in the various in-combination tiers gives rise to other concerns of over-precaution; for example, in relation to which projects and their impacts might increasingly be included in the baseline; the position of some projects which may not be fully built out to consented capacity (but which are sitting on unused environmental headroom); and the inclusion of some tier 4 and 5 projects which, for whatever reason, might not materialise either

at all or only on a much reduced scale. As noted before, projects at tier 4 and above would also be subject to their own HRA process and would not be consented with impacts on integrity without engaging with Article 6(4) of the Habitats Directives. There is also the evolving EU EIA Directive, with caveats as noted in para 5.85 above, with a definition of cumulative which equates with operational and consented projects only.

Other HRA species

Fulmar

- 5.147 The total breeding population of Fulmar at FFC pSPA was estimated at 1,447 pairs (2008-11 count) (JHCC and NE, 2013). Fulmars have an extensive foraging range; Subzone 1 lies within the mean maximum trip of about 400km. The ES Ornithology Technical Report found very few sightings of Fulmar flying at a height greater than 22.5m above sea level [APP-086]. On the basis of displacement modelling, the applicant predicted a loss of 4 adult Fulmars per annum, which is 0.1% of the breeding population [APP-171]. This level of impact was predicted by the applicant not to affect the conservation status of the species or the conservation objectives of the site, and hence there would be no effect on the integrity of the SPA.
- 5.148 Little quantitative data was available for in-combination displacement assessment of the Fulmar population. However from a comparison of Hornsea project One Fulmar counts with those of other projects, and from the level of significance predicted in the relevant ES chapters for those projects, the applicant concluded [APP-171] that when tier 1 to 3 projects are considered in combination with Hornsea Project One, predicted adult deaths during the breeding season would be seven, representing 0.2% of the SPA population.
- 5.149 On the basis of these predictions, there was agreement between the applicant and NE that, on the basis of objective scientific evidence, adverse integrity effects can be discounted for the project alone and in-combination with other projects on the basis of either the building block or all projects approach. The ExA supports this position.

Herring Gull

- 5.150 The total breeding population of Herring Gull at FFC pSPA was estimated at 711 pairs (2008-11 count) (JHCC and NE, 2013). The results from the applicant's CRA for this species, updated for the new wind farm configuration (Table 8), indicate that based on the worst case scenario, Option 1 of the Band Basic model with a 98% AR, on average a total of 58 Herring Gulls may collide with the Hornsea Project One per annum [REP-432]. Only a small proportion was attributed to SPA populations.

5.151 The applicant’s HRA report indicated that the FFC pSPA is beyond the maximum foraging range of this species during the breeding season and therefore it is unlikely that either of the two estimated collisions of breeding adults per annum would be from this pSPA [APP-171]. Similarly, based on the relative sizes of relevant SPA breeding populations, of the estimated seven adult Herring Gulls possibly from SPAs which may be impacted during the non-breeding season, none are predicted to be from the FFC pSPA. Consequently no adult Herring Gulls from the FFC pSPA are predicted to be impacted by Hornsea Project One. There were some concerns from RSPB [REP-305] on some aspects of the calculations used, including approaches to the apportionment to the SPA, although in fact RSPB's worst case scenario predictions were similar to those of the applicant.

Table 8 Summary of applicant’s predicted collision mortality rates for Herring Gull arising from Hornsea Project 1 alone for different modelling options for 240x5MW configuration

Species	Band Option 1			Band Option 2			Band Option 3			Band Option 4		
	Avoidance Rate %			Avoidance Rate %			Avoidance Rate %			Avoidance Rate %		
	98	99	99.5	98	99	99.5	98	99	99.5	98	99	99.5
Herring Gull	58	29	14	37	19	9	21	10	5	15	8	4

5.152 On the basis of the predictions, there was agreement between the applicant and NE that, on the basis of objective scientific evidence, adverse integrity effects can be discounted for the project alone and in-combination with other projects, using either the building block or all projects approach [REP-445]. The ExA supports this position.

Inter-tidal ornithological and habitat impacts—Humber Estuary SPA and Ramsar, and Humber Estuary SAC

European sites

5.153 Although the proposed offshore wind farm is located outside the Humber Estuary SPA, Ramsar and SAC sites, the landfall export cable passes through the sites. 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 sand-flats, and a wide variety of bird and mammal species.

5.154 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 various assemblage species. The conservation objectives for this site have been considered by the ExA and are as follows:

Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.

Subject to natural change, to maintain or restore:

- *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 populations of the qualifying features; and*
- *the distribution of the qualifying features within the site.*

5.155 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 water-birds. The bird species and assemblages are largely as for the SPA.

5.156 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 as it is a host to grey seals, and river and sea lamprey. The conservation objectives for this site have been noted by the ExA, 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, to maintain or restore:

- *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.*

Applicant's HRA predictions of potential effects.

- 5.157 In its HRA report [APP-171] the applicant considered the potential effects of the cable installation through the Humber Estuary inter-tidal area for Hornsea Project One alone, and in-combination with other projects. The latter included: the Tetney to Saltfleet Tidal Flood Defence Scheme (EA), the Phillips 66 Tetney sealine replacement project, and Hornsea Project Two.
- 5.158 The applicant predicted no adverse effects of the project, alone or in-combination, on the grey seal either at an overall population level or as a feature of the SAC and Ramsar. Further, due to the small proportion of qualifying habitats predicted to be affected by cable installation, for the project alone or in-combination, no adverse effects were predicted on the integrity of the SAC and Ramsar. Habitat loss was summarised as temporary. The largest temporary habitat impact was predicted to be on Salicornia and other annuals colonizing mud and sand (7.8% and 16% of this habitat within the SAC for the project alone and in-combination, respectively). However, due to the high recovery potential of this habitat (estimated to be within one year of cable installation), no long term reduction of this feature was predicted.
- 5.159 The applicant assessed the potential effects on the bird species and assemblages of the Humber Estuary SPA, considering habitat loss, disturbance and indirect effects. No important habitat areas (e.g. roost sites) were predicted to be significantly affected over a prolonged period, with recovery expected to occur between project phases; as such no adverse effects on SPA qualifying features were predicted as a result of habitat loss.
- 5.160 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 laying activities to avoid periods when abundances of ornithological features are highest (ie. during passage and mid-winter peaks). The applicant proposes that the undertaking of all construction works in the inter-tidal area should be within the period of April 1 to September 30 each year, with installation being undertaken over two seasons.

Examination issues

- 5.161 In both its Relevant and Written Representations, NE raised a number of concerns in relation to the potential impact of the project alone, and in-combination with other projects, on the European sites [REP-035, 044 and 054]. Of particular concern were the potential impacts on some ornithological features of the construction activity in the inter-tidal area on Humber Estuary SPA and Ramsar interest features; potential impacts on a number of designated features in the Humber Estuary SAC, in particular on Salicornia, Atlantic salt meadows, and shifting dunes; and some level of uncertainty regarding the timing of other potential in-combination projects.
- 5.162 As such, the NE initial position was that it was unable to conclude beyond all reasonable scientific doubt that the project would not have adverse effects on the SPA and SAC. Concerns were also raised by EA [REP-030] and the RSPB [REP-037]. Through Written Questions and ISHs the ExA sought clarification from the relevant parties on these and other associated concerns related to potential impacts on the European sites.
- 5.163 NE considered that the limits on the working window for inter-tidal construction activities removed many concerns about ornithological impacts, although some species were still likely to be present in significant numbers during the April to September period [REP-054]. NE concerns about insufficient attention being given to the potential for disturbance to roosting tern species in the Horseshoe Point area were allayed by the provision of additional information from the applicant [REP-171 and REP-188]. RSPB also raised issues in discussions with the applicant.
- 5.164 The applicant sought to provide additional clarification about the approach to construction activities in the inter-tidal area, in another note [REP-171]. An EA concern about inter-tidal access by the applicant was resolved during the examination by the addition of Requirement 17 (2), (3) and (4) in the DCO [REP-235].
- 5.165 A clarification note from the applicant [REP-163] enabled NE to advise that there would be no adverse effects on the Salicornia and other annuals colonizing mud and sand, and Atlantic salt meadows, interest features of the Humber Estuary SAC. NE further stated that -
- ‘Due to the significant changes in the extent of the sand dune habitats at the landfall location as a result of the tidal surge during the first week of December 2013, NE believes that it is unlikely that there will be any impact on ‘white dune’ interest features whilst accessing the foreshore during cable installation works.’
- 5.166 In its written summary of its oral case the hearing [REP-246], RSPB noted that the -

'... proposed cable landfall construction works associated with Project 1 alone will lead to some disturbance but that the effects of this alone will not be unacceptable and therefore do not constitute an adverse effect on the integrity of the Humber Estuary SPA'.

However the RSPB raised concerns about potential in-combination effects, especially with the Phillips 66 sealine replacement project and subsequent Hornsea projects. NE had similar concerns [REP-242].

- 5.167 In response, the applicant produced further information on a range of possible scenarios for Hornsea Project One and Hornsea Project Two, and the implications for key species [REP-266, 274 and 329]. As a way forward it was agreed between the applicant and NE that a condition should be included in DML 4 (Condition 26) to restrict activities at certain times, should cable installation for Hornsea Project One and Hornsea Project Two occur at the same time. The principle of this is to restrict working around certain high tide periods; this was welcomed by RSPB [REP-305 and REP-345].
- 5.168 The concern about the Phillips 66 project was allayed by information provided to the examination that the Phillips sealine replacement project was unlikely to overlap in time with Hornsea Project One, and was likely to be undertaken well in advance of the Hornsea Project One [REP-304 and 329]. Similarly there were no significant issues in relation to in-combination impacts with the Tetney to Saltfleet Tidal Flood Defence Scheme (EA); work on this scheme at Horseshoe Point had now been completed [REP171].

ExA's conclusions

- 5.169 As a result of the examination, and taking into account relevant mitigation measures particularly relating to the timing of inter-tidal works, and potential in-combination working with Hornsea Project Two, the ExA is able to agree with NE's conclusions that, on the basis of objective scientific evidence, adverse integrity effects can be discounted for the project alone and in-combination with other projects.
- 5.170 The ExA wishes to note, however, that this agreement relates only to Hornsea Project One. The applicant made clear on several occasions that no provision was being made in the current application for additional capacity to support a parallel Hornsea Project Two cable route through the inter-tidal area. The ExA wishes to make clear that the Hornsea Project Two is a separate matter for consideration and determination by the relevant ExA if and when appointed, and that nothing in this report seeks to predetermine any matter on that project.

Mitigation, monitoring and adaptive assessment and management

- 5.171 EN-3 notes the importance of mitigation and monitoring of the impacts of offshore wind farms. In terms of generic impacts, EN-3 makes clear that the designation of an area as 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 also 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.
- 5.172 The ExA probed the role for mitigation, monitoring and an adaptive assessment and management approach at several stages of the examination. This was seen as potentially particularly important in the area of ornithological impacts where, as noted elsewhere in this report, empirical studies specifically intended to validate the various predictive models in an offshore environment are very limited. Questions on the applicant’s approach to these matters were included in both rounds of Written Questions, and examined in both ISHs on ornithological issues.
- 5.173 The applicant’s approach to mitigation and monitoring and adaptive management were brought together in several documents including Enhancement, Mitigation and Monitoring Commitments [REP-196 and 322], and the draft Ecological Management Plan (EMP) [APP-120], draft Code of Construction Practice (CoCP) [APP-065] which incorporates the draft Project Environmental Management and Monitoring Plan (PEMMP).
- 5.174 The ExA might have preferred to see these draft plans developed further, but accepts that they will be updated and detailed as construction methods and pre-construction surveys are carried out. The ExA also notes that Requirements 6 and 7 of the DCO and condition 20 of the four DMLs require approval of the plans by the relevant agencies, and these plans must be based on the draft plans.
- 5.175 Mitigation measures for potential inter-tidal impacts from the construction of Hornsea, as detailed in the previous sections of this report, include in particular limits on the timing of inter-tidal works, and on potential in-combination working with Hornsea Project Two. All works in the inter-tidal zone will be restricted to the convergence zone and temporary working corridor. There will be a pre-construction survey and monitoring of habitats and species, and post-construction monitoring to assess the effectiveness of the mitigation measures. The inter-tidal mitigation measures, and other biodiversity mitigation measures, will be

carried out and monitored under the guidance of an Ecological Clerk of Works (ECoW) [APP-120], whose appointment is integral to the approval of the Ecological Management Plan (EMP) under Requirement 6.

- 5.176 Several mitigation measures designed to minimise various potential offshore ornithological impacts, including for example reducing construction noise impacts on prey habitats, pollution impacts on foraging habitat areas, and bird disorientation from lighting, are built into the PEMMP. The ExA also sought, throughout the examination, to explore the scope for reducing potential ornithological collision and displacement impacts through a consideration of changes to the configuration of the offshore turbine array itself. The outcome of this element of the examination is covered in the previous paras 5.86 to 5.91. The eventual change in configuration of the array represents a significant mitigation of the original predicted ornithological impacts of Hornsea Project One.
- 5.177 In the second ISH on ornithological issues, the ExA questioned the applicant on the various roles of ornithological monitoring—both for the greater good of providing further useful information relevant to the management of future projects, and for specific management of the impacts of Hornsea Project One itself. As noted in NPS EN-3 (see 5.170 above) both of these roles are likely to be appropriate in this evidence deficient area of offshore ornithological impacts.
- 5.178 Whilst the applicant noted that Conditions 18 to 20 of the DMLs required pre-, during and post-construction surveys to be carried out to test project specific conclusions, there was concern from the applicant that a general monitoring requirement should not be imposed on the undertaker in the DCO/DMLs. This point is discussed further in paras 8.122-8.132.

6 BIO-DIVERSITY: OTHER PROTECTED SPECIES AND SITES

Birds— EIA species: Herring Gull, LBBG & GBBG

- 6.1 EIA species considered in the applicant's ES, and examined by the ExA via Written Questions and in the two ISHs, focused on the three gull species—Herring Gull, lesser black backed gull (LBBG) and greater black backed gull (GBBG).
- 6.2 For the *Herring Gull*, the UK breeding population is estimated at approximately 140,000 pairs. The species has been subject to substantial decline over the last 40 years, and is on the red list of species of conservation concern. The whole population of the N. Sea is estimated at 1,086,000 birds, of which 724,000 were breeding adults. As the species is known to be in serious decline in the UK an f value of 0.1 was deemed appropriate by NE, although values from 0.1 to 0.3 were considered. This range gave PBR values of 3,389-10,165 when considering breeding adults only, rising to 5,083-15,528 for all birds [REP-054].
- 6.3 Predicted collision mortality for Hornsea Project One alone falls well below the most precautionary recovery factors coupled with the smallest population of birds, and as such the effect is judged to be not significant (see Table 9). Similarly, for cumulative impacts, using the Basic model at 98% AR, mortalities are predicted at 1,890 (building block approach) and 2,247 (all projects approach). For a 99% AR, all the figures were reduced by half. All these estimates, especially for the higher AR, are below the PBR threshold at $f=0.1$, and well below for $f=0.3$. As such even the most precautionary cumulative collision rate is not considered to be significant in EIA terms. RSPB undertook its own re-modelling of the population impacts (with various caveats) and estimated bird mortalities per annum at 1993 at 98% AR [REP-305].
- 6.4 For the *Lesser Black Backed Gull (LBBG)*, there was some uncertainty with regard to the appropriate North Sea population size to use for assessing impacts; the applicant assesses 125,000 birds and NE (191,000 birds). The International Union for the Conservation of Nature (IUCN) class the species as least concern, and NE considered it appropriate to use a PBR recovery threshold with a recovery factor of $f=0.3$; this gives a PBR of 3111 (2074 adults). There is no significant impact of the project alone on the LBBG population (see Table 9).
- 6.5 For the cumulative assessment, estimates evolved during the examination on the basis of which Band models/ARs were used and which projects were included. For Basic Band model 1 with 98% AR, NE estimated a building block cumulative mortality of 2091, and the applicant estimated 1658 (amended by NE to 1836 to bring it in line with the project base used by NE, including Scottish projects, and fully built-out capacity for Triton Knoll and

East Anglia One). For all projects, the equivalent figures were 2440 and 2180 [REP-357]. For a 99% AR, all the figures were reduced by half. All these estimates, especially for the higher AR, are below the PBR threshold at $f=0.3$. RSPB undertook its own re-modelling of the population impacts (with various caveats) and estimated bird mortalities pa at 2183 [REP-305].

- 6.6 The *Greater Black Backed Gull* is a relatively uncommon breeding seabird in the UK, with approximately 16,800 pairs mainly in the north and west. According to the JNCC (2012), the population has declined by 42% between 2000 and 2012 for unknown reasons. As such it is amber listed as a species of conservation concern in the UK; an f value of 0.3 was considered appropriate [REP-054]. However IUCN does class the species as of 'least concern', as the overall population trend across its range is stable. There are estimated to be approximately 130,000 individuals in the North Sea population scale.
- 6.7 NE's PBR threshold is 2109 at $f=0.3$. Predicted collision mortality for the Hornsea Project One project alone falls well below the threshold for even the most precautionary Band model, and as such, the effect is judged to be not significant (see Table 90.
- 6.8 For the cumulative assessment, estimates again evolved during the examination on the basis of which Band models/ARs were used and which projects were included. For Basic Band model 1 with 98% AR, NE estimated a building block cumulative mortality of 2733, and the applicant estimated 1956 (amended by NE to 2641 to bring in line with the project base used by NE, including Scottish projects, and fully built out capacity for Triton Knoll and East Anglia One). For all projects, the equivalent figures were 3386 and 3293 [REP-357]. For a 99% AR, all the figures were reduced by half. All these estimates, especially for the higher AR, are below the PBR threshold at $f=0.3$. The RSPB undertook its own re-modelling of the population impacts (with various caveats) and estimated bird mortalities pa at 3047, Band Option 1 with a 98% AR [REP-305].
- 6.9 Band Option 1 with 98% AR estimates exceed the NE PBR of 2109 at $f=0.3$. The applicant argued that this recovery factor was over-precautionary. In its written submission for Deadline 5 [REP-357], NE amended its position -

'Given that UK SPA birds represent a small proportion of the total birds in the North Sea population scale NE considers it appropriate to use a PBR threshold with a recovery factor of 0.5. The PBR values that correspond to an f value of 0.5 are 3515 birds (2343 adults) On this basis it is possible to conclude no significant impact at a cumulative level, with the caveat that the cumulative predicted mortality total does not account for a number of projects where data on GBBG collisions are not available.'

6.10 In its Ornithological Summary for Deadline 7, the applicant confirms that in relation to EIA, no likely significant effects are predicted in respect of any species. The testing during the examination by NE reinforces these conclusions. The ExA also supports these conclusions for the project alone, and cumulatively with other projects. The ExA notes again the issues raised previously in this report about the role for sensitivity analysis in the assessment, in relation to use of Band models and ARs, and also concerns about the relative treatment of projects in the various cumulative assessment tiers which may give rise to over-precaution.

Table 9 Summary of applicant’s predicted collision mortality rates for Herring Gull arising from Hornsea Project One alone for different modelling options for 240x5MW configuration.

Species	Band Option 1			Band Option 2			Band Option 3			Band Option 4		
	Avoidance Rate %			Avoidance Rate %			Avoidance Rate %			Avoidance Rate %		
	98	99	99.5	98	99	99.5	98	99	99.5	98	99	99.5
Herring Gull	58	29	14	37	19	9	21	10	5	15	8	4
LBBG	87	44	22	84	42	21	45	23	11	16	8	4
GBBG	343	171	86	298	149	74	135	67	34	89	45	22

Marine mammals

6.11 NE/JNCC raised a number of issues regarding potential impacts to marine mammals at the Relevant Representation stage and in a subsequent SoCG [REP-035 and REP-224]. NE was not satisfied that the assessment of impacts on harbour seals was based on the absolute worst case scenario (i.e. the highest seal density within the relevant zone).

6.12 To address this, the applicant provided NE with a clarification note [REP-172], which presented revised calculations based on the area with the highest density of harbour seals. This concluded that there was unlikely to be a significant effect. On the basis of this extra information, NE was able to advise that there will be no adverse effect on the integrity of the Wash and North Norfolk Coast SAC harbour seal interest feature. The clarification note also satisfactorily resolved some errors in the marine mammal cumulative assessment.

6.13 The ExA also investigated the potential impact on marine mammals, especially harbour porpoise and minke whale, of underwater noise from foundation piling and other construction activities (e.g. cable installation). The ExA agrees with the conclusion in the SoCG between NE and the applicant that whilst

there was likely to be a potential effect of moderate significance, this would be of short to medium term, and the long-term effect on the species was considered not to be significant [REP-224].

- 6.14 Given the potential impacts on marine mammals, it is clear that mitigation and monitoring will play a key role, particularly during offshore construction activities. NE welcomed the applicant's commitment to implementing the JNCC's piling guidelines as mitigation. The applicant will produce a Marine Mammal Mitigation Protocol (MMMP) near actual construction time, for approval by the MMO in consultation with NE³¹. Mitigation will be employed in relation to piling operations by the use of appropriate soft start procedures (to be detailed in the MMMP) [REP-224]. An EPS licence will be required to cover the risk of disturbance to all cetacean species identified as likely to be in the area under regulations 39(1)(a) and (b) of the Offshore Marine Conservation (Natural Habitats, &c.) Regulations (2007)(as amended).

Onshore ecology

Overview

- 6.15 The onshore cable route traverses a length of approximately 40km through rural/semi-rural terrain and farmland around the urban areas of Cleethorpes, Grimsby, Immingham and Killingholme. In its Relevant Representation [REP-035] NE notes that -

'... it is satisfied that, given the mitigation measures set out in the ES and the EMP, the installation of the onshore cable and construction of the convertor station site is not likely to have a significant impact upon any protected species. We welcome the proposed pre-construction surveys for otter, great crested newt, badger and water vole and bats, and on-going monitoring during and post construction.'

On the basis of its site visit [ASV-001 to ASV-003], and information provided in response to written questions [REP-189], the ExA concurs with NE's position.

Relationship with Hornsea Project Two

- 6.16 The ExA was concerned about the potential implications for onshore ecology and nature conservation of potential disturbance to the Hornsea Project One cable route reinstatement work from potential subsequent Hornsea Project Two cabling work. This was seen as a particular issue in relation to the removal and reinstatement of hedgerows.
- 6.17 In its response to this issue raised in the first written questions, the applicant stated that -

³¹ DCO Schedules H-K, DMLs, Part 2, Condition 13(2)(e)

'... in para 5.3.10 of Vol.6, Annex 6.3.12: Ecological Management Plan (EMP) (Doc ref No 7.6.3.12) that a length of hedgerow clearance for each hedgerow crossed by open-cut trenching will be no greater than 30m. This will be reinstated following construction. As Project 2 will be adjacent, any reinstated sections of hedgerow will not need to be removed and replanted for the construction of Project 2' [REP-189].

- 6.18 For all the other ecology and nature conservation receptors along the Hornsea Project One cable route, the applicant argued that there should be limited impact only from the construction of Project Two, and any reinstatement associated with Project One should not be disturbed by Project Two.

Adequacy of the Ecological Management Plan

- 6.19 The ExA was concerned to test the adequacy of the Ecological Management Plan (EMP) proposed by the applicant. In REP-304, NE stated that it was content with the level of detail provided and the measures outlined by the applicant, accepting that it was not possible at this initial stage of the development to provide a fully detailed and comprehensive plan. It was also of the opinion that the plan will be monitored adequately. Consequently NE will continue to engage with the applicant to develop the EMP, which must also be approved by the local planning authority, in consultation with NE before any part of the development above MLWS can commence. On balance the ExA is satisfied with this approach.

Scope for Biodiversity Enhancement

- 6.20 The issue of biodiversity enhancement was raised first by the Lincolnshire and Yorkshire Wildlife Trusts in their Relevant Representation [REP-036], where they noted that there may be significant opportunities for Hornsea Project One to support the enhancement of terrestrial and marine biodiversity –in accordance with NPSs EN-1 and EN-3, which refer to the enhancement as well as the conservation of biodiversity.
- 6.21 The ExA pursued this line of inquiry in the examination, asking whether the applicant had any proposals for such enhancements in relation to the onshore route (e.g. support for the creation of Biodiversity Action Plan (BAP) habitats such as species rich grasslands and improved hedgerows along the route).
- 6.22 The applicant confirmed the inclusion in the draft Ecological Management Plan [REP-189] of some enhancement measures, including the restoration or gapping up and enhancement of existing hedgerows, using native hedgerow species, within a 100m corridor, for the full length of the cable route; enhancement for bats, including installation of bat boxes; and reinstatement of ditches to provide favourable habitat to water voles [REP-189].

Other designated sites

6.23 In addition to the Humber Estuary SPA, SAC and Ramsar sites already discussed, the applicant's ES [APP-046] identified a number of ecologically-designated sites at national, regional and local levels. In particular there are three nationally protected Sites of Special Scientific Interest (SSSI), one National Nature Reserve and one Local Nature Reserve 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

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

6.24 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

6.25 In its Relevant Representations [REP-035] NE sought more information on how impacts to notified features of the SSSIs had been assessed. At the same time, however, NE felt able to conclude that there was unlikely to be a significant impact on the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB), which is only 1.5km from the cable route at its closest point, owing to the nature and scale of the onshore installations.

6.26 The applicant produced additional information on SSSIs and their features [REP-170]. NE also undertook its own screening exercise to assess whether appropriate sites had been considered. In a subsequent representation NE was able to confirm that all relevant notified features had been subject to assessment and that NE's concerns in the matter had been addressed [REP-054 and REP 055].

6.27 The ExA concludes that, with the implementation of agreed mitigation in the EMP, there would be no conflict with the development plan policies aimed at the protection and

enhancement of habitats and their biodiversity, as noted in the LIRs [e.g. REP-217].

Mitigation, monitoring and adaptive management

- 6.28 Mitigation, monitoring and an adaptive assessment and management approach are similarly important for other protected species and sites, as discussed in paras 6.14, 6.19 and 6.20 above. See also paras 5.170 to 5.177 of the Bio-diversity: European sites and Habitats Regulations section of this report.

7 COMPULSORY ACQUISITION

The Request for Compulsory Acquisition Powers

- 7.1 The request for powers of compulsory acquisition was made in the application documents. The applicant has provided a Statement of Reasons [APP-017], a Funding Statement [APP- 018], a Book of Reference [APP-019 to 022] and Land Plans [APP-011].
- 7.2 The Book of Reference and lands and works plans were updated throughout the examination [APP-176 to 185, REP-254 to 261, REP-398 to 405]. No additional land was added or substantial change made.
- 7.3 The land for which powers of compulsory acquisition are sought is to be used for the onshore infrastructure component of the project – that is,
- The Onshore High Voltage Direct Current (HVDC) or High Voltage Alternating Current (HVAC) cable route running underground approximately 40 kms from the landfall at Horseshoe Point to the transmission station
 - The transmission station itself, either a HVDC converter station or a HVAC substation
 - Cable connecting the transmission station to the existing National Grid substation at North Killingholme (APP 017, para 4.3 *et seq*)
- 7.4 The land to be acquired is primarily agricultural, with some largely informal recreational use [APP-017, para 4]. There are a number of rights of way that would be crossed, and land which statutory undertakers have freehold, leasehold or other interests, all of which are set out in the schedule of crossings that forms part of the application [APP-064].
- 7.5 No residential properties form part of any land to be acquired.
- 7.6 The powers to acquire land are created in Articles 17 to 28 of the draft Development Consent Order (DCO) [REP-454].

The Purposes for which the Land is Required

Context

- 7.7 The purposes for which land is required to be compulsorily acquired are set out in Section 5 of the Statement of Reasons [APP-017]. The works to which the acquisition relates are all described in Schedule A, Part 1 of the draft DCO [REP-454] as associated development. This follows the CLG Guidance as to what

might be considered associated development³², although in the present case it might have been equally logical to consider all these works as part of the principal development, since the project could not function without any one of them.

- 7.8 The land to be acquired is identified in the Book of Reference submitted with the original application [APP-019 to APP-022] and its subsequent revisions during the course of the examination. The final version of the updated Book of Reference is at REP-398 to REP-401, with a tracked change version at REP-402 to REP-405. These were documents submitted for Deadline VI on 21 May 2014. One additional person was identified as having land affected by the development who was not originally included in the BoR during the examination [REP-407], but did not make any representation during the examination.
- 7.9 The applicant explains [APP-017, para 5.2.1] that the Order contains the necessary powers [Articles 17 and 18] to enable the acquisition of the land and the rights that are required to construct and operate Hornsea Project One. Where these cannot be acquired by agreement with the requisite authorities or landowners and occupiers, the Order enables these to be acquired compulsorily. The applicant states that regardless of whether agreement is reached with landowners and occupiers, compulsory acquisition powers is sought in respect of their interests.
- 7.10 The applicant states, however, in APP-019 that compulsory acquisition powers will not be exercised where the land and the rights required for the application are achieved through private treaty, unless either (a) the landowner and/or occupier were to fail to adhere to the terms of any agreement reached or (b) the applicant needs to acquire, override or extinguish a right or interest in the land which is vested in a person other than the landowner and/or occupier in question³³.
- 7.11 At the time that the application was made the applicant had concluded commercial negotiations and exchanged Deeds of Consent and Options for Lease with 40 landowners and 26 tenants, covering approximately 37km of the proposed underground cable route and the land required for the converter station/substation site. Appendix N of the documents submitted by the applicant for Deadline VII on 28 May 2014 [REP-436] provides an update on both outstanding land options and crossing or proximity agreements close to the end of the examination.

³² Planning Act 2008 Guidance on associated development applications for major infrastructure projects, April 2013, Department for Communities and Local Government

³³ The land agreements that have been entered into by landowners and occupiers provide an acknowledgement from the landowners and occupiers that rights of compulsory acquisition may be sought over their land to the extent that such rights will be necessary for the installation, operation and maintenance of the authorised project. By these agreements, which are structured as a Deed of Consent and Option for Lease, it is agreed that the undertaker will not seek to exercise powers of compulsory acquisition except in the circumstances described here (APP 019, para 7.5.2)

Specific purposes

- 7.12 The specific purposes for which land or rights are to be acquired are set out in APP 017 in paras -
- (a) 5.2.4 - land to be acquired permanently for the construction and maintenance of the converter station or substation. This is a single lot, Lot 404, identified as Work no. 10 in Part 1 of Schedule A of the draft DCO [REP-423];
 - (b) 5.2.5 - land over which newly-created specific rights are to be acquired, primarily to install, maintain, repair and operate apparatus, as specified in Article 18 and Annex E of the draft DCO;
 - (c) 5.2.6 - land of which temporary possession is to be taken for worksites or temporary public footpaths and bridleways as specified in Article 25 and Schedule G of the draft DCO³⁴.
- 7.13 In addition the draft DCO seeks further powers in relation to land which might or would also interfere with existing rights. These further powers are -
- (a) The carrying out of street works for the purposes of installing and maintaining cables or other apparatus, as specified in Article 9 and Schedule B of the draft DCO [APP-017 para 5.3.1];
 - (b) The temporary stopping up, alteration or diversion of streets, either for the installation of apparatus or for use as temporary work-sites, as specified in Article 11 and Schedule C of the draft DCO (ibid, para 5.3.2);
 - (c) The provision or improvement of access, after approval by the relevant planning authority after consultation with the relevant highways authority, as specified in Article 12 and Schedule D of the draft DCO (ibid, para 5.3.3);
 - (d) Highways improvements to a section of Tetney Lock Road identified as Lot 106 on the land plans, as specified in Article 14 of the draft DCO (ibid, para 5.3.4);
 - (e) The discharge of water into watercourses, sewers or drains 'with the consent of the appropriate person', and the laying of pipes to achieve this, as specified in Article 15 of the draft DCO³⁵ (ibid, para 5.3.5);
 - (f) The survey and investigation of any land within the Order limits, including non-intrusive environmental surveys, subject to the service of notice, as specified in Article 16 of the draft DCO (ibid, para 5.3.6);
 - (g) The extinguishment of all private rights in land which is subject to compulsory acquisition under Articles 17 or 18, to

³⁴ . The ExA recognises that (c) is technically not compulsorily acquisition, however, as temporary possession and use powers relate to control over, occupation of and use of land, interfering with existing property rights and interests they can be considered to be akin to powers of compulsory acquisition and therefore it would be appropriate to treat them the same and apply the same tests.

³⁵ This became a matter of dispute between the applicant and C.GEN, and is discussed in paras xxx to yyy of this Report

the extent that the exercise of those rights would be inconsistent with the rights acquired by the applicant under those Articles; and the extinguishment of all private rights in the case of land to be acquired temporarily under Article 25 for as long as the undertaker is in lawful occupation of that land; as specified in Article 20 of the draft DCO (ibid, para 5.3.7);

- (h) The appropriation of airspace or subsoil over or under a street within the Order limits, as specified in Article 24 of the draft DCO (ibid, para 5.3.8);
- (i) The temporary possession of land identified in Schedule G or Schedule E or identified in Article 17 (plot 404) (if not already acquired) for the purposes of environmental mitigation works or construction compounds, subject to the return of the land restored to the owner's satisfaction within specified time limits, as set out in Article 25 of the draft DCO (ibid, para 5.3.9);
- (j) The temporary possession of land in Schedules E and G (if not already acquired) and land referred to in Article 17 (plot 404) (if not already acquired) for the purposes of maintenance within five years of the first energising of the project, as specified in Article 26 of the draft DCO (ibid, para 5.3.10);
- (k) The acquisition of land under Articles 17 and 18 owned by statutory undertakers, and the removal or repositioning of apparatus belonging to statutory undertakers, subject to the Protective Provisions agreed between the applicant and the appropriate statutory undertaker as set out in Schedule I, as specified in Article 27 of the draft DCO³⁶ (ibid, para 5.3.11);
- (l) Felling or lopping of trees and the removal of hedgerows within the Order limits, as specified in Article 29 of the draft DCO (ibid, para 5.3.12);
- (m) The lopping of trees subject to tree preservation orders within the Order limits, if the tree preservation order was made after 31 January 2013, as specified in Article 30 of the draft DCO (ibid, para 5.3.13).

Special considerations

Crown Land

- 7.14 The Order land includes land owned by the Crown. This is identified in Part 4 of the Book of Reference [UAPP-22 and UAPP-26 in its final form].
- 7.15 The Crown Land in which the applicant seeks to acquire interests can be divided into seven parts as follows -

³⁶ At the close of the examination the applicant had not agreed Protective Provisions with C.GEN. This is discussed at paras 7.67 - 7.75 below.

- (a) Lots CL1 and CL2, which are two large areas of seabed for which The Crown Estate has granted leases for the construction of the principal works [APP-017, para 9.2.2];
- (b) Lots 1 to 23, comprising seabed or foreshore and the bed of the River Humber, and held for the Crown by The Crown Estate;
- (c) Lots 24 to 36, comprising mainly farmland, trackway, drains and sea-wall drains, held for the Crown by the Secretary of State for Defence;
- (d) Lot 140, former railway embankment, held for the Crown by the Highways Agency Historical Railways Estate;
- (e) Lots 148, 149, 151 and 153 to 161, mainly farmland and verge adjacent to the Louth Road (A16), held for the Crown by the Secretary of State for the Environment, Food and Rural Affairs;
- (f) Lot 224; Lots 307, 308, 313, 315 to 317, 320, to 323; Lot 352, all land adjacent to highways (A46, B1210, A180 and A160), all held for the Crown by the Highways Agency on behalf of the Secretary of State for Transport;
- (g) Lot 370, farmland, held for the Crown by the Government Pipelines and Storage System of the Oil and Pipeline Agency.

7.16 The applicant does not seek to exercise compulsory acquisition against the freehold held by the Crown in any instance, and this is protected under Article 38 of the draft Order. It seeks instead to acquire or extinguish or override interests held from the Crown by other parties [APP-017, para 9.2.3].

7.17 In the case of Lot 370, the applicant sought to conclude a crossing agreement with the Oil and Pipelines Agency, but reported that -

'... the Oil and Pipelines Agency (as statutory manager of the PSS) (the OPA) has confirmed it prefers to rely upon its statutory powers pursuant to section 16 of the Land Powers (Defence) Act 1958 (the 1958 Act) in respect of the Project's interaction with the GPSS. In addition, the OPA has confirmed its consent in principle to the proposed crossing (subject to the Applicant obtaining formal consent pursuant to section 16 of the 1958 Act once detailed design parameters have been finalised) and further stated that it does not intend to take part in in the application process for the draft DCO' [REP-436].

Statutory Undertakers

7.18 The Order land includes land which statutory undertakers either own or in which they have rights and interest.

7.19 The statutory undertakers concerned are -

- (a) Associated British Ports (paras 7.38-7.41);
- (b) Centrica KPOS Ltd (paras 7.57-7.61)
- (c) Environment Agency (paras 7.42-7.44)

- (d) E.ON UK plc (paras 7.52-7.56)
- (e) National Grid Infrastructure plc (paras 7.103)
- (f) Network Rail Infrastructure Ltd (paras 7.62-7.66))

7.20 Since the application was made on 30 July 2013 [APP-001] thus after the coming into force of relevant provisions of the Growth and Infrastructure Act 2013, there is no requirement for a separate examination of the case under s.127 or for the issue of certificates by the relevant Secretary of State. Even though the certificate requirement has been removed, however, in cases where s.127 is triggered by a representation that is not withdrawn, before authorising compulsory acquisition the SoS must be satisfied that the land or right can be acquired without serious detriment to the carrying on of the undertaking; or alternatively that any deterrent can be made good by other land belonging to or capable of acquisition by the undertaker.

Compulsory Purchase (General Vesting Declarations) Act 1981

7.21 Article 21 of the draft DCO seeks to incorporate the provisions of the Compulsory Purchase (General Vesting Declarations) Act 1981 [UAPP-50].

7.22 In doing so it makes minor modifications to the provisions in that Act relating to -

- (a) giving notice (Article 18(3) and (4))
- (b) the definition of persons having a relevant interest in the land (Article 18(5))
- (c) the means of publication of dates of execution of declaration (Article 18(6))
- (d) the provisions relating to constructive notice to treat (Article 18(7)).

7.23 It also confirms (Article 18(8)) that the references in the 1981 Act to the 1965 Act apply to land to be acquired under this DCO.

7.24 None of these proposed modifications drew any objection in the course of the examination, and the ExA considers that they are proportionate and justified.

7.25 Section 120(5)(a) of PA 2008 provides that a DCO may apply, modify or exclude a statutory provision which relates to any matter for which provision may be made in the DCO and s.117(4) provides that, if the DCO includes such provisions, it must be in the form of a statutory instrument. Because of these provisions relating to the 1981 Act, s.120(5)(a) is therefore engaged, and in consequence the DCO is in the form of a Statutory Instrument.

The Requirements of the Planning Act 2008

- 7.26 Compulsory acquisition powers can only be granted if the conditions set out in s.122 and s.123 of the PA 2008 are met.
- 7.27 Section 122 (2) requires 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, the land to be taken must be no more than is reasonably required and be proportionate³⁷.
- 7.28 Section 122(3) requires that there must be a compelling case in the public interest - that is, that the public benefit derived from the compulsory acquisition must outweigh the private loss that would be suffered by those whose land is affected. In balancing public interest against private loss, compulsory acquisition must be justified in its own right. But this does not mean that the compulsory acquisition proposal can be considered in isolation from the wide 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.
- 7.29 Section 123 requires that one of three conditions is met by the proposal³⁸. The ExA is satisfied that the condition in s.123 (2) is met because the application for the DCO includes a request for compulsory acquisition of the land to be authorised.
- 7.30 A number of general considerations also have to be addressed, either as a result of following applicable guidance, or in accordance with legal duties on decision-makers, *viz* –
- (a) all reasonable alternatives to compulsory acquisition must be explored
 - (b) the Applicant must have a clear idea of how it intends to use the land and to demonstrate funds are available; and
 - (c) 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 affected.

How the ExA examined the case for Compulsory Acquisition

- 7.31 The ExA examined the case for compulsory acquisition through -
-

³⁷ Guidance related to procedures for compulsory acquisition of land DCLG September 2013

³⁸ (1) An order granting development consent may include provision authorising the compulsory acquisition of land only if the Secretary of State is satisfied that one of the conditions in subsections (2) to (4) is met.

(2) The condition is that the application for the order included a request for compulsory acquisition of the land to be authorised.

(3) The condition is that all persons with an interest in the land consent to the inclusion of the provision.

(4) The condition is that the prescribed procedure has been followed in relation to the land.

- (a) First and Second Round Written questions [PD-016 and PD-020];
- (b) An accompanied site visit on 12 February 2014;
- (c) A Compulsory Acquisition Hearing on 13 March 2014;
- (d) Specific Issue Hearings on the draft DCO on 13 February 2014 and 1 May 2014.

The Applicant's case

- 7.32 The general case made by the applicant is set out in section 7 of the Statement of Reasons [APP-017], following the specific uses for land set out in section 5.
- 7.33 The applicant contends (para 7.1.7 of APP-017) that it is not seeking to acquire any more land or rights over land than are reasonably required for Project One. In the ExA's judgment the applicant has taken an appropriately minimalist approach to compulsory acquisition, seeking to create a 20 meter permanent corridor for the cable within a 40 metre temporary corridor for construction (para 7.2.5 of APP-017).
- 7.34 Article 17 of the draft DCO [UAPP-50] gives the undertaker the power to acquire lot 404, while Article 18 gives the undertaker the power to acquire the new rights specified in Schedule E. This is further qualified by Article 20, which provides that existing private rights are extinguished only in so far as they are inconsistent with the new rights to be created under Article 18.

Acquisition by negotiation

- 7.35 By the time of the Compulsory Acquisition Hearing on 13 March 2014 land option agreements had been exchanged with 88.6% of the freehold/leasehold owners and occupiers of the land required for the Project's onshore cable. This equated to 92.7% of the length of the onshore cable route, but excluded the leasehold interest held by Associated British Ports, the majority of which is located on the seaward side of the mean high water mark [REP-315, para 2.1].
- 7.36 In consequence, the land and rights that remained to be acquired were -
- (a) Associated British Ports;
 - (b) G D Crompton Howe and G M Cook (on behalf of the Humber Wildfowlers and the North Lincolnshire Wildfowlers);
 - (c) The Environment Agency;
 - (d) Able Humber Ports Limited;
 - (e) Total Lindsey Oil Refinery Limited;
 - (f) E.ON UK plc;
 - (g) Centrica KPS Limited; and
 - (h) Network Rail Infrastructure Limited.

- as described and updated as of 28 May 2014 in REP-436. This states that in the case of (b), Messrs Crompton and Crook, the land option had been exchanged.

- 7.37 As can be seen, in all cases the applicant and the owners of the land were in negotiations. In none of these cases was the case for the acquisition of the rights sought by the applicant disputed by the landowners in question. In several cases the landowners had made or maintained representations either because they are statutory undertakers who sought appropriate Protective Provisions and/or because commercial negotiations continue.

Associated British Ports: Lots 1-5, 7-11, 14-21

- 7.38 The applicant seeks to establish permanent cable rights in Lots 1 and 2, 10 and 11, and to establish permanent anchor rights in Lots 3, 4, 5, 7 to 9 and 16 to 21. All these lots are included in Schedule E of the draft DCO.

Possible alternatives to compulsory acquisition

- 7.39 Negotiations between the applicant and ABP were still continuing at the end of the examination, although ABP expressed concern at the lack of progress ([S127-04].

The case under s.122

- 7.40 The applicant specifies the works to be carried out in Section 5 of the Statement of Reasons [APP-017], and states in para 7.2.1 that without these rights the project would be impossible.

The case under s.127 and s.138

- 7.41 ABP in its role as Harbour and Conservancy Authority is a statutory undertaker, and Part 5 of Schedule I of the draft DCO includes Protective Provisions negotiated and agreed between the two parties, and ABP has confirmed that it is content with the Protective Provisions [S127-03].

Environment Agency: Lots 6, 22, 24, 25, 26, 27, 37, 38, 39, 40, 77, 78, 79, 86, 104, 105, 148, 232, 233

The case under s.122

- 7.42 The applicant specifies the works to be carried out in Section 5 of the Statement of Reasons [APP-017], and states in para 7.2.1 that without these rights the project would be impossible.

The case under s.127 and s.138

- 7.43 The applicant confirmed at the compulsory acquisition hearing that agreement had been reached with the Environment Agency, and

that the latter's representation under s.127 had thus been withdrawn [REP-317].

- 7.44 EA itself confirmed in a submission made on 23 May 2014 [REP-441] that the two parties have agreed the Protective Provisions which form Part 1 of Schedule I, and that agreement has been reached on the applicant's acquisition of the necessary interest in the land concerned. EA states in this submission that all its objections or representations in relation to s.127 or other issues are withdrawn.

Able Humber Ports Ltd: Lots 360, 361, 389, 391, 392, 394, 395, 397-406.

- 7.45 The applicant seeks to acquire permanent cable rights in Lots 360-361, 391, 392, 394, 395, and 397 to 406, and temporary use of access in common with others in respect of Lot 389.

Possible alternatives to compulsory acquisition

- 7.46 Able Humber Ports is not as yet a statutory undertaker³⁹, and it made no representations during the course of the examination. At the close of the examination the position in respect of negotiations was according to the applicant -

'Draft documentation (land options) has been issued and commercial negotiations and discussions are continuing. Able Humber Ports Limited has not indicated any desire to participate in the DCO examination of the Project' [REP-436].

The case under s.122

- 7.47 The applicant specifies the works to be carried out in Section 5 of the Statement of Reasons [APP-017], and states in para 7.2.1 that without these rights the project would be impossible.

Total Lindsey Oil Refinery Ltd: Lots 369 and 374 to 390

- 7.48 The applicant seeks to acquire permanent cable rights in lots 369, 374, 375, 378 to 380, 383, 386 and 390; a temporary right for access in Lots 376 to 377 and 384 to 385; a temporary right for a worksite and access in Lots 381 to 382 and 387 to 388; and a temporary use of access in common with others in Lot 389.

Possible alternatives to compulsory acquisition

- 7.49 At the end of the examination the applicant stated that -

'Draft documentation (land option) has been issued and is being progressed by the applicant and the stakeholder' [REP-436].

³⁹ Or was not during the course of the examination.

The case under s.122

- 7.50 The applicant specifies the works to be carried out in Section 5 of the Statement of Reasons [APP-017], and states in para 7.2.1 that without these rights the project would be impossible.
- 7.51 The stakeholder in this case is not a statutory undertaker.

E.ON UL plc: Lots 393, 396 and 407 to 409

- 7.52 The applicant seeks to acquire permanent cable rights in Lots 393, 396, 407 and 408, and a permanent right to use an access track in Lot 409.

Possible alternatives to compulsory acquisition

- 7.53 At the end of the examination the applicant reported -

'Commercial terms have been agreed and draft documentation (land options) issued. The Applicant's and Stakeholder's solicitors are progressing the required land options' [REP-436].
- 7.54 The transaction was not however reported as completed before the examination closed.

The case under s.122

- 7.55 The applicant specifies the works to be carried out in Section 5 of the Statement of Reasons [APP-017], and states in para 7.2.1 that without these rights the project would be impossible.

The case under s.127 and s.138

- 7.56 E.ON UK Plc is a statutory undertaker, but has made no representation in this examination. Part 4 of Schedule I provides general Protective Provisions for utility undertakers, which would include E.ON UK Plc, but the latter has made no representation in relation to them, and did not take any part in the examination.

Centrica KPS Ltd: Lots 410 to 416

- 7.57 The applicant seeks to acquire the right to install and maintain services and to install, maintain and use an access track and to obtain access for such purposes in relation to lots 410 and 415; and to acquire temporary rights to lay and use access track in relation to Lots 411 to 414 and 416.

Possible alternatives to compulsory acquisition

- 7.58 At the end of the examination the applicant reported that -

'Discussions between the Applicant and Stakeholder continue and are at an advanced stage. The Applicant expects commercial

terms in respect of arrangements in relation to the access road lying to north of Chase Hill Road will be agreed shortly' [REP-436].

The case under s.122

- 7.59 The applicant specifies the works to be carried out in Section 5 of the Statement of Reasons [APP-017], and states in para 7.2.1 that without these rights the project would be impossible.

The case under s.127 and s.138

- 7.60 In an email dated 22 May 2014 [REP-438] Centrica confirmed -
- '... the withdrawal of all representations of Centrica Plc, Centrica KPS Limited and Centrica Storage Limited ("Centrica") objecting to the application and the draft DCO. Centrica and the applicant have agreed on the inclusion in the DCO of protective provisions satisfactory to Centrica, and accordingly it wishes to have no further part in the examination'.
- 7.61 The Protective Provisions agreed between the applicant and Centrica are at Part 7 of Schedule I of the draft DCO.

Network Rail: Lots 293 and 368

- 7.62 The applicant seeks powers to place the cables underneath the railway line.

The case under s.122

- 7.63 The applicant specifies the works to be carried out in Section 5 of the Statement of Reasons [APP-017], and states in para 7.2.1 that without these rights the project would be impossible.

The case under s.127 and s.138

- 7.64 Network Rail stated in its relevant representation dated 23 September [REP-014] that -
- 'The proposed Order affects NRIL's operational railway network and ordinarily NRIL would therefore object to the proposed Order. However, the draft DCO contains Protective Provisions in it in favour of NRIL and which NRIL has agreed with the applicant. Accordingly, provided that the Order contains Protective Provisions in the form that are contained in the draft Order, NRIL has no objection to the Order.'
- 7.65 The Protective Provisions relating to Network Rail are contained in part 2 of Schedule I of the draft DCO, and have remained unchanged through the examination.

- 7.66 The applicant states in REP-436 that -
'Commercial terms have been agreed. Draft documentation has been issued and is in the process of being settled.'
- The relationship with C.GEN's proposed generating station***
- 7.67 A significant feature of the examination related to the relationship between the current application and the slightly earlier application for consent to build a generating station by C.GEN known as the North Killingholme Power Project. At the time of writing, the report from the ExA that examined that application was before the Secretary of State, having been submitted on 11 June 2014.
- 7.68 There is a potential conflict between the two applications which arises primarily from their intention to access the same National Grid sub-station at North Killingholme. The sub-station has at present capacity to deal with both proposals, i.e. specifically a bay for each of them at the west end of the substation. The conflict arises from the cable routes put forward for the two schemes, and the land acquisition associated with this.
- 7.69 This was the subject of examination by the North Killingholme Power Project ExA, and both parties made extensive reference to that in the current case - see, for example, REP-068 to REP-161 inclusive in respect of the current applicant, and REP-029, REP-350 to REP-352 in respect of C.GEN.
- 7.70 The consideration of these issues was not completed during the North Killingholme Power Project examination. The applicant in the current case applied to the SoS for an extension to that examination, but this was refused. The SoS did, however, invite further submissions from the current applicant and C.GEN after the close of the examination providing either jointly agreed Protective Provisions or a jointly agreed statement as to why this was not possible [REP-337 and DD8 in REP-338].
- 7.71 In the event the two parties were not able to agree protective provisions in the context of the North Killingholme examination, but in effect continued the discussions during the Hornsea Project One examination. Even by the end of this examination they had still not agreed protective provisions, although it is possible (but would not be known to the ExA) that they had or will still agree them and submit them direct to the SoS.
- 7.72 The applicant has in fact two cases in relation to this dispute. The primary case is that the powers of compulsory acquisition sought by C.GEN under North Killingholme Power Project should not be granted. This is clearly a matter primarily for the North Killingholme examination, but the ExA in this case must note that C.GEN stated clearly at the compulsory acquisition hearing [H0-21] that the powers sought were not in relation to a power or

authorisation to be exercised under the proposed DCO but to a subsequent application to be made under the TCPA.

- 7.73 The applicant comments on this in its letter to the SoS dated 11 April 2014 [REP-337, page 61, para 3], but does not address directly what the ExA in this case regards as the fundamental question of whether powers of compulsory acquisition under PA 2008 can be granted in anticipation of some further consent to be sought under another legislative provision. The ExA did not consider it appropriate to probe that point in the current examination, but presumes that it has been addressed in the report on North Killingholme.
- 7.74 The applicant's secondary case seeks to deal with the contingency that the powers of compulsory acquisition sought under North Killingholme are granted to C.GEN, and that C.GEN also becomes a statutory undertaker.
- 7.75 It should be noted that while -
- (a) C.GEN maintains that the land sought by the applicant is excessive and as such detrimental to its own requirements [REP-350];
 - (b) C.GEN maintains that National Grid may not allow the applicant to access the substation through the pylon network, and that there is a viable route to the west of the pylons that would not interfere with C.GEN's intentions [REP-467];
 - (c) The applicant maintains that C.GEN should not be granted powers of compulsory acquisition [REP-315, Appendix H, paras 5.4 *et seq*];
 - (d) C.GEN stated during the Compulsory Acquisition hearing that it does not currently have any interest in the land in which the applicant seeks to acquire or to create rights, nor was it a statutory undertaker by the close of the examination;
 - (e) The applicant maintains that there is a southerly route that C.GEN should have selected for its cable that would not conflict with the applicant's preferred route (REP-045, para 1.13]

- the fact is that both parties are prepared to grant and accept 'mirror image' protective provisions for their respective schemes, even if they had not been able to agree them by the close of the examination.

Availability and Adequacy of Funds

- 7.76 The applicant submitted as required a Funding Statement as part of the application [APP-018]
- 7.77 This document shows how the applicant, SMart Wind, is a joint venture between International Mainstream Renewable Power (Offshore) Limited ('IMRPOL') and Siemens Project Ventures

GmbH ('SPV'). IMRPOL is a wholly owned subsidiary of Mainstream Renewable Power Limited ('MRP') while SPV is a wholly owned subsidiary of Siemens Financial Services GmbH which in turn is wholly owned by Siemens AG, ('Siemens') a company listed in Germany [APP-018, para 2.2.1].

- 7.78 It further shows that while currently the ownership of HW and NJ is split equally between IMRPOL, SPV and Dong Energy Wind Power (DEWP), DEWP has exercised an option to acquire the further two-thirds shares in both HW and NJ. The completion of the acquisition of the remaining two-thirds shares is conditional on certain events, one of which is the grant of an Order for Hornsea Project One. If the conditions are satisfied and the acquisition does take place, DEWP will own 100% of both HW and NJ⁴⁰.
- 7.79 In response to a second-round written question from the ExA (CA1), the applicant provided an estimate of the total contingent liability that might arise from the land acquisition programme, including claims for severance, injurious affection, blight and claims under Part 1 of the Land Compensation Act 1973. The applicant's expert adviser states that -
- (a) 'a cap of £15.5m would be more than sufficient to cover all relevant heads of claim in the circumstances known to me', this figure including a 'full compensation assessment' for the land and rights which are already the subject of voluntary sale;
 - (b) That no claims for blight would be successful, and that no party has any intention of seeking to make such a claim;
 - (c) That the only Part 1 claims for depreciation that could be made would only relate to the proposed substation, and that it is very unlikely that any such claim would be successful [REP-343].
- 7.80 No party to the examination sought to contest this appraisal, and the ExA has no reason to doubt that it is fair and accurate.
- 7.81 In response to the ExA's expressed concerns about the mechanism for the enforcement of any claims the applicant has submitted a letter from DEWP which seeks to confirm that upon application by the applicant DEWP would enter into a '... bond, guarantee arrangement, escrow agreement or suitable alternative ...' capable of meeting any claims that might arise before DEWP exercised its option to acquire all of the applicant, SMartwind [REP-347].
- 7.82 The recently-reported financial circumstances (2013) of Dong Energy AS (DEPW's parent company) are provided at REP-209 and REP-210; of the Siemens Group at REP211; and of Mainstream Renewable Power at REP-212.

⁴⁰ DEWP's role and locus is set out in section 3.5 of APP017

7.83 The ExA concludes that the guidance given in para 18 of the current CLG Guidance related to procedures for the compulsory acquisition of land, viz.-

'Applicants should be able to demonstrate that adequate funding is likely to be available to enable the compulsory acquisition within the statutory period following the order being made, and that the resource implications of a possible acquisition resulting from a blight notice have been taken account of.'

- is met in full by this application

7.84 The ExA retained doubts throughout the examination, however, as to the adequacy of the mechanisms for ensuring that affected parties could access that funding. This is discussed in paras 8.16 *et seq* in the section of the report dealing with the draft DCO.

The Objectors' cases

7.85 By the close of the examination there were only two parties who were in the position of maintaining an objection to the proposed powers of compulsory acquisition, ABP and C.GEN.

ABP's objection: Lots 1 to 5, 7 to 11, 14 to 21

7.86 ABP's objection was stated in its pre-hearing submission of 12 March 2014 [H-018], and re-stated in its further submission on 20 May 2014 [S127-03] and its closing submission on 2 June 2014 [S127-04].

7.87 ABP's case is the same in all three documents: that The Crown Estate expects ABP to act reasonably and to be prepared to enter into an under-lease with the applicant, but that this requires the completion of commercial negotiations, and that by the end of the examination these negotiations had not been concluded. In those circumstances ABP maintains its objection to the inclusion of its interests in the compulsory acquisition powers, and to '... any related application for s.127 certificates' (see para 7.20 above).

C.GEN's objection

7.88 It should be noted that -

- (a) C.GEN does not at present have any interests in land in which the applicant seeks to acquire interests;
- (b) C.GEN is seeking to acquire through its own application for consent under PA 2008 for a generating station an interest in what is Lot 405 in the current application (sought for temporary use by the applicant for construction purposes);
- (c) The applicant in this case opposes the granting of powers of compulsory acquisition to C.GEN as part of its application, on the grounds that they are unnecessary;

- (d) C.GEN Killingholme Ltd is not currently a statutory undertaker, although it seeks to acquire that status either on or before the granting of consent for its application for a generating station;
- (e) C.GEN is seeking powers of compulsory acquisition for development which is to be the subject of a further application under other legislation.

7.89 C.GEN's case is summarised in REP-050 and set out in detail in REP-049. C.GEN argues that -

'There is no compelling case in the public interest justifying the grant of powers of compulsory acquisition over the Affected Plots for the Proposed Development. The harm to the public good, which would be done by reason of impeding the delivery of the C.GEN Project, would outweigh any public benefit that the acquisition of the Affected Plots would provide ... Furthermore, the grant of the powers of compulsory acquisition sought by the Applicant would cause significant private loss to C.GEN, which might not be able to bring forward its own project as a result' [REP-050, paras 5 and 6].

The ExA's Conclusions

- 7.90 The ExA's approach to the question whether and what compulsory acquisition powers it should recommend to the SoS to grant has been to seek to apply the relevant sections of PA 2008, notably s.122 and s.123; the Guidance⁴¹; and to consider the possible applicability of 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.
- 7.91 The ExA understands, however, that the draft DCO deals with both the development itself and compulsory acquisition powers. The case for compulsory acquisition powers can only properly be considered in the context of the view that the ExA has formed on the case for the development overall: the consideration of the compulsory acquisition issues must be consistent with that view.
- 7.92 The ExA's overall conclusions, set out in the subsequent section, are 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 compulsory acquisition powers necessary to enable the development to proceed.

⁴¹ Planning Act 2008, Guidance related to procedures for compulsory acquisition (CLG, 2013)

The public interest

- 7.93 The applicant's case that the proposals meet the test in s.122(3), '... that there is a compelling case in the public interest for the land to be acquired compulsorily', is primarily made in Section 5 and section 7.2 of the Statement of Reasons [APP-017].
- 7.94 In the view of the ExA the applicant demonstrates sufficiently and conclusively that the land and rights sought are necessary for the construction and operation of the project.
- 7.95 It is very relevant to this case that the applicant would in fact be making minimal use of powers of compulsory acquisition, in that -
- (a) The vast majority of the interests sought have been acquired already through voluntary agreement;
 - (b) The interests sought are themselves of a minimal nature, i.e. the powers are expressed in terms of the 'least rights' necessary to construct and operate the project;
 - (c) The powers of compulsory acquisition would apply to land interests acquired through private treaty only to the extent that '... the landowner and/or occupier fails to adhere to the terms of any agreement reached or where the undertaker is seeking to acquire, override or extinguish a right or interest in the land which is vested in a person other than the landowner and/or occupier in question' [APP-017, para 5.2.1];
 - (d) The interference with the use of the land where rights are to be acquired are minimal, in that the uses are predominantly agricultural and, with the minor exception of lot 404, there will be no permanent loss of agricultural use.

Alternatives

- 7.96 The DCLG Guidance requires (para 8) that -
- 'The applicant should be able to demonstrate to the satisfaction of the Secretary of State that all reasonable alternatives to compulsory acquisition (including modifications to the scheme) have been explored.'
- 7.97 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 plot of land.

The sites selected

- 7.98 The site selection process, including the identification of the onshore cable route from a range of some 11 alternatives, is described in Volume 7.1.4 of the Environmental Statement [APP-028].

- 7.99 The ExA is satisfied that the site selection processes have been comprehensive and rational, and that adequate consultation on the alternatives was offered by the applicant.
- 7.100 The only substantive objection to the site selection arises as noted from C.GEN in relation to their concerns about access to the substation at North Killingholme.

The specific characteristics of the sites

- 7.101 Given the nature of the proposal as an offshore wind farm, there are no exceptional or unusual features in the design affecting site selection.
- 7.102 Although the applicant has stressed throughout the examination that detailed design and micro-siting has yet to take place, there are no significant design decisions (onshore) that need to be taken.
- 7.103 The applicant states that it is still confident that National Grid will agree to a final approach to the substation from the converter station that will enable it to run the cable through the National Grid's pylons [APP-439, paras 13 to 15].
- 7.104 If, however, that consent is not forthcoming the applicant now states that -

'If the Applicant is required to seek an alternative, it would make an application under the Town and Country Planning Act 1990 for planning permission to route its grid connection around the west of Work no.. 11. This amendment to its grid connection route would be a minor deviation from its planned route and would involve the use of land in which the Applicant has already obtained an interest' [APP-439, para 17].

Were that to be necessary, the ExA can see no reason in principle why such an application should not be granted.

The scale of the proposed development

- 7.105 There is a challenge from C.GEN as to whether the applicant is seeking to acquire rights in more land than is strictly necessary, thus failing the test of in s.122(2), and this is set out in Section 7 of C.GEN's submission of 22 April 2014 [REP-350].
- 7.106 C.GEN's objection is expressed in relation to Lots 404 to 408 inclusive [REP-350, para 6.1]. C.GEN is seeking to acquire an interest in part of Lot 408, but does not currently have any interest in the land.
- 7.107 C.GEN's objection is based on the contention that the applicant wishes to acquire land for 'up to two' circuits, where only one is necessary. C.GEN states that -

'By retaining the option to construct the electrical grid connection for Project 1 with two circuits, SMart Wind is adding complexity and uncertainty to the interactions between the electrical grid connection for Project 1 and that for C.GEN's project, as demonstrated in the scenarios presented in the table below at paragraph 7.41. Further, it adds a great deal of complexity to the drafting of protective provisions for both parties in C.GEN's and SMart Wind's DCO' [REP-350, para 7.11].

- 7.108 The applicant's response to this point is set out in its commentary on C.GEN.s submission to the SoS in respect of the North Killingholme application -

'SMart Wind is not required to satisfy C.GEN as to the technical requirements in its application. It is SMart Wind's position that flexibility to run two cables for Hornsea Project One is prudent and required and this does not present any issue other than in the context of C.GEN now requiring rights over the Hornsea Project Companies' land' [REP-375, following para 3.14.3].

The ExA considers that this is not an unreasonable position for the applicant to take, particularly in the context of the applicant's minimalist approach described in para 7.95 above.

- 7.109 In the ExA's judgement, no significant or credible issues remain as to the scale of the project: the significant issue is instead the ability of C.GEN and the applicant to agree protective provisions, and, as the applicant observes, this arises only in the case that powers of compulsory acquisition are granted to C.GEN.

The case for specific parcels

ABP: Lots 1 to 5, 7 to 11, 14 to 21

- 7.110 The ExA considers that the applicant has made a clear and compelling case under s.122(2) as to why this land is required for the development, and under s.122(3) that there is a compelling case in the public interest. The interest to be acquired is entirely proportionate.

- 7.111 The ExA notes that ABP does not have any objection in principle or in relation to its discharge of its duties as the Humber River and conservancy authority. Its continued objection at the close of the examination [S127-04] related to the failure at that stage to conclude commercial negotiations.

- 7.112 The applicant, however, points out [REP-315, para 7.2 et seq] that;

'ABP has in fact confirmed [H-018 and S127-03] that the protective provisions (Part 5 of Schedule I of the draft DCO) have been agreed between the two parties; and Para 46 of those provisions provides expressly that the power of compulsory

acquisition cannot be exercised against ABP without ABP's prior consent, such consent not to be withheld unreasonably, and if necessary subject to reasonable conditions.'

The applicant contends that this should provide 'the necessary comfort and control' to ensure that ABP's interests are protected.

7.113 Given the limited nature of the interest to be acquired (an under-lease establishing cable rights and anchor rights), and the fact that this under-lease has not been represented by ABP as in any way damaging to the discharge of their duties as the Humber harbour and conservancy authority, so there is no practical effect in terms of concerns addressed by s.127 and s.138, the ExA concludes that in fact the potential loss to ABP is minimal to the point of being negligible.

7.114 The ExA hopes that the commercial negotiations will have been brought to a successful conclusion by the time this report is submitted, and that the SoS will have been informed of that. But in the regrettable event that this has not taken place the ExA recommends that the powers sought should be granted, notwithstanding ABP's opposition. There would be no detriment to the exercise of ABP's duties or powers as a statutory undertaker.

The C.GEN objection: lots 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415 and 416

7.115 In this context it is necessary simply to note that -

- (a) C.GEN does not have an interest in any land which the applicant seeks to acquire or in which it seeks to create new rights;
- (b) The applicant has agreed to the principle of providing protective provisions to C.GEN, should C.GEN be granted development consent including powers of compulsory acquisition for the North Killingholme project;
- (c) The negotiation of those 'mirror image' provisions had not been concluded by the end of the examination;
- (d) The SoS, in refusing an extension to the North Killingholme examination, had made it clear that he expected discussions on protective provisions to continue [REP-338].

7.116 The ExA considers that the applicant has made a clear and compelling case under s.122(2) as to why this land is required for the development, and under s.122(3) that there is a compelling case in the public interest. The interest to be acquired is entirely proportionate.

7.117 The ExA understands the concern of C.GEN to seek to ensure that it can have access to the National Grid substation should consent be granted for the proposed generating station at North Killingholme. There are two possible solutions open to C.GEN -

- (a) If powers of compulsory acquisition are granted, to agree protective provisions with the applicant;
 - (b) If powers of compulsory acquisition are not granted, to acquire the necessary rights or interests through negotiation.
- 7.118 The ExA cannot know at the time of submitting this report either (a) whether protective provisions will have been agreed between the two parties, or (b) the SoS's decision on the North Killingholme application, and if so whether to include powers of compulsory acquisition.
- 7.119 The ExA is of the view that the doubts and uncertainties arising from this conflict relate more properly to the North Killingholme application than to Hornsea Project One. That is, the ExA considers that it would be unreasonable and unfair to penalise or restrict the current application on the basis of either property rights that C.GEN does not have, or consent that C.GEN has not yet sought, or powers of compulsory acquisition that C.GEN may not necessarily receive.
- 7.120 The ExA therefore recommends that the applicant should be granted the powers sought in relation to these lots (404 to 408).
- 7.121 The ExA's views on the drafting of the possible Protective Provisions are set out in paras 8.74 to 8.95.

Implications for s.127 and s.138

- 7.122 The ExA is satisfied that with the protective provisions agreed with all existing statutory undertakers there will be no adverse effect on the operation or apparatus of any statutory undertakings.

Human Rights Act⁴² 1998 considerations

- 7.123 The ExA has considered the possible issue of an interference with human rights which would occur if compulsory acquisition powers are granted.
- 7.124 The ExA is satisfied that 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) is not engaged. At the conclusion of the examination there was no substantive objection to the acquisition by the applicant of the rights sought, other than from ABP and C.GEN. As set out in paras 7.112 and 7.113, the ExA concludes that there is no detriment to ABP. As to C.GEN, at the time of the examination it did not actually have any property rights in the land affected.
- 7.125 The ExA accepts that Article 6, which entitles those affected by compulsory acquisition powers sought for the project to a fair and

⁴² <http://www.legislation.gov.uk/ukpga/1998/42/contents>

public hearing of their objections, is engaged. Affected parties have been able to express their concerns through written representations, and a hearing was held [H-019, H-020, H-021 and H-022].

- 7.126 At the conclusion of the examination no representations had been made to the effect that any affected party considered that its rights under Article 6 had not been upheld.
- 7.127 The ExA is satisfied that Article 8, which relates to the right of the individual to 'respect for his private and family life, his home ...' is not engaged. No residential property is to be acquired, and no representation was made as to the nature of the works to be carried out or their possible impact on residential amenity.

8 DRAFT DEVELOPMENT CONSENT ORDER

- 8.1 The original text submitted by is at APP-009, with an explanatory memorandum at APP-010. The draft Order is in the form of a Statutory Instrument because it seeks to disallow certain existing legislative provisions and to create new rights in land. It includes draft Deemed Marine Licences and some Protective Provisions.
- 8.2 The Order is largely based on the model provisions set out in Schedule 1 to the Infrastructure Planning (Provisions) (England and Wales) Order 2009 ("the Model Clauses"). Differences between the articles in the Order and Model Provisions are explained in APP010. The ExA is satisfied that the applicant's approach has been logical and consistent.
- 8.3 This document was updated throughout the examination. The final versions submitted by the applicant are -
- (a) Version 7, in Word format - UAPP-50
 - (b) Version 7, in PDF format - UAPP-51
 - (c) Comparison of version 7 with version 1 - UAPP-52
 - (d) Final schedule of changes - UAPP-54
- 8.4 The ExA asked questions about detail of the draft DCO in both rounds of written questions [PD-016 and PD-020]. In addition the ExA held two Specific Issue Hearings on the draft DCO, one at the start of the examination (13 February 2014) and towards the end of the examination (30 April 2014), [H-006 to H-008] and [H-028 to H-030].
- 8.5 A final version of the draft DCO as recommended by the ExA is at Appendix E.
- 8.6 The two primary issues that remained unresolved at the end of the examination related to -
- (a) Concern expressed by MMO about the possible 'splitting' of the Deemed Marine Licences (see paras 8.33 to 8.39 below);
 - (b) Dispute between the applicant and C.GEN as to the scope of protective provisions to be offered to C.GEN.
- 8.7 The more significant points to arise in the examination and changes to the DCO arising in consequence, are set out below.
- 8.8 The applicant's general approach has been to follow the model provisions [APP-010, para 1.2], but also following precedent in other NSIPs where that seemed helpful.
- 8.9 The scope of the draft Order is set out in paras 1.4 to 1.9 of the Explanatory Memorandum. Of significance is the explanation in para 1.5 that -

'The Order envisages the possibility that there will be a maximum of three generating stations, each the responsibility of a separate undertaker, or company. The Order contemplates the possibility that only two undertakers will construct two generating stations, in which case they will share what would otherwise have formed the third generating station' [APP-010].

Articles

Interpretation - Article 2(1) - maintain

- 8.10 The applicant's original definition of 'maintain' was drawn from railway usage under the Transport and Works Act. It was the subject of concern for the ExA because of the apparently sweeping powers that it might confer on the undertaker, and from the MMO and NE because it appeared to risk subverting the operation of the Deemed Marine licences.
- 8.11 In its final form, as set out in Version 7, the definition of 'maintain' has been agreed by the MMO [REP-335, para 6.2] and NE [REP-357, para 8.1].
- 8.12 The ExA is also now satisfied with the definition, which now includes an explicit reference to the Environmental Statement.

Interpretation - Article 2(1) - commencement

- 8.13 This Article has been amended in the course of the examination to clarify that for the purposes of the Deemed Marine Licences in Schedule H pre-construction survey and monitoring are excluded. This has been agreed by the MMO, and the ExA concurs with it.

Disapplication of legislative provisions- Article 3

- 8.14 Article 3 of the draft Order disappplies certain legislative provisions relating to the EA and other bodies with drainage responsibility.
- 8.15 These bodies have all confirmed their consent - EA [REP-063], North East Lindsey Drainage Board [REP-064], North Lincolnshire Council as lead Flood Authority [REP-065], Lincolnshire County Council as Lead Flood Authority [REP-066] and North East Lincolnshire Council as lea Flood Authority [REP-067].

Guarantees and enforceability - Article 4

- 8.16 Although the outstanding liability for claims for compensation and blight in relative terms is not great (approximately £15.5m - see para 7.77 above), the ExA was concerned that claims should be properly enforceable by any affected party.
- 8.17 Article 4(1) requires that no powers of compulsory acquisition shall be exercised until the undertaker has had a guarantee or some other form of security approved by the SoS.

8.18 The ExA queried whether this responsibility should not be discharged by a local authority rather than the SoS. The applicant has argued that -

'The Applicant does not believe that the local planning authorities have jurisdiction for such compulsory acquisition issues, nor an interest, which would make them the appropriate authorising body under this [Article].'

- and that the fact that four local authorities are involved adds complexity and the risk of inconsistency [REP-360, para 4.2]. On balance the ExA is persuaded by this reasoning.

8.19 The applicant has responded to the ExA's concerns as to enforceability by amending the terms of Article 4(2) as follows -

'(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.*'

8.20 The ExA considers that this should be adequate without being overly prescriptive. In coming to this view the ExA judges that a sense of proportionality is necessary: the total contingent liability relative to the assets of the organisations behind the applicant is not such that any claims should stress them financially.

Article 7 - maintenance of authorised project

8.21 The ExA had sought an addition to the effect that all maintenance must be within the scope of the environmental statement, but given the changes to the definition of maintain (see para 7.11 above), this is no longer necessary.

Article 15 - Discharge of water

8.22 This became a matter of contention during the examination when C.GEN raised objection to the possible implications of the discharge of water by the applicant via land drains into a drainage pond located on C.GEN's site [REP-049 and REP-288], which according to C.GEN would constitute an interference with an easement.

8.23 Given the potential legal complexity of the issue, the ExA called for legal submissions on the subject from both parties. These are at REP-321(the applicant) and REP-352 Appendix 10 (C.GEN).

8.24 There is no dispute between the two parties as to the existence of an easement, although neither party can say how it came into existence [REP-31, paras 1.1 to 1.4 and REP-352, paras 2.1 and 2.2].

- 8.25 Both parties are in agreement with the relevant legal tests as set out in the case of *McAdams Homes Ltd v Robinson* (2004)⁴³. In this case the Court set out a two-stage test for determining whether by the change of use of the dominant land (in this case the land on which the applicant intends to construct the converter station) an easement can continue to benefit the dominant land.
- 8.26 The two tests are -
- (a) Does the development of the dominant land represent a "radical change in the character" or a "change in the identity" of the dominant land as opposed to a mere change or intensification in the use of the dominant land?
 - (b) Does the use of the dominant land as redeveloped result in a substantial increase or alteration in the burden on the servient land, in this case C.GEN's land?

If both tests are met then the right of the dominant land to enjoy the easement would be lost.

- 8.27 Both parties accept [REP-321, para 2.3 and REP-352, paras 4.1 to 4.3] that there would be a radical change in the character of the land, and that the first test is therefore met. They differ, however, on the application of the second test, specifically in relation to whether the amount and rate of run-off water would be increased, leading to a flood risk for C.GEN's own proposed generating station.
- 8.28 C.GEN argues that the assessment in the FRA in the ES [REP-356] is incomplete; that the infiltration potential of the site has not been tested, and is likely to be low; that detailed design has not been completed; that no account has been taken of Hornsea Project Two; and that there is no protection therefore for C.GEN.
- 8.29 The applicant provided an expert witness, Dr Philip Hardwick, for the second Specific Issue Hearing on the draft DCO where these points were examined. With his assistance the applicant argued that the design standards set by the EA were clear, that the design was not complicated, that the applicant had taken a worst-case scenario, that Hornsea Project Two would need to be responsible for its own impacts; and that in fact because the proposals factored in climate change projections the impacts would be less than if the project did not go ahead.
- 8.30 The parties agreed that most if not all of C.GEN's concerns could be better addressed through Protective Provisions rather than further amendment to Article 15.
- 8.31 The applicant has, however, modified Article 15 to meet a concern put forward by Anglian Water, and it now specifies that prior

⁴³ [2004] EWCA Civ 214

consent is required before there is any interference with the assets of other parties.

- 8.32 The ExA considers that Article 15 as amended by the applicant is adequate.

Article 34 - transfer of benefit of Order

- 8.33 The operation of this Article was a matter of concern for both the MMO and the ExA.
- 8.34 The MMO conceded the point that since under PA 2008 the benefit of a DCO can rest with more than one party, and that a DML is an integral part of the DCO, so that in principle there should be no objection to a partial transfer of a DML [REP-449].
- 8.35 The MMO's concern was a practical one relating to monitoring and enforcement, and the need to be quite clear who at any given time had responsibility for what duties under the DMLs.
- 8.36 The applicant has observed that the orders granted for Galloper, Triton Knoll and Kentish Flats all permit the full or partial transfer of the DMLs, and therefore the SoS is presumably satisfied as to the lawfulness of partial transfer. But the applicant has also considered in some detail the practical implications of a partial transfer, and what would be needed to meet the MMO's concerns. The process that the applicant envisages is set out in detail on pages 10 and 11 of UAPP-47.
- 8.37 In consequence the applicant has proposed significant changes to Article 34, to the effect that -
- (a) The SoS must consult the MMO if any transfer were to affect the MMO's responsibilities (new 1A);
 - (b) Before any transfer could take effect the existing undertaker and the new undertaker would need to give written notice to the SoS, the MMO and the LPA (if appropriate) specifying what powers are to be transferred, to whom and when (new 5).

New Article 34(5) would apply to both transfers under 34(1) where the SoS's consent is required and 34(4) where his consent is not required⁴⁴.

- 8.38 The MMO's final position, as of the end of the examination, is set out in REP-449. It will be seen that the MMO's conclusion is that it may be legal, but it may not be desirable, because responsibility may be obscured.

⁴⁴ Article 34(4) covers transfers of any of the provisions (and any related statutory rights) relating to works nos. 4 to 12 to another body licensed under section 6 of the 1989 Act only.

8.39 The ExA understands the MMO's concerns. The ExA's view, however, is that if it is legal then it should not be refused, but must be made a practicable proposition. The ExA's view is that the applicant's final proposals for Article 34 make this both practicable and transparent, and therefore recommends this drafting to the SoS.

Description of works

8.40 The draft DCO defines the works to be authorised in Schedule A.

8.41 Although minor amendments were made during the examination, the only change of more than drafting significance was the reduction in the number of turbines, from a previous possible total of 332 to a maximum now of 240 distributed between Works 1, 2 and 3. This followed the applicant's decision to limit the proposed development to turbines with an individual capacity of between 5mw and 8mw, the significance of which is discussed in paras 5.86 to 5.91 above.

8.42 The distribution of turbines between the three works is as follows -

- (a) Work no. 1 - up to 80 turbines, or up to 120 if no part of Work no. 3 is built;
- (b) Work no. 2 - as Work no. 1
- (c) Work no. 3 - up to 80 turbines, but (clause 3) none if either Work no. 1 or Work no.2 exceed s 80 turbines.

All are defined by precise co-ordinates.

8.43 Clause 4 of Schedule A specifies that there must not be more than two accommodation platforms to support all three Works.

8.44 Work no. 4 *et seq* are all specified as associated development. Although they could be considered to be integral, it was unnecessary to distinguish in this case.

8.45 Work no. 4 comprises up to five High Voltage Alternating Current (HVAC) collector stations, and up to two High Voltage Direct Current (HVDC) converter stations, all within specified limits of deviation. The flexibility is necessary because the applicant is not yet ready to decide between the two systems.

8.46 If the applicant decides in favour of HVAC, then Work no. 5 will also be required - an offshore reactive compensation station, within specified limits of deviation.

8.47 Work no. 6 is the marine cable connection to the shore. Again this represents two options, depending on whether HVAC (four circuits via Work no. 5) or HVDC (two circuits) is used, within specified limits of deviation.

- 8.48 Work no. 7 is the foreshore connection under the existing seawall at Horseshoe Point, and Work no. 8 constitutes the transmission joint bays between the offshore and onshore circuits.
- 8.49 Work no. 9 is the underground onshore cable to the transmission/converter station constituting Work no. 10. Work no. 11 is the connection from that station to the National Grid substation at North Killingholme.
- 8.50 Work no. 12 relates to improvements to highways and private access roads.
- 8.51 The associated development also includes a range of minor works associated with the development, and in so far as they are covered by the Environmental Statement (Clause 6).
- 8.52 The plans that the SoS would need to sign should he give consent to the scheme are specified in Article 39 of the draft Order.
- 8.53 The ExA is satisfied that the works are described adequately and correctly, and that limits of deviation have been determined appropriately where required.

Protective provisions

- 8.54 The Protective Provisions are set out in Schedule I of the draft Order. The applicant's summary of the status of Protective Provisions agreed is at REP-431.

Drainage authorities

- 8.55 Part 1 of the Schedule covers protection for the Environment Agency and other drainage authorities. Their agreement to these provisions is confirmed at REP-063 (EA), REP-064 (North East Lindsey Drainage Board), REP-065 (North Lincolnshire Council), REP-066 (Lincolnshire County Council), REP-067 (North Lincolnshire Council) and REP-278 (Lindsey Marsh Drainage Board).

Network Rail

- 8.56 Part 2 provides the protection sought by Network Rail, which H-017 confirms its agreement to the provisions as drafted and withdraws its representation.

Electronic communications code networks

- 8.57 Part 3 relates operators of electronic communications code networks. No such operators have made representations during the examination.

Utility undertakers

- 8.58 Part 4 seeks to provide general protection for utility undertakers, with the specific exception of Anglian Water, Centrica, VPI Immingham and C.GEN, for whom individual provisions are offered (clause 36). No representations have been made in respect of Part 4.

Associated British Ports

- 8.59 Part 5 relates to ABP. As noted in paras 7.108 *et seq* above, ABP has in fact confirmed that the protective provisions do meet their requirements, and their continued objection relates to outstanding commercial negotiations.
- 8.60 It may be that the two parties have subsequently concluded their discussions to their mutual satisfaction, but given ABP's admission the ExA considers that Part 5 must be deemed to be adequate.

Anglia Water

- 8.61 Part 6 relates to Anglia Water, which confirms at S127-02 that it agrees with the protective provisions negotiated during the examination and withdraws its objection in relation to s.127 and s.138.

Centrica plc

- 8.62 Part 7 relates to provisions for Centrica plc, which confirms at REP-438 that it is content with the protective provisions and withdraws its representation.

VPI Immingham llp

- 8.63 Part 8 relates to protection for the interests of VPI Immingham LLP.
- 8.64 When the applicant submitted its update on the status of protective provisions on 28 May 2014, shortly before the close of the examination, it became apparent that there was doubt as to whether VPI Immingham was a statutory undertaker in respect of the gas pipeline that might be affected. VPI Immingham did not make a representation, and thus has not sought to invoke s.127.
- 8.65 In any event VPI Immingham had stated to the applicant on 19 February 2014 (REP-243) that it considered crossing or proximity agreements premature until it had completed a study on possible impacts. This study was not available before the end of the examination.
- 8.66 In these circumstances the applicant's approach has been to draft protective provisions anyway, and argues in para 5.4 of REP-431 that -

'In any case, the Applicant considers that the VPI protective provisions included at Part 8 of Schedule I of the draft DCO provide adequate protection to safeguard VPI's interests, whether or not the pipeline forms part of their undertaking. In particular, the protective provisions provide that prior to commencing any works relevant to the VPI pipeline; the undertaker of the Project must submit plans and sections of the proposed works to VPI for approval (paragraph 83). No works can commence prior to receipt of VPI's approval (not to be unreasonably withheld or delayed) (paragraph 84), which may be given subject to reasonable conditions to ensure the continuing safety and viability of the VPI pipeline and to ensure VPI retain access to the pipeline at all times (paragraph 85). On this basis, the Applicant considers that the Project and the rights sought within the draft DCO will have no detriment on VPI's interest in the pipeline.'

- 8.67 The ExA considers that this is an appropriate approach, and that the protective provisions as drafted should provide the necessary safeguards for VPI Immingham's interests.

Phillips 66 Limited

- 8.68 Part 9 of Schedule I creates protective provisions for Conoco Phillips (UK) Ltd, although the party concerned refers to itself as Phillips 66 Limited. Phillips 66 Ltd is not identified as a statutory undertaker.
- 8.69 At the end of the examination the ExA had not been informed that protective provisions had been agreed between the two parties. Phillips 66 Ltd's position is set out in REP-443; the applicant's position, which partially anticipates and seeks to respond to Phillips 66, is set out in section 4 of REP-431.
- 8.70 The outstanding issues between the two parties can be summarised as follows -
- (a) Clause 88: Phillips 66 wishes to be identified correctly;
 - (b) Clause 89: Phillips 66 is concerned that it should be given adequate advance notice of works, and proposes a six month notice period. The applicant proposes 28 days, which is consistent with the equivalent paragraph of the standard default utility undertaker protective provisions contained at Part 4 of the draft DCO, and stresses that Clause 90 of these protective provisions stipulates that works may not commence until Phillips 66 have approved the proposed works (not to be unreasonably withheld or delayed), which the Applicant considers provides an 'overarching security'.
 - (c) Phillips 66 seeks a method statement and a design risk assessment for any works proposed;
 - (d) Phillips 66 wishes to see a provision to the effect that 'The undertaker shall design the proposed works to avoid any interference with or other adverse effect on the pipeline other

- equipment/services in electrical contact with the pipeline and any cathodic protection equipment connected to the pipeline';
- (e) Phillips 66 wishes to see a provision to the effect that it can require the undertaker to 'enter into an agreement with the Pipeline Owner to establish the terms upon which the works will be performed, the requirements to be imposed on the undertaker relating to the proximity of the works to the pipeline and the continuing obligations of the undertaker in respect thereof';
 - (f) Clause 91: Phillips 66 wants its right to impose reasonable requirements to be extended to 'subject to such appropriate amendments to the proposals for the works /and or additional mitigating measures to be undertaken as part of the works'.

8.71 It may be that the applicant and Phillips 66 reach agreement on these protective provisions by the time this report reaches the SoS; or that at least some of the areas of disagreement have been resolved.

8.72 If the SoS has not been notified of agreement reached, the ExA's recommendation to the SoS is that, on balance, the drafting put forward by the applicant is proportionate, adequate and consistent with the approach taken in other protective provisions. The ExA believes that they will ensure that all reasonable concerns or requests that Phillips 66 might make would be met, and agrees with the applicant that the fact that the applicant requires Phillips 66's prior approval (not to be unreasonably withheld) is a powerful sanction.

8.73 The ExA agrees, however, that Phillips 66 should have the right to identify itself as it chooses. Accordingly the ExA's recommended draft Order refers to 'Phillips 66 Ltd'.

C.GEN Killingholme Limited

8.74 Part 10 of Schedule I sets out the applicant's proposed protective provisions in respect of C.GEN.

8.75 The applicant's final position (as of the end of the examination) is set out in REP439.

8.76 C.GEN's final position is as set out in REP-421, modified or qualified in part by its final submission at REP-467.

8.77 Again, it may be the case that before this report reaches the SoS the applicant and C.GEN have managed to agree the 'mirror image' protective provisions that might be required for both the North Killingholme application and the current application. This section of this report, however, assumes that this is not the case.

8.78 The ExA notes that the current applicant's position is

'... that C.GEN's request for compulsory acquisition for its grid connection land should be refused, or if it is accepted then it should be restricted where it overlaps the red line boundary of the Project. The Applicant has maintained this position throughout the examination.'

The ExA has also noted (para 7.113 *et seq*) that the application made by C.GEN for powers of compulsory acquisition to be exercised is not in respect of works included in the application under PA 2008 but in a subsequent application to be made under TCPA.

8.79 It seems therefore entirely possible that C.GEN's request for powers of compulsory acquisition will not be granted. In those circumstances the ExA recommends that the provisions in their final form as offered by the applicant to C.GEN should be the default case. It should be noted that under Clause 94 the provisions would apply to land in which C.GEN might have or acquire an interest not necessarily through compulsory acquisition, so protective provisions are appropriate in any case.

8.80 C.GEN raise some key matters of concern in relation to the applicant's proposed protective provisions in REP-421, to which the applicant in effect replies in REP-439 and again in REP-464. These documents need to be read in conjunction with the plan prepared by the applicant at REP-416. These are discussed below.

8.81 C.GEN objects, first, to -

'The requirement at paragraph 95(1) of the protective provisions proposed by SMart Wind that C.GEN obtains SMart Wind's approval to acquire new rights over the C.GEN relevant land, which is disproportionate given the absence of conflict with SMart Wind's scheduled works' [REP-421, para 2.1.1].

8.82 The applicant observes that -

' ... whilst this land has been identified as the "C.GEN relevant land" within the Applicant's proposed C.GEN Protective Provisions, this is purely for clarification purposes and C.GEN do not have a land interest within any of this land. Instead, the majority of the C.GEN relevant land falls within land over which the Hornsea Project One and Two Companies (the "Hornsea Project Companies") hold an option to acquire the freehold of the land for the purposes of constructing their respective substation sites. This is demonstrated on the Draft C.GEN Protective Provisions Plan (the "Plan") (submitted as Appendix T to the Applicant's response to Deadline VI and updated at Appendix M to its submission on 6 June 2014), by the pink border outline titled "Hornsea Project Substation Site" in the legend.'

8.83 The applicant contends that -

' ... it is entirely appropriate that the compulsory acquisition of such rights must remain subject to the Applicant's prior consent, to recognise that these grid connection routes fall within the Hornsea Project Companies' land ownership. This is entirely consistent with the concept of protective provisions, which seek to protect the land interests of (predominantly) statutory undertakers against any proposed compulsory acquisition powers sought under development consent orders and this is reflected in the protective provisions within Parts 1 to 10 of Schedule I to the Applicant's draft DCO, where the Applicant has not sought the ability to exercise compulsory acquisition powers without the prior consent of the affected party.'

- while making the point that it is still offering three routes to C.GEN. The ExA considers that the applicant's approach, both in terms of seeking to protect its own interests and in being responsive to C.GEN's aspirations, is entirely reasonable.

8.84 C.GEN objects secondly that -

'The requirement under paragraph 95(1) of the protective provisions proposed by SMart Wind that C.GEN must use reasonable endeavours to obtain all necessary rights and approvals, including National Grid's consent, for a route in between the pylons given the stance of National Grid that a route between the pylons should be a last resort;'[REP-421, para 2.1.2].

8.85 The applicant's response is -

'If C.GEN is allowed to route its connection through the Project's substation site at all it therefore must only do so in a way that is mindful of the requirements of the Projects and minimises any obstruction to them. It should not be allowed carte blanche powers to carry out its works without the consent of the Applicant. This restriction on C.GEN's powers is a legitimate and equitable expectation of the Applicant given that it has gone to great lengths to accommodate not only one but three alternative routes for C.GEN in the area whilst seeking to ensure its own interests are protected'.

'On this basis, it is essential that any rights which C.GEN is granted over the C.GEN relevant land cannot be exercised without C.GEN first obtaining the consent of the Applicant. There is sufficient protection for C.GEN that this consent will not be withheld arbitrarily by the Applicant as the requirement to give consent is qualified by the provision that it must not be unreasonably withheld or delayed and it may be given only subject to reasonable conditions. A similar restriction is proposed in respect of the pylon land outside of the defined C.GEN relevant land routes' [REP-439, paras 8 and 9].

- 8.86 On balance, the ExA considers that the applicant's view should prevail. The only rational explanation as to why C.GEN should apply for powers of compulsory acquisition without powers for the necessary works is that at the time of their application C.GEN did not know or could not decide what works were in fact necessary. This distinction should logically give the claims of the current applicant a degree of precedence over the claims of C.GEN.
- 8.87 The applicant has clearly made considerable efforts to accommodate C.GEN, but given the greater - not complete⁴⁵ - certainty as to how the applicant intends to proceed, it is not unreasonable for the applicant to seek to minimise C.GEN's possible impacts upon the applicant's scheme while providing quite reasonable safeguards for C.GEN and the scope for arbitration (Clause 113 of the Protective Provisions).
- 8.88 C.GEN objects thirdly to -
- 'The requirement under paragraph 95(2)(a) of the protective provisions proposed by SMart Wind that C.GEN must use all reasonable endeavours to ensure the 3m strip of land to be acquired for a permanent right to install its cable connection abuts the eastern boundary of the C.GEN relevant land, again given the absence of conflict with SMart Wind's scheduled works;' [REP-421, para 2.1.3].
- 8.89 The applicant observes that -
- 'Whilst C.GEN are correct in noting that there are further limitations on the use of C.GEN relevant land and Thermal Buffer Zone within the Applicant's proposed C.GEN Protective Provisions, notably a maximum 3m strip for a permanent right and a 5m strip for access and maintenance, it is still important (and the Applicant submits entirely reasonable) that these works are located as far from the proposed Hornsea Projects' proposed grid connection works as possible in the circumstances.'
- 'C.GEN have sought to express within their submission (both in this section and more generally) that any land beyond what has been designated as Works no. 11 is effectively surplus land and not required for the purposes of either Hornsea Projects One or Two. This is not correct. Whilst it is not all included within the limits of Work no. 11, it still remains within the Project's wider order limits and has been included within Plot 406 as land over which the Applicant is seeking permanent rights for the purposes

⁴⁵ The element of uncertainty in the applicant's position relates to whether National Grid will permit a cable route at the substation which passes through the pylons. The applicant notes (REP464) that - 'The Applicant would again emphasise that both the Applicant and C.GEN consider a route between the pylons to be technically achievable and this is supported by the parties' separate engineering reports prepared by Foster Wheeler Italiana (submitted as part of C.GEN's submission to the Secretary of State on 11 April 2014) and SKM (submitted at Appendix K6 of the Applicant's response to Deadline V).'

of installing and maintaining infrastructure. In the same manner that C.GEN persistently argue for flexibility in the deliverability of their Project, the Applicant requires similar flexibility, with the key difference being that this falls within the Applicant's proposed land ownership and so such flexibility is more justifiable in the circumstances. Additionally, as Hornsea Project Two is at an earlier stage of design and is likely to be constructed after Hornsea Project One and C.GEN's project, there is an even greater need for Project Two to maintain some flexibility within this landholding, secured for the purposes of their substation and grid connection, to ensure that a viable footprint remains available for the deliverability of Project Two.'

8.90 The ExA considers on balance that this is a reasonable approach on the part of the applicant, and an adequate rebuttal of the C.GEN case.

8.91 C.GEN's fourth objection is to -

'SMart Wind's approach to the inclusion or otherwise of protection for Hornsea Offshore Wind Farm Project 2 ("Hornsea Project Two") in the protective provisions proposed by SMart Wind because no information exists allowing the protection for Hornsea Project Two to be understood so that project is not fully in the public domain.'

8.92 The applicant's response is that -

'The respective Hornsea Projects One and Two Companies have a private cooperation agreement to regulate their own interface and the drafting within the Hornsea Project One draft DCO and the relevant commentaries that have been provided in its respect reflect this agreement. It is for this same reason that Hornsea Project Two has not sought protective provisions within the confines of the Hornsea Project One draft DCO,'[REP-464].

8.93 It is the case that the applicant has sought generally to keep any consideration of Hornsea Project Two out of the consideration of the current application. But the ExA considers that the explanation given here is sufficient and persuasive.

8.94 To sum up, in relation to C.GEN Killingholme the ExA finds that -

- (a) It cannot be assumed that the SoS will grant powers of compulsory acquisition to C.GEN for the access to the substation;
- (b) C.GEN has no current interests in the 'C.GEN relevant land', and was not at the close of the examination a statutory undertaker;
- (c) The applicant in this case has established interests and intentions based on reasonable and appropriate plans which require to be protected;

(d) The applicant has not behaved in any way unreasonably towards C.GEN, does not seek to frustrate its plans and in fact has made what appears to be very reasonable provision for them.

8.95 On those grounds the ExA can see no basis for preferring any aspect of C.GEN's proposed protective provisions over the applicant's. The ExA recommends that if the SoS does not grant C.GEN powers of compulsory acquisition then the applicant's protective provisions should prevail. The ExA now further recommends that if the SoS does grant C.GEN powers of compulsory acquisition then the applicant's protective provisions for C.GEN should still prevail.

National Grid

8.96 REP-271, the SoCG between the applicant and National Grid, records in para 3.1.2 agreement that protective provisions between National Grid and the applicant are to be contained in 'confidential commercial agreements' between the two parties. They thus do not form part of the draft Order.

Implications for s.127 and s.138

8.97 The ExA is satisfied that with these protective provisions agreed with all statutory undertakers there will be no adverse effect on the operation of statutory undertakings.

Requirements

8.98 The Requirements are set out in Schedule A Part 3 of the draft Order.

8.99 The draft Order was amended six times during the examination, and many changes have been made to the Requirements. These are explained in detail in REP-396. Where the changes have been agreed by the ExA and other parties as appropriate they are not discussed further in this report.

Requirement 6 - Ecological Management Plan

8.100 The ExA put forward text for discussion at the Specific Issue Hearing on 31 April 2014 intended to entrench the ecological management plan in the Requirements.

8.101 The applicant's position [REP-457, page 28] is that the draft EMP in the ES already specifies the necessary points, and therefore all that is required is a reference to this in Requirement 6. The applicant has further modified this Requirement to include an explicit reference to the plan being -

' ... based on the draft ecological management plan contained in volume 6 of the Environmental Statement, ...'

- and on this basis the ExA is satisfied that the Requirement is adequate.

Requirement 7 - Code of Construction Practice

8.102 The applicant has acknowledged the ExA's concern to see the elements of a CoCP spelled out in the Requirements. The following text is substantially as put forward by the applicant, with one minor amendment (the retention of the requirement to monitor as well as to manage) to reflect the ExA's original proposition. -

'7.—(1) No part of the authorised development above MLWS is to commence within the area of a local planning authority until a code of construction practice relating to the works authorised above MLWS based on the draft code of construction practice contained in volume 4 of the Environmental Statement 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 (1A)(e), and any travel plan submitted pursuant to subparagraph(1A)(k) in consultation with the relevant highway authority and the Highways Agency.

(1A) 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;

(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.

(2) All construction works must be undertaken in accordance with the approved code.'

Requirement 16 - Amendments to approved details

- 8.103 There was a significant degree of discussion, including at the second Specific Issue Hearing on the draft Order on 30 April 2014, about tailpiece requirements, and particularly the need to keep any amendments within the terms of issues assessed within the ES.
- 8.104 The applicant's position throughout these exchanges was that explicit reference to continued compliance with the ES was unnecessary, since it is a matter of decided law that there must be compliance.
- 8.105 The ExA sees some force in this argument, but with two reservations. First, on such a crucial matter there is value in making the case for compliance manifest in the Order, for the benefit of those who might wish to refer to it, who are not coming from a legally-informed background. Second, the ExA notes the changes made to draft Orders by the SoS in recent cases, notably East Anglia One, which seem to support this approach.
- 8.106 The ExA therefore proposes that Requirement 16 should be amended by adding a new subsection (3) as follows -
- '16.—(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) 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.

(3) 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.'

Requirement 19 - Co-operation

8.107 Requirement 19 was introduced by the applicant during the examination to meet the MMO's concerns about the implications of having possible multiple undertakers. It commits any undertaker to share plans and documentation with other undertakers and to take part in joint liaison meetings together with MMO.

8.108 The wording in the applicant's final draft DCO was agreed by MMO following the Specific Issue Hearing on 30 April [REP-355, para 3.2]. It appears that subsequently the MMO may have raised with the applicant the thought that these provisions would be better in the DMLs rather than the DCO [REP-457, page 42 *et seq.*].

8.109 The applicant observes in UAPP-53 that -

'It would not work if it were included as a condition of the DMLs as each DML only governs the specified undertaker and the licensed activities of that DML. It is therefore necessary for this control to be a requirement of the DCO and not a DML condition.'

The ExA concurs with the applicant on this point, and recommends that this requirement should remain as drafted.

Compliance with policy

8.110 The ExA is satisfied that the Requirements in their final form comply with the National Planning Policy Framework and the Planning Practice Guidance.

Deemed Marine Licences - Schedule H

8.111 Schedule H sets out the four Deemed Marine Licences (DMLs) proposed.

8.112 The justification for the up to four DMLs, and the possible need to 'split' them, is set out in the applicant's answer to first round question DC7 [REP-189, page 149]. The applicant notes there that;

'In creating four separate DMLs a relatively arbitrary line had to be drawn as to where the generation assets end and the transmission assets begin and it may be that later down the line there is need for some movement and flexibility due to practical, environmental, financial or other constraints.'

8.113 Throughout the examination there was continued discussion between the applicant, MMO, EA, English Heritage and Trinity House on the detail and operation of the draft DMLs. These discussions are recorded in detail in UAPP-54, and the MMO's final comments are at REP-444. The ExA has given particular weight to the concerns of the MMO since the latter is the body that will need to monitor and enforce the DMLs if granted.

Splitting of DMLs

8.114 A major concern for MMO related to the splitting of the DMLs. This is discussed above in relation to Article 34 (paras 8.33 to 8.39) and Requirement 19 (paras 8.107 to 8.109). The ExA is satisfied that the Order as a whole now contains adequate and effective measures to meet the MMO's residual concerns.

Charging of Fees

8.115 Throughout the examination the MMO maintained a position that it wished to be able to charge fees for modifications to DMLs. The ExA asked a Rule 17 question of both the MMO and the applicant on how this might be secured. The MMO's final position on this point is set out in REP-449, and the applicant's final position in REP-459. Essentially MMO wished to see an express provision, while the applicant resisted this on the grounds that an order was before Parliament to confer that power on the MMO, and it would be wrong in principle to either anticipate that decision or to seek circumvent a negative decision.

8.116 In the event the Public Bodies (MMO) (Fees) Order 2014 was approved on 22 July 2014⁴⁶, although at the time of writing it had not been brought into force. Nevertheless it should be the case that the MMO will have the necessary powers without the need for any reference in the DMLs before any need for a modification to the DMLs is necessary.

⁴⁶ <http://www.publications.parliament.uk/pa/ld201415/ldhansrd/text/140722-0001.htm>

Disposal of spoil – DMLs, Schedules H-K, Part 1, paragraph 2(1)(e)

- 8.117 It should be noted that the maximum volumes of spoil that may be disposed of at sea has been reduced in DMLs 1 to 3 in accordance with the applicant's decision to remove the 3.6MW turbines from the project design envelope.

Numbers of turbines- DMLs, Schedules H-K Part 1, paragraph 2(2)

- 8.118 The maximum number of turbines has similarly been reduced in DMLs 1 to 3 to reflect the applicant's decision to remove the 3.6MW turbines from the project design envelope.

Damage reporting - Condition 7(e), previously 6(6)

- 8.119 The applicant and the MMO remain in disagreement over the reporting arrangements in case of 'injury to, or destruction or decay' of the construction at sea.

- 8.120 In essence the MMO advocates that a maximum period of 24 hours should be mandated. The applicant contends that -

'In relation to Condition 6(b), the Applicant notes that the phrase 'reasonably practicable' is standard wording used in equivalent provisions in all other offshore wind farm DCOs/DMLs such as Kentish Flats, Galloper, Triton Knoll, East Anglia One, Rampion, Burbo Bank, Walney and Dogger Bank Creyke Beck and that it is frequently used in contracts and is therefore capable of interpretation. In addition, Trinity House have not expressed any concerns with this wording. On the basis of this it is not necessary to specify a timeframe'.

'As stated above, the Applicant disagrees with the MMO's proposed amendment and the need for a time period to be specified but in the event that the ExA or SoS disagree with the Applicant's position and agree with the MMO then the Applicant suggests that this condition should be amended as follows (which is consistent with Condition 6(b):

6B. In case of injury 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 injury, destruction or decay*, notify Trinity House and must lay down such buoys, exhibit such lights and take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct' [UAPP-43].'

- 8.121 The ExA considers that precedent is persuasive but not binding, and that the applicant's fall-back version is reasonable and should meet the MMO's concerns. The ExA therefore has adopted this in its final recommended draft Order.

Fish monitoring - Conditions 18 and 20(2)

8.122 The MMO and the applicant remained in disagreement at the end of the examination as to the need for pre- and post-construction fish surveys. The best summary of the position of the two parties is at REP-369.

8.123 The MMO wishes to see an additional condition within Condition 20(2) of DMLs 1 to 3 as follows -

'sandeel and herring spawning monitoring

'a grab survey and particle size analysis in the part(s) of the offshore Order limits within which construction works were carried out under this licence within a period not greater than 12 months after construction to identify any changes in sand eel and herring spawning communities in relation to potential construction impacts. The undertaker must submit a report to the MMO assessing the impacts of construction activities on sandeels and herring to be informed by the results of the grab survey and particle size analysis,' [REP-444].

8.124 A key passage in REP-369 is at para 3.4 -

' The Applicant believes that any monitoring which is undertaken, if required, should relate to the EIA process and be clearly hypothesis driven (which can be said for the two existing fish monitoring conditions within the DMLs). The Applicant does not believe that in the case of the additional general fish monitoring request from the MMO there is any clear rationale for further fish monitoring given that there are no significant effects predicted and no apparent, significant uncertainties within the assessment process.'

8.125 The MMO's position is set out in a letter to the applicant dated 16 May 2014, quoted on pages 110 and 111 of UAPP-54, in which the critical argument appears to be this -

'We have agreed that the impact assessments were appropriate and that the results seemed reasonable. This is reflected in the signed SoCG between the MMO and Smart Wind, dated 11 February 2014. It is likely, however, that there is sandeel habitat and/or suitable herring spawning ground within the wind farm areas. It should be noted that there are concerns over populations of sandeel (and herring) in this area of the Southern North Sea in particular, due to its importance as a prey species for various bird species of nature conservation importance.'

8.126 In relation to these two species which apparently give the MMO most concern, sand eel and herring, the applicant observes in both cases (paras 3.7 and 3.8) -

'The Applicant does not consider that it is appropriate for an individual project to monitor general changes in a population level due to the development of renewable energy at a regional level. Monitoring should be targeted to impacts identified within the project ES only and that can be directly attributed to the development being licensed.'

- 8.127 The applicant has agreed to the inclusion of pre- and post-construction surveys in the terms Conditions 18, 19 and 20 of all four DMLs, noting the MMO's particular concern in relation to disposal sites HU209 and HU210 [REP-369].
- 8.128 The ExA concludes that the applicant is right: no evidence has emerged from the ES that suggests that this project is likely to be prejudicial to either species. To move from what may be a growing general concern about them to imposing a specific requirement on this project in the absence of any scientific hypothesis as to its possible adverse impact is not a reasonable requirement [APP-032, Table 3.27].

Ornithological monitoring - Condition 23 in DML 4, previously Condition 20

- 8.129 As noted in paras 5.170 *et seq*, there was disagreement during the examination as to the extent of post-construction surveys of ornithology. Behind this disagreement is the question of how to interpret EN-3, which states -

'Owing to the relatively new and complex nature of offshore wind development, the [Secretary of State] 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.'

- 8.130 In the applicant's final version of the draft DCO [UAPP-50], Condition 20 of Deemed Marine Licences 1, 2 and 3 all have the same provisions in relation to post-construction ornithological surveys; that is, they all stipulate -

'20.—(1) The undertaker shall, in discharging condition 16(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 and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals 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 where evidence is not already available.'

(2) Subject to receipt of specific proposals, it is expected that the post-construction surveys will comprise, in outline:

(a) an ornithological survey covering the part(s) of Wind Farm Area 1 within which construction works were carried out under this licence, and any wider area(s) where appropriate, which is required to test predictions in the Environmental Statement concerning key ornithological interests of relevance to the authorised scheme.'

8.131 It will be seen that the force of this is to place the responsibility for proposals as to the scope and phasing of the survey on the applicant, while placing the power of approval with the MMO, in this instance in consultation with NE. This would not, in theory, preclude those bodies from requiring that the 'survey' should be a phased exercise, if they considered that necessary and appropriate.

8.132 The ExA judged during the examination that despite the differences between the applicant and NE on this point there were sufficient safeguards in Condition 20 as finally put forward by the applicant to achieve what must be achieved; possibly not without further debate or negotiation⁴⁷.

Other legal agreements

8.133 The applicant has not proposed any s.106, s.278 or other legal agreements; nor have any local planning authorities sought them.

8.134 Other consents required are set out in REP-434 and appendix B to this report.

⁴⁷ 8.136 It may be, however, that the Secretary of State would wish to make standard the precedent set in East Anglia One so as to establish a clear benchmark for compliance with EN-3.

9 SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Status as NSIP

- 9.1 The application is for a nationally significant infrastructure project, a generating station, qualifying as such by virtue of s.14(3) and s.14(4) of PA 2008.

Applicability of NPSs

- 9.2 The application is subject to three extant National Policy Statements governing energy, EN-1 (Overarching policy), EN-3 (Renewable Energy Infrastructure) and EN-5 (Electricity Networks Infrastructure). As such it must be determined by the SoS under s.104 of PA 2008, as required by s.104(1).
- 9.3 Under s.104(2)(a), in deciding upon the application the SoS must have regard to any national policy statement which has effect in relation to development of the description to which the application relates.
- 9.4 The ExA concludes that the application is in substantial conformity with all the requirements of EN-1, EN-3 and EN-5.

Marine and Coastal Access Act

- 9.5 Under s.104(2)(aa), the SoS must also have regard to the appropriate marine policy documents (if any), determined in accordance with s.59 of the Marine and Coastal Access Act 2009. MMO has confirmed that it considers the application to comply with the appropriate marine plans [REP-185].
- 9.6 The ExA concludes that there is no obstacle to the granting of consent arising from this provision.

Local Impact Reports

- 9.7 Under s.104(2)(b), the Secretary of State must also have regard to any LIRs submitted by relevant local authorities.
- 9.8 LIRs were submitted by North Lincolnshire Council [REP-217], North East Lincolnshire Council [REP-218] and East Lindsey District Council [REP-216]. These are discussed in paras 3.73 - 3.77 above. None of them raises any point of substance or principle in relation to the development.
- 9.9 The ExA concludes that there is no obstacle to granting consent arising from this provision.

Other prescribed matters

- 9.10 Under s.104(2)(c), the SoS must also have regard to any matters prescribed in relation to development of the description to which the application relates.
- 9.11 The policy context for this application is set out in Chapter 3 above. The ExA considers that the application is in substantial compliance with all policy directives relevant to it.
- 9.12 The ExA concludes that there is no obstacle to granting consent arising from this provision.

Other relevant matters

- 9.13 Under s.104(2)(d) the SoS must also have regard to any other matters which he thinks are both important and relevant to his decision.
- 9.14 In the view of the ExA the policy and legal framework for the consideration of this application is clear and complete, and the application itself is in substantial compliance with it.
- 9.15 The ExA concludes that there are no other relevant matters that need form part of the SoS consideration.

Effect of s.104(3)

- 9.16 Under s.104(3) the SoS must decide the application in accordance with any relevant national policy statement, except to the extent that one or more of subsections (4) to (8) applies.
- 9.17 The relevant NPSs are EN-1 and EN-3, and as stated in para 9.4 above the ExA considers that the application is in substantial conformity with both.
- 9.18 There is thus a presumption in favour of the granting of consent unless any of subsections (4) to (8) mitigate against that.

International obligations

- 9.19 Under s.104(4) the SoS would not be able to grant consent if he were satisfied that deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations.
- 9.20 In this case a primary international obligation on the United Kingdom relates to the Habitats Regulations. The ExA's consideration of the extent to which the application complies with these requirements is set out in Section 5 of the report.

- 9.21 At the same time it should be noted that the project if completed would itself contribute to the fulfilment of the United Kingdom's international obligations to reduce carbon emissions.
- 9.22 The ExA's conclusion (paras 5.108 to 5.110, 5.124 to 5.126, 5.144 to 5.146, 5.152 and 5.169) is that the SoS has the necessary information to be able to carry out an appropriate assessment, and that such an assessment would demonstrate that the application if consented would not lead to a breach of the Habitats Regulations.

Breach of legal duty

- 9.23 Under s.104(5) the SoS would not be able to grant consent if he were satisfied that deciding the application in accordance with any relevant national policy statement would lead to him being in breach of any duty imposed on him by or under any enactment.
- 9.24 No argument has been put forward by any party during the examination to the effect that granting consent would amount to a breach of any legal duty. Nothing in the ExA's examination has suggested that this might be the case.
- 9.25 The ExA concludes that there is no obstacle to the granting of consent arising from this provision.

Breach of law

- 9.26 Under s.104(6) the SoS would not be able to grant consent if he were satisfied that deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment.
- 9.27 No argument has been put forward by any party during the examination to the effect that granting consent would amount to a breach of any law. Nothing in the ExA's examination has suggested that this might be the case.
- 9.28 The ExA concludes that there is no obstacle to the granting of consent arising from this provision.

Adverse impacts versus benefits

- 9.29 Under s.104(7) the SoS would not be able to grant consent if he were satisfied that the adverse impact of the proposed development would outweigh its benefits.
- 9.30 The potential benefits of the application are the major contribution which the project would be able to make to the achievement of the United Kingdom's energy policy goals and international commitments, up to 1.2 GW of renewable power.

- 9.31 The project also has the potential to bring socio-economic benefits to the Humber region. The applicant has avoided making any specific commitments in this respect, but the ExA is satisfied that the Order as now drafted would capture whatever benefits could be captured in this respect.
- 9.32 The only fundamental objection on the grounds of adverse impacts comes from RSPB, expressed in relation to the potential harm to sea-birds protected under the Habitats Regulations, although it should be noted that RSPB itself state that -
- 'Faced with the threats of climate change to the natural world the RSPB considers that a low-carbon energy revolution is essential to safeguard biodiversity' [REP-246, full representation, para 1.4].
- 9.33 RSPB's concern is precisely that -
- ' ... inappropriately designed and/or sited developments can also cause serious and irreparable harm to biodiversity, and damage the public acceptability of the necessary low-carbon energy transition technologies'(ibid.).
- But a great deal of the examination consisted of a discussion based on interpolation of data through the application of mathematical models which have not been validated or calibrated with empirical data collected at off-shore wind farms, with the objective of seeking to establish exactly how serious and how irreparable the harm caused by this project might be.
- 9.34 The scientific community for ornithology - represented in this case by the applicant's specialist advisers, NE and RSPB - places a great deal of weight on these models. The ExA still has reservations as to how conclusive these models are, or, unverified, can be; but the ExA recognises the authority given to NE in particular as the government's scientific advisor on nature.
- 9.35 Having considered the evidence produced throughout the examination very carefully, and the accompanying analyses of the application of the mathematical models, the ExA is of the view that the likely damage to the designated species would be less than RSPB argues, and in some cases less than NE calculates; and that in all cases it should be within acceptable limits.
- 9.36 On that basis the ExA necessarily concludes that the adverse impacts of the project would not outweigh the very great potential benefit to be won from it, and recommends that consent should be granted.
- 9.37 The ExA should note briefly the position of C.GEN and its proposed generating station at North Killingholme, since C.GEN have argued that the current application might frustrate their own scheme for an NSIP. The ExA considers that this is not a fundamental objection so much as a wrangle over a relatively small number of

rights in land, with the applicant prepared to offer constructive solutions. It is capable of resolution through negotiation.

Other conditions

- 9.38 Under s.104(8), the Secretary of State would not decide in accordance with a national policy statement if he were satisfied that there were some other condition prescribed for deciding an application otherwise than in accordance with a national policy statement that was met. This provision does not apply in this case⁴⁸.

Overall conclusion and recommendation

- 9.39 The ExA concludes that all the conditions set in s.104 of PA 2008 are met by this application. In particular, in relation to s.104(7), the ExA concludes that the adverse impacts of the proposed development will not outweigh its benefits.
- 9.40 The ExA therefore recommends that the Secretary of State grants consent to the scheme through the draft Order at Annex ZZ.

⁴⁸ S.104(9) does not apply in this case, since the relevant NPSs are not location-specific.

APPENDICES

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Appendix A – Examination Library

APPLICATION DOCUMENTS

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APP-021	<u>6.3 Book of Reference - Part 3 of 5</u>
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APP-030	<u>7.2.1 Marine Processes</u>
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APP-032	<u>7.2.3 Fish and Shellfish Ecology</u>
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APP-088	<u>7.5.8.1 Subzone 1 and Offshore Cable Route NRA</u>
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APP-120	<u>7.6.3.12 Ecological Management Plan</u>
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APP-174	<u>12.9 Offshore EPS Draft Application</u>
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UPDATED APPLICATION DOCUMENTS
Book of Reference

UAPP-1	<u>Book of Reference - Part 1 of 5 (December 2013)</u>
UAPP-2	<u>Book of Reference - Part 2 of 5 (December 2013)</u>
UAPP-3	<u>Book of Reference - Part 3 of 5 (December 2013)</u>
UAPP-4	<u>Book of Reference - Parts 4, 5 and Schedule (December 2013)</u>
UAPP-5	<u>Updated Book of Reference – Parts 1 to 5 track changes – cover changed from July 2013 to October 2013</u>
UAPP-6	<u>Book of Reference - Part 1 of 5 (December 2013) (with tracked changes)</u>
UAPP-7	<u>Book of Reference - Part 2 of 5 (December 2013) (with tracked changes)</u>
UAPP-8	<u>Book of Reference - Part 3 of 5 (December 2013) (with tracked changes)</u>
UAPP-9	<u>Book of Reference - Parts 4, 5 and Schedule (December 2013) (with tracked changes)</u>
UAPP-10	<u>Book of Reference - Part 1 of 5 (11 December 2013)</u>
UAPP-11	<u>Book of Reference - Part 1 of 5 (February 2014) Appendix E for Deadline III</u>

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UAPP-15	<u>Book of Reference - Part 1 of 5 with tracked changes (February 2014) Appendix F for Deadline III</u>
UAPP-16	<u>Book of Reference - Part 2 of 5 with tracked changes (February 2014) Appendix F for Deadline III</u>
UAPP-17	<u>Book of Reference - Part 3 of 5 with tracked changes (February 2014) Appendix F for Deadline III</u>
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UAPP-19	<u>Book of Reference Part 1 of 5 (2 May 2014) Appendix H for Deadline VI</u>
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UAPP-23	<u>Book of Reference Part 2 of 5 with tracked changes (2 May 2014) Appendix I for Deadline VI</u>
UAPP-24	<u>Book of Reference Part 1 of 5 with tracked changes (2 May 2014) Appendix I for Deadline VI</u>
UAPP-25	<u>Book of Reference Part 3 of 5 with tracked changes (2 May 2014) Appendix I for Deadline VI</u>
UAPP-26	<u>Book of Reference Parts 4, 5 and Schedule with tracked changes (2 May 2014) Appendix I for Deadline VI</u>

UPDATED APPLICATION DOCUMENTS
Draft Development Consent Orders (DCO)

UAPP-27	<u>Draft DCO Version 2 - Appendix A of submission for Deadline II</u>
UAPP-28	<u>Comparison of draft DCO Version 2 with Version 1 - Appendix B of submission for Deadline III</u>
UAPP-29	<u>Schedule of Changes to the draft DCO - Appendix C of submission for Deadline III</u>
UAPP-30	<u>Draft DCO Version 3 - Appendix A of submission for Deadline III</u>
UAPP-31	<u>Comparison of draft DCO Version 3 with Version 2 - Appendix B of submission for Deadline III</u>
UAPP-32	<u>Comparison of draft DCO Version 3 with Version 1 - Appendix C of submission for Deadline III</u>
UAPP-33	<u>Schedule of Changes to draft DCO Version 2 - Appendix D of submission for Deadline III</u>
UAPP-34	<u>Draft DCO Version 4. Appendix A submitted for Deadline IV of 22 April 2014</u>
UAPP-35	<u>Comparison of Version 4 of draft DCO with Version 3. Appendix B submitted for deadline IV of 22 April 2014</u>
UAPP-36	<u>Comparison of draft DCO Version 4 with Version 1- Appendix C submitted for Deadline IV of 22 April 2014</u>
UAPP-37	<u>Schedule of Changes requested to the draft DCO - Appendix D of submission for Deadline IV of 22 April 2014</u>
UAPP-38	<u>Draft DCO Version 5 in Word format - Appendix A of submission for Deadline VI of 21 May 2014</u>
UAPP-39	<u>Draft DCO Version 5 in PDF format - Appendix B of submission for Deadline VI of 21 May 2014</u>
UAPP-40	<u>Draft DCO Version 1 in Word format - Appendix C of submission for Deadline VI of 21 May 2014</u>
UAPP-41	<u>Comparison of the draft DCO Versions 5 and 1- Appendix D of submission for Deadline VI of 21 May 2014</u>
UAPP-42	<u>Comparison of the draft DCO Version 5 and 4 - Appendix E of submission for Deadline VI of 21 May 2014</u>

- UAPP-43 [Schedule of Changes to the draft DCO Version 4 - Appendix F of submission for Deadline VI of 21 May 2014](#)
- UAPP-44 [Draft DCO Version 6 in Word format - Appendix A of submission for Deadline VII of 28 May 2014](#)
- UAPP-45 [Draft DCO Version 6 PDF - Appendix B of submission for Deadline VII of 28 May 2014](#)
- UAPP-46 [Draft DCO Version 1 in Word format - Appendix C of submission for Deadline VII of 28 May 2014](#)
- UAPP-47 [Comparison of draft DCO Version 6 and Version I - Appendix D of submission for Deadline VII of 28 May 2014](#)
- UAPP-48 [Comparison of draft DCO Version 6 and 5 - Appendix E of submission for Deadline VII of 28 May 2014](#)
- UAPP-49 [Schedule of Changes requested to draft DCO Version 5 - Appendix F of submission for Deadline VII of 28 May 2014](#)
- UAPP-50 [Draft DCO Version 7 in Word format - Appendix A of submission for Deadline VIII of 6 June 2014](#)
- UAPP-51 [Draft DCO Version 7 in Pdf format - Appendix B of submission for Deadline VIII of 6 June 2014](#)
- UAPP-52 [Comparison of draft DCO Version 7 with Version 1- Appendix C of submission for Deadline VIII of 6 June 2014](#)
- UAPP-53 [Comparison of the draft DCO Version 7 with Version 6 - Appendix D of submission for Deadline VIII of 6 June 2014](#)
- UAPP-54 [Schedule of Changes Version 6 - Appendix E of submission for Deadline VIII of 6 June 2014](#)
- UAPP-55 [Correction to draft DCO Version 7 - submitted for Deadline IX of 9 June 2014](#)

UPDATED APPLICATION DOCUMENTS

Other documents

- UAPP-56 [SMart Wind Ltd. Updated Land Plans - Sheet 19 of 27](#)
- UAPP-57 [SMart Wind Ltd. Updated Land Plans - Sheet 27 of 27](#)
- UAPP-58 [SMart Wind Ltd. Updated Works Plans 6.5.2 - Sheet 27 of 27](#)
- UAPP-59 [SMart Wind Ltd. Errata list](#)
- UAPP-60 [SMart Wind Ltd. HRA Report Errata](#)

PROJECT DOCUMENTS**Procedural Decisions**

PD-001	<u>Acceptance of Application Letter</u>
PD-002	<u>Section 55 Acceptance Checklist</u>
PD-003	<u>Cover Letter to Member State - Belgium</u>
PD-004	<u>Cover Letter to Member State - Denmark</u>
PD-005	<u>Cover Letter to Member State - France</u>
PD-006	<u>Cover Letter to Member State - Germany</u>
PD-007	<u>Cover Letter to Member State - Iceland</u>
PD-008	<u>Cover Letter to Member State - Netherlands</u>
PD-009	<u>Cover Letter to Member State - Norway</u>
PD-010	<u>Cover Letter to Scottish Natural Heritage</u>
PD-011	<u>Cover Letter to the Federal Authority, Brussels</u>
PD-012	<u>Cover Letter to the Region of Brussels</u>
PD-013	<u>Cover Letter to the Walloon Region</u>
PD-014	<u>Rule 6 Letter with Annexes (Final)</u>
PD-015	<u>Rule 8 Letter</u>
PD-016	<u>Examining Authority's First Written Questions</u>
PD-017	<u>Notification of Hearings</u>
PD-018	<u>Rule 17 Letter of 5 February 2014. Request for further information and comments on supplementary environmental information</u>
PD-019	<u>Rule 17 Letter of 18 February 2014 with amended timetable</u>
PD-020	<u>Rules 8(3)13 and 17 Letter of 20 March 2014 including Examining Authority's Second Written Questions</u>

- PD-021 Rule 17 letter of 12 May 2014. Amended timetable and request for further information following the responses to the Examining Authority's (ExA) second round of questions and hearings held in the week commencing 28 April 2014
- PD-022 Rule 17 letter of 2 June 2014. Amended timetable and request for further information from the applicant and the Marine Management Organisation. Request for comments on the applicant's Ornithology documents submitted on 3 June 2014
- PD-023 Notification of Completion of Examination (S99 letter)

Certificates

- Cert-001 SMart Wind Ltd. EIA Regulation 13 Certificate
- Cert-002 SMart Wind Ltd. s56 Certificate
- Cert-003 SMart Wind Ltd. s59 Certificate and updated Book of Reference

Correspondence

- Corr-01 Post-acceptance s51 advice to applicant
- Corr-02 Public Health England. Letter to Planning Inspectorate relating to previous matters raised in s42 Response
- Corr-03 SMart Wind Ltd. Letter to applicant from OFWAT
- Corr-04 SMart Wind Ltd. Letter to applicant from Crown Estate
- Corr-05 Rule 17 Letter of 6 February 2014. Amendment to Rule 17 Letter of 5 February 2014 - amendment to dates
- Corr-06 Royal Society for the Protection of Birds. Comments on the Agenda of Issue Specific Hearing 11 and 12 March 2014
- Corr-07 Letter from The Planning Inspectorate to The Royal Society for the Protection of Birds
- Corr-08 Phillips 66 Ltd. Letter dated 26 March 2014 withdrawing paragraph 5 of Written Representation submitted for Deadline II

Transboundary documents

- Trans-01 Transboundary Re-Screening

RIES documents

- RIES-01 SMart Wind Ltd. Appendix AA of Response submitted for Deadline II of 20 January 2014 - Report on the Implications for European Sites Integrity matrices
- RIES-02 The Planning Inspectorate's Report on the Implications for European Sites

REPRESENTATIONS

Adequacy of Consultation Responses

- REP-001 East Lindsey District Council
- REP-002 Norfolk County Council
- REP-003 Nottinghamshire County Council
- REP-004 Cambridgeshire County Council
- REP-005 East Riding of Yorkshire Council

RELEVANT REPRESENTATIONS

- REP-006 The Crown Estate
- REP-007 Civil Aviation Authority
- REP-008 Marine Management Organisation
- REP-009 Royal Yachting Association
- REP-010 East Lindsey District Council
- REP-011 Alan Rayner
- REP-012 Boston Borough Council
- REP-013 VisNed (Dutch Demersal Fisheries Organisation)
- REP-014 Network Rail Infrastructure Limited
- REP-015 Norfolk County Council
- REP-016 Forewind Ltd

REP-017	<u>National Grid Electricity Transmission Plc and National Grid Gas Plc</u>
REP-018	<u>Saltfleetby Parish Council</u>
REP-019	<u>BP Exploration Operating Company Limited</u>
REP-020	<u>Highways Agency</u>
REP-021	<u>Centrica Plc (including its subsidiary Centrica KPS Ltd)</u>
REP-022	<u>East Anglia Offshore Wind Ltd</u>
REP-023	<u>East Riding of Yorkshire Council</u>
REP-024	<u>Maritime and Coastguard Agency</u>
REP-025	<u>Rijkswaterstaat Sea and Delta</u>
REP-026	<u>Public Health England</u>
REP-027	<u>Phillips 66 Limited</u>
REP-028	<u>Defence Infrastructure Organisation</u>
REP-029	<u>C.GEN Killingholme Limited</u>
REP-030	Environment Agency - withdrawn
REP-031	<u>Lindsey Marsh Drainage Board</u>
REP-032	<u>Lincolnshire County Council</u>
REP-033	<u>UK Chamber of Shipping</u>
REP-034	<u>Eastern Inshore Fisheries and Conservation Authority</u>
REP-035	<u>Natural England</u>
REP-036	<u>Lincolnshire Wildlife Trust</u>
REP-037	<u>Royal Society for the Protection of Birds</u>
REP-038	<u>National Federation of Fishermen</u>
REP-039	<u>Danish Fishermens Association</u>
REP-040	<u>English Heritage</u>
REP-041	<u>Trinity House</u>

REP-042 [Rederscentrale](#)

REP-043 [F. Waslin](#)

Responses to Rule 6 Letter

R6-001 [SMart Wind Ltd. Response to Rule 6 Letter](#)

DOCUMENTS FOR DEADLINE II - 20 January 2014 Comments on Relevant Representations

REP-044 [Natural England - Annex J Comments on Relevant Representations](#)

REP-045 [SMart Wind Ltd. - Appendix I Response to Relevant Representation made by C.GEN North Killingholme Limited](#)

REP-046 [SMart Wind Ltd. - Part 3 of the First Written Response - Responses to Relevant Representations](#)

DOCUMENTS FOR DEADLINE II - 20 January 2014 Written Representations

REP-047 [Alan Rayner](#)

REP-048 [Anglian Water](#)

REP-049 [C.GEN Killingholme Limited](#)

REP-050 [C.GEN Killingholme Limited. Summary of Written Representation](#)

REP-051 [Centrica Plc. Withdrawn](#)

REP-052 [Centrica Plc. Summary of Written Representations - Withdrawn](#)

REP-053 [Phillips 66 Limited](#)

REP-054 [Natural England](#)

REP-055 [Natural England. Summary of Written Representation](#)

REP-056 [Environment Agency - withdrawn](#)

REP-057 [Royal Society for the Protection of Birds](#)

REP-058 [National Grid](#)

REP-059 [SMart Wind Ltd.- Part 1 of First Written Response - Written Representations](#)

UAPP-27	<u>SMart Wind Ltd. - Appendix A Draft Development Consent Order - Version 2</u>
UAPP-28	<u>SMart Wind Ltd. - Appendix B Comparison of Version 2 of the draft DCO against Version 1</u>
UAPP-29	<u>SMart Wind Ltd.- Appendix C Schedule of Changes to the draft DCO</u>
REP-063	<u>SMart Wind Ltd. - Appendix D Letter of Consent from the Environment Agency</u>
REP-064	<u>SMart Wind Ltd. - Appendix E Letter of Consent from North East Lindsey Drainage Board</u>
REP-065	<u>SMart Wind Ltd. - Appendix F Letter of Consent from North Lincolnshire Council Lead Local Flood Authority.</u>
REP-066	<u>SMart Wind Ltd. - Appendix G Letter of Consent from Lincolnshire County Council Lead Local Flood Authority</u>
REP-067	<u>SMart Wind Ltd. - Appendix H Letter of Consent from North East Lincolnshire Council Lead Local Flood Authority</u>
REP-045	<u>SMart Wind Ltd. - Appendix I Response to Relevant Representation made by C.GEN North Killingholme Limited</u>

SMart Wind Ltd. Appendix J – documents relating to the C.GEN (North Killingholme) Project

REP-068	<u>SMart Wind Ltd. - Index to Bundle of Documents submitted in relation to the C.GEN Project</u>
REP-069	<u>SMart Wind Ltd. - Appendix J Documents submitted in relation to the North Killingholme Power Project</u>
REP-070	<u>SMart Wind Ltd. - Appendix J1 C.GEN Covering Letter accompanying application with Consultation Report addendum</u>
REP-071	<u>SMart Wind Ltd. - Appendix J2 C.GEN Application form</u>
REP-072	<u>SMart Wind Ltd. - Appendix J3 C.GEN Draft DCO (Version 3)</u>
REP-073	<u>SMart Wind Ltd. - Appendix J4 C.GEN Explanatory Memorandum</u>
REP-074	<u>SMart Wind Ltd. - Appendix J5 C.GEN Environmental Statement Volume I</u>
REP-075	<u>SMart Wind Ltd. - Appendix J6 C.GEN Grid Connection Statement</u>

REP-076	<u>SMart Wind Ltd. - Appendix J7 C.GEN Combined Land and Work Plans</u>
REP-077	<u>SMart Wind Ltd. - Appendix J8 C.GEN Statement of Reasons</u>
REP-078	<u>SMart Wind Ltd. - Appendix J9 C.GEN Book of Reference</u>
REP-079	<u>SMart Wind Ltd. - Appendix J10 C.GEN Update to Book of Reference as submitted at the preliminary meeting</u>
REP-080	<u>SMart Wind Ltd. - Appendix J11 C.GEN Consultation Report</u>
REP-081	<u>SMart Wind Ltd. - Appendix J12 Relevant Representation by SMart Wind Limited to C.GEN</u>
REP-082	<u>SMart Wind Ltd. - Appendix J13 Relevant Representation by Centrica Plc (Centrica) to C.GEN</u>
REP-083	<u>SMart Wind Ltd. - Appendix J14 Relevant Representation by Able Humber Ports Limited (Able) to C.GEN</u>
REP-084	<u>SMart Wind Ltd. - Appendix J15 Summary of Relevant Representation by Able to C.GEN</u>
REP-085	<u>SMart Wind Ltd. - Appendix J16 Relevant Representation by E.ON UK Plc (E.ON) to C.GEN</u>
REP-086	<u>SMart Wind Ltd. - Appendix J17 C.GEN Response to Relevant Representations</u>
REP-087	<u>SMart Wind Ltd. - Appendix J18 C.GEN Response to relevant Representations - Appendix 1</u>
REP-088	<u>SMart Wind Ltd. - Appendix J19 C.GEN Response to Relevant Representations - Appendix 2</u>
REP-089	<u>SMart Wind Ltd. - Appendix J20 C.GEN Response to Relevant Representations - Appendix 3</u>
REP-090	<u>SMart Wind Ltd. - Appendix J21 C.GEN Response to Relevant Representations - Appendix 4</u>
REP-091	<u>SMart Wind Ltd. - Appendix J22 C.GEN Response to Relevant Representations - Appendix 5</u>
REP-092	<u>SMart Wind Ltd. - Appendix J23 C.GEN Response to Relevant Representations - Appendix 6</u>
REP-093	<u>SMart Wind Ltd. - Appendix J24 Written Representation by SMart Wind to C.GEN</u>

REP-094	<u>SMart Wind Ltd. - Appendix J25 Written Representation by SMart Wind to C.GEN - Appendix 1</u>
REP-095	<u>SMart Wind Ltd. - Appendix J26 Written Representation by SMart Wind to C.GEN - Appendix 2</u>
REP-096	<u>SMart Wind Ltd. - Appendix J27 Written Representation by SMart Wind to C.GEN - Appendix 3</u>
REP-097	<u>SMart Wind Ltd. - Appendix J28 Written Representation by SMart Wind to C.GEN - Appendix 4</u>
REP-098	<u>SMart Wind Ltd. - Appendix J29 Written Representation by SMart Wind to C.GEN - Appendix 5</u>
REP-099	<u>SMart Wind Ltd. - Appendix J30 Written Representation by SMart Wind to C.GEN - Appendix 6</u>
REP-100	<u>SMart Wind Ltd. - Appendix J31 Written Representation by SMart Wind to C.GEN - Appendix 7</u>
REP-101	<u>SMart Wind Ltd. - Appendix J32 Written Representation by SMart Wind to C.GEN - Appendix 8</u>
REP-102	<u>SMart Wind Ltd. - Appendix J33 Written Representation by SMart Wind to C.GEN - Appendix 9</u>
REP-103	<u>SMart Wind Ltd. - Appendix J34 Written Representation by SMart Wind to C.GEN - Appendix 10</u>
REP-104	<u>SMart Wind Ltd. - Appendix J35 Written Representation by SMart Wind to C.GEN - Appendix 11</u>
REP-105	<u>SMart Wind Ltd. - Appendix J36 Written Representation by SMart Wind to C.GEN - Appendix 12</u>
REP-106	<u>SMart Wind Ltd. - Appendix J37 Written Representation by SMart Wind to C.GEN - Appendix 13</u>
REP-107	<u>SMart Wind Ltd. - Appendix J38 Summary of Written Representation by SMart Wind to C.GEN</u>
REP-108	<u>SMart Wind Ltd. - Appendix J39 Written Representation by Centrica Plc to C.GEN</u>
REP-109	<u>SMart Wind Ltd. - Appendix J40 Written Representation by Centrica Plc to C.GEN Appendices</u>
REP-110	<u>SMart Wind Ltd. - Appendix J41 summary of Written Representation by Centrica Plc to C.GEN</u>

- REP-111 [SMart Wind Ltd. - Appendix J42 Written Representation by Able to C.GEN](#)
- REP-112 [SMart Wind Ltd. - Appendix J43 Summary of Written Representation by Able to C.GEN](#)
- REP-113 [SMart Wind Ltd. - Appendix J44 Review of North Killingholme ES by Able](#)
- REP-114 [SMart Wind Ltd. - Appendix J45 Written Representation by E.ON to C.GEN](#)
- REP-115 [SMart Wind Ltd. - Appendix J46 C.GEN comments on Written Representation by SMart Wind Ltd](#)
- REP-116 [SMart Wind Ltd. - Appendix J47 C.GEN comments on Written Representation by Centrica Plc](#)
- REP-117 [SMart Wind Ltd. - Appendix J48 C.GEN comments on Appendix to Written Representation by Centrica Plc](#)
- REP-118 [SMart Wind Ltd. - Appendix J49 C.GEN comments on Written Representation by Able](#)
- REP-119 [SMart Wind Ltd. - Appendix J50 C.GEN comments on Written Representation by E.ON](#)
- REP-120 [SMart Wind Ltd. - Appendix J51 ExA First Written Questions to C.GEN](#)
- REP-121 [SMart Wind Ltd. - Appendix J52 C.GEN Response to ExA First Written Questions on draft DCO](#)
- REP-122 [SMart Wind Ltd. - Appendix J53 C.GEN Response to ExA First Written Questions on Compulsory Acquisition \(CA\)](#)
- REP-123 [SMart Wind Ltd. - Appendix J54 C.GEN Response to ExA First Written Questions on CA Appendix 1](#)
- REP-124 [SMart Wind Ltd. - Appendix J55 C.GEN Response to ExA First Written Questions on CA Appendix 2](#)
- REP-125 [SMart Wind Ltd. - Appendix J56 C.GEN Response to ExA First Written Questions on CA Appendix 3](#)
- REP-126 [SMart Wind Ltd. - Appendix J57 C.GEN Response to ExA First Written Questions on CA Appendix 4](#)
- REP-127 [SMart Wind Ltd. - Appendix J58 C.GEN Response to ExA First Written Questions on CA Appendix 5](#)

- REP-128 [SMart Wind Ltd. - Appendix J59 Able Response to C.GEN ExA First Written Questions](#)
- REP-129 [SMart Wind Ltd. - Appendix J60 Comments on C.GEN response to ExA First Written Questions by SMart Wind](#)
- REP-130 [SMart Wind Ltd. - Appendix J61 Comments on C.GEN response to ExA First Written Questions by SMart Wind Appendices](#)
- REP-131 [SMart Wind Ltd. - Appendix J62 Comments on C.GEN response to ExA First Written Questions by Able](#)
- REP-132 [SMart Wind Ltd. - Appendix J63 Able Response to ExA first Written Questions - C.GEN Response](#)
- REP-133 [SMart Wind Ltd. - Appendix J64 Partial Note of C.GEN DCO Hearing 20 Nov 2013 \(missing audio\)](#)
- REP-134 [SMart Wind Ltd. - Appendix J65 Audio Recording of C.GEN DCO Hearing 20 Nov 2013 Part 2](#)
- REP-135 [SMart Wind Ltd. - Appendix J66 Audio Recording of C.GEN DCO Hearing 20 Nov 2013 Part 3](#)
- REP-136 [SMart Wind Ltd. - Appendix J67 Audio Recording of C.GEN CA Hearing 21 Nov 2013 Part 1](#)
- REP-137 [SMart Wind Ltd. - Appendix J68 Audio Recording of C.GEN CA Hearing 21 Nov 2013 Part 2](#)
- REP-138 [SMart Wind Ltd. - Appendix J69 Audio Recording of C.GEN CA Hearing 21 Nov 2013 Part 3](#)
- REP-139 [SMart Wind Ltd. - Appendix J70 Audio Recording of C.GEN CA Hearing 21 Nov 2013 Part 4](#)
- REP-140 [SMart Wind Ltd. - Appendix J71 Audio Recording of C.GEN CA Hearing 22 Nov 2013 Part 1](#)
- REP-141 [SMart Wind Ltd. - Appendix J72 Audio Recording of C.GEN CA Hearing 22 Nov 2013 Part 2](#)
- REP-142 [SMart Wind Ltd. - Appendix J73 Audio Recording of C.GEN CA Hearing 22 Nov 2013 Part 3](#)
- REP-143 [SMart Wind Ltd. - Appendix J74 Audio Recording of C.GEN CA Hearing 22 Nov 2013 Part 4](#)
- REP-144 [SMart Wind Ltd. - Appendix J75 Audio Recording of C.GEN CA Hearing 22 Nov 2013 Part 5](#)

- REP-145 [SMart Wind Ltd. - Appendix J76 Audio Recording of C.GEN CA Hearing 22 Nov 2013 Part 6](#)
- REP-146 [SMart Wind Ltd. - Appendix J77 Summary of Case at C.GEN DCO Hearing by C.GEN](#)
- REP-147 [SMart Wind Ltd. - Appendix J78 Summary of Case at C.GEN DCO and CA Hearing by SMart Wind](#)
- REP-148 [SMart Wind Ltd. - Appendix J79 Summary of Case at C.GEN DCO and CA Hearing by Centrica](#)
- REP-149 [SMart Wind Ltd. - Appendix J80 Summary of Case at C.GEN DCO Hearing by Able](#)
- REP-150 [SMart Wind Ltd. - Appendix J81 Summary of Case at C.GEN CA Hearing by Able](#)
- REP-151 [SMart Wind Ltd. - Appendix J82 Summary of Case at C.GEN CA Hearing by C.GEN](#)
- REP-152 [SMart Wind Ltd. - Appendix J83 Summary of Case at C.GEN CA Hearing by C.GEN Appendix 1](#)
- REP-153 [SMart Wind Ltd. - Appendix J84 Summary of Case at C.GEN CA Hearing by C.GEN Appendix 2](#)
- REP-154 [SMart Wind Ltd. - Appendix J85 Summary of Case at C.GEN CA Hearing by C.GEN Appendix 3](#)
- REP-155 [SMart Wind Ltd. - Appendix J86 Application by C.GEN to withdraw land from C.GEN Order Limits](#)
- REP-156 [SMart Wind Ltd. - Appendix J87 Procedural Decision in relation to the C.GEN Order Limits](#)
- REP-157 [SMart Wind Ltd. - Appendix J88 C.GEN Land Plan 2.9 following change to C.GEN Order Limits](#)
- REP-158 [SMart Wind Ltd. - Appendix J89 Amended C.GEN Land Plan 2.10 following change to C.GEN Order Limits](#)
- REP-159 [SMart Wind Ltd. - Appendix J90 Amended C.GEN Land Plan 2.11 following change to C.GEN Order Limits](#)
- REP-160 [SMart Wind Ltd. - Appendix J91 ExA's Second Written Questions to C.GEN](#)
- REP-161 [SMart Wind Ltd. - Appendix J92 Response to C.GEN re ExA's Second Written Questions](#)

SMart Wind Ltd. Appendices K-Z submitted for Deadline II

REP-162	<u>SMart Wind Ltd. - Appendix K Marine Processes Clarification Note</u>
REP-163	<u>SMart Wind Ltd. - Appendix L Humber Estuary SAC Clarification Note with Addendum and Appendices</u>
REP-164	<u>SMart Wind Ltd. - Appendix M Clarification Note relating to the Displacement of Offshore Ornithological Receptors</u>
REP-165	<u>SMart Wind Ltd. - Appendix N Flight Height Distribution Clarification Note</u>
REP-166	<u>SMart Wind Ltd. - Appendix O Review of Avoidance Rates in Seabirds at Offshore Wind Farms</u>
REP-167	<u>SMart Wind Ltd. - Appendix P Clarification Note relating to Cumulative and In-Combination Collision Assessments</u>
REP-168	<u>SMart Wind Ltd. - Appendix Q Data Collection and Presentation Clarification Note</u>
REP-169	<u>SMart Wind Ltd. - Appendix R Population Scale Information for Ornithological EIA Species</u>
REP-170	<u>SMart Wind Ltd. - Appendix S Sites of Special Scientific Interest Clarification Note</u>
REP-171	<u>SMart Wind Ltd. - Appendix T Clarification Note relating to the Impacts of the Export Cable Installation on Intertidal</u>
REP-172	<u>SMart Wind Ltd. - Appendix U Marine Mammal Clarification Note</u>
REP-173	<u>SMart Wind Ltd. - Appendix V Project Specific Information for the Cumulative and In-Combination Assessments Benthic</u>
REP-174	<u>SMart Wind Ltd. - Appendix W Eastern Inshore Fisheries and Conservation Authority Clarification Note</u>
REP-175	<u>SMart Wind Ltd. - Appendix X MMO Clarification Note Disposal Area 1 and Scour</u>
REP-176	<u>SMart Wind Ltd. - Appendix Y Dredging and Disposal Site Characterisation Sandwave Clearance Disposal Areas</u>
REP-177	<u>SMart Wind Ltd. - Appendix Z Report on the Implications for European Sites Screening matrices</u>

DOCUMENTS FOR DEADLINE II -20 January 2014
Responses to Examining Authority's First Written Questions

REP-178	<u>East Lindsey District Council</u>
REP-179	<u>Maritime and Coastguard Agency</u>
REP-180	<u>English Heritage</u>
REP-181	<u>Alan Rayner</u>
REP-182	<u>North Lincolnshire Council</u>
REP-183	<u>Highways Agency</u>
REP-184	<u>Environment Agency - withdrawn</u>
REP-185	<u>Marine Management Organisation</u>
REP-186	<u>C.GEN Killingholme Ltd</u>
REP-187	<u>Anglian Water</u>
REP-188	<u>Natural England</u>
REP-189	<u>SMart Wind Ltd. - Part 2 of the First Written Response - Responses to the Examining Authority's First Written Questions</u>
REP-190	<u>SMart Wind Ltd. - Appendix AA Report on the Implications for European Sites Integrity matrices</u>
REP-191	<u>SMart Wind Ltd. - Appendix BB in response to G1 (Table providing update on Additional Consents)</u>
REP-192	<u>SMart Wind Ltd. - Appendix CC referred to in response to G2 (Update on Land Agreements)</u>
REP-193	<u>SMart Wind Ltd. - Appendix DD referred to in response to G3 - SoCG Status Tables</u>
REP-194	<u>SMart Wind Ltd. - Appendix EE referred to in response to G3 (SoCG Table of Commonality in support of Response)</u>
REP-195	<u>SMart Wind Ltd. - Appendix FF referred to in response to PN1 (Project Corporate Structure)</u>
REP-196	<u>SMart Wind Ltd. - Appendix GG in response to GE1 Table of Enhancement, Mitigation and Monitoring Commitments</u>

REP-197	<u>SMart Wind Ltd. - Appendix HH in response to GE5 Table of Assessment of Maintenance Works and Conclusions of Likely Impacts</u>
REP-198	<u>SMart Wind Ltd. - Appendix II in response to GE8 (Summary of assessment associated with named Frameworks, Acts and Co)</u>
REP-199	<u>SMart Wind Ltd. - Appendix JJ referred to in response to EO4 (References)</u>
REP-200	<u>SMart Wind Ltd. - Appendix KK referred to in response to CS15 Table showing Disposal Sites Included within the Application</u>
REP-201	<u>SMart Wind Ltd. - Appendix LL referred to in response to CS15 (Figure showing Disposal Site Locations)</u>
REP-202	<u>SMart Wind Ltd. - Appendix MM referred to in response to CS16 (Figure of P66 pipeline in relation to the Project)</u>
REP-203	<u>SMart Wind Ltd. - Appendix NN referred to in response to LH4 (Extended Response)</u>
REP-204	<u>SMart Wind Ltd. - Appendix OO referred to in response to NS1 (Oil and Gas Licence Blocks)</u>
REP-205	<u>SMart Wind Ltd. - Appendix PP referred to in response to NS14 (Wind Rose Diagram)</u>
REP-206	<u>SMart Wind Ltd. - Appendix QQ referred to in response to F7 (Demersal Otter trawling within a wind farm)</u>
REP-207	<u>SMart Wind Ltd. - Appendix RR referred to in response to OP2 (Extract from North Lincolnshire LDF Housing and Employment Allocations)</u>
REP-208	<u>SMart Wind Ltd. - Appendix VVV SoCG with English Heritage (Onshore)</u>
REP-241	<u>SMart Wind Ltd. - Appendix WWW SoCG with Highways Agency</u>

DOCUMENTS FOR DEADLINE III - 24 February 2014
Including: Responses to Comments on Relevant Representations (RR)
and Comments on Written Representations (WR)

REP-242	<u>Natural England. Comments on the WRs and Responses to Comments on RRs - Section A of submission for Deadline III</u>
REP-243	<u>VPI Immingham. Notification of their study of risks posed by proximity to electric cables</u>
REP-244	<u>C.GEN Killingholme Ltd. Paper of amendments to the draft DCO</u>

REP-245	<u>Darrell and Christine Speight. No Comments</u>
REP-246	<u>Royal Society for the Protection of Birds. Summary of Written Representation (late submission)</u>
REP-247	<u>East Lindsey District Council. Post Hearing - No Comment</u>
REP-248	<u>C.GEN Killingholme Ltd. Representation and Appendices 1 and 2 relating to the Examining Authority's Second Written Questions</u>
REP-249	<u>SMart Wind Ltd. Written Response to Deadline III of 24 February 2014</u>
UAPP-30	<u>SMart Wind Ltd. - Appendix A of submission for Deadline III - draft DCO V3</u>
UAPP-31	<u>SMart Wind Ltd. - Appendix B of submission for Deadline III - Comparison of draft DCO V3 with V2</u>
UAPP-32	<u>SMart Wind Ltd. - Appendix C of submission for Deadline III - Comparison of draft DCO V3 with V1</u>
UAPP-33	<u>SMart Wind Ltd. - Appendix D of submission for Deadline III - Schedule of Changes to draft DCO V2</u>
UAPP-11	<u>SMart Wind Ltd. - Appendix E Book of Reference Part 1 of 5 (February 2014)</u>
UAPP-12	<u>SMart Wind Ltd. - Appendix E Book of Reference Part 2 of 5 (February 2014)</u>
UAPP-13	<u>SMart Wind Ltd. - Appendix E Book of Reference Part 3 of 5 (February 2014)</u>
UAPP-14	<u>SMart Wind Ltd. - Appendix E Parts 4, 5 and Schedule - Book of Reference (February 2014)</u>
UAPP-15	<u>SMart Wind Ltd. - Appendix F Book of Reference Part 1 of 5 with tracked changes (February 2014)</u>
UAPP-16	<u>SMart Wind Ltd. - Appendix F Book of Reference Part 2 of 5 with tracked changes (February 2014)</u>
UAPP-17	<u>SMart Wind Ltd. - Appendix F Book of Reference Part 3 of 5 with tracked changes (February 2014)</u>
UAPP-18	<u>SMart Wind Ltd. - Appendix F Book of Reference 4, 5 and Schedule with tracked changes (February 2014)</u>

REP-262	<u>SMart Wind Ltd. - Appendix G Environmental Information Signposting Document</u>
REP-263	<u>SMart Wind Ltd. - Appendix H of submission for Deadline III - Response to Rule 17 Q to Natural England</u>
REP-264	<u>SMart Wind Ltd. - Appendix I Update on status of land agreements</u>
REP-265	<u>SMart Wind Ltd. – Appendix J Response to Written Representation by C.GEN</u>
REP-266	<u>SMartWind Ltd. - Appendix K Response to Natural England's Written Representation</u>
REP-267	<u>SMart Wind Ltd. - Appendix L Memorandum of Understanding with Natural England</u>
REP-268	<u>SMart Wind Ltd. - Appendix M Response to NE's Comments on draft DCO/DMLs</u>
REP-269	<u>SMart Wind Ltd - Appendix N SoCG with MMO</u>
REP-270	<u>SMart Wind Ltd. - Appendix O SoCG with Yorkshire and Lincolnshire Wildlife Trusts</u>
REP-271	<u>SMart Wind Ltd. - Appendix P SoCG with National Grid</u>
REP-272	<u>SMart Wind Ltd. - Appendix Q Response to the Phillips 66 Report</u>
REP-273	<u>SMart Wind Ltd. - Appendix R Baysgarth Moated Site Photomontages</u>
REP-274	<u>SMart Wind Ltd. - Appendix S Clarification Note re in-combination assessment re Humber Estuary SPA and Ramsar site</u>
REP-275	<u>SMart Wind Ltd. - Appendix T Open Floor Hearing, Summary of Case</u>
REP-276	<u>SMart Wind Ltd. - Appendix U DCO Hearing, Summary of Case</u>
REP-277	<u>SMart Wind Ltd. - Appendix V Position Note on Socio-Economic Benefits</u>
REP-278	<u>SMart Wind Ltd. - Appendix W Letter of consent from Lindsey Marsh Drainage Board to the disapplication of provisions</u>
REP-279	<u>SMart Wind Ltd. - Appendix X Letter of consent for the SoS for Transport re s135</u>

- REP-280 [SMart Wind Ltd. - Appendix Y Letters to additional persons in the updated BoR February 2014](#)
- REP-281 [SMart Wind Ltd. - Appendix Z Overview of Management Plans](#)

DOCUMENTS FOR DEADLINE III - 24 February 2014
Comments on Responses to Examining Authority's First Written Questions

- REP-282 [Alan Rayner. Comments on applicant's Response to Q PN3 and PN8](#)
- REP-283 [National Grid. Comments on applicant's Response to Q CL11](#)
- REP-284 [C.GEN Killingholme Ltd. Appendix 3 Comments on Responses to ExA's First Written Questions](#)
- REP-285 [C.GEN Killingholme Ltd. Appendix 4 Hearing Representation](#)
reps

DOCUMENTS FOR DEADLINE III - 24 February 2014
Comments on Environmental Clarification Note

- REP-286 [Natural England. Written submission Section B of submission for Deadline III](#)

DOCUMENTS FOR DEADLINE III - 24 February 2014
Written Submissions of Oral Cases

- REP-275 [SMart Wind Ltd. - Appendix T Open Floor Hearing, Summary of Case](#)
- REP-276 [SMart Wind Ltd. - Appendix U Development Consent Order Hearing, Summary of Case](#)
- REP-287 [Environment Agency. Summary of Hearing Representation at Development Consent Order Hearing 13 February 2014 - withdrawn](#)
- REP-288 [C.GEN Killingholme Ltd. - Summary of the Hearing Representation at Development Consent Order Hearing 13 February 2014](#)
- REP-285 [C.GEN Killingholme Ltd. - Appendix 4 Hearing Representation at Compulsory Acquisition Hearing 11-13 February 2014](#)
- REP-289 [Natural England. Section C of submission - Hearing Representation for the hearings in week commencing 10 February 2014](#)
- REP-290 [Humber Local Enterprise Partnership. Hearing Representation](#)
- REP-291 [Marine Management Organisation. Hearing Representation for Development Consent Order Hearing 13 February 2014](#)

DOCUMENTS FOR DEADLINE III- 24 February 2014
Responses to Rule 17 request of 5 February 2014

REP-292	<u>Environment Agency - withdrawn</u>
REP-293a	<u>Marine Management Organisation</u>
REP-293b	<u>Marine Management Organisation (late submission).</u>
REP-294	<u>Natural England. Section D of submission for Deadline III</u>
REP-262	<u>SMart Wind Ltd. - Appendix G Environmental Information Signposting Document</u>
REP-263	<u>SMart Wind Ltd. - Appendix H of submission for Deadline III - Response to Rule 17 Q to Natural England</u>

DOCUMENTS FOR DEADLINE IV – 22 April 2014
Responses to Examining Authority's Second Written Questions of 20 March 2014

REP-295	<u>East Lindsey District Council</u>
REP-296	<u>GTC, The Electricity Network Company Ltd, Utility Grid Installations Ltd, Independent Power Networks Ltd, Independent Pipelines Limited, and Quadrant Pipelines Ltd</u>
REP-297	<u>Scottish Natural Heritage</u>
REP-298	<u>Environment Agency - withdrawn</u>
REP-299	<u>Humber Local Enterprise Partnership</u>
REP-300	<u>Maritime and Coastguard Agency</u>
REP-301	<u>North East Lincolnshire Council</u>
REP-302	<u>North Lincolnshire Council</u>
REP-303	<u>Marine Management Organisation</u>
REP-304	<u>Natural England</u>
REP-305	<u>The Royal Society for the Protection of Birds</u>
REP-306	<u>English Heritage</u>
REP-307	<u>SMart Wind Ltd. Response to Deadline IV</u>

UAPP-34	<u>SMart Wind Ltd.- Appendix A Draft Development Consent Order Version 4</u>
UAPP-35	<u>SMart Wind Ltd.- Appendix B Comparison of Version 4 of draft DCO against Version 3 of draft DCO</u>
UAPP-36	<u>SMart Wind Ltd.- Appendix C Comparison of Version 4 against Version 1 of draft DCO</u>
UAPP-37	<u>SMart Wind.- Appendix D Schedule of changes requested to the draft DCO</u>
REP-312	<u>SMart Wind.- Appendix E Environmental Information Signposting Document</u>
REP-313	<u>SMart Wind Ltd.- Appendix F Update on status of Land Agreements</u>
REP-314	<u>SMart Wind Ltd.- Appendix G Summary of Issue Specific Hearing - 11 and 12 March 2014</u>
REP-315	<u>SMart Wind Ltd.- Appendix H Summary of Compulsory Acquisition Hearing 13 March 2014</u>
REP-316	<u>SMart Wind Ltd.- Appendix I Network Rail Letter dated 13 March 2014</u>
REP-317	<u>SMart Wind Ltd.- Appendix J Environment Agency Letter dated 31 March 2014</u>
REP-318	<u>SMart Wind Ltd.- Appendix K Anglian Water Letter dated 13 March 2014</u>
REP-319	<u>SMart Wind Ltd.- Appendix L Highways Agency Letter dated 24 February 2014</u>
REP-320	<u>SMart Wind Ltd.- Appendix M Government Pipeline and Storage System Letter dated 28 November 2013</u>
REP-321	<u>SMart Wind Ltd. - Appendix N Applicant submission regarding land drainage objection by C.GEN Killingholme Ltd</u>
REP-322	<u>SMart Wind Ltd.- Appendix O Table of Enhancement Mitigation and Monitoring Commitments</u>
REP-323	<u>SMart Wind Ltd.- Appendix P The Applicant's Response to EO18</u>

REP-324	<u>SMart Wind Ltd.- Appendix Q Flamborough and Filey Coast pSPA Count Sheets</u>
REP-325	<u>SMart Wind Ltd.- Appendix R Gull collision risk assessment</u>
REP-326	<u>SMart Wind Ltd.- Appendix S Updated collision risk assessment note</u>
REP-327	<u>SMart Wind Ltd.- Appendix T Extract pages from The Kittiwake</u>
REP-328	<u>SMart Wind Ltd.- Appendix U Clarification Note on cumulative and in-combination collision assessments</u>
REP-329	<u>SMart Wind Ltd.- Appendix V Clarification Note on in-combination impacts of the onshore cable connection</u>
REP-330	<u>SMart Wind Ltd.- Appendix W Auk Displacement Note</u>
REP-331	<u>SMart Wind Ltd.- Appendix X PVA Note</u>
REP-332	<u>SMart Wind Ltd.- Appendix Y Compound Numbering Map</u>
REP-333	<u>SMart Wind Ltd.- Appendix Z Compound Tables</u>
REP-334	<u>SMart Wind Ltd.- Appendix AA Noise Buffering Map</u>
REP-335	<u>SMart Wind Ltd.- Appendix BB Draft Construction and Traffic Management Plan</u>
REP-336	<u>SMart Wind Ltd.- Appendix CC Socio-economic Assessment Methodology Note</u>
REP-337	<u>SMart Wind Ltd.- Appendix DD Documents submitted to C GEN North Killingholme - Part 1 of 5</u>
REP-338	<u>SMart Wind Ltd.- Appendix DD Documents submitted to C GEN North Killingholme - Part 2 of 5</u>
REP-339	<u>SMart Wind Ltd.- Appendix DD Documents submitted to C GEN North Killingholme - Part 3 of 5</u>
REP-340	<u>SMart Wind Ltd.- Appendix DD Documents submitted to c GEN North Killingholme - Part 4 of 5</u>
REP-341	<u>SMart Wind Ltd.- Appendix DD Documents submitted to C GEN North Killingholme - Part 5 of 5</u>
REP-342	<u>SMart Wind Ltd.- Appendix EE The Applicants Response to EO25</u>

- REP-343 SMart Wind Ltd.- Appendix FF Letter from Claire Priestner to support response to CA1
- REP-344 SMart Wind Ltd.- Appendix GG Marine Management Organisation - Update of Matters Not Agreed
- REP-345 SMart Wind Ltd.- Appendix HH Natural England - Update on matters not agreed
- REP-346 SMart Wind Ltd.- Appendix II Ornithology Roadmap
- REP-347 SMart Wind Ltd.- Appendix JJ Letter from Dong Energy to support response to CA1

DOCUMENTS FOR DEADLINE IV – 22 April 2014

Written Submissions of Oral Cases at Issue Specific Hearings (ISH) and Compulsory Acquisition Hearing (CAH)

- REP-314 SMart Wind Ltd.- Appendix G Summary of ISH 11 and 12 March 2014
- REP-315 SMart Wind Ltd.- Appendix H Summary of CAH 13 March 2014
- REP-348 Marine Management Organisation
- REP-349 National Grid. Summary of Oral Case made at the CAH 13 March 2014
- REP-350 C.GEN Killingholme Ltd. Summary of Oral Case made at the CAH 13 March 2014 .Covering Letter and Appendices 1-2
- REP-351 C.GEN Killingholme Ltd. Summary of Oral Case made at the CAH 13 March 2014 .Appendices 3-5
- REP-352 C.GEN Killingholme Ltd. Summary of Oral Case made at the CAH 13 March 2014 .Appendices 6-11

DOCUMENTS FOR DEADLINE V – 14 May 2014

Written proofs of Oral Cases at Issue Specific Hearings (ISH)

- REP- 353 Environment Agency - Summary of Oral Case from ISH 29 and 30 April 2014 - withdrawn
- REP- 354 National Grid Gas and National Grid Electricity Transmission Plc - Summary of Oral Case from ISH 30 April 2014
- REP- 355 Marine Management Organisation. Summary of Oral Case from ISH of 29 and 30 April 2014

- REP- 356 [C.GEN Killingholme Limited. Summary of Oral Case from ISH of 30 April 2014 with appendices](#)
- REP- 357 [Natural England. Includes summary of Oral Case made at ISH 29 and 30 April 2014, comments on Responses to Rule 17 request, plus other documents](#)
- REP- 358 [Royal Society for the Protection of Birds. Summary of Oral Case from ISH 11 and 12 March 2014](#)
- REP- 359 [SMart Wind Ltd. - Appendix A of Response to Deadline V. Summary of Oral case of ISH on 29 April 2014](#)
- REP- 360 [SMart Wind Ltd. - Appendix B of Response to Deadline V. Summary of Oral Case of ISH on 30 April 2014](#)
- REP- 361 [SMart Wind Ltd. - Appendix C. Environmental Information Signposting Document \(Version 3\)](#)

DOCUMENTS FOR DEADLINE V – 14 May 2014
Comments on Responses to Examining Authority’s second written questions

- REP- 362 [SMart Wind Ltd. - Response to Deadline V](#)
- REP- 363 [SMart Wind Ltd. - Appendix D. Response to RSPB's representation submitted at Deadline IV](#)
- REP- 364 [SMart Wind Ltd. - Appendix E. Response to National Grid's representation submitted at Deadline IV](#)
- REP- 365 [SMart Wind Ltd. - Appendix F. Response to Natural England's representation submitted at Deadline IV](#)
- REP- 366 [SMart Wind Ltd. - Appendix G. Response to the MMO's representation submitted at Deadline IV](#)

DOCUMENTS FOR DEADLINE V – 14 May 2014
Documents post all hearings

- REP- 367 [SMart Wind Ltd. - Appendix H. Ornithological Summary](#)
- REP- 368 [SMart Wind Ltd. - Appendix I. Note on Ecological Management Plan Cross-referencing Table](#)
- REP- 369 [SMart Wind Ltd. - Appendix J. Position Paper Supporting the Applicant's Position on Fish Monitoring](#)
- REP- 370 [SMart Wind Ltd. - Appendix K. List of Documents submitted to C GEN's North Killingholme Power Project](#)

- REP- 371 [SMart Wind Ltd. - Appendix K1. Submission by SMart Wind Ltd to the Secretary of State on protective provisions dated 9 May 2014](#)
- REP- 372 [SMart Wind Ltd. - Appendix K2. Enclosure 1 Proposed Protective Provisions](#)
- REP- 373 [SMart Wind Ltd. - Appendix K3. Enclosure 2 Proposed Protective Provisions Plan](#)
- REP- 374 [SMart Wind Ltd. - Appendix K4. Enclosure 3 Comparison of applican t's proposed PPs against C.GEN's proposed PPs](#)
- REP- 375 [SMart Wind Ltd. - Appendix K5. Enclosure 4 The applicant's Commentary on C.GEN's submission to the Secretary of State dated 11 April 2014](#)
- REP- 376 [SMart Wind Ltd. - Appendix L. Updated Auk Displacement Note - Tiered Assessment Approach](#)
- REP- 377 [SMart Wind Ltd. - Appendix M. Updated clarification note relating to cumulative and in-combination collision assessment](#)
- REP- 378 [SMart Wind Ltd. - Appendix N. Updated PVA Note](#)
- REP- 379 [SMart Wind Ltd. - Appendix O. Updated Memorandum of Understanding between the Applicant and Natural England](#)
- REP- 380 [SMart Wind Ltd. - Appendix P. Coulson e-mail on kittiwake counts](#)
- REP- 381 [SMart Wind Ltd. - Appendix Q. The Applicant's submission on the MMO's ability to charge post-consent monitoring fees](#)

DOCUMENTS FOR DEADLINE VI – 21 May 2014
Responses to the Rule 17 Letter of 12 May 2014

- REP- 382 [Riby Parish Meeting. Response to Rule 17 request of 12 May 2014 - no comments](#)
- REP- 383 [NATS Safeguarding. Response to Rule 17 request of 12 May 2014 - no comments](#)
- REP- 384 [GTC and associated companies. Response to Rule 17 request of 12 May 2014 - no comments](#)
- REP- 385 [Natural England. Response to Rule 17 request of 12 May 2014.](#)
- REP- 386 [Royal Society for the Protection of Birds. Response to Rule 17 request of 12 May 2014](#)
- REP- 387 [Royal Society for the Protection of Birds. Appendix I](#)

- REP- 388 Royal Society for the Protection of Birds. Appendix II
- REP- 389 SMart Wind Ltd. - Appendix J. Response to ExA's Question 2 of the Rule 17 request of 12 May 2014
- REP- 390 SMart Wind Ltd. Written Response to Deadline VI

DOCUMENTS FOR DEADLINE VI – 21 May 201
The applicant’s final draft Development Consent Order (DCO)

- UAPP-38 SMart Wind Ltd. - Appendix A. Draft DCO Version 5 in Word format
- UAPP-39 SMart Wind Ltd. - Appendix B. Draft DCO Version 5 in PDF format
- UAPP-40 SMart Wind Ltd. - Appendix C. Draft Development Consent Order V1 in Word format
- UAPP-41 SMart Wind Ltd. - Appendix D. Comparison of the draft DCO Versions 5 and 1
- UAPP-42 SMart Wind Ltd. - Appendix E. Comparison of the draft DCO Version 5 and 4
- UAPP-43 SMart Wind Ltd. - Appendix F. Schedule of Changes to the draft DCO Version 4

DOCUMENTS FOR DEADLINE VI – 21 May 2014
Other documents

- REP-397 SMart Wind Ltd. - Appendix G. The applicant's review of EIA conclusions in response to the amendment of the Project Design Envelope
- UAPP-19 SMart Wind Ltd. - Appendix H. Book of Reference Part 1 of 5 (2 May 2014)
- UAPP-20 SMart Wind Ltd. - Appendix H. Book of Reference Part 2 of 5 (2 May 2014)
- UAPP-21 SMart Wind Ltd. - Appendix H. Book of Reference Part 3 of 5 (2 May 2014)
- UAPP-22 SMart Wind Ltd. - Appendix H. Book of Reference Parts 4,5 and Schedule (2 May 2014)
- UAPP-23 SMart Wind Ltd. - Appendix I. Book of Reference Part 1 of 5 with tracked changes (2 May 2014)

UAPP-24	<u>SMart Wind Ltd. - Appendix I. Book of Reference Part 2 of 5 with tracked changes (2 May 2014)</u>
UAPP-25	<u>SMart Wind Ltd. - Appendix I. Book of Reference Part 3 of 5 with tracked changes (2 May 2014)</u>
UAPP-26	<u>SMart Wind Ltd. - Appendix I. Book of Reference Parts 4,5 and Schedule with tracked changes (2 May 2014)</u>
REP-406	<u>SMart Wind Ltd. - Appendix J. Response to ExA's Question 2 of the Rule 17 request of 12 May 2014</u>
REP-407	<u>SMart Wind Ltd. - Appendix K. Letter to Additional Person introduced to the Book of Reference, dated 20 May 2014</u>
REP-408	<u>SMart Wind Ltd. - Appendix L. Status of Agreement on Protective Provisions</u>
REP-409	<u>SMart Wind Ltd. - Appendix M. Errata - corrected version of Appendix U of applicant's response to Deadline II. Marine Mammal Clarification Note</u>
REP-410	<u>SMart Wind Ltd. - Appendix N. Moray Offshore Renewables Ltd. Avoidance Rate Paper</u>
REP-411	<u>SMart Wind Ltd. - Appendix O. Beatrice Offshore Windfarm Ltd Avoidance Rate Paper</u>
REP-412	<u>SMart Wind Ltd. - Appendix P. Moray Offshore Windfarm Ltd. Appropriate Assessment</u>
REP-413	<u>SMart Wind Ltd. - Appendix Q. Beatrice Offshore Windfarm Ltd Appropriate Assessment</u>
REP-414	<u>SMart Wind Ltd. - Appendix R. JNCC and SNH advice letters in relation to the Moray Offshore Renewables Ltd. application</u>
REP-415	<u>SMart Wind Ltd. - Appendix S. The applicant's commentary on proposed C.GEN Protective Provisions</u>
REP-416	<u>SMart Wind Ltd. - Appendix T. The proposed C. GEN Protective Provisions Plan</u>
REP-417	<u>SMart Wind Ltd. - Appendix U. Comparison of the applicant's proposed C.GEN Protective Provisions with C.GEN's submitted at Deadline V of 12 May 2014</u>
REP-418	<u>SMart Wind Ltd. - Appendix V. DCO/DML co-ordinates Plan</u>

DOCUMENTS RECEIVED FOR DEADLINE VII – 28 May 2014
Comments on the RIES

- REP-419 The Royal Society for the Protection of Birds
- REP-420 Natural England. Section B of submission for Deadline VII
- REP-430 SMart Wind Ltd.- Appendix H of applicant's Response to Deadline VII

DOCUMENTS RECEIVED FOR DEADLINE VII – 28 May 2014
Responses to the Rule 17 Letter of 12 May 2014

- REP-421 C.GEN Killingholme Ltd.

DOCUMENTS RECEIVED FOR DEADLINE VII – 28 May 2014
Other submissions including draft Development Consent Order (DCO)

- REP-422 SMart Wind Ltd. Response to Deadline VII
- UAPP-44 SMart Wind Ltd. - Appendix A. Draft DCO Version VI in Word format
- UAPP-45 SMart Wind Ltd.- Appendix B. Draft DCO Version VI PDF
- UAPP-46 SMart Wind Ltd. - Appendix C. Draft DCO Version 1 in Word format
- UAPP-47 SMart Wind Ltd. - Appendix D. Comparison of draft DCO Version VI and I
- UAPP-48 SMart Wind Ltd.- Appendix E. Comparison of draft DCO Version 6 and 5
- UAPP-49 SMart Wind Ltd.- Appendix F. Schedule of Changes requested to draft DCO Version 5
- REP-429 SMart Wind Ltd. - Appendix G. Comments on the RSPB's representations submitted at Deadlines V and VI
- REP-430 SMart Wind Ltd.- Appendix H of applicant's Response to Deadline VII
- REP-431 SMart Wind Ltd. - Appendix I. Status of Agreement on Protective Provisions
- REP-432 SMart Wind Ltd. - Appendix J. Updated Ornithological Summary
- REP-433 SMart Wind Ltd. - Appendix K. Final Position Statement in relation to post construction Seabed and Fish Monitoring Conditions

- REP-434 [SMart Wind Ltd. - Appendix L. Updated list of Additional Consents Required](#)
- REP-435 [SMart Wind Ltd. - Appendix M. Vi Aura Limited Generation License](#)
- REP-436 [SMart Wind Ltd. - Appendix N. Update on Status of Land Agreements](#)
- REP-437 [SMart Wind Ltd. - Appendix O. Environmental Information Signposting Document Version 4](#)
- REP-438 [SMart Wind Ltd. - Appendix P. Email confirming withdrawal of Centrica's representations dated 22 May 2014](#)
- REP-439 [SMart Wind Ltd. - Appendix Q. Updated Position Statement in relation to interface with C.GEN](#)
- REP-440 [SMart Wind Ltd. - Appendix R. Updated Memorandum of Understanding with Natural England](#)
- REP-441 [Environment Agency - withdrawing objections and representations](#)
- REP-442 [Natural England - Sections A, C, D and E of submission for Deadline VII. Comments on Applicant's submission for Deadline V and Response to Rule 17 and draft DCO V5. And the JNCC's Response regarding Kittiwake counts.](#)
- REP-443 [Phillips 66 Ltd. Letter to ExA relating to Protective Provisions](#)
- REP-444 [Marine Management Organisation. Comments on draft DCO Version 5](#)

Applicant's documents submitted for 3 June 2014

- REP-445 [SMart Wind Ltd.- Updated Memorandum of Understanding between the applicant and Natural England. Submitted 3 June 2014](#)
- REP-446 [SMart Wind Ltd.- Updated in-combination Auk displacement note. Submitted 3 June 2014](#)

DOCUMENTS FOR DEADLINE VIII - 6 June 2014

Responses to Rule 17 request of 2 June 2014

Including draft Development Consent Orders

- REP-447 [East Lindsey District Council. No comments](#)
- REP-448 [GTC, Independent Power Networks Limited, Pipelines Limited, Quadrant Pipelines Limited. No comments](#)
- REP-449 [Marine Management Organisation](#)

- REP-450 [Natural England. Section A - Comments on the applicant's updated in-combination Auk Displacement Note and updated Ornithological Summary](#)
- REP-451 [Natural England. Section B - Response to the Rule 17 request of 2 June 2014](#)
- REP-452 [Natural England. Section C - Comments on the Report on the Implications for European Sites \(RIES\)](#)
- REP-453 [SMart Wind Ltd. Representation submitted for Deadline VIII of 6 June 2014, Followed by Appendices A-M](#)
- UAPP-50 [SMart Wind Ltd. Appendix A - draft DCO Version 7 \(Word format\)](#)
- UAPP-51 [SMart Wind Ltd. Appendix B - draft DCO Version 7 \(pdf format\)](#)
- UAPP-52 [SMart Wind Ltd. Appendix C - Comparison of draft DCO Version 7 with Version 1](#)
- UAPP-53 [SMart Wind Ltd. Appendix D - Comparison of the draft DCO Version 7 with Version 6](#)
- UAPP-54 [SMart Wind Ltd. Appendix E - Schedule of Changes Version 6](#)
- REP-459 [SMart Wind Ltd. Appendix F - Response to the Rule 17 request of 2 June 2014](#)
- REP-460 [SMart Wind Ltd. - Appendix G. Comments on the Royal Society for the Protection of Birds' submission at Deadline VII](#)
- REP-461 [SMart Wind Ltd. - Appendix H. Comments on Natural England's submission at Deadline VII](#)
- REP-462 [SMart Wind Ltd. Appendix I - Comments on the Marine Management Organisation's submission for Deadline VII](#)
- REP-463 [SMart Wind Ltd. Appendix J - Comments on Phillips 66's submission for Deadline VII](#)
- REP-464 [SMart Wind Ltd. Appendix K - Comments on C.GEN's submission for Deadline VII](#)
- REP-465 [SMart Wind Ltd. Appendix L - Environmental Signposting Document Version 5](#)
- REP-466 [SMart Wind Ltd. Appendix M - Updated draft C.CEN Protective Provisions Plan](#)

DOCUMENTS FOR DEADLINE VIII - 6 June 2014
Comments on the RIES

REP-452 Natural England. Section C - Comments on the Report on the Implications for European Sites (RIES)

DOCUMENTS FOR DEADLINE IX – 9 June 2014
Comments on Responses to Rule 17 request of 2 June 2014

REP- 467 C.GEN Killingholme Limited. Comments on responses to Rule 17 request of 2 June 2014

UAPP-55 SMart Wind Ltd.- Correction to draft Development Consent Order Version 7

REP-469 Natural England. No comments - late submission

EVENTS – documents relating to Preliminary Meeting, Hearings and Site Visits

H-001 SMart Wind Ltd.- Notification of Hearings

H-002 Agendas for Hearings

Preliminary Meeting 10 December 2013

H-003 Preliminary Meeting Audio Recording

H-004 Preliminary Meeting Note

Open Floor Hearing 11 February 2014

H-005 Audio recording for Open Floor Hearing 11 February 2014

Issue Specific Hearing (ISH) 13 February 2014

H-006 Audio recording of ISH of 13 February 2014 - Part 1 of 3

H-007 Audio recording of the ISH of 13 February 2014 - Part 2 of 3

H-008 Audio recording for ISH on 13 February 2014 - Part 3 of 3

Issue Specific Hearing (ISH) 11 and 12 March 2014

H-009 Agenda for ISH on 11 and 12 March 2014 (updated)

H-010 Audio recording for ISH on 11 March 2014 - Part 1 of 4

H-011 Audio recording for ISH on 11 March 2014 - Part 2 of 4

H-012 Audio recording for ISH on 11 March 2014 - Part 3 of 4

- H-013 [Audio Recording for ISH on 11 March 2014 - Part 4 of 4](#)
- H-014 [Audio recording for ISH on 12 March 2014 - Part 1 of 3](#)
- H-015 [Audio recording for ISH on 12 March 2014 - Part 2 of 3](#)
- H-016 [Audio recording for ISH on 12 March 2014 - Part 3 of 3](#)

Compulsory Acquisition Hearing (CAH) 13 March 2014

- H-017 [Network Rail Infrastructure Ltd. Submission to inform CAH on 13 March 2014](#)
- H-018 [Associated British Ports. Submission to inform CAH on 13 March 2014](#)
- H-019 [Audio recording for CAH on 13 March 2014 - Part 1 of 4](#)
- H-020 [Audio recording of CAH on 13 March 2014 - Part 2 of 4](#)
- H-021 [Audio recording for the CAH on 13 March 2014 - Part 3 of 4](#)
- H-022 [Audio recording for CAH on 13 March 2014 - Part 4 of 4](#)

Accompanied Site Visits (ASV)

- ASV-001 [SMart Wind Ltd.- ASV 12 February 2014 - Itinerary](#)
- ASV-002 [SMart Wind Ltd.- ASV 12 February 2014 - Map of Route](#)
- ASV-003 [SMart Wind Ltd.- Accompanied Site Visit 12 February 2014 Documents Pack](#)

Issue Specific Hearing (ISH) 29 and 30 April 2014

- H-023 [Agenda for ISH 29 and 30 April and 1 May 2014](#)
- H-024 [Audio Recording for ISH on 29 April 2014 - Part 1 of 4](#)
- H-025 [Audio Recording for ISH on 29 April 2014 - Part 2 of 4](#)
- H-026 [Audio Recording for ISH on 29 April 2014 - Part 3 of 4](#)
- H-027 [Audio Recording for ISH on 29 April 2014 - Part 4 of 4](#)
- H-028 [Audio Recording for ISH on 30 April 2014 - Part 1 of 3](#)
- H-029 [Audio Recording for ISH on 30 April 2014 - Part 2 of 3](#)
- H-030 [Audio Recording for ISH on 30 April 2014 -Part 3 of 3](#)

Documents relating to Compulsory Acquisition under s127

- S127-01 Anglian Water. Submission made to inform the Compulsory Acquisition Hearing on 13 March 2014
- S127-02 Anglian Water. Email confirming withdrawal of part of written representation relating to S127 and S132
- S127-03 Associated British Ports - letter dated 20 May 2014
- S127-04 Associated British Ports - letter dated 2 June 2014

APPENDIX B – OTHER CONSENTS REQUIRED

In addition to the consent required under the PA 2008, the proposal is subject to the need for the following separate consents and permits:

(Please note that this list is taken from the applicant's updated list of Additional Consents, at Examination Library reference [REP-434])

- Generation licences
- Safety Zones
- Decommissioning scheme
- Consent for works near to or crossing GPSS (Government Pipeline and Storage System)
- Approvals from SoS, relevant local planning authority and relevant highway authority to requirements contained in the draft DCO
- Approvals from MMO and SoS to requirements in the draft DCO and draft DMLs
- Consent for works across a "protected street"
- A licence from the MMO in relation to Habitats and Species Regulations
- A licence from the MMO in relation to Reg 49 of the Natural Habitats Regulations 2007
- A licence from the Natural England in relation to Habitats and Species Regulations
- Consent from Natural England in relation to Wildlife and Countryside Act
- A licence under section 10 of the Protection of Badgers act
- A temporary traffic regulation order in relation to traffic management not included within the DCO
- An exemption under the Merchant Shipping regulations
- A wireless telegraphy licence
- An environmental permit in relation to discharge to water or groundwater

APPENDIX C - EVENTS IN THE EXAMINATION

The table below lists the main events occurring during the examination and the main procedural decisions taken by the ExA.

Date	Examination Event
10 December 2013	Preliminary Meeting - Examination begins
18 December 2013	Rule 8 Letter Issued: <ul style="list-style-type: none"> • Examination timetable • Examining Authority's Questions
13 January 2014	Interested Parties Deadline I: <ul style="list-style-type: none"> • Notification of wish by an interested party to be heard at an open floor hearing • Notification by an affected person of wish for compulsory acquisition hearing to be held • Notification of wish to make oral representations at the issue-specific hearing on the draft Development Consent Order (DCO)
20 January 2014	Interested Parties Deadline II: For the receipt of: <ul style="list-style-type: none"> • Comments on relevant representations (RRs) • Summaries of all RR's exceeding 1500 words • Written representations (WRs) by all interested parties • Summaries of all WRs exceeding 1500 words • Local Impact Report from any local authorities • Statements of Common Ground requested by ExA • Responses to ExA's first round of written questions • Completion by applicant of HRA matrices
11 February 2014	Open Floor Hearing
12 February 2014	Accompanied Site Visit
13 February 2014	Issue Specific Hearing <ul style="list-style-type: none"> • Draft DCO
24 February 2014	Interested Parties Deadline III: For the receipt of: <ul style="list-style-type: none"> • Comments on WRs and responses to comments on RR's • Comments on Local Impact Reports • Comments on responses to ExA's first round of written questions • Revised draft DCO from applicant • Comments on Environmental Clarification Notes • Summaries of oral case put at hearings w/c 10 February 2014
11-12 March 2014	Issue Specific Hearing <ul style="list-style-type: none"> • HRA – methodology and impacts on birds and marine mammals • Impacts on fishing and vegetation • Construction impacts and socio-economic matters • Monitoring, management and mitigation plans and provisions

13 March 2014	Compulsory Acquisition Hearing
20 March 2014	Issue of <ul style="list-style-type: none"> Examining Authority's second round of questions
22 April 2014	Interested Parties Deadline IV: For receipt of: <ul style="list-style-type: none"> Responses to ExA's second round of questions Summaries of oral case put at hearings w/c 10 March 2014
29 April 2014	Issue Specific Hearing
14 May 2014	Interested Parties Deadline V: For receipt of: <ul style="list-style-type: none"> Comments on responses to ExAs second round of questions All post-hearing documents All written proofs of oral cases <p>Issue of Report on the Implications for European Sites (RIES)</p>
21 May 2014	Interested Parties Deadline VI: For receipt of: <ul style="list-style-type: none"> The Applicant's final draft DCO
28 May 2014	Interested Parties Deadline VII For receipt of: Deadline for comments on the Report on the Implications for European Sites (RIES)
6 June 2014	Interested Parties Deadline VIII: For receipt of: Response to Rule 17 issued 3 June 2014 Comments on documents submitted by the applicant on 3 June 2014
9 June 2014	Interested Parties Deadline IX: For receipt of: Comments on all responses received for deadline VII
10 June 2014	Close of Examination

APPENDIX D - LIST OF ABBREVIATIONS

AA	Appropriate Assessment
AC	Alternating Current
AD	Associated Development
AEZ	Archaeological Exclusion Zones
ALARP	As low as reasonably possible
AM	Ancient Monument
AMP	Access Management Plan
AONB	Area of Outstanding Natural Beauty
AP	Affected Person
APFP	Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
AR	Avoidance Rate
ASV	Accompanied Site Visit
BAP	Biodiversity Action Plan
BDMP	Biologically Defined Minimum Populations
BOA	Biodiversity Opportunity Areas
BoR	Book of Reference
BSs	British Standards
CA	Compulsory Acquisition
CAA	Civil Aviation Authority
CAH	Compulsory Acquisition Hearing
CCS	Construction Consolidation Site
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CEMP	Construction Environmental Management Plan
CoCP	Code of Construction Plan
CoS	Chamber of Shipping
CRA	Collision Risk Assessment
CRM	Collision Risk Modelling
CTMP	Construction Traffic Management Plan
DAS	Design and Access Statement
DC	Direct Current
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
DECC	Department of Energy and Climate Change
DIO	Defence Infrastructure Organisation
DML	Deemed Marine Licence
DPD	Development Plan Document
DEFRA	Department for Environmental Food and Rural Affairs
DWR	Deep Water Route
EA	Environment Agency
EAONE	East Anglia One
EAQs	Examining Authority's Questions
EEA	European Economic Area
EH	English Heritage
EIA	Environment Impact Assessment
ELMP	Ecological and Landscape Management Plan
EM	Explanatory Memorandum
EMF	Electro-Magnetic Field
EMP	Ecological Management Plan
EPR	Infrastructure Planning (Examination Procedure) Rules 2010

EPS	European Protected Species
ERCOP	Emergency Response Co-ordination Plan
ES	Environmental Statement
ExA	Examining Authority
FOCI	Feature of Conservation Interest
FRA	Flood Risk Assessment
GWh	Gigawatt Hours
HAP	Habitat Action Plans
HDD	Horizontal Directional Drilling
HETA	Humberside Engineering Training Association
HGV	Heavy Goods Vehicle
HPA	Health Protection Agency
HRA	Habitats Regulation Assessment
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IBGS	Inward Battered Guide Structure
ICNIRP	Non-Ionizing Radiation Protection
IDB	Internal Drainage Board
IFCA	Inshore Fisheries and Conservation Authority
IP	Interested Party
ISH	Issue Specific Hearing
JCP	Joint Cetacean Protocol
JNCC	Joint Nature Conservation Committee
LA	Local Authority
LAeq	Equivalent Continuous Sound Level (A-weighting setting)
LAT	Lowest Astronomical tide
LB	Listed Building
LBBG	Lesser Black-backed Gulls
LDF	Local Development Framework
LEP	Local Economic Partnership
LIR	Local Impact Report
LNR	Local Nature Reserve
LPA	Local Planning Authority
LSE	Likely Significant Effects
LVIA	Landscape and Visual Impacts Assessment
MCA	Maritime and Coastguard Agency
MCZs	Marine Conservation Zones
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MoD	Ministry of Defence
MPA	Marine Plan Area
MPS	Marine Policy Statement
MSFD	Marine Strategy Framework Directive
NE	Natural England
NERC	Natural Environment and Rural Communities Act
NGET	National Grid Electricity Transmission Plc
NM	Nautical Miles
NPA	National Park Authority
NPACA	National Parks and Access to the Countryside Act 1949
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance

NPS	National Policy Statement
NRIL	Network Rail Infrastructure Ltd
NSIP	Nationally Significant Infrastructure Project
NT	National Trust
OFH	Open Floor Hearing
OFTO	Offshore Transmission Owner
O&M	Operation and Maintenance
OWF	Offshore Wind Farm
PA 2008	Planning Act 2008
PAM	Passive Acoustic Monitoring
PCH	Potential Collision Height
PCoD	Population Consequences of (Noise) Disturbance
PHE	Public Health England
PINS	Planning Inspectorate
PPA	Planning Performance Agreement
PPG	Planning Policy Guidance
PPS	Planning Policy Statements
PSPA	Proposed Special Protection Area
PVA	Population Viability Analysis
RA	Ramblers Association
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 Areas of Conservation
SCI	Site of Community Importance
SEA	Strategic Environmental Assessment
SEI	Supplementary Environment Information
SNCB	Statutory Nature Conservation Body
SNSOWF	Southern North Sea Offshore Wind Farm Forum
SoCG	Statement of Common Ground
SoS	Secretary of State
SP	Statutory Party
SPA	Special Protection Area
SPL	Sound Pressure Level
SSSI	Sites of Special Scientific Interest
TH	Trinity House
TSS	Traffic Separation Scheme
UKPN	UK Power Networks
UNEP	United National Environment Programme
UU	Unilateral Undertaking
UXO	Unexploded Ordnance
VERs	Valued Ecological Receptors
WFD	Water Framework Directive
WR	Written Representation
WTG	Wind Turbine Generators
ZTV	Zone of Theoretical Visibility

APPENDIX E - EXAMINING AUTHORITY'S RECOMMENDED DCO

201X No.

INFRASTRUCTURE PLANNING

Hornsea One Offshore Wind Farm Order 201[X]

Made - - - - ***

Coming into force - - ***

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Whereas an application has been made to the Secretary of State in accordance with the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 and made under sections 37, 42, 46, 48, 51, 56, 58, 59 and 232 of the Planning Act 2008 (“the 2008 Act”)(a) for an Order under sections 37, 55, 115, 120, 121, 122 ,140 and 149A of the 2008 Act;

And whereas the application was examined by an examining authority appointed by the Secretary of State pursuant to Chapter 4 of Part 5 of the 2008 Act;

(a) 2008 c.29.

And whereas the examining authority, having considered the national planning statements relevant to the application and concluded that the application accords with these statements as set out in section 104(3) of the 2008 Act;

And whereas the examining authority, having considered the representations made and not withdrawn, and the application with the documents that accompanied the application, has recommended the Secretary of State to make an Order giving effect to the proposals comprised in the application with modifications which in its opinion do not make any substantial change to the proposals;

And whereas notice of the Secretary of State's determination was published [];

Now, therefore, in exercise of the powers conferred by sections 114, 115, 120, 121, 122 and 149A of the 2008 Act the Secretary of State makes the following Order:

PART 1

PRELIMINARY

Citation and commencement

1. This Order may be cited as the Hornsea One 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(a);

“the 1965 Act” means the Compulsory Purchase Act 1965(b);

“the 1980 Act” means the Highways Act 1980(c);

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- (a) 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.
- (b) 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.
- (c) 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.

“the 1981 Act” means the Compulsory Purchase (Vesting Declarations) Act 1981(a);

“the 1989 Act” means the Electricity Act 1989(b);

“the 1990 Act” means the Town and Country Planning Act 1990(c);

“the 1991 Act” means the New Roads and Street Works Act 1991(d);

“the 2004 Act” means the Energy Act 2004(e);

“the 2008 Act” means the Planning Act 2008(f);

“the 2009 Act” means the Marine and Coastal Access Act 2009(g);

“ancillary works” means the ancillary works described in Part 2 of Schedule A (authorised project) and any other works authorised by the Order and 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 any other development authorised by this 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;

“commence” means—

(a) for the purposes of Schedule H, I, J and K (deemed marine licences), the first carrying out of any part of the licensed activities, save for pre-construction surveys and monitoring; and

(b) for any other purpose, 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, remedial work in respect of any contamination or other adverse ground conditions;

and “commencement” shall be construed accordingly;

“deemed marine licence” means a deemed licence set out in Schedule H, I, J and K and deemed by article 35 to have been granted under Part 4 of the 2009 Act, by virtue of section 149A of the 2008 Act;

“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 the onshore HVDC converter station or the 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;

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- (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.
- (b) 1989 c.29.
- (c) 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.
- (d) 1991 c.22.
- (e) 2004 c.20.
- (f) 2008 c.29.
- (g) 2009 c. 23.

“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;

“horizontal directional drilling” refers to a boring technique involving drilling in an arc between two points;

“HVAC” means high voltage alternating current;

“HVDC” means high voltage direct current;

“the inter- array electrical circuits” means the circuits described in works nos. 1(b), 2(b) and 3(b);

“the intertidal area” means the area between mean high water springs and mean low water springs;

“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;

“the licence conditions” means the conditions set out in Part 2 of Schedule H, I, J and K to this Order;

“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;

“maintain” includes inspect, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule A (ancillary works) and any component part of any wind turbine generator, offshore accommodation platform, offshore HVAC collector substation, offshore HVDC converter station, offshore reactive compensation substation or work no. 10 described in Part 1 of Schedule A (authorised development) (but not including the alteration, removal or replacement of foundations) to the extent assessed in the environmental statement; and “maintenance” 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 station” 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;

“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;

“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;

“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;

“tidal works” means so much of any schedule work as is on, under or over tidal waters;

“the tribunal” means 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 work no. 1 and any associated development or ancillary works within Wind Farm Area 1 relating to that work, Heron Wind Limited;
- (b) for the purposes of constructing maintaining and operating work no. 2 and any associated development or ancillary works within Wind Farm Area 2 relating to that work, Njord Limited;
- (c) for the purposes of constructing maintaining and operating work no. 3 and any associated development or ancillary works within Wind Farm Area 3 relating to that work, Vi Aura Limited; and
- (d) for all other purposes, Heron Wind Limited;

“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 1” means the area within the limits of deviation for work no. 1 of which the co-ordinates are specified in Part 1 of Schedule A;

“Wind Farm Area 2” means the area within the limits of deviation for work no. 2 of which the co-ordinates are specified in Part 1 of Schedule A;

“Wind Farm Area 3” means the area within the limits of deviation for work no. 3 of which the 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 conditions 1 to 5 in Part 2 of Schedule H (deemed marine licences), and distances between parts on 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 construed as references to points so lettered on the works plans.

(6) References in this Order to numbered works are references to the 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 that Act which require consent or approval for the carrying out of the works.

(a) 1991 c.57.

(b) 1991 c.59.

Guarantees in respect of payment of compensation

4.—(1) The undertaker must not begin to exercise the powers of articles 17 to 27 of this Order in relation to any land unless either 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 an alternative form of security for that purpose is in place 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 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 the undertaker is granted—

- (a) development consent for the authorised development; and
- (b) consent for the ancillary works,

(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.

to be carried out within the Order limits.

(2) Each of the scheduled works authorised by this Order must be constructed and maintained within the limits of deviation for that work.

(3) 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.

Maintenance of authorised project

7. 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.

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 consent under paragraph (1)(b) that local planning authority shall be deemed to have granted consent.

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 106 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.

(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.

(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(a).

(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(b) (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.

Authority to survey and investigate the land

16.—(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.

(a) S.I. 2010/675.

(b) 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.

(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

17. The undertaker may acquire compulsorily so much of the Order land shown numbered 404 on the land plans as is required for the authorised project or to facilitate, or is incidental, to it.

Compulsory acquisition of rights

18.—(1) In the case of the Order land specified in column (1) of Schedule E (land in which new rights etc., may be acquired) the undertaker may acquire compulsorily such new rights by creating them as may be required for the purpose specified in relation to that land in column (2) of that Schedule.

(2) 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 a right over land the undertaker is not required to acquire a greater interest in that land.

(3) 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.

(4) In any case where the acquisition of new rights under paragraph (1) 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.

(5) The exercise by a statutory undertaker of any power in accordance with a transfer under paragraph (4) is subject to the same restrictions, liabilities and obligations as would apply under this Order if that power were exercised by the undertaker.

(6) 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.

Time limit for exercise of authority to acquire land compulsorily

19.—(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 21 (application of the Compulsory Purchase (Vesting Declarations) Act 1981)(a).

(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.

(2) The authority conferred by article 25 (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

20.—(1) Subject to the provisions of this article, all private rights over land subject to compulsory acquisition under article 17 of this Order are extinguished—

- (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 under the Order under article 18 are extinguished in so far as their continuance would be inconsistent with the exercise of the right—

- (a) as from the date of the acquisition of the right 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 27 (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,
 - (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.

(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.

Application of the Compulsory Purchase (Vesting Declarations) Act 1981

21.—(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

22.—(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 17 (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 land, or the airspace over, 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 23 (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

23.—(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

24.—(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

25.—(1) The undertaker may, 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 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) any of the land referred to in article 17 (compulsory acquisition of land) and Schedule E 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 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) 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.
- (4) 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 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 referred to in paragraph 1(a)(ii), after the end of the period of one year beginning with the date of completion 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.
- (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; 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).
- (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 any power conferred by 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 carrying out of the authorised project, other than loss or damage for which compensation is payable under paragraph (6).
- (9) The undertaker may not compulsorily acquire under this Order the land referred to in paragraph (1)(a)(i) except that the undertaker is not precluded from—
- (a) acquiring new rights over any part of that land under article 18 (compulsory acquisition of rights); or
 - (b) acquiring any part of the subsoil (or rights in the subsoil) of that land under article 22 (acquisition of subsoil or airspace only).
- (10) 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.
- (11) 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).

Temporary use of land for maintaining authorised project

26.—(1) Subject to paragraph (2), at any time during the maintenance period relating to any part of the authorised project, the undertaker may—

- (a) enter on and take temporary possession of any land referred to in paragraphs (1)(a)(i) or (ii) of article 25 (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 the period of five years beginning with the date on which that part of the authorised project is first energised.

Statutory undertakers

27. Subject to the provisions of Schedule L (Protective Provisions), the undertaker may—
- (a) exercise the powers of articles 17 (compulsory acquisition of land) and 18 (compulsory acquisition of rights) in relation to so much of any land referred to in those articles as belongs to statutory undertakers;
 - (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

28.—(1) Where any apparatus of public utility undertakers or of a public communications provider is removed under article 27 (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 27 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

29.—(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.

(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) The undertaker is not required to comply with the requirements of regulation 5 of the Hedgerow Regulations 1997(b) in exercising the powers of paragraph (3) and it is not guilty of an offence under regulation 7(1) of the said regulations if it does so.

(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 Hedgerow Regulations 1997.

Trees subject to tree preservation orders

30.—(1) The undertaker may lop any tree within or overhanging land within the Order limits subject to a preservation Order which was made after 31 January 2013.

(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.

(a) 2003 c.21.
(b) S.I. 1997/1160.

PART 7
MISCELLANEOUS AND GENERAL

Operational land for purposes of the 1990 Act

31. 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

32. 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.

Abatement of offshore works abandoned or decayed

33.—(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

34.—(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.

(1A) 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.

(2) Where a transfer or grant has been made in accordance with paragraph (1) references in this Order to the undertaker, except in paragraph (3) includes references to the transferee or the lessee.

(3) The exercise by a person of any benefits or rights conferred in accordance with any transfer or grant under paragraph (1) 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.

(4) 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 works nos. 1, 2 or 3 from one undertaker to another or of any of the provisions (and any related statutory rights) relating to works nos. 4 to 12 to another body licensed under section 6 of the 1989 Act.

(5) (a) Prior to a transfer or grant under paragraph (1) and (4) taking effect the undertaker must give notice to the Secretary of State and to the MMO and/or local planning authority if such transfer or grant relates to the exercise of powers in the area of their jurisdiction. The notice must be in writing and must include the following—

- (i) the name and contact details of the person to whom the benefit of the powers will be transferred or granted;
 - (ii) subject to sub-paragraph (b), the date on which the transfer will take effect;
 - (iii) the powers to be transferred or granted;
 - (iv) pursuant to paragraph (3), the restrictions, liabilities and obligations that will apply to the person exercising the powers transferred or granted;
 - (v) where relevant, a plan showing the works or areas to which the transfer or grant relates; and
 - (vi) 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.
- (b) The date specified under (5)(a)(ii) must not be earlier than the expiry of five days from the date of the receipt of the notice.
- (c) The notice given under sub-paragraph (a) 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

35. The undertaker is granted deemed marine licences under Chapter 1 of Part 4 of the 2009 Act to carry out the works and make the deposits described in Schedules H, I, J and K subject to the licence conditions set out in those Schedules.

Disapplication of constraints on works in the Humber

36. 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

37. Nothing in this Order prejudices or derogates from any of the rights, duties or privileges of Trinity House.

(a) 1852 c.xxx.
(b) 1899 c. cci.
(c) 1905 c. clxxix.

Crown Rights

38.—(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).

(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

39.—(1) The undertaker must, as soon as practicable after the making of this Order, submit to the Secretary of State copies of—

- (a) the land plans;
- (b) the offshore works plans, intertidal works plans and the onshore works plans;
- (c) the book of reference
- (d) the environmental statement; and
- (e) any other plans or documents referred to in this Order

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

40. Schedule L has effect.

Arbitration

41. 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]

Date

Name
Title
Department of 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 and 6.

2. The nationally significant infrastructure project comprises two or, subject to paragraph 3, three offshore wind generating stations with a combined gross electrical output capacity of up to 1,200 MW as follows—

Work No. 1 — An offshore wind generating station within Wind Farm Area 1 comprising:

- (a) up to 80 (inclusive) or, if no part of work no. 3 is constructed, up to 120 (inclusive) wind turbine generators fixed to the seabed;
- (b) a network of subsea inter-array electrical circuits connecting the structures comprised in work no. 1—
 - (i) with each other;
 - (ii) with any other structure located within Wind Farm Area 1; and
 - (iii) (for the purpose of connecting any structure comprised in work no. 1 with any structure comprised in works nos. 2, 3 and 4) with the network of electrical circuits comprised in works nos. 2, 3 and 4;
- (c) subject to paragraph 4, an offshore accommodation platform fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter stations within work no. 4 by an unsupported steel bridge.

Co-ordinates for Wind Farm Area 1 (limits of deviation for work no. 1):

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 58' 42.179" N	1° 44' 31.880" E
2	53° 55' 46.445" N	1° 47' 47.796" E
3	53° 56' 22.870" N	1° 51' 57.409" E
4	53° 55' 31.318" N	1° 52' 54.282" E
5	53° 49' 58.944" N	1° 58' 59.804" E
6	53° 50' 5.118" N	1° 38' 58.430" E
7	53° 55' 9.293" N	1° 39' 52.024" E
8	53° 56' 3.228" N	1° 41' 0.143" E
9	53° 56' 29.670" N	1° 43' 45.592" E
10	53° 58' 17.828" N	1° 41' 46.795" E

Work No. 2 — An offshore wind generating station within Wind Farm Area 2 comprising:

- (a) up to 80 (inclusive) or, if no part of work no. 3 is constructed, up to 120 (inclusive) wind turbine generators fixed to the seabed;
- (b) a network of subsea inter-array electrical circuits connecting the structures comprised in work no. 2—
 - (i) with each other;
 - (ii) with any other structure located within Wind Farm Area 2; and
 - (iii) (for the purpose of connecting any structure comprised in work no. 2 with any structure comprised in works nos. 1, 3 and 4) with the network of electrical circuits comprised in works no. 1, 3 and 4.
- (c) subject to paragraph 4, an offshore accommodation platform fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter stations within work no. 4 by an unsupported steel bridge.

Co-ordinates for Wind Farm Area 2 (limits of deviation for work no. 2):

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 55' 31.318" N	1° 52' 54.282" E
2	53° 55' 37.592" N	1° 53' 38.108" E
3	53° 55' 23.329" N	1° 55' 20.262" E
4	53° 55' 8.162" N	1° 56' 10.619" E
5	53° 55' 35.429" N	1° 59' 20.944" E
6	53° 55' 2.525" N	1° 59' 45.776" E
7	53° 55' 22.663" N	2° 2' 14.219" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 56' 46.586" N	2° 5' 4.031" E
10	53° 57' 12.481" N	2° 4' 32.376" E
11	53° 57' 24.509" N	2° 6' 6.700" E
12	53° 50' 10.018" N	2° 13' 57.158" E
13	53° 49' 14.297" N	2° 11' 36.820" E
14	53° 49' 58.584" N	1° 59' 54.762" E
15	53° 49' 58.944" N	1° 58' 59.804" E

Work No. 3 — An offshore wind generating station within Wind Farm Area 3 comprising:

- (a) up to 80 wind turbine generators fixed to the seabed;
- (b) a network of subsea inter-array electrical circuits connecting the structures comprised in work no. 3—
 - (i) with each other;
 - (ii) within any other structure located within Wind Farm Area 3; and
 - (iii) (for the purpose of connecting any structure comprised in work no. 3 with any structure comprised in works nos. 1, 2 and 4) with the network of electrical circuits comprised in works nos. 1, 2 and 4;
- (c) subject to paragraph 4, an offshore accommodation platform fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter stations within work no. 4 by an unsupported steel bridge.

Co-ordinates for Wind Farm Area 3 (limits of deviation for work no. 3):

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 55' 46.445" N	1° 47' 47.796" E

2	53° 56' 22.870" N	1° 51' 57.409" E
3	53° 55' 31.318" N	1° 52' 54.282" E
4	53° 55' 37.592" N	1° 53' 38.108" E
5	53° 55' 23.329" N	1° 55' 20.262" E
6	53° 55' 8.162" N	1° 56' 10.619" E
7	53° 55' 27.264" N	1° 58' 23.884" E
8	53° 55' 20.760" N	1° 58' 30.994" E
9	53° 49' 44.770" N	2° 4' 37.254" E
10	53° 49' 40.620" N	2° 4' 41.765" E
11	53° 49' 58.584" N	1° 59' 54.762" E
12	53° 49' 58.944" N	1° 58' 59.804" E
13	53° 50' 0.845" N	1° 53' 51.856" E
14	53° 50' 1.222" N	1° 53' 51.441" E
15	53° 55' 44.123" N	1° 47' 31.921" E

3. Work No. 3 may not be constructed, in whole or part, if either works nos. 1 or 2 are constructed so as to include more than 80 wind turbine generators.

4. The combined total of offshore accommodation platforms constructed in whole or in part within works nos. 1, 2 and 3 must not exceed 2.

5. The associated development includes the following scheduled works:—

Work No. 4

Up to five offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to 2 offshore HVDC converter stations together with a network of electrical circuits connecting the structures within work no. 4.

Limits of deviation for work no. 4:

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 58' 42.179" N	1° 44' 31.880" E
2	53° 55' 46.445" N	1° 47' 47.796" E
3	53° 56' 22.870" N	1° 51' 57.409" E
4	53° 55' 31.318" N	1° 52' 54.282" E
5	53° 55' 37.592" N	1° 53' 38.108" E
6	53° 55' 23.329" N	1° 55' 20.262" E
7	53° 55' 8.162" N	1° 56' 10.619" E
8	53° 55' 35.429" N	1° 59' 20.944" E
9	53° 55' 2.525" N	1° 59' 45.776" E
10	53° 55' 22.663" N	2° 2' 14.219" E
11	53° 56' 16.303" N	2° 1' 15.269" E
12	53° 56' 46.586" N	2° 5' 4.031" E
13	53° 57' 12.481" N	2° 4' 32.376" E
14	53° 57' 24.509" N	2° 6' 6.700" E
15	53° 50' 10.018" N	2° 13' 57.158" E
16	53° 49' 14.297" N	2° 11' 36.820" E
17	53° 49' 58.584" N	1° 59' 54.762" E
18	53° 49' 58.944" N	1° 58' 59.804" E
19	53° 50' 5.118" N	1° 38' 58.430" E

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
20	53° 55' 9.293" N	1° 39' 52.024" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 56' 29.670" N	1° 43' 45.592" E
23	53° 58' 17.828" N	1° 41' 46.795" E

Work No. 5

In the event that the mode of transmission is HVAC, an offshore reactive compensation substation fixed to the seabed at latitude point 53° 37' 39.284" N and longitude point 0° 56' 9.841" E subject to deviation within the following limits of deviation:

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 37' 47.368" N	0° 56' 9.446" E
2	53° 37' 47.217" N	0° 56' 12.482" E
3	53° 37' 46.669" N	0° 56' 15.386" E
4	53° 37' 45.750" N	0° 56' 18.012" E
5	53° 37' 44.507" N	0° 56' 20.228" E
6	53° 37' 43.002" N	0° 56' 21.923" E
7	53° 37' 41.311" N	0° 56' 23.012" E
8	53° 37' 39.518" N	0° 56' 23.440" E
9	53° 37' 37.713" N	0° 56' 23.187" E
10	53° 37' 35.987" N	0° 56' 22.264" E
11	53° 37' 34.426" N	0° 56' 20.719" E
12	53° 37' 33.109" N	0° 56' 18.628" E
13	53° 37' 32.101" N	0° 56' 16.096" E
14	53° 37' 31.454" N	0° 56' 13.251" E
15	53° 37' 31.199" N	0° 56' 10.235" E
16	53° 37' 31.349" N	0° 56' 7.199" E
17	53° 37' 31.898" N	0° 56' 4.295" E
18	53° 37' 32.816" N	0° 56' 1.670" E
19	53° 37' 34.059" N	0° 55' 59.454" E
20	53° 37' 35.564" N	0° 55' 57.759" E
21	53° 37' 37.255" N	0° 55' 56.669" E
22	53° 37' 39.048" N	0° 55' 56.240" E
23	53° 37' 40.853" N	0° 55' 56.493" E
24	53° 37' 42.579" N	0° 55' 57.416" E
25	53° 37' 44.140" N	0° 55' 58.961" E
26	53° 37' 45.458" N	0° 56' 1.052" E
27	53° 37' 46.465" N	0° 56' 3.584" E
28	53° 37' 47.113" N	0° 56' 6.429" E

Work No. 6

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 four subsea electrical circuits proceeding from the offshore HVAC collector substations in Wind Farm Areas 1, 2 and 3 via and connecting with the offshore reactive compensation substation comprised in work no. 5; or

- (b) if the mode of transmission is HVDC, consists of two subsea electrical circuits proceeding from the offshore HVDC converter station or stations within Wind Farm Areas 1, 2 and 3,
- (c) and in either case terminates at the commencement of work no. 7.

Principal co-ordinates for marine export cable area (limits of deviation for work no. 6) of which the full co-ordinates are set out in the offshore works plans:

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 58' 42.179" N	1° 44' 31.880" E
2	53° 55' 46.445" N	1° 47' 47.796" E
3	53° 56' 22.870" N	1° 51' 57.409" E
4	53° 55' 31.318" N	1° 52' 54.282" E
5	53° 55' 37.592" N	1° 53' 38.108" E
6	53° 55' 23.329" N	1° 55' 20.262" E
7	53° 55' 8.162" N	1° 56' 10.619" E
8	53° 55' 35.429" N	1° 59' 20.944" E
9	53° 55' 2.525" N	1° 59' 45.776" E
10	53° 55' 22.663" N	2° 2' 14.219" E
11	53° 56' 16.303" N	2° 1' 15.269" E
12	53° 56' 46.586" N	2° 5' 4.031" E
13	53° 57' 12.481" N	2° 4' 32.376" E
14	53° 57' 24.509" N	2° 6' 6.700" E
15	53° 50' 10.018" N	2° 13' 57.158" E
16	53° 49' 14.297" N	2° 11' 36.820" E
18	53° 48' 24.484" N	2° 10' 40.243" E
19	53° 48' 17.722" N	2° 7' 38.708" E
22	53° 48' 51.983" N	2° 0' 20.504" E
24	53° 48' 48.527" N	1° 56' 7.168" E
27	53° 48' 10.932" N	1° 53' 5.208" E
30	53° 47' 39.535" N	1° 46' 16.691" E
33	53° 46' 9.387" N	1° 38' 58.729" E
37	53° 46' 4.677" N	1° 37' 22.711" E
39	53° 44' 47.813" N	1° 28' 38.495" E
44	53° 44' 47.743" N	1° 27' 26.607" E
46	53° 44' 36.477" N	1° 25' 23.743" E
153	53° 42' 30.629" N	1° 15' 58.654" E
164	53° 42' 28.182" N	1° 14' 34.895" E
276	53° 39' 35.134" N	1° 6' 29.785" E
328	53° 38' 17.582" N	1° 2' 16.928" E
459	53° 36' 54.624" N	0° 51' 31.062" E
461	53° 36' 15.738" N	0° 48' 52.425" E
525	53° 35' 21.166" N	0° 43' 44.242" E
527	53° 31' 50.425" N	0° 40' 55.898" E
528	53° 31' 38.281" N	0° 40' 8.340" E
533	53° 28' 36.676" N	0° 20' 3.846" E

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
544	53° 31' 43.122" N	0° 12' 21.707" E
545	53° 30' 57.432" N	0° 5' 59.890" E
546	53° 30' 35.438" N	0° 5' 23.202" E
547	53° 30' 42.212" N	0° 5' 9.948" E
549	53° 31' 36.033" N	0° 6' 10.831" E
588	53° 32' 16.976" N	0° 12' 37.072" E
771	53° 29' 11.523" N	0° 20' 5.981" E
1009	53° 31' 28.589" N	0° 35' 44.348" E
1010	53° 32' 0.855" N	0° 37' 42.781" E
1011	53° 32' 17.793" N	0° 39' 31.883" E
1012	53° 32' 35.749" N	0° 39' 45.737" E
1013	53° 33' 8.117" N	0° 39' 47.665" E
1014	53° 34' 28.861" N	0° 41' 27.396" E
1015	53° 35' 42.522" N	0° 42' 37.802" E
1018	53° 36' 25.571" N	0° 43' 54.129" E
1089	53° 37' 2.569" N	0° 47' 31.846" E
1091	53° 37' 30.986" N	0° 49' 14.023" E
1094	53° 37' 29.991" N	0° 51' 27.606" E
1095	53° 37' 36.904" N	0° 52' 22.841" E
1119	53° 38' 45.654" N	0° 57' 1.237" E
1151	53° 39' 16.652" N	1° 1' 1.016" E
1157	53° 39' 42.566" N	1° 1' 40.167" E
1163	53° 41' 20.037" N	1° 6' 45.836" E
1165	53° 42' 59.843" N	1° 14' 18.127" E
1172	53° 43' 0.151" N	1° 15' 37.960" E
1173	53° 45' 6.659" N	1° 25' 3.239" E
1174	53° 45' 19.169" N	1° 27' 18.352" E
1189	53° 45' 20.249" N	1° 28' 32.601" E
1256	53° 46' 36.946" N	1° 36' 57.722" E
1270	53° 46' 40.338" N	1° 38' 22.735" E
1272	53° 50' 5.118" N	1° 38' 58.430" E
1273	53° 55' 9.293" N	1° 39' 52.024" E
1274	53° 56' 3.228" N	1° 41' 0.143" E
1275	53° 56' 29.670" N	1° 43' 45.592" E
1276	53° 58' 17.828" N	1° 41' 46.795" E

Work No. 7

A foreshore connection consisting of an extension of the electrical circuits comprised in work no. 6, including cable crossing works, crossing under the existing sea wall using the horizontal directional drilling method and terminating at the electrical circuit transition joint bays (work no. 8).

Onshore

Work No. 8

Up to four 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 and the onshore electrical circuits.

Work No. 9

A connection consisting of two underground transmission electrical circuits if the mode of transmission is HVDC and up to four underground transmission electrical circuits if the mode of transmission is HVAC, proceeding from work no. 8 at co-ordinate:

Easting 537791, Northing 402441

to work no. 10 at co-ordinate:

Easting 514992, Northing 419274.

Work No. 10

An electrical transmission station including a building abutting an open yard (which may be partitioned with concrete or steel walls or fences containing switchgear, electrical reactors and other electrical equipment) on land adjoining the North Killingholme National Grid substation:

If the electrical circuits comprised in works nos. 6, 7 and 9 are HVDC, the electrical transmission station will include facilities to convert the current to HVAC.

Work No. 11

A connection consisting of up to two underground electrical circuits between work no. 10 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. 12

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 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) cable protection measures such as rock placement and the placement of concrete mattresses and frond mattresses;
- (c) the disposal of seabed sediments dredged during installation of the foundations of the offshore structures;
- (d) dredging;
- (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) works to secure means of access;
- (k) works to construct surface water drainage systems;
- (l) in connection with work no. 10, private roads and hardstanding for parking;
- (m) jointing pits (including link and/or earthing boxes) in the immediate vicinity of work no. 9;

- (n) a temporary haul road and temporary access track, both alongside and used for the purpose of constructing work no. 9;
- (o) works to enable utility services to be run from Chase Hill Road to work no. 10; and
- (p) 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 works nos. 1, 2 and 3 must not—
- (a) be less than 82 metres to the turbine hub when measured from MHWS;
 - (b) exceed a height of 200 metres from MHWS to the upper tip of the vertical blade;
 - (c) exceed a rotor diameter of 178 metres;
 - (d) be less than 22 metres from MHWS to the lowest point of the rotating blade;
 - (e) be less than 924 metres from the nearest wind turbine generator in all directions.
- (2) Each offshore HVAC collector substation forming part of work no. 4 must not—
- (a) exceed 60 metres in height above MHWS;
 - (b) have a platform which at its greatest extent exceeds 1,800 m² or 40 metres in width.
- (3) Each offshore HVDC converter station forming part of work no. 4 must not—
- (a) exceed 63 metres in height above MHWS;
 - (b) have a platform which at its greatest extent exceeds 7,200 m² or 120 metres in width.
- (4) Each offshore accommodation platform forming part of works nos. 1, 2, and 3 must not—
- (a) exceed 60 metres in height above MHWS;
 - (b) have a platform which at its greatest extent exceeds, 3,600 m² or 60 metres in width.
- (5) The offshore reactive compensation substation comprised in work no. 5 must not—
- (a) exceed 63 metres in height above MHWS; or
 - (b) have a platform which at its greatest extent exceeds 1,800 m² or 45 metres in width.
- (6) (a) The diameter of the electrical cables comprising the electrical circuits must not exceed the following limitations—
- (i) within works nos. 1, 2 and 3, 170 mm;

- (ii) within work no. 4, 300 mm;
- (iii) within work nos. 6 and 7, 200 mm where the mode of transmission is HVDC and 300 mm where the mode of transmission is HVAC.
- (b) The combined length of the inter-array electrical circuits comprised in works nos. 1, 2 and 3 must not exceed 450 km.
- (c) The total length of the electrical circuits comprised in work no. 4 must not exceed 80 km.
- (d) The combined total area of cable protection for the electrical circuits comprising works nos. 1, 2 and 3 must not exceed 450,000 m².
- (e) The total area of cable protection for the electrical circuits comprising work no. 4 must not exceed 80,000 m².
- (f) The total area of cable protection for the electrical circuits comprising work no. 6 located outwith the Humber Estuary Special Area of Conservation must not exceed 1,468,000 m².
- (g) The total area of cable protection for the electrical circuits comprising work no. 6 located within the Humber Estuary Special Area of Conservation must not exceed 12,800 m².
- (h) The combined total length of the electrical circuits comprised in works nos. 6 and 7 seaward of MHWS must not exceed 600 km.
- (i) The combined total volume of cable protection for the electrical circuits comprising works nos. 1, 2 and 3 must not exceed 562,500 m³.
- (j) The total volume of cable protection for the electrical circuits comprising work no. 4 must not exceed 100,000 m³.
- (k) The total volume of cable protection for the electrical circuits comprising work no. 6 located outwith the Humber Estuary Special Area of Conservation must not exceed 1,835,000 m³.
- (l) The total volume of cable protection for the electrical circuits comprising work no. 6 located within the Humber Estuary Special Area of Conservation must not exceed 16,000 m³.

(7) The electrical circuits comprised in works nos. 1, 2, 3, 4 and 6 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. 7 must be installed by use of, or a combination of, ploughing, trenching and jetting.

(9) The total area in which the four underground transition pits comprised in work no. 8 may be contained must not exceed 1,000 m² and none of the four transition pits within that area must individually exceed 25 m by 10 m.

(10) The diameter of the cables within works nos. 9 and 11 must not exceed 300 mm in diameter;

(11) The main building comprised in work no. 10 (the electrical transmission station) must not:

- (a) exceed 24 metres in height;
- (b) exceed 80 metres in width;
- (c) exceed 120 metres in length; and

the site of work no. 10 must not cover more than 32,200 m² 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.

Colour and lighting

3. Except as otherwise required by Trinity House under Condition 7 of the deemed marine licences set out in Schedule 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 works nos. 1, 2, 3, 4 and 5 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 station.

(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 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 707 m² per wind turbine;
 - (ii) the number of piles per jacket must not exceed four;
 - (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 scour protection for each individual structure must not exceed 6,362 m²;
 - (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 m²;
 - (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 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 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 m²;
 - (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—

(a) S.I. 2009/3015.

- (i) the area occupied by the foundations and the scour protection for each individual structure must not exceed 6,362 m²;
 - (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 m²;
 - (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 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 m²;
 - (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 m²;
 - (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 m²;
 - (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 stations 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 4,330 m²;
 - (ii) the number of piles per jacket must not exceed 18;
 - (iii) 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 12,723 m²;
 - (ii) the number of piles per jacket must not exceed eight;
 - (iii) 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 19,500 m²;
 - (ii) the number of pontoons for each individual structure must not exceed two;

(iii) the pontoons must not exceed 110 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 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 m²;
 - (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 m²;
 - (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 m²;
 - (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 3,226,187 m³.

Archaeology above mean low water level

5.—(1) No part of the authorised development above MLWS is to commence within the area of a local planning authority until a written scheme for the investigation of areas of archaeological interest above 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.

Ecological management plan above mean low water level

6.—(1) No part of the authorised development above MLWS is to commence within the area of a local planning authority until a written ecological management plan relating to the land above MLWS based on the draft ecological management plan contained in volume 6 of the Environmental Statement 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 above MLWS is to commence within the area of a local planning authority until a code of construction practice relating to the works authorised above MLWS based on the draft code of construction practice contained in volume 4 of the Environmental Statement 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 (1A)(e), and any travel plan submitted pursuant to sub-paragraph (1A)(l) in consultation with the relevant highway authority and the Highways Agency.

(1A) 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;
- (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.

(2) All construction works must be undertaken in accordance with the approved code.

Landscaping

8.—(1) No part of the authorised development above 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 draft landscape scheme and management plan contained in Annex 6.4.16: Landscape Scheme and Management Plan of the Environmental Statement, 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;
- (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.

Decommissioning

10.—(1) No part of the authorised development below MHWS 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.

(2) The written decommissioning programme must satisfy the requirements of section 105(8) of the 2004 Act.

(3) The decommissioning of the offshore authorised development must be undertaken in accordance with the approved decommissioning programme.

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 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 horizontal directional drilling 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 Environment Agency and 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 station

14.—(1) Unless otherwise agreed by the local planning authority, the electrical transmission station comprised in work no. 10 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. 10 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) The construction of work no. 10 must be carried out in accordance with the approved details.

Requirement for written approval

15. 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

16.—(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) 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.

(3) 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.

Prohibited access

17.—(1) The undertaker must not use the access road along the crest of the sea defences within the plots numbered 37 - 40 on the land plans during the construction of work nos. 6 to 8.

(2) Except in an emergency, the access road along the sea defences within the plots numbered 37 – 40 on the land plans may not be used by the undertaker following the construction of work nos. 6 to 8 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 28 days 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

18.—(1) No part of the authorised development below 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, in 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 planning authority” means the local planning authority or authorities in whose area the relevant port is located;

“relevant highway authority” means the highway 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.

Co-operation

19.—(1) Prior to the submission of the pre-construction plans and documentation required to be submitted to the MMO for approval under Condition 13 of the deemed marine licences set out in Schedule H, I, and J, and K the undertaker must provide a copy of the plans and documentation to the other undertakers under this Order.

(2) The other undertakers must provide any comments on the plans and documentation to the undertaker within 14 days of receipt of the plans and documentation.

(3) The undertaker shall participate in liaison meetings with other undertakers 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).

Control of noise during operational phase

20. The combined noise rating level from the electrical transmission station, converter and associated plant, emitted during normal operation, shall not exceed 35 dB LAr,Tr at residential properties. The definition of rating level shall be as described in BS 4142:1997. The noise limit only applies to residential properties that have planning permission on 30th July 2013.

Employment and skills plan

21.—(1) No part of the authorised development is to commence until an employment and skills plan has been submitted to and approved by North Lincolnshire Council in consultation with 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 and in the event that this local enterprise partnership is no longer in existence means the local planning authority.

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	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/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
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
District of East Lindsey	HoLC/4/1 (Public Footpath)
District of East Lindsey	Louth Road (A16)
District of East Lindsey	HoLC/10/1 (Public Footpath)
District of East Lindsey	Tetn/343/1 (Public Footpath)
District of East Lindsey	Tetn/12/5 (Public Footpath)
North East Lincolnshire	FP84 (Public Footpath)
North East Lincolnshire	Waithe Lane
North East Lincolnshire	Waithe Lane
North East Lincolnshire	BW75 (Public Bridleway)
North East Lincolnshire	Waltham Road (B1203)
North East Lincolnshire	Waltham Road (C148)
North East Lincolnshire	FP95 (Public Footpath)
North East Lincolnshire	Bradley Road
North East Lincolnshire	BW93 (Public Bridleway)
North East Lincolnshire	BW97 (Public Bridleway)
North East Lincolnshire	FP96 (Public Footpath)
North East Lincolnshire	Grimsby Road (A46)
North East Lincolnshire	FP103 (Public Footpath)
North East Lincolnshire	FP110 (Public Footpath)
North East Lincolnshire	Aylesby Road
North East Lincolnshire	BW108 (Public Bridleway)
North East Lincolnshire	Beech Holt Lane/Nooking Lane
District of West Lindsey	Wells Road
North East Lincolnshire	Riby Road (A1173)
North East Lincolnshire	FP26 (Public Footpath)
North East Lincolnshire	Keelby Road
North East Lincolnshire	Roxton Road
North East Lincolnshire	Station Road (B1210)
North East Lincolnshire	Immingham Road (B1210)

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Streets subject to street works</i>
North East Lincolnshire	FP8 (Public Footpath)
North East Lincolnshire	FP7 (Public Footpath)
North East Lincolnshire	Killingholme Road
North East Lincolnshire	FP24 (Public Footpath)
North East Lincolnshire	FP4 (Public Footpath)
North East Lincolnshire	A180
North Lincolnshire Council	94 (Public Footpath)
North Lincolnshire Council	Faulding Lane
North Lincolnshire Council	Habrough Road
North Lincolnshire Council	Ulceby Road (A160)
North Lincolnshire Council	Top Road
North Lincolnshire Council	87 (Public Footpath)
North Lincolnshire Council	Nicholson Road
North Lincolnshire Council	Chase Hill Road
North Lincolnshire Council	Brick Lane
North Lincolnshire Council	86 (Public Footpath)
North Lincolnshire Council	79 (Public Footpath)

SCHEDULE C

Article 11

Streets to be temporarily stopped up

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Street to be temporarily stopped up</i>	<i>(3)</i> <i>Extent of temporary stopping up</i>
District of East Lindsey	Permissive Footpath	Between points F1 and F2 as shown in a dotted red 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 red 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 red line on sheet 3 of the onshore works plans

<i>(1)</i> Area	<i>(2)</i> Street to be temporarily stopped up	<i>(3)</i> Extent of temporary stopping up plans
District of East Lindsey	Footpath Tetn/19/1	Between points F7 and F8 as shown in a dotted red 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 red 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 105 and 106 as shown hatched on sheet 5 of the onshore works plans
District of East Lindsey	Tetney Lock Road	Between points 17 and 18 as shown hatched on sheet 5 of the onshore works plans
District of East Lindsey	Tetney Lock Road	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	Humberston Road	Between points 23 and 24 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 red line on sheet 6 of the onshore works plans
District of East Lindsey	Holton Road	Between points 25 and 26 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 red 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 red line on sheet 7 of the onshore works plans

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Street to be temporarily stopped up</i>	<i>(3)</i> <i>Extent of temporary stopping up</i>
District of East Lindsey	Station Road	Between points 27 and 28 as shown hatched on sheet 7 of the onshore works plans
District of East Lindsey	Station Road	Between points 29 and 30 as shown hatched on sheet 7 of the onshore works plans
District of East Lindsey	Station Road	Between points 31 and 32 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 red line on sheet 7 of the onshore works plans
District of East Lindsey	Louth Road (A16)	Between points 33 and 34 as shown hatched on sheet 7 of the onshore works plans
District of East Lindsey	Louth Road (A16)	Between points 109 and 110 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 red line on sheet 8 of the onshore works plans
North East Lincolnshire	Footpath FP84	Between points F20 and F21 as shown in a dotted red line on sheet 8 of the onshore works plans
North East Lincolnshire	Waithe Lane	Between points 35 and 36 as shown hatched on sheet 8 of the onshore works plans
North East Lincolnshire	Waithe Lane	Between points 37 and 38 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 red line on sheet 9 of the onshore works plans
North East Lincolnshire	Waltham Road (B1203)	Between points 39 and 108 as shown hatched on sheet 9 of the onshore works plans
North East Lincolnshire	Waltham Road (B1203)	Between points 39 and 40 as shown hatched on sheet 9 of the onshore works plans
North East Lincolnshire	Waltham Road (B1203)	Between points 41 and 42 as shown hatched on sheet 9 of the onshore works plans
North East Lincolnshire	Waltham Road (C148)	Between points 43 and 44 as shown hatched on sheet 10 of the onshore works plans
North East Lincolnshire	Footpath FP95	Between points F24 and F25 as shown in a dotted red line on sheet 12 of the onshore

<i>(1)</i> Area	<i>(2)</i> Street to be temporarily stopped up	<i>(3)</i> Extent of temporary stopping up
		works plans
North East Lincolnshire	Footpath FP95	Between points F26 and F27 as shown in a dotted red line on sheet 12 of the onshore works plans
North East Lincolnshire	Bradley Road	Between points 45 and 46 as shown hatched on sheet 11 of the onshore works plans
North East Lincolnshire	Bradley Road	Between points 47 and 48 as shown hatched on sheet 12 of the onshore works plans
North East Lincolnshire	Bradley Road	Between points 49 and 50 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 red line on sheet 12 of the onshore works plans
North East Lincolnshire	Footpath FP95	Between points F30 and F31 as shown in a dotted red line on sheet 13 of the onshore works plans
North East Lincolnshire	Bridleway BW97	Between points F32 and F33 as shown in a dotted red line on sheet 14 of the onshore works plans
North East Lincolnshire	Footpath FP96	Between points F34 and F35 as shown in a dotted red line on sheet 14 of the onshore works plans
North East Lincolnshire	Grimsby Road (A46)	Between points 51 and 52 as shown hatched on sheet 14 of the onshore works plans
North East Lincolnshire	Grimsby Road (A46)	Between points 53 and 54 as shown hatched on sheet 14 of the onshore works plans
North East Lincolnshire	Grimsby Road (A46)	Between points 55 and 56 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 red line on sheet 15 of the onshore works plans
North East Lincolnshire	Footpath FP110	Between points F38 and F39 as shown in a dotted red line on sheet 15 of the onshore works plans
North East Lincolnshire	Aylesby Road	Between points 57 and 58 as shown hatched on sheet 15 of the onshore works plans

<i>(1)</i> Area	<i>(2)</i> Street to be temporarily stopped up	<i>(3)</i> Extent of temporary stopping up
North East Lincolnshire	Bridleway BW108	Between points F40 and F41 as shown in a dotted red line on sheet 15 of the onshore works plans
North East Lincolnshire	Beech Holt Lane/Nooking Lane	Between points 59 and 60 as shown hatched on sheet 16 of the onshore works plans
West Lindsey District	Wells Road	Between points 61 and 62 as shown hatched on sheet 17 of the onshore works plans
North East Lincolnshire	Riby Road (A1173)	Between points 63 and 64 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 red line on sheet 19 of the onshore works plans
North East Lincolnshire	Keelby Road	Between points 65 and 66 as shown hatched on sheet 19 of the onshore works plans
North East Lincolnshire	Keelby Road	Between points 65 and 107 as shown hatched on sheet 19 of the onshore works plans
North East Lincolnshire	Keelby Road	Between points 101 and 102 as shown hatched on sheet 19 of the onshore works plans
North East Lincolnshire	Roxton Road	Between points 67 and 68 as shown hatched on sheet 20 of the onshore works plans
North East Lincolnshire	Roxton Road	Between points 69 and 70 as shown hatched on sheet 20 of the onshore works plans
North East Lincolnshire	Station Road (B1210)	Between points 71 and 72 as shown hatched on sheet 22 of the onshore works plans
North East Lincolnshire	Immingham Road (B1210)	Between points 73 and 74 as shown hatched on sheet 23 of the onshore works plans
North East Lincolnshire	Immingham Road (B1210)	Between points 75 and 76 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 red line on sheet 23 of the onshore works plans
North East Lincolnshire	Footpath FP7	Between points F46 and F47 as shown in a dotted red line on sheet 23 of the onshore works plans
North East Lincolnshire	Killingholme Road	Between points 77 and 78 as shown hatched on sheet 23 of the onshore works plans

<i>(1)</i> Area	<i>(2)</i> Street to be temporarily stopped up	<i>(3)</i> Extent of temporary stopping up
North Lincolnshire	Footpath 94	Between points F48 and F49 as shown in a dotted red line on sheet 24 of the onshore works plans
North Lincolnshire	Faulding Lane	Between points 79 and 80 as shown hatched on sheet 24 of the onshore works plans
North Lincolnshire	Habrough Road	Between points 81 and 82 as shown hatched on sheet 24 of the onshore works plans
North Lincolnshire	Habrough Road	Between points 83 and 84 as shown hatched on sheet 24 of the onshore works plans
North Lincolnshire	Habrough Road	Between points 85 and 86 as shown hatched on sheet 24 of the onshore works plans
North Lincolnshire	Ulceby Road (A160)	Between points 87 and 88 as shown hatched on sheet 24 of the onshore works plans
North Lincolnshire	Top Road	Between points 89 and 90 as shown hatched on sheet 25 of the onshore works plans
North Lincolnshire	Footpath 87	Between points F50 and F52 as shown in a dotted red line on sheet 25 of the onshore works plans
North Lincolnshire	Footpath 87	Between points F51 and F52 as shown in a dotted red line on sheet 25 of the onshore works plans
North Lincolnshire	Nicholson Road	Between points 91 and 92 as shown hatched on sheet 25 of the onshore works plans
North Lincolnshire	Nicholson Road	Between points 92 and 111 as shown hatched on sheet 25 of the onshore works plans
North Lincolnshire	Nicholson Road	Between points 103 and 104 as shown hatched on sheet 25 of the onshore works plans
North Lincolnshire	Chase Hill Road	Between points 93 and 94 as shown hatched on sheet 26 of the onshore works plans
North Lincolnshire	Chase Hill Road	Between points 95 and 96 as shown hatched on sheet 26 of the onshore works plans
North Lincolnshire	Brick Lane	Between points 97 and 98 as shown hatched on sheet 26 and 27 of the onshore works plans
North Lincolnshire	Footpath 86	Between points F53 and F54 as shown in a dotted red line on sheet 27 of the onshore

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Street to be temporarily stopped up</i>	<i>(3)</i> <i>Extent of temporary stopping up</i>
		works plans
North Lincolnshire	Footpath 79	Between points F55 and F56 as shown in a dotted red line on sheet 27 of the onshore works plans
North Lincolnshire	Footpath 86	Between points F57 and F58 as shown in a dotted red line on sheet 27 of the onshore works plans
North Lincolnshire	Chase Hill Road	Between points 99 and 100 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 Works Nos. 7, 8, 9
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 No. 9
District of East Lindsey	Between point A3 (south side of North Coates Road) shown on sheet 4 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A4 (north side of unnamed highway east of New Delights access) shown on sheet 4 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A5 (north side of Tetney Lock Road east of New Delights access) shown on sheet 5 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A6 (north side of unnamed highway east of New Delights access) shown on sheet 5 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A7 (north side of Tetney Lock Road west of Cow Marsh Lane) shown on sheet 5 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A8 (west side of Holton Road) shown on sheet 6 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A9 (east side of Holton Road west of Grange Farm Cottage) shown on sheet 6 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A10 (north side of Station Road) shown on sheet 7 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A11 (north side of Station Road to the west of the dismantled railway line) shown on sheet 7 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A12 (north side of Station Road) shown on sheet 7 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A13 (north side of Station Road) shown on sheet 7 of the onshore works plans and Work No. 9
District of East Lindsey	Between point A14 (west side of A16) shown on sheet 8 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A15 (west side of B1203) shown on sheet 9 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A16 (east side of B1203) shown on sheet 9 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A17 (north side of C148 Waltham Road) shown on sheet 10 of the onshore works plans

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Description of access</i>
	and Work No. 9
North East Lincolnshire	Between point A18 (south side of C148 Waltham Road) shown on sheet 10 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A19 (west side of Bradley Road north of Waltham) shown on sheet 11 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A20 (west side of Bradley Road Netherwood Farm north access point) shown on sheet 12 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A21 (west side of Bradley Road Netherwood Farm south access point) shown on sheet 12 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A22 (north-west side of A46 east of Laceby) shown on sheet 14 of the onshore works plans and Work No. 9
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 No. 9
North East Lincolnshire	Between point A24 (south-east side of Aylesby Road) shown on sheet 15 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A25 (north side of Beach Holt Lane/Nooking Lane west of Aylesby) shown on sheet 16 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A26 (north-west side of Wells Road) shown on sheet 17 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A27 (south-east side of Wells Road) shown on sheet 17 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A28 (west side of A1173 at Stallingborough Grange Farm) shown on sheet 18 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A29 (east side of A1173) shown on sheet 18 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A30 (south-east side of Keelby Road south-west of Wood View) shown on sheet 19 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A31 (north-west side of Keelby Road south-west of Wood View) shown on sheet 19 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A32 (north-west side of Keelby Road in the vicinity of Wood View) shown on sheet 19 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A33 (east side of Roxton Road north of railway) shown on sheet 20 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A34 (west side of Roxton Road north of railway) shown on sheet 20 of the onshore works plans and Work No. 9

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Description of access</i>
North East Lincolnshire	Between point A35 (south-east side of Roxton Road south of railway) shown on sheet 20 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A36 (south side of B1210 Station Road south of A180) shown on sheet 22 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A37 (north side of B1210 Immingham Road) shown on sheet 23 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A38 (south side of B1210 Immingham Road) shown on sheet 23 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A39 (south side of B1210 Immingham Road west of School Cottages) shown on sheet 23 of the onshore works plans and Work No. 9
North East Lincolnshire	Between point A40 (east side of Killingholme Road, south of Mill House) shown on sheet 23 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A41 (south side of Faulding Lane) shown on sheet 24 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A42 (south-west side of Habrough Road north of Faulding Lane) shown on sheet 24 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A43 (south-west side of Habrough Road) shown on sheet 24 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A44 (south-west side of Habrough Road south-east of A160/Habrough Road roundabout) shown on sheet 24 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A45 (north side of A160 west of A160/Habrough Road roundabout) shown on sheet 24 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A46 (east side of Top Road) shown on sheet 25 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A47 (south side of Nicholson Road/Church Lane) shown on sheet 25 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A48 (north side of Nicholson Road/Church Lane) shown on sheet 25 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A49 (south side of Chase Hill Road west of Eastfield Road) shown on sheet 26 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A50 (north side of Chase Hill Road west of Eastfield Road) shown on sheet 26 of the onshore works plans and Work No. 9
North Lincolnshire	Between point A51 (Brick Lane, north side of Chase Hill Road) shown on sheet 26 of the onshore works plans and Work No. 9

SCHEDULE E

Article 18(1)

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 10 – 14	To install, retain, maintain and operate apparatus (and to impose requirements for its protection) within an up to 160 metre corridor within the Order Land and to obtain access for such purposes
3 – 9 16 – 21	To ground and lay anchor for vessels within the Order Land
15 22 407 – 408	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
23 409	To install, maintain and use an access track and to obtain access for such purposes
25 – 26	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
27 – 29 57 – 58 63 – 66 68 – 72 74 77 – 80 87 91 94 97 104 – 105 107 – 108 111 – 113 122 – 126 128 – 130 133 140 – 141 145 148 151 – 152 154 156 162 164 – 171 173 – 178 180	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

<i>(1)</i> <i>Number of land shown on land plans</i>	<i>(2)</i> <i>Purpose for which rights may be acquired</i>
183 – 185 187 – 192 196 199 – 200 205 – 209 212 – 213 216 218 – 220 227 232 – 233 235 238 240 242 – 243 245 – 247 251 – 258 261 267 – 268 271 – 272 274 277 279 283 287 293 – 294 296 – 297 314 – 315 319 – 320 324 331 – 332 337 – 338 346 351 353 – 354 357 359 – 362 364 – 365 368 – 370 373 – 375 378 – 380 383 386 390 – 397 400 403	
37 – 40	To install, maintain and use an access track and to obtain access for the purposes only of maintaining and operating the authorised project
226	To install, retain, maintain and operate apparatus (and to impose requirements for its

<i>(1)</i> <i>Number of land shown on land plans</i>	<i>(2)</i> <i>Purpose for which rights may be acquired</i>
	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
313 352	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
406	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
410 415	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 track and to obtain access for such purposes

SCHEDULE F

Article 18(2)

Modification of compensation and compulsory purchase enactments for creation of new rights

PART 1

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 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 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”.

(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 land consisting”;
- (b) for the word “severance” there are substituted the words “right over 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 proposed”; and
- (d) for the words “part is” there are substituted the words “right is”.

PART 2

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 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
- (b) the land over which the right is or is to be exercisable.

(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 with the modifications specified in the following provisions of this Schedule.

(a) 1973 c.26.

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 is to be imposed is depreciated by the acquisition of the right 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 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 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 without material detriment to that land; or

(ii) where that land consists of such a park or garden, that the right cannot be purchased without seriously affecting the amenity or convenience of the house to which that land belongs,

the Hornsea One Offshore Wind Farm Order 2011^(a) (“the Order”), in relation to that person, ceases to authorise the purchase of the right 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.

(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 six 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);

(a) S.I. 2011[X].

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 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 (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 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, subject to compliance with that section as respects compensation.

SCHEDULE G

Article 25

Land of which temporary possession may be taken

PART 1

<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
District of East Lindsey	24	Worksite and access for the construction and carrying out of the authorised project	Works Nos. 7, 8 and 9
District of East Lindsey	30 – 33 35 – 36 61 – 62 75 – 76 81 – 86 88 98 – 102 109 – 110 121 131 146 153 157 – 159 161	Worksite and access for the construction and carrying out of the authorised project	Work No. 9
District of East Lindsey	41 44 – 45 47- 49	Laying and use of temporary vehicular access track	Works Nos. 7, 8 and 9
District of East Lindsey	50 – 56 60 73 89 – 90 92 – 93 95 – 96 103 114 – 116 127 132 134 136 – 137 139 142 – 143 150 155	Laying and use of temporary vehicular access track	Work No. 9
District of East Lindsey	81 144 147	Laying of temporary public footpaths and bridleways	Work No. 9

<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
	149 160		
North East Lincolnshire	163 201 239 241 270 325	Laying of temporary public footpaths and bridleways	Work No. 9
North East Lincolnshire	172 182 186 193 – 195 197 201 214 – 215 228 – 231 234 236 – 237 244 248 259 – 260 264 – 266 269 – 270 273 278 280 – 282 284 – 286 288 – 289 295 304 306 – 307 312 316 – 317 321 – 323 325 – 326 328	Worksite and access for the construction and carrying out of the authorised project	Work No. 9
North East Lincolnshire	179 181 198 217 221 – 225 241 262 275 – 276 292 300 302 – 303 305 309	Laying and use of temporary vehicular access track	Work No. 9

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Number of land shown on land plans</i>	<i>(3)</i> <i>Purpose for which temporary possession may be taken</i>	<i>(4)</i> <i>Relevant part of the Authorised project</i>
	318 330		
North Lincolnshire	333 – 335 341 – 342 345 347 – 350 356 358 366 – 367 371 – 372 381 – 382 387 – 388 398 – 399 401 – 402	Worksite and access for the construction and carrying out of the authorised project	Work No. 9
North Lincolnshire	336 339 – 340 343 – 344 355 – 356 358 363 376 – 377 384 – 385	Laying and use of temporary vehicular access track	Work No. 9
North Lincolnshire	405	Worksite and access for the construction and carrying out of the authorised project	Works Nos. 9, 10 and 11
North Lincolnshire	411 – 414 416	Laying and use of temporary vehicular access track;	Works Nos. 10, 11 and 12

PART 2

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Number of land shown on land plans</i>
District of East Lindsey	34 42 – 43 46 59 67 87 117 – 120 135 138
North East Lincolnshire	202 – 204 210 – 211 249 – 250 263 290 – 291

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Number of land shown on land plans</i>
	298 – 299 301 308 310 – 311 327 329
North Lincolnshire	389

Deemed Marine Licence under the Marine And Coastal Access Act 2009
- Deemed Marine Licence 1

PART 1

Licensed marine activities

Interpretation

1.—(1) In this licence—

“the 1990 Act” means the Town and Country Planning Act 1990;

“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 Part 2 of Schedule A of the Order and any other works authorised by the Order and 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 and any other development authorised by 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. 1 described in paragraph 2 of Part 1 of this licence;

“best environmental practice” means best environmental practice as defined in Appendix 1 of the 1992 OSPAR Convention of the Protection of the Marine Environment of the North-East Atlantic;

“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 or construction vessels;

“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, 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—

- (i) 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
- (ii) 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;

“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;

“JNCC” means the Joint Nature Conservation Committee or any successor to its statutory functions;

“the Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“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” includes inspect, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule A (ancillary works) of the Order and any component part of any wind turbine generator, offshore accommodation platform, offshore HVAC collector substation, offshore HVDC converter station or offshore reactive compensation substation described in Part 1 of Schedule A (authorised development) of the Order (but not including the alteration, removal or replacement of foundations) to the extent assessed in the environmental statement; and “maintenance” 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;

“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 station” means a structure which contains equipment to convert HVAC electricity to HVDC electricity; 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 One Offshore Wind Farm Order 201[X];

“the project description” means the document certified as the project description by the Secretary of State for the purposes of the Order and submitted with the application on 30 July 2013 (Chapter Three, Volume One of the Environmental Statement);

“the requirements” means those matters set out in Part 3 of Schedule A of the Order;

“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 for the purposes of constructing, maintaining and operating Work No. 1 and any associated development or ancillary works within Wind Farm Area 1 relating to that work, Heron Wind Limited or, to the extent that the benefit of the provisions of the Order and related statutory rights in relation to Work No. 1 and such associated development or ancillary works has been transferred under article 34 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 1” means the area within the limits of deviation for Work No. 1 of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“Wind Farm Area 2” means the area within the limits of deviation for Work No. 2 of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“Wind Farm Area 3” means the area within the limits of deviation for Work No. 3 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. 1” means an offshore wind generating station within Wind Farm Area 1 and described as Work No. 1 in paragraph 2 of Part 1 of this licence;

“Work No. 2” means an offshore wind generating station within Wind Farm Area 2 and described as Work No. 2 in Part 1 of Schedule A of the Order;

“Work No. 3” means an offshore wind generating station within Wind Farm Area 3 and described as Work No. 3 in Part 1 of Schedule A of the Order;

“Work No. 4” means up to five offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter stations together with a network of electrical circuits connecting the structures within Work No. 4;

“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

Email: marine.consents@marinemanagement.org.uk

(b) Marine Management Organisation (referred to as the “MMO Coastal Office”)

Estuary House

Wharnccliffe Road

Grimsby

Lincolnshire

DN31 3QL

Tel: 01472 355 112

(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
Foundry House
3 Millsands
Riverside Exchange
Sheffield
S3 8NH
Tel: 0300 060 4911
- (h) Joint Nature Conservation Committee
Inverdee House
Baxter Street
Aberdeen
AB11 9QA
Tel: 01224 266 550
- (i) English Heritage
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;
- (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 HU206 (Hornsea Project One Subzone 1) of—

- (i) in the event that an offshore accommodation platform is constructed under this licence up to 434,004 m³ or, if no part of Work No.3 is constructed, up to 641,385 m³, of inert material of natural origin produced during construction drilling and seabed preparation for foundation works comprised in Work No. 1; or
 - (ii) in the event that no offshore accommodation platform is constructed under this licence up to 414,762 m³ or, if no part of Work No.3 is constructed, up to 622,143 m³, of inert material of natural origin produced during construction drilling and seabed preparation for foundation works comprised in Work No. 1; and
 - (f) 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. 1 — An offshore wind generating station within Wind Farm Area 1 comprising:

- (a) up to 80 (inclusive) or, if no part of Work No. 3 is constructed, up to 120 (inclusive) wind turbine generators fixed to the seabed;
- (b) a network of subsea inter-array electrical circuits connecting the structures comprised in Work No. 1—
 - (i) with each other;
 - (ii) with any other structure located within Wind Farm Area 1; and
 - (iii) (for the purpose of connecting any structure comprised in Work No. 1 with any structure comprised in Works Nos. 2, 3 and 4) with the network of electrical circuits comprised in Works Nos. 2, 3 and 4;
- (c) up to one offshore accommodation platform fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter stations within Work No. 4 by an unsupported steel bridge, provided that the combined total of offshore accommodation platforms constructed in whole or in part within Works Nos. 1, 2 and 3 does not exceed two.

Co-ordinates for Wind Farm Area 1 (limits of deviation for Work No. 1):

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 58' 42.179" N	1° 44' 31.880" E
2	53° 55' 46.445" N	1° 47' 47.796" E
3	53° 56' 22.870" N	1° 51' 57.409" E
4	53° 55' 31.318" N	1° 52' 54.282" E
5	53° 49' 58.944" N	1° 58' 59.804" E
6	53° 50' 5.118" N	1° 38' 58.430" E
7	53° 55' 9.293" N	1° 39' 52.024" E
8	53° 56' 3.228" N	1° 41' 0.143" E
9	53° 56' 29.670" N	1° 43' 45.592" E
10	53° 58' 17.828" N	1° 41' 46.795" E

And in connection with such Work No. 1, 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. 1 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 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 Wind Farm Area 1 during construction drilling and seabed preparation for foundation works.

(4) The grid co-ordinates for disposal site reference HU206 (Hornsea Project One Subzone 1) are specified below—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 58' 42.179'' N	1° 44' 31.880'' E
2	53° 55' 46.445'' N	1° 47' 47.796'' E
3	53° 56' 22.870'' N	1° 51' 57.409'' E
4	53° 55' 31.318'' N	1° 52' 54.282'' E
5	53° 55' 37.592'' N	1° 53' 38.108'' E
6	53° 55' 23.329'' N	1° 55' 20.262'' E
7	53° 55' 8.162'' N	1° 56' 10.619'' E
8	53° 55' 35.429'' N	1° 59' 20.944'' E
9	53° 55' 2.525'' N	1° 59' 45.776'' E
10	53° 55' 22.663'' N	2° 2' 14.219'' E
11	53° 56' 16.303'' N	2° 1' 15.269'' E
12	53° 56' 46.586'' N	2° 5' 4.031'' E
13	53° 57' 12.481'' N	2° 4' 32.376'' E
14	53° 57' 24.509'' N	2° 6' 6.700'' E
15	53° 50' 10.018'' N	2° 13' 57.158'' E
16	53° 49' 14.297'' N	2° 11' 36.820'' E
17	53° 49' 58.584'' N	1° 59' 54.762'' E
18	53° 49' 58.944'' N	1° 58' 59.804'' E
19	53° 50' 5.118'' N	1° 38' 58.430'' E
20	53° 55' 9.293'' N	1° 39' 52.024'' E
21	53° 56' 3.228'' N	1° 41' 0.143'' E
22	53° 56' 29.670'' N	1° 43' 45.592'' E
23	53° 58' 17.828'' N	1° 41' 46.795'' 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 34 of the Order.

Duration

3. 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. 1 must not—
 - (a) be less than 82 metres to the turbine hub when measured from MHWS;
 - (b) exceed a height of 200 metres from MHWS to the upper tip of the vertical blade;

- (c) exceed a rotor diameter of 178 metres;
- (d) be less than 22 metres from MHWS to the lowest point of the rotating blade; or
- (e) be less than 924 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.

2. Any offshore accommodation platform forming part of Work No. 1 must not:

- (a) exceed 60 metres in height above MHWS;
- (b) have a platform which at its greatest extent exceeds, 3,600 m² or 60 metres in width.

3. The diameter of the electrical circuits comprising the electrical circuits within Work No. 1 must not exceed 170 mm.

4. The electrical circuits comprised in Work No. 1 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.

5.—(1) The undertaker must in fixing to the seabed any structures comprised in Work No. 1 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. 1 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 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 707 m² per wind turbine;
 - (ii) the number of piles per jacket must not exceed four;
 - (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 scour protection for each individual structure must not exceed 6,362 m²;
 - (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 m²;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.

(3) The following parameters apply in respect of the foundation methods used to fix offshore accommodation platforms comprised in Work No. 1 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 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 m²;
 - (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 m²;
 - (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 m²;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.

(4) The combined total volume of scour protection for the wind turbine generators and the offshore accommodation platform forming part of Work No. 1 must not exceed 1,079,839 m³ or, if no part of Work No.3 is constructed, must not exceed 1,613,093 m³.

(5) In the event that no offshore accommodation platform is constructed under this licence, the combined total volume of scour protection for the wind turbine generators forming part of Work No. 1 must not exceed 1,066,508 m³ or, if no part of Work No.3 is constructed, must not exceed 1,599,762 m³.

Notifications and inspections

6.—(1) The undertaker shall 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 16 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 in writing at least five working days prior to the commencement of the licensed activities or any phase of them.

(7) Prior to the commencement of the licensed activities the undertaker must publish in the Kingfisher Fortnightly Bulletin details of the vessel routes, timings and locations relating to the construction of the authorised scheme.

(8) The undertaker shall ensure that a Notice to Mariners is issued at least ten days prior to the commencement of the licensed activities advising of the commencement of licensed activities within Wind Farm Area 1 and the expected vessel routes from the local service ports to the turbine locations.

(9) The Notices to Mariners must be updated and reissued not less frequently than weekly and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under licence condition 13(2)(a). Copies of all notices shall be provided to the MMO.

(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
- (b) the MMO once the authorised scheme is completed and any required lighting or marking has been established.

Aids to navigation

7. 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) notify Trinity House as soon as reasonably practicable of both the progress and completion of the authorised scheme (or any phase of it) and any aids to navigation established from time to time;
- (d) provide reports on the working condition of aids to navigation periodically as requested by Trinity House;
- (e) notify Trinity House and the MMO of any failure of the aids to navigation and the timescales in which such failure will be remedied, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

Provision against danger to navigation

8. In case of injury 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 injury, destruction or decay, notify Trinity House and must lay down such buoys, exhibit such lights and take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

Navigational Practice, Safety and Emergency Response

9.—(1) No part of the authorised scheme seaward of MHWS is to commence until the Secretary of State, in consultation with the MCA, has given written approval for an Emergency Response and 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 authorised scheme seaward of MHWS is to commence until the Secretary of State, 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 and Co-operation Plan must be implemented as approved, unless otherwise agreed in writing by the Secretary of State, in consultation with the MCA.

(4) The undertaker must during the whole period from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning provide relevant information to the MCA to assist in the timely and efficient issuing of notices to mariners and other navigational warnings of the position and nature of the works, such information to be provided to mariners in the shipping and fishing industry as well as to recreational mariners.

Colour and lighting

10. Except as otherwise required by Trinity House under Condition 7, the undertaker must colour all structures comprised in Work No. 1 submarine grey (colour code RAL 7035).

Chemicals, drilling and debris

11.—(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 shall 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 shall ensure that any debris arising from the construction of the authorised scheme or temporary works placed below MHWS are removed on completion of the authorised scheme, where practicable.

(6) 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 MMO becomes aware that any of the materials on the audit sheet cannot be accounted for it shall require the undertaker to carry out a side scan sonar survey to

plot all obstructions across Wind Farm Area 1 where construction works and related activities have been carried out under this licence. Local fishermen shall be invited to send a representative to be present during the survey. Any new obstructions that the MMO believes to be associated with the authorised scheme shall be removed at the undertaker's expense, where practicable.

(9) The undertaker shall inform the MMO of the location and quantities of inert 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.

(10) The undertaker shall ensure that only inert material of natural origin, produced during construction drilling and seabed preparation for foundation works comprised in Work No. 1, and drilling mud shall be disposed of at disposal site reference HU206 (Hornsea Project One Subzone 1).

(11) The undertaker shall 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 should be contained to prevent run-off entering the water through the freeing ports.

(12) The undertaker shall 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.

Force majeure

12. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit—

- (a) authorised deposits outside of Wind Farm Area 1 or disposal site reference HU206 (Hornsea Project One Subzone 1); or
- (b) unauthorised deposits within or outside of Wind Farm Area 1 or disposal site reference HU206 (Hornsea Project One Subzone 1)

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

13.—(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) To ensure conformity with the description of Work No 1 and compliance with licence conditions 1 to 5 above, a plan, to be agreed in writing with the MMO in consultation with Trinity House and the MCA, which shows:
 - (i) the proposed location and choice of foundation of all wind turbine generators and offshore accommodation platforms, subject to any micro-siting required due to anthropological constraints, environmental constraints, difficult ground conditions or to give adequate spacing between other infrastructure;
 - (ii) the proposed location and height of bridge links;
 - (iii) the height to the tip of the vertical blade, height to the centreline of the generator shaft forming part of the hub, rotor diameter and spacing of all wind turbine generators;
 - (iv) the height, length and width of all offshore accommodation platforms;
 - (v) the length and arrangement of all electrical circuits comprising Work No 1 subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions;
 - (vi) the proposed dimensions of all monopile foundations;
 - (vii) the proposed dimensions of all gravity base foundations;

- (viii) the proposed dimensions of all jacket foundations; and
- (ix) the proposed layout of all wind turbine generators and offshore accommodation platforms including all exclusion zones comprised in the licensed activities and showing the indicative programming of particular works as set out in the indicative programme to be provided under condition 13(2)(a).

(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) have been submitted to and approved in writing by the MMO; such approval to be provided in the case of any construction and monitoring programme pursuant to sub-paragraph (a), any construction method statement pursuant to sub-paragraph (b), any project environmental management and monitoring plan pursuant to sub-paragraph (c), any scour protection management and cable armouring plan pursuant to sub-paragraph (d), and any marine mammal mitigation protocol submitted pursuant to sub-paragraph (e), and any marine mammal monitoring plan submitted pursuant to sub-paragraph (h) in consultation with the relevant statutory nature conservation body, and in the case of any written scheme of archaeological investigation submitted pursuant to sub-paragraph (g) in consultation with English Heritage.

- (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 18, 19 and 20. The preconstruction 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 project description and 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 below MHWS;
 - (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) waste management and disposal arrangements;
 - (iv) offshore project maintenance plans including offshore electrical circuit maintenance;
 - (v) locations of any archaeological exclusion zones agreed as part of the written scheme of archaeological investigation approved under paragraph (g) of this licence condition;

- (vi) the appointment and responsibilities of a fisheries liaison officer and an environmental liaison officer; and
 - (vii) a disposal plan detailing the locations, methods and timings of dredging and disposal, as well as disposal site monitoring requirements.
- (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, to include, but not be limited to:
- (i) identification of a Marine Mammal Monitoring 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; and
 - (vi) where appropriate, methods for the application of acoustic deterrent devices.
- (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 Wind Farm Area 1 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 marine mammal monitoring plan 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.

14. The undertaker shall ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting an English Heritage OASIS form with a digital copy of the report.

15.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 13—

- (a) shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO; and
- (b) shall be accompanied by—
 - (i) a statement confirming that the undertaker has complied with Requirement 19(1) of Part 3 of Schedule A to the Order in relation to such programme, statement, plan, protocol or scheme; and
 - (ii) any comments received by the undertaker under Requirement 19(2) of Part 3 of Schedule A to the Order, or a statement from the undertaker confirming that no such comments were received.

(2) The undertaker shall comply with the plans and documentation approved under licence condition 13 in carrying out the licensed activities unless otherwise agreed in writing by the MMO.

Reporting of engaged agents, contractors and vessels

16.—(1) The undertaker shall 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

17.—(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 (6).

(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) No radio beacon or radar beacon operating on the marine frequency bands shall be installed or used without the prior written approval of the Secretary of State.

(4) All vessels' names or identification shall be clearly marked on the hull or superstructure of the vessel.

(5) All communication on VHF working frequencies shall be in English.

(6) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

Pre-construction monitoring and surveys

18.—(1) The undertaker shall, in discharging condition 13(2)(a), submit details for written approval by the MMO of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report; and

- (a) the survey proposals 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, it is expected that 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 Wind Farm Area 1 in which it is proposed to carry out construction works and disposal activities under this licence, including a 500m buffer around the site of each works;
- (b) a survey of existing ornithological activity covering the part(s) of Wind Farm Area 1 within which it is proposed to carry out construction works under this licence, and any wider area(s) where appropriate, which is required to test predictions in the Environmental Statement concerning key ornithological interests of relevance to the authorised scheme;
- (c) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance in the part(s) of Wind Farm Area 1 in which it is proposed to carry out construction works under this licence; and
- (d) any marine mammal monitoring required by the marine mammal monitoring plan submitted in accordance with condition 13(2)(h).

(3) The undertaker shall 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

19.—(1) The undertaker must, in discharging condition 13(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 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, it is expected that 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; and
- (b) recording of any visual sightings or acoustic detection of marine mammals where required as part of the marine mammal mitigation protocol under condition 13(2)(e).

(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

20.—(1) The undertaker shall, in discharging condition 13(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 and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals 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, it is expected that the post-construction surveys will comprise, in outline:

- (a) an ornithological survey covering the part(s) of Wind Farm Area 1 within which construction works were carried out under this licence, and any wider area(s) where appropriate, which is required to test predictions in the Environmental Statement concerning key ornithological interests of relevance to the authorised scheme;
- (b) a high resolution swath bathymetric survey of the following to assess any changes in bedform morphology:
 - (i) a representative sample area, to be agreed in writing with the MMO, of the part(s) of Wind Farm Area 1 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.

Prior to carrying out the survey, 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;

- (c) a survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance identified in the pre-construction survey in the part(s) of Wind Farm Area 1 in which construction works were carried out. The survey design will be informed by the results of the pre-construction benthic survey;
- (d) 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; and
- (e) any marine mammal monitoring required by the marine mammal monitoring plan submitted in accordance with condition 13(2)(h).

(3) The undertaker shall 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

21. 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.

Offshore Decommissioning

22. 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.

SCHEDULE I

Deemed Marine Licence under the Marine And Coastal Access Act 2009 - Deemed Marine Licence 2

PART 1

Licensed marine activities

Interpretation

1.—(1) In this licence—

“the 1990 Act” means the Town and Country Planning Act 1990;

“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 Part 2 of Schedule A of the Order and any other works authorised by the Order and 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 and any other development authorised by 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. 2 described in paragraph 2 of Part 1 of this licence;

“best environmental practice” means best environmental practice as defined in Appendix 1 of the 1992 OSPAR Convention of the Protection of the Marine Environment of the North-East Atlantic;

“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 or construction vessels;

“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, 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—

- (i) 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
- (ii) 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;

“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;

“JNCC” means the Joint Nature Conservation Committee or any successor to its statutory functions;

“the Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“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” includes inspect, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule A (ancillary works) of the Order and any component part of any wind turbine generator, offshore accommodation platform, offshore HVAC collector substation, offshore HVDC converter station or offshore reactive compensation substation described in Part 1 of Schedule A (authorised development) of the Order (but not including the alteration, removal or replacement of foundations) to the extent assessed in the environmental statement; and “maintenance” 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;

“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 station” means a structure which contains equipment to convert HVAC electricity to HVDC electricity; 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 One Offshore Wind Farm Order 201[X];

“the project description” means the document certified as the project description by the Secretary of State for the purposes of the Order and submitted with the application on 30 July 2013 (Chapter Three, Volume One of the Environmental Statement);

“the requirements” means those matters set out in Part 3 of Schedule A of the Order;

“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 for the purposes of constructing, maintaining and operating Work No. 2 and any associated development or ancillary works within Wind Farm Area 2 relating to that work, Njord Limited or, to the extent that the benefit of the provisions of the Order and related statutory rights in relation to Work No. 2 and such associated development or ancillary works has been transferred under article 34 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 1” means the area within the limits of deviation for Work No. 1 of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“Wind Farm Area 2” means the area within the limits of deviation for Work No. 2 of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“Wind Farm Area 3” means the area within the limits of deviation for Work No. 3 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. 1” means an offshore wind generating station within Wind Farm Area 1 and described as Work No. 1 in Part 1 of Schedule A of the Order;

“Work No. 2” means an offshore wind generating station within Wind Farm Area 2 and described as Work No. 2 in paragraph 2 of Part 1 of this licence;

“Work No. 3” means an offshore wind generating station within Wind Farm Area 3 and described as Work No. 3 in Part 1 of Schedule A of the Order;

“Work No. 4” means up to five offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter stations together with a network of electrical circuits connecting the structures within Work No. 4;

“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

Email: marine.consents@marinemanagement.org.uk

(b) Marine Management Organisation (referred to as the “MMO Coastal Office”)

Estuary House

Wharnccliffe Road

Grimsby

Lincolnshire

- DN31 3QL
Tel: 01472 355 112
- (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
Foundry House
3 Millsands
Riverside Exchange
Sheffield
S3 8NH
Tel: 0300 060 4911
- (h) Joint Nature Conservation Committee
Inverdee House
Baxter Street
Aberdeen
AB11 9QA
Tel: 01224 266 550
- (i) English Heritage
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;
- (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 HU206 (Hornsea Project One Subzone 1) of—
 - (i) in the event that an offshore accommodation platform is constructed under this licence up to 434,004 m³ or, if no part of Work No.3 is constructed, up to 641,385 m³, of inert material of natural origin produced during construction drilling and seabed preparation for foundation works comprised in Work No. 2; or
 - (ii) in the event that no offshore accommodation platform is constructed under this licence up to 414,762 m³ or, if no part of Work No.3 is constructed, up to 622,143 m³, of inert material of natural origin produced during construction drilling and seabed preparation for foundation works comprised in Work No. 2; and
- (f) 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. 2 — An offshore wind generating station within Wind Farm Area 2 comprising:

- (a) up to 80 (inclusive) or, if no part of Work No. 3 is constructed, up to 120 (inclusive) wind turbine generators fixed to the seabed;
- (b) a network of subsea inter-array electrical circuits connecting the structures comprised in Work No. 2—
 - (i) with each other;
 - (ii) with any other structure located within Wind Farm Area 2; and
 - (iii) (for the purpose of connecting any structure comprised in Work No. 2 with any structure comprised in Works Nos. 1, 3 and 4) with the network of electrical circuits comprised in Works Nos. 1, 3 and 4;
- (c) up to one offshore accommodation platform fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter stations within Work No. 4 by an unsupported steel bridge, provided that the combined total of offshore accommodation platforms constructed in whole or in part within Works Nos. 1, 2 and 3 does not exceed two.

Co-ordinates for Wind Farm Area 2 (limits of deviation for Work No. 2):

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 55' 31.318" N	1° 52' 54.282" E
2	53° 55' 37.592" N	1° 53' 38.108" E
3	53° 55' 23.329" N	1° 55' 20.262" E
4	53° 55' 8.162" N	1° 56' 10.619" E
5	53° 55' 35.429" N	1° 59' 20.944" E
6	53° 55' 2.525" N	1° 59' 45.776" E

7	53° 55' 22.663" N	2° 2' 14.219" E
8	53° 56' 16.303" N	2° 1' 15.269" E
9	53° 56' 46.586" N	2° 5' 4.031" E
10	53° 57' 12.481" N	2° 4' 32.376" E
11	53° 57' 24.509" N	2° 6' 6.700" E
12	53° 50' 10.018" N	2° 13' 57.158" E
13	53° 49' 14.297" N	2° 11' 36.820" E
14	53° 49' 58.584" N	1° 59' 54.762" E
15	53° 49' 58.944" N	1° 58' 59.804" E

And in connection with such Work No. 2, 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. 2 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 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 Wind Farm Area 2 during construction drilling and seabed preparation for foundation works.

(4) The grid co-ordinates for disposal site reference HU206 (Hornsea Project One Subzone 1) are specified below—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 58' 42.179" N	1° 44' 31.880" E
2	53° 55' 46.445" N	1° 47' 47.796" E
3	53° 56' 22.870" N	1° 51' 57.409" E
4	53° 55' 31.318" N	1° 52' 54.282" E
5	53° 55' 37.592" N	1° 53' 38.108" E
6	53° 55' 23.329" N	1° 55' 20.262" E
7	53° 55' 8.162" N	1° 56' 10.619" E
8	53° 55' 35.429" N	1° 59' 20.944" E
9	53° 55' 2.525" N	1° 59' 45.776" E
10	53° 55' 22.663" N	2° 2' 14.219" E
11	53° 56' 16.303" N	2° 1' 15.269" E
12	53° 56' 46.586" N	2° 5' 4.031" E
13	53° 57' 12.481" N	2° 4' 32.376" E
14	53° 57' 24.509" N	2° 6' 6.700" E
15	53° 50' 10.018" N	2° 13' 57.158" E
16	53° 49' 14.297" N	2° 11' 36.820" E
17	53° 49' 58.584" N	1° 59' 54.762" E
18	53° 49' 58.944" N	1° 58' 59.804" E
19	53° 50' 5.118" N	1° 38' 58.430" E
20	53° 55' 9.293" N	1° 39' 52.024" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 56' 29.670" N	1° 43' 45.592" 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 34 of the Order.

Duration

3. 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. 2 must not—
 - (a) be less than 82 metres to the turbine hub when measured from MHWS;
 - (b) exceed a height of 200 metres from MHWS to the upper tip of the vertical blade;
 - (c) exceed a rotor diameter of 178 metres;
 - (d) be less than 22 metres from MHWS to the lowest point of the rotating blade; or
 - (e) be less than 924 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.
2. Any offshore accommodation platform forming part of Work No. 2 must not:
 - (a) exceed 60 metres in height above MHWS;
 - (b) have a platform which at its greatest extent exceeds, 3,600 m² or 60 metres in width.
3. The diameter of the electrical circuits comprising the electrical circuits within Work No. 2 must not exceed 170 mm.
4. The electrical circuits comprised in Work No. 2 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.
- 5.—(1) The undertaker must in fixing to the seabed any structures comprised in Work No. 2 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. 2 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 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 707 m² per wind turbine;
 - (ii) the number of piles per jacket must not exceed four;
 - (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 scour protection for each individual structure must not exceed 6,362 m²;
 - (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 m²;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.
- (3) The following parameters apply in respect of the foundation methods used to fix offshore accommodation platforms comprised in Work No. 2 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 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 m²;
 - (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 m²;
 - (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 m²;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.
- (4) The combined total volume of scour protection for the wind turbine generators and the offshore accommodation platform forming part of Work No. 2 must not exceed 1,079,839 m³ or, if no part of Work No.3 is constructed, must not exceed 1,613,093 m³.
- (5) In the event that no offshore accommodation platform is constructed under this licence, the combined total volume of scour protection for the wind turbine generators forming part of Work No. 2 must not exceed 1,066,508 m³ or, if no part of Work No.3 is constructed, must not exceed 1,599,762 m³.

Notifications and inspections

6.—(1) The undertaker shall 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 16 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 in writing at least five working days prior to the commencement of the licensed activities or any phase of them.
- (7) Prior to the commencement of the licensed activities the undertaker must publish in the Kingfisher Fortnightly Bulletin details of the vessel routes, timings and locations relating to the construction of the authorised scheme.
- (8) The undertaker shall ensure that a Notice to Mariners is issued at least ten days prior to the commencement of the licensed activities advising of the commencement of licensed activities within Wind Farm Area 2 and the expected vessel routes from the local service ports to the turbine locations.
- (9) The Notices to Mariners must be updated and reissued not less frequently than weekly and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under licence condition 13(2)(a). Copies of all notices shall be provided to the MMO.
- (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
 - (b) the MMO once the authorised scheme is completed and any required lighting or marking has been established.

Aids to navigation

7. 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) notify Trinity House as soon as reasonably practicable of both the progress and completion of the authorised scheme (or any phase of it) and any aids to navigation established from time to time;
- (d) provide reports on the working condition of aids to navigation periodically as requested by Trinity House;
- (e) notify Trinity House and the MMO of any failure of the aids to navigation and the timescales in which such failure will be remedied, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

Provision against danger to navigation

8. In case of injury 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 injury, destruction or decay, notify Trinity House and must lay down such buoys, exhibit such lights and take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

Navigational Practice, Safety and Emergency Response

9.—(1) No part of the authorised scheme seaward of MHWS is to commence until the Secretary of State, in consultation with the MCA, has given written approval for an Emergency Response and 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 authorised scheme seaward of MHWS is to commence until the Secretary of State, 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 and Co-operation Plan must be implemented as approved, unless otherwise agreed in writing by the Secretary of State, in consultation with the MCA.

(4) The undertaker must during the whole period from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning provide relevant information to the MCA to assist in the timely and efficient issuing of notices to mariners and other navigational warnings of the position and nature of the works, such information to be provided to mariners in the shipping and fishing industry as well as to recreational mariners.

Colour and lighting

10. Except as otherwise required by Trinity House under Condition 7, the undertaker must colour all structures comprised in Work No. 2 submarine grey (colour code RAL 7035).

Chemicals, drilling and debris

11.—(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 shall 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 shall ensure that any debris arising from the construction of the authorised scheme or temporary works placed below MHWS are removed on completion of the authorised scheme, where practicable.

(6) 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 MMO becomes aware that any of the materials on the audit sheet cannot be accounted for it shall require the undertaker to carry out a side scan sonar survey to plot all obstructions across Wind Farm Area 2 where construction works and related activities have been carried out under this licence. Local fishermen shall be invited to send a representative to be present during the survey. Any new obstructions that the MMO believes to be associated with the authorised scheme shall be removed at the undertaker's expense, where practicable.

(9) The undertaker shall inform the MMO of the location and quantities of inert 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.

(10) The undertaker shall ensure that only inert material of natural origin, produced during construction drilling and seabed preparation for foundation works comprised in Work No. 2, and drilling mud shall be disposed of at disposal site reference HU206 (Hornsea Project One Subzone 1).

(11) The undertaker shall 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 should be contained to prevent run-off entering the water through the freeing ports.

(12) The undertaker shall 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.

Force majeure

12. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit—

- (a) authorised deposits outside of Wind Farm Area 2 or disposal site reference HU206 (Hornsea Project One Subzone 1); or

- (b) unauthorised deposits within or outside of Wind Farm Area 2 or disposal site reference HU206 (Hornsea Project One Subzone 1)

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

13.—(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) To ensure conformity with the description of Work No. 2 and compliance with licence conditions 1 to 5 above, a plan, to be agreed in writing with the MMO in consultation with Trinity House and the MCA, which shows:
 - (i) the proposed location and choice of foundation of all wind turbine generators and offshore accommodation platforms, subject to any micro-siting required due to anthropological constraints, environmental constraints, difficult ground conditions or to give adequate spacing between other infrastructure;
 - (ii) the proposed location and height of bridge links;
 - (iii) the height to the tip of the vertical blade, height to the centreline of the generator shaft forming part of the hub, rotor diameter and spacing of all wind turbine generators;
 - (iv) the height, length and width of all offshore accommodation platforms;
 - (v) the length and arrangement of all electrical circuits comprising Work No 2 subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions;
 - (vi) the proposed dimensions of all monopile foundations;
 - (vii) the proposed dimensions of all gravity base foundations;
 - (viii) the proposed dimensions of all jacket foundations; and
 - (ix) the proposed layout of all wind turbine generators and offshore accommodation platforms including all exclusion zones comprised in the licensed activities and showing the indicative programming of particular works as set out in the indicative programme to be provided under condition 13(2)(a).

(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) have been submitted to and approved in writing by the MMO such approval to be provided in the case of any construction and monitoring programme submitted pursuant to sub-paragraph (a), any construction method statement pursuant to sub-paragraph (b), any project environmental management and monitoring plan pursuant to sub-paragraph (c), any scour protection management and cable armouring plan pursuant to sub-paragraph (d), and any marine mammal mitigation protocol submitted pursuant to sub-paragraph (e), and any marine mammal monitoring plan submitted pursuant to sub-paragraph (h) in consultation with the relevant statutory nature conservation body, and in the case of any written scheme of archaeological investigation submitted pursuant to sub-paragraph (g) in consultation with English Heritage.

- (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 18, 19, and 20. The preconstruction 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 project description and 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 below MHWS;
 - (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) waste management and disposal arrangements;
 - (iv) offshore project maintenance plans including offshore electrical circuit maintenance;
 - (v) locations of any archaeological exclusion zones agreed as part of the written scheme of archaeological investigation approved under paragraph (g) of this licence condition;
 - (vi) the appointment and responsibilities of a fisheries liaison officer and an environmental liaison officer; and
 - (vii) a disposal plan detailing the locations, methods and timings of dredging and disposal, as well as disposal site monitoring requirements.
- (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, to include, but not be limited to:
 - (i) identification of a Marine Mammal Monitoring 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; and
 - (vi) where appropriate, methods for the application of acoustic deterrent devices.
- (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 Wind Farm Area 2 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 marine mammal monitoring plan 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.

14. The undertaker shall ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting an English Heritage OASIS form with a digital copy of the report.

15.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 13—

- (a) shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO; and
- (b) shall be accompanied by—
 - (i) a statement confirming that the undertaker has complied with Requirement 19(1) of Part 3 of Schedule A to the Order in relation to such programme, statement, plan, protocol or scheme; and
 - (ii) any comments received by the undertaker under Requirement 19(2) of Part 3 of Schedule A to the Order, or a statement from the undertaker confirming that no such comments were received

(2) The undertaker shall comply with the plans and documentation approved under licence condition 13 in carrying out the licensed activities unless otherwise agreed in writing by the MMO.

Reporting of engaged agents, contractors and vessels

16.—(1) The undertaker shall 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

17.—(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 (6).

(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) No radio beacon or radar beacon operating on the marine frequency bands shall be installed or used without the prior written approval of the Secretary of State.

(4) All vessels' names or identification shall be clearly marked on the hull or superstructure of the vessel.

(5) All communication on VHF working frequencies shall be in English.

(6) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

Pre-construction monitoring and surveys

18.—(1) The undertaker shall, in discharging condition 13(2)(a), submit details for written approval by the MMO of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report; and

- (a) the survey proposals 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, it is expected that 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 Wind Farm Area 2 in which it is proposed to carry out construction works and disposal activities under this licence, including a 500m buffer around the site of each works;
- (b) a survey of existing ornithological activity covering the part(s) of Wind Farm Area 2 within which it is proposed to carry out construction works under this licence, and any wider area(s) where appropriate, which is required to test predictions in the Environmental Statement concerning key ornithological interests of relevance to the authorised scheme;

- (c) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance in the part(s) of Wind Farm Area 2 in which it is proposed to carry out construction works under this licence; and
- (d) any marine mammal monitoring required by the marine mammal monitoring plan submitted in accordance with condition 13(2)(h).

(3) The undertaker shall 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

19.—(1) The undertaker must, in discharging condition 13(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 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, it is expected that 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; and
- (b) recording of any visual sightings or acoustic detection of marine mammals where required as part of the marine mammal mitigation protocol under condition 13(2)(e).

(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

20.—(1) The undertaker shall, in discharging condition 13(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 and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals 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, it is expected that the post-construction surveys will comprise, in outline:

- (a) an ornithological survey covering the part(s) of Wind Farm Area 2 within which construction works were carried out under this licence, and any wider area(s) where appropriate, which is required to test predictions in the Environmental Statement concerning key ornithological interests of relevance to the authorised scheme;

- (b) a high resolution swath bathymetric survey of the following to assess any changes in bedform morphology:
 - (i) a representative sample area, to be agreed in writing with the MMO, of the part(s) of Wind Farm Area 2 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.

Prior to carrying out the survey, 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;

- (c) a survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance identified in the pre-construction survey in the part(s) of Wind Farm Area 2 in which construction works were carried out. The survey design will be informed by the results of the pre-construction benthic survey;
- (d) 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; and
- (e) any marine mammal monitoring required by the marine mammal monitoring plan submitted in accordance with condition 13(2)(h).

(3) The undertaker shall 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

21. 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.

Offshore Decommissioning

22. 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.

SCHEDULE J

Deemed Marine Licence under the Marine And Coastal Access Act 2009 - Deemed Marine Licence 3

PART 1

Licensed marine activities

Interpretation

1.—(1) In this licence—

“the 1990 Act” means the Town and Country Planning Act 1990;

“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 Part 2 of Schedule A of the Order and any other works authorised by the Order and 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(4) of Part 1 of this licence;

“authorised development” means the development described in Part 1 of Schedule A of the Order and any other development authorised by 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. 3 described in paragraph 2 of Part 1 of this licence;

“best environmental practice” means best environmental practice as defined in Appendix 1 of the 1992 OSPAR Convention of the Protection of the Marine Environment of the North-East Atlantic;

“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 or construction vessels;

“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, 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—

- (i) 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
- (ii) 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;

“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;

“JNCC” means the Joint Nature Conservation Committee or any successor to its statutory functions;

“the Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“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” includes inspect, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule A (ancillary works) of the Order and any component part of any wind turbine generator, offshore accommodation platform, offshore HVAC collector substation, offshore HVDC converter station or offshore reactive compensation substation described in Part 1 of Schedule A (authorised development) of the Order (but not including the alteration, removal or replacement of foundations) to the extent assessed in the environmental statement; and “maintenance” 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;

“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 station” means a structure which contains equipment to convert HVAC electricity to HVDC electricity; 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 One Offshore Wind Farm Order 201[X];

“the project description” means the document certified as the project description by the Secretary of State for the purposes of the Order and submitted with the application on 30 July 2013 (Chapter Three, Volume One of the Environmental Statement);

“the requirements” means those matters set out in Part 3 of Schedule A of the Order;

“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 for the purposes of constructing, maintaining and operating Work No. 3 and any associated development or ancillary works within Wind Farm Area 3 relating to that work, Vi Aura Limited or, to the extent that the benefit of the provisions of the Order and related statutory rights in relation to Work No. 3 and such associated development or ancillary works has been transferred under article 34 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 1” means the area within the limits of deviation for Work No. 1 of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“Wind Farm Area 2” means the area within the limits of deviation for Work No. 2 of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“Wind Farm Area 3” means the area within the limits of deviation for Work No. 3 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. 1” means an offshore wind generating station within Wind Farm Area 1 and described as Work No. 1 in Part 1 of Schedule A of the Order;

“Work No. 2” means an offshore wind generating station within Wind Farm Area 2 and described as Work No. 2 in Part 1 of Schedule A of the Order;

“Work No. 3” means an offshore wind generating station within Wind Farm Area 3 and described as Work No. 3 in paragraph 2 of Part 1 of this licence;

“Work No. 4” means up to five offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter stations together with a network of electrical circuits connecting the structures within Work No. 4;

“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

Email: marine.consent@marinemangement.org.uk

(b) Marine Management Organisation (referred to as the “MMO Coastal Office”)

Estuary House

Wharncliffe Road

Grimsby

Lincolnshire

DN31 3QL

Tel: 01472 355 112

(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
Foundry House
3 Millsands
Riverside Exchange
Sheffield
S3 8NH
Tel: 0300 060 4911
- (h) Joint Nature Conservation Committee
Inverdee House
Baxter Street
Aberdeen
AB11 9QA
Tel: 01224 266 550
- (i) English Heritage
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 (4) below;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) dredging;
- (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 HU206 (Hornsea Project One Subzone 1) of—

- (i) in the event that an offshore accommodation platform is constructed under this licence up to 434,004m³ of inert material of natural origin produced during construction drilling and seabed preparation for foundation works comprised in Work No. 3; or
 - (ii) in the event that no offshore accommodation platform is constructed under this up to 414,762 m³ of inert material of natural origin produced during construction drilling and seabed preparation for foundation works comprised in Work No. 3; and
 - (f) the removal of the substances and articles specified in sub-paragraph (4) below.
- (2) Such activities are authorised in relation to the construction, maintenance and operation of:

Work No. 3 — An offshore wind generating station within Wind Farm Area 3 comprising:

- (a) up to 80 (inclusive) wind turbine generators fixed to the seabed;
- (b) a network of subsea inter-array electrical circuits connecting the structures comprised in Work No. 3—
 - (i) with each other;
 - (ii) with any other structure located within Wind Farm Area 3; and
 - (iii) (for the purpose of connecting any structure comprised in Work No. 3 with any structure comprised in Works Nos. 1, 2 and 4) with the network of electrical circuits comprised in Works Nos. 1, 2 and 4;
- (c) up to one offshore accommodation platform fixed to the seabed which may be connected to one of the offshore HVAC collector substations or offshore HVDC converter stations within Work No. 4 by an unsupported steel bridge, provided that the combined total of offshore accommodation platforms constructed in whole or in part within Works Nos. 1, 2 and 3 does not exceed two.

Co-ordinates for Wind Farm Area 3 (limits of deviation for Work No. 3):

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 55' 46.445" N	1° 47' 47.796" E
2	53° 56' 22.870" N	1° 51' 57.409" E
3	53° 55' 31.318" N	1° 52' 54.282" E
4	53° 55' 37.592" N	1° 53' 38.108" E
5	53° 55' 23.329" N	1° 55' 20.262" E
6	53° 55' 8.162" N	1° 56' 10.619" E
7	53° 55' 27.264" N	1° 58' 23.884" E
8	53° 55' 20.760" N	1° 58' 30.994" E
9	53° 49' 44.770" N	2° 4' 37.254" E
10	53° 49' 40.620" N	2° 4' 41.765" E
11	53° 49' 58.584" N	1° 59' 54.762" E
12	53° 49' 58.944" N	1° 58' 59.804" E
13	53° 50' 0.845" N	1° 53' 51.856" E
14	53° 50' 1.222" N	1° 53' 51.441" E
15	53° 55' 44.123" N	1° 47' 31.921" E

And in connection with such Work No. 3, 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. 3, 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) Work No. 3 may not be constructed, in whole or part, if either Works Nos. 1 or 2 are constructed so as to include more than 80 wind turbine generators.

(4) The substances or articles authorised for deposit at sea 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 Wind Farm Area 3 during construction drilling and seabed preparation for foundation works.

(5) The grid co-ordinates for disposal site reference HU206 (Hornsea Project One Subzone 1) are specified below—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 58' 42.179'' N	1° 44' 31.880'' E
2	53° 55' 46.445'' N	1° 47' 47.796'' E
3	53° 56' 22.870'' N	1° 51' 57.409'' E
4	53° 55' 31.318'' N	1° 52' 54.282'' E
5	53° 55' 37.592'' N	1° 53' 38.108'' E
6	53° 55' 23.329'' N	1° 55' 20.262'' E
7	53° 55' 8.162'' N	1° 56' 10.619'' E
8	53° 55' 35.429'' N	1° 59' 20.944'' E
9	53° 55' 2.525'' N	1° 59' 45.776'' E
10	53° 55' 22.663'' N	2° 2' 14.219'' E
11	53° 56' 16.303'' N	2° 1' 15.269'' E
12	53° 56' 46.586'' N	2° 5' 4.031'' E
13	53° 57' 12.481'' N	2° 4' 32.376'' E
14	53° 57' 24.509'' N	2° 6' 6.700'' E
15	53° 50' 10.018'' N	2° 13' 57.158'' E
16	53° 49' 14.297'' N	2° 11' 36.820'' E
17	53° 49' 58.584'' N	1° 59' 54.762'' E
18	53° 49' 58.944'' N	1° 58' 59.804'' E
19	53° 50' 5.118'' N	1° 38' 58.430'' E
20	53° 55' 9.293'' N	1° 39' 52.024'' E
21	53° 56' 3.228'' N	1° 41' 0.143'' E
22	53° 56' 29.670'' N	1° 43' 45.592'' E
23	53° 58' 17.828'' N	1° 41' 46.795'' E

(6) 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 34 of the Order.

Duration

3. 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. 3 must not—
 - (a) be less than 82 metres to the turbine hub when measured from MHWS;
 - (b) exceed a height of 200 metres from MHWS to the upper tip of the vertical blade;
 - (c) exceed a rotor diameter of 178 metres;
 - (d) be less than 22 metres from MHWS to the lowest point of the rotating blade; or
 - (e) be less than 924 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.
2. Any offshore accommodation platform forming part of Work No. 3 must not:
 - (a) exceed 60 metres in height above MHWS;
 - (b) have a platform which at its greatest extent exceeds, 3,600 m² or 60 metres in width.
3. The diameter of the electrical circuits comprising the electrical circuits within Work No. 3 must not exceed 170 mm.
4. The electrical circuits comprised in Work No. 3 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.
- 5.—(1) The undertaker must in fixing to the seabed any structures comprised in Work No. 3 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. 3 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 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 707 m² per wind turbine;
 - (ii) the number of piles per jacket must not exceed four;
 - (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 scour protection for each individual structure must not exceed 6,362 m²;
 - (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 m²;

- (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.
- (3) The following parameters apply in respect of the foundation methods used to fix offshore accommodation platforms comprised in Work No. 3 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 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 m²;
 - (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 m²;
 - (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 m²;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.
- (4) The combined total volume of scour protection for the wind turbine generators and the offshore accommodation platform forming part of Work No. 3 must not exceed 1,079,839 m³.
- (5) In the event that no offshore accommodation platform is constructed under this licence, the combined total volume of scour protection for the wind turbine generators forming part of Work No. 3 must not exceed 1,066,508 m³.

Notifications and inspections

- 6.—(1) The undertaker shall 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 16 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 in writing at least five working days prior to the commencement of the licensed activities or any phase of them.
- (7) Prior to the commencement of the licensed activities the undertaker must publish in the Kingfisher Fortnightly Bulletin details of the vessel routes, timings and locations relating to the construction of the authorised scheme.
- (8) The undertaker shall ensure that a Notice to Mariners is issued at least ten days prior to the commencement of the licensed activities advising of the commencement of licensed activities within Wind Farm Area 3 and the expected vessel routes from the local service ports to the turbine locations.
- (9) The Notices to Mariners must be updated and reissued not less frequently than weekly and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under licence condition 13(2)(a). Copies of all notices shall be provided to the MMO.
- (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
 - (b) the MMO once the authorised scheme is completed and any required lighting or marking has been established.

Aids to navigation

7. 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) notify Trinity House as soon as reasonably practicable of both the progress and completion of the authorised scheme (or any phase of it) and any aids to navigation established from time to time;
- (d) provide reports on the working condition of aids to navigation periodically as requested by Trinity House;
- (e) notify Trinity House and the MMO of any failure of the aids to navigation and the timescales in which such failure will be remedied, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

Provision against danger to navigation

8. In case of injury 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 injury, destruction or decay, notify Trinity House and must lay down such buoys, exhibit such lights and take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

Navigational Practice, Safety and Emergency Response

9.—(1) No part of the authorised scheme seaward of MHWS is to commence until the Secretary of State, in consultation with the MCA, has given written approval for an Emergency Response and 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 authorised scheme seaward of MHWS is to commence until the Secretary of State, 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 and Co-operation Plan must be implemented as approved, unless otherwise agreed in writing by the Secretary of State, in consultation with the MCA.

(4) The undertaker must during the whole period from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning provide relevant information to the MCA to assist in the timely and efficient issuing of notices to mariners and other navigational warnings of the position and nature of the works, such information to be provided to mariners in the shipping and fishing industry as well as to recreational mariners.

Colour and lighting

10. Except as otherwise required by Trinity House under Condition 7, the undertaker must colour all structures comprised in Work No. 3 submarine grey (colour code RAL 7035).

Chemicals, drilling and debris

11.—(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 shall 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 shall ensure that any debris arising from the construction of the authorised scheme or temporary works placed below MHWS are removed on completion of the authorised scheme, where practicable.

(6) 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 MMO becomes aware that any of the materials on the audit sheet cannot be accounted for it shall require the undertaker to carry out a side scan sonar survey to plot all obstructions across Wind Farm Area 3 where construction works and related activities have been carried out under this licence. Local fishermen shall be invited to send a representative to be present during the survey. Any new obstructions that the MMO believes to be associated with the authorised scheme shall be removed at the undertaker's expense, where practicable.

(9) The undertaker shall inform the MMO of the location and quantities of inert 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.

(10) The undertaker shall ensure that only inert material of natural origin, produced during construction drilling and seabed preparation for foundation works comprised in Work No. 3, and drilling mud shall be disposed of at disposal site reference HU206 (Hornsea Project One Subzone 1).

(11) The undertaker shall 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 should be contained to prevent run-off entering the water through the freeing ports.

(12) The undertaker shall 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.

Force majeure

12. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit—

- (a) authorised deposits outside of Wind Farm Area 3 or disposal site reference HU206 (Hornsea Project One Subzone 1); or
- (b) unauthorised deposits within or outside of Wind Farm Area 3 or disposal site reference HU206 (Hornsea Project One Subzone 1)

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

13.—(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) To ensure conformity with the description of Work No 3 and compliance with licence conditions 1 to 5 above, a plan, to be agreed in writing with the MMO in consultation with Trinity House and the MCA, which shows:
 - (i) the proposed location and choice of foundation of all wind turbine generators and offshore accommodation platforms, subject to any micro-siting required due to anthropological constraints, environmental constraints, difficult ground conditions or to give adequate spacing between other infrastructure;
 - (ii) the proposed location and height of bridge links;

- (iii) the height to the tip of the vertical blade, height to the centreline of the generator shaft forming part of the hub, rotor diameter and spacing of all wind turbine generators;
- (iv) the height length and width of all offshore accommodation platforms;
- (v) the length and arrangement of all electrical circuits comprising Work No 3 subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions;
- (vi) the proposed dimensions of all monopile foundations;
- (vii) the proposed dimensions of all gravity base foundations;
- (viii) the proposed dimensions of all jacket foundations; and
- (ix) the proposed layout of all wind turbine generators and offshore accommodation platforms including all exclusion zones comprised in the licensed activities and showing the indicative programming of particular works as set out in the indicative programme to be provided under condition 13(2)(a).

(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) have been submitted to and approved in writing by the MMO; such approval to be provided in the case of any construction and monitoring programme submitted pursuant to sub-paragraph (a), any construction method statement pursuant to sub-paragraph (b), any project environmental management and monitoring plan pursuant to sub-paragraph (c), any scour protection management and cable armouring plan pursuant to sub-paragraph (d), and any marine mammal mitigation protocol submitted pursuant to sub-paragraph (e), and any marine mammal monitoring plan submitted pursuant to sub-paragraph (h) in consultation the relevant statutory nature conservation body, and in the case of any written scheme of archaeological investigation submitted pursuant to sub-paragraph (g) in consultation with English Heritage.

- (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 18, 19, and 20. The preconstruction 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 project description and 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 below MHWS;

- (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) waste management and disposal arrangements;
 - (iv) offshore project maintenance plans including offshore electrical circuit maintenance;
 - (v) locations of any archaeological exclusion zones agreed as part of the written scheme of archaeological investigation approved under paragraph (g) of this licence condition;
 - (vi) the appointment and responsibilities of a fisheries liaison officer and an environmental liaison officer; and
 - (vii) a disposal plan detailing the locations, methods and timings of dredging and disposal, as well as disposal site monitoring requirements.
- (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, to include, but not be limited to:
- (i) identification of a Marine Mammal Monitoring 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; and
 - (vi) where appropriate, methods for the application of acoustic deterrent devices.
- (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 Wind Farm Area 3 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 marine mammal monitoring plan 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.

14. The undertaker shall ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting an English Heritage OASIS form with a digital copy of the report.

15.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 13—

- (a) shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO; and
- (b) shall be accompanied by—
 - (i) a statement confirming that the undertaker has complied with Requirement 19(1) of Part 3 of Schedule A to the Order in relation to such programme, statement, plan, protocol or scheme; and
 - (ii) any comments received by the undertaker under Requirement 19(2) of Part 3 of Schedule A to the Order, or a statement from the undertaker confirming that no such comments were received.

(2) The undertaker shall comply with the plans and documentation approved under licence condition 13 in carrying out the licensed activities unless otherwise agreed in writing by the MMO.

Reporting of engaged agents, contractors and vessels

16.—(1) The undertaker shall 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

17.—(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 (6).

(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) No radio beacon or radar beacon operating on the marine frequency bands shall be installed or used without the prior written approval of the Secretary of State.

(4) All vessels' names or identification shall be clearly marked on the hull or superstructure of the vessel.

(5) All communication on VHF working frequencies shall be in English.

(6) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

Pre-construction monitoring and surveys

18.—(1) The undertaker shall, in discharging condition 13(2)(a), submit details for written approval by the MMO of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report; and

- (a) the survey proposals 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, it is expected that 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 Wind Farm Area 3 in which it is proposed to carry out construction works and disposal activities under this licence, including a 500m buffer around the site of each works;
- (b) a survey of existing ornithological activity covering the part(s) of Wind Farm Area 3 within which it is proposed to carry out construction works under this licence, and any wider area(s) where appropriate, which is required to test predictions in the Environmental Statement concerning key ornithological interests of relevance to the authorised scheme;
- (c) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance in the part(s) of Wind Farm Area 3 in which it is proposed to carry out construction works under this licence; and
- (d) any marine mammal monitoring required by the marine mammal monitoring plan submitted in accordance with condition 13(2)(h).

(3) The undertaker shall 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

19.—(1) The undertaker must, in discharging condition 13(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 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, it is expected that 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; and
- (b) recording of any visual sightings or acoustic detection of marine mammals where required as part of the marine mammal mitigation protocol under condition 13(2)(e).

(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

20.—(1) The undertaker shall, in discharging condition 13(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 and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals 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, it is expected that the post-construction surveys will comprise, in outline:

- (a) an ornithological survey covering the part(s) of Wind Farm Area 3 within which construction works were carried out under this licence, and any wider area(s) where appropriate, which is required to test predictions in the Environmental Statement concerning key ornithological interests of relevance to the authorised scheme;
- (b) a high resolution swath bathymetric survey of the following to assess any changes in bedform morphology:
 - (i) a representative sample area, to be agreed in writing with the MMO, of the part(s) of Wind Farm Area 3 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.

Prior to carrying out the survey, 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;

- (c) a survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance identified in the pre-construction survey in the part(s) of Wind Farm Area 3 in which construction works were carried out. The survey design will be informed by the results of the pre-construction benthic survey;
- (d) 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; and
- (e) any marine mammal monitoring required by the marine mammal monitoring plan submitted in accordance with condition 13(2)(h).

(3) The undertaker shall 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

21. 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.

Offshore Decommissioning

22. 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.

SCHEDULE K

Deemed Marine Licence under the Marine And Coastal Access Act 2009 - Deemed Marine Licence 4

PART 1

Licensed marine activities

Interpretation

1.—(1) In this licence—

“the 1990 Act” means the Town and Country Planning Act 1990;

“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 Part 2 of Schedule A of the Order and any other works authorised by the Order and 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 and any other development authorised by 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 Works Nos. 4 to 7 described in paragraph 2 of Part 1 of this licence;

“best environmental practice” means best environmental practice as defined in Appendix 1 of the 1992 OSPAR Convention of the Protection of the Marine Environment of the North-East Atlantic;

“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 or construction vessels;

“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, 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—

- (i) 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
- (ii) 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 Hydrograph 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 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;

“JNCC” means the Joint Nature Conservation Committee or any successor to its statutory functions;

“the Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“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” includes inspect, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule A (ancillary works) of the Order and any component part of any wind turbine generator, offshore accommodation platform, offshore HVAC collector substation, offshore HVDC converter station or offshore reactive compensation substation described in Part 1 of Schedule A (authorised development) of the Order (but not including the alteration, removal or replacement of foundations) to the extent assessed in the environmental statement; and “maintenance” 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;

“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 station” 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 coordinates are set out in paragraph 2(2) 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 One Offshore Wind Farm Order 201[X];

“the project description” means the document certified as the project description by the Secretary of State for the purposes of the Order and submitted with the application on 30 July 2013 (Chapter Three, Volume One of the Environmental Statement);

“the requirements” means those matters set out in Part 3 of Schedule A of the Order;

“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 Heron Wind Limited or, to the extent that the benefit of the provisions of the Order and related statutory rights in relation to Works Nos. 4, 5, 6 or 7 and such associated development or ancillary works has been transferred under article 34 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 1” means the area within the limits of deviation for Work No. 1 of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“Wind Farm Area 2” means the area within the limits of deviation for Work No. 2 of which the co-ordinates are specified in Part 1 of Schedule A of the Order and shown on the works plans;

“Wind Farm Area 3” means the area within the limits of deviation for Work No. 3 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. 1” means an offshore wind generating station within Wind Farm Area 1 and described as Work No. 1 in Part 1 of Schedule A of the Order;

“Work No. 2” means an offshore wind generating station within Wind Farm Area 2 and described as Work No. 2 in Part 1 of Schedule A of the Order;

“Work No. 3” means an offshore wind generating station within Wind Farm Area 3 and described as Work No. 3 in Part 1 of Schedule A of the Order;

“Work No. 8” means up to four 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 and the onshore electrical circuits;

“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

Email: marine.consents@marinemanagement.org.uk

(b) Marine Management Organisation (referred to as the “MMO Coastal Office”)

Estuary House

Wharnccliffe Road

Grimsby

Lincolnshire

DN31 3QL

Tel: 01472 355 112

(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

Foundry House

3 Millsands

Riverside Exchange

Sheffield

S3 8NH

Tel: 0300 060 4911

- (h) Joint Nature Conservation Committee

Inverdee House

Baxter Street

Aberdeen

AB11 9QA

Tel: 01224 266 550

- (i) English Heritage

Eastgate Court

195-205 High Street

Guildford

GU1 3EH

Tel: 01483 252 057

- (j) 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;
- (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 HU206 (Hornsea Project One Subzone 1) of up to 239,210 m3 of inert material of natural origin produced during construction drilling and seabed preparation for foundation works comprised in Work No. 4;
- (f) the disposal at disposal site reference HU205 (Hornsea Disposal Area 1) of up to 19,242 m3 of inert material of natural origin produced during construction drilling and seabed preparation for foundation works and comprised in Work No. 5;
- (g) the disposal at disposal site reference HU209 (Hornsea Project One Sandwave Clearance Disposal Area 1A) of up to 634,500 m3 of inert material of natural origin produced during cable sandwave preparation works comprised in Work No. 6;
- (h) the disposal at disposal site reference HU210 (Hornsea Project One Sandwave Clearance Disposal Area 1B) of up to 65,500 m3 of inert material of natural origin produced during cable sandwave preparation works comprised in Work No. 6; and
- (i) 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. 4

Up to five offshore HVAC collector substations and, in the event that the mode of transmission is HVDC, up to two offshore HVDC converter stations together with a network of electrical circuits connecting the structures within Work No. 4.

Limits of deviation for Work No. 4:

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 58' 42.179" N	1° 44' 31.880" E
2	53° 55' 46.445" N	1° 47' 47.796" E
3	53° 56' 22.870" N	1° 51' 57.409" E
4	53° 55' 31.318" N	1° 52' 54.282" E
5	53° 55' 37.592" N	1° 53' 38.108" E
6	53° 55' 23.329" N	1° 55' 20.262" E
7	53° 55' 8.162" N	1° 56' 10.619" E
8	53° 55' 35.429" N	1° 59' 20.944" E
9	53° 55' 2.525" N	1° 59' 45.776" E
10	53° 55' 22.663" N	2° 2' 14.219" E
11	53° 56' 16.303" N	2° 1' 15.269" E
12	53° 56' 46.586" N	2° 5' 4.031" E
13	53° 57' 12.481" N	2° 4' 32.376" E
14	53° 57' 24.509" N	2° 6' 6.700" E
15	53° 50' 10.018" N	2° 13' 57.158" E
16	53° 49' 14.297" N	2° 11' 36.820" E
17	53° 49' 58.584" N	1° 59' 54.762" E
18	53° 49' 58.944" N	1° 58' 59.804" E
19	53° 50' 5.118" N	1° 38' 58.430" E
20	53° 55' 9.293" N	1° 39' 52.024" E
21	53° 56' 3.228" N	1° 41' 0.143" E
22	53° 56' 29.670" N	1° 43' 45.592" E
23	53° 58' 17.828" N	1° 41' 46.795" E

Work No. 5

In the event that the mode of transmission is HVAC, an offshore reactive compensation substation fixed to the seabed at latitude point 53° 37' 39.284" N and longitude point 0° 56' 9.841" E subject to deviation within the following limits of deviation:

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
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1	53° 37' 47.368" N	0° 56' 9.446" E
2	53° 37' 47.217" N	0° 56' 12.482" E
3	53° 37' 46.669" N	0° 56' 15.386" E
4	53° 37' 45.750" N	0° 56' 18.012" E
5	53° 37' 44.507" N	0° 56' 20.228" E
6	53° 37' 43.002" N	0° 56' 21.923" E
7	53° 37' 41.311" N	0° 56' 23.012" E
8	53° 37' 39.518" N	0° 56' 23.440" E
9	53° 37' 37.713" N	0° 56' 23.187" E
10	53° 37' 35.987" N	0° 56' 22.264" E
11	53° 37' 34.426" N	0° 56' 20.719" E
12	53° 37' 33.109" N	0° 56' 18.628" E
13	53° 37' 32.101" N	0° 56' 16.096" E
14	53° 37' 31.454" N	0° 56' 13.251" E
15	53° 37' 31.199" N	0° 56' 10.235" E
16	53° 37' 31.349" N	0° 56' 7.199" E
17	53° 37' 31.898" N	0° 56' 4.295" E
18	53° 37' 32.816" N	0° 56' 1.670" E
19	53° 37' 34.059" N	0° 55' 59.454" E
20	53° 37' 35.564" N	0° 55' 57.759" E
21	53° 37' 37.255" N	0° 55' 56.669" E
22	53° 37' 39.048" N	0° 55' 56.240" E
23	53° 37' 40.853" N	0° 55' 56.493" E
24	53° 37' 42.579" N	0° 55' 57.416" E
25	53° 37' 44.140" N	0° 55' 58.961" E
26	53° 37' 45.458" N	0° 56' 1.052" E
27	53° 37' 46.465" N	0° 56' 3.584" E
28	53° 37' 47.113" N	0° 56' 6.429" E

Work No. 6

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 four subsea electrical circuits proceeding from the offshore HVAC collector substations in Wind Farm Areas 1, 2 and 3 via and connecting with the offshore reactive compensation substation comprised in Work No. 5; or
- (b) if the mode of transmission is HVDC, consists of two subsea electrical circuits proceeding from the offshore HVDC converter station or stations within Wind Farm Areas 1, 2 and 3,

and in either case terminates at the commencement of Work No. 7.

Principal co-ordinates for marine export cable area (limits of deviation for Work No. 6) of which the full co-ordinates are set out in the offshore works plans:

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 58' 42.179" N	1° 44' 31.880" E
2	53° 55' 46.445" N	1° 47' 47.796" E
3	53° 56' 22.870" N	1° 51' 57.409" E
4	53° 55' 31.318" N	1° 52' 54.282" E
5	53° 55' 37.592" N	1° 53' 38.108" E
6	53° 55' 23.329" N	1° 55' 20.262" E
7	53° 55' 8.162" N	1° 56' 10.619" E
8	53° 55' 35.429" N	1° 59' 20.944" E

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
9	53° 55' 2.525" N	1° 59' 45.776" E
10	53° 55' 22.663" N	2° 2' 14.219" E
11	53° 56' 16.303" N	2° 1' 15.269" E
12	53° 56' 46.586" N	2° 5' 4.031" E
13	53° 57' 12.481" N	2° 4' 32.376" E
14	53° 57' 24.509" N	2° 6' 6.700" E
15	53° 50' 10.018" N	2° 13' 57.158" E
16	53° 49' 14.297" N	2° 11' 36.820" E
18	53° 48' 24.484" N	2° 10' 40.243" E
19	53° 48' 17.722" N	2° 7' 38.708" E
22	53° 48' 51.983" N	2° 0' 20.504" E
24	53° 48' 48.527" N	1° 56' 7.168" E
27	53° 48' 10.932" N	1° 53' 5.208" E
30	53° 47' 39.535" N	1° 46' 16.691" E
33	53° 46' 9.387" N	1° 38' 58.729" E
37	53° 46' 4.677" N	1° 37' 22.711" E
39	53° 44' 47.813" N	1° 28' 38.495" E
44	53° 44' 47.743" N	1° 27' 26.607" E
46	53° 44' 36.477" N	1° 25' 23.743" E
153	53° 42' 30.629" N	1° 15' 58.654" E
164	53° 42' 28.182" N	1° 14' 34.895" E
276	53° 39' 35.134" N	1° 6' 29.785" E
328	53° 38' 17.582" N	1° 2' 16.928" E
459	53° 36' 54.624" N	0° 51' 31.062" E
461	53° 36' 15.738" N	0° 48' 52.425" E
525	53° 35' 21.166" N	0° 43' 44.242" E
527	53° 31' 50.425" N	0° 40' 55.898" E
528	53° 31' 38.281" N	0° 40' 8.340" E
533	53° 28' 36.676" N	0° 20' 3.846" E
544	53° 31' 43.122" N	0° 12' 21.707" E
545	53° 30' 57.432" N	0° 5' 59.890" E
546	53° 30' 35.438" N	0° 5' 23.202" E
547	53° 30' 42.212" N	0° 5' 9.948" E
549	53° 31' 36.033" N	0° 6' 10.831" E
588	53° 32' 16.976" N	0° 12' 37.072" E
771	53° 29' 11.523" N	0° 20' 5.981" E
1009	53° 31' 28.589" N	0° 35' 44.348" E
1010	53° 32' 0.855" N	0° 37' 42.781" E
1011	53° 32' 17.793" N	0° 39' 31.883" E
1012	53° 32' 35.749" N	0° 39' 45.737" E
1013	53° 33' 8.117" N	0° 39' 47.665" E
1014	53° 34' 28.861" N	0° 41' 27.396" E
1015	53° 35' 42.522" N	0° 42' 37.802" E
1018	53° 36' 25.571" N	0° 43' 54.129" E
1089	53° 37' 2.569" N	0° 47' 31.846" E
1091	53° 37' 30.986" N	0° 49' 14.023" E
1094	53° 37' 29.991" N	0° 51' 27.606" E
1095	53° 37' 36.904" N	0° 52' 22.841" E
1119	53° 38' 45.654" N	0° 57' 1.237" E
1151	53° 39' 16.652" N	1° 1' 1.016" E

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1157	53° 39' 42.566" N	1° 1' 40.167" E
1163	53° 41' 20.037" N	1° 6' 45.836" E
1165	53° 42' 59.843" N	1° 14' 18.127" E
1172	53° 43' 0.151" N	1° 15' 37.960" E
1173	53° 45' 6.659" N	1° 25' 3.239" E
1174	53° 45' 19.169" N	1° 27' 18.352" E
1189	53° 45' 20.249" N	1° 28' 32.601" E
1256	53° 46' 36.946" N	1° 36' 57.722" E
1270	53° 46' 40.338" N	1° 38' 22.735" E
1272	53° 50' 5.118" N	1° 38' 58.430" E
1273	53° 55' 9.293" N	1° 39' 52.024" E
1274	53° 56' 3.228" N	1° 41' 0.143" E
1275	53° 56' 29.670" N	1° 43' 45.592" E
1276	53° 58' 17.828" N	1° 41' 46.795" E

Work No. 7

A foreshore connection consisting of an extension of the electrical circuits comprised in Work No. 6, including cable crossing works, crossing under the existing sea wall using the horizontal directional drilling method and terminating at the electrical circuit transition joint bays (Work No. 8).

And in connection with such Works Nos. 4 to 7, 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 Works Nos. 4 to 7, 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 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 HU205 (Hornsea Disposal Area 1) are specified below—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 37' 22.048" N	00° 55' 08.301" E
2	53° 37' 30.025" N	00° 55' 03.615" E
3	53° 37' 40.393" N	00° 55' 01.826" E
4	53° 37' 50.656" N	00° 55' 04.547" E
5	53° 37' 58.609" N	00° 55' 10.070" E
6	53° 38' 04.286" N	00° 55' 16.359" E
7	53° 38' 10.156" N	00° 55' 25.880" E
8	53° 38' 14.547" N	00° 55' 36.526" E
9	53° 38' 18.433" N	00° 55' 52.770" E

10	53° 38' 19.667'' N	00° 56' 06.330'' E
11	53° 38' 19.497'' N	00° 56' 17.003'' E
12	53° 38' 18.089'' N	00° 56' 28.969'' E
13	53° 38' 14.135'' N	00° 56' 44.345'' E
14	53° 38' 07.743'' N	00° 56' 58.162'' E
15	53° 37' 59.074'' N	00° 57' 09.156'' E
16	53° 37' 51.599'' N	00° 57' 14.631'' E
17	53° 37' 38.643'' N	00° 57' 17.843'' E

(5) The grid co-ordinates for disposal site reference HU206 (Hornsea Project One Subzone 1) are specified below—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
1	53° 58' 42.179'' N	1° 44' 31.880'' E
2	53° 55' 46.445'' N	1° 47' 47.796'' E
3	53° 56' 22.870'' N	1° 51' 57.409'' E
4	53° 55' 31.318'' N	1° 52' 54.282'' E
5	53° 55' 37.592'' N	1° 53' 38.108'' E
6	53° 55' 23.329'' N	1° 55' 20.262'' E
7	53° 55' 8.162'' N	1° 56' 10.619'' E
8	53° 55' 35.429'' N	1° 59' 20.944'' E
9	53° 55' 2.525'' N	1° 59' 45.776'' E
10	53° 55' 22.663'' N	2° 2' 14.219'' E
11	53° 56' 16.303'' N	2° 1' 15.269'' E
12	53° 56' 46.586'' N	2° 5' 4.031'' E
13	53° 57' 12.481'' N	2° 4' 32.376'' E
14	53° 57' 24.509'' N	2° 6' 6.700'' E
15	53° 50' 10.018'' N	2° 13' 57.158'' E
16	53° 49' 14.297'' N	2° 11' 36.820'' E
17	53° 49' 58.584'' N	1° 59' 54.762'' E
18	53° 49' 58.944'' N	1° 58' 59.804'' E
19	53° 50' 5.118'' N	1° 38' 58.430'' E
20	53° 55' 9.293'' N	1° 39' 52.024'' E
21	53° 56' 3.228'' N	1° 41' 0.143'' E
22	53° 56' 29.670'' N	1° 43' 45.592'' E
23	53° 58' 17.828'' N	1° 41' 46.795'' E

(6) The grid co-ordinates for disposal site reference HU209 (Hornsea Project One Sandwave Clearance Disposal Area 1A) are specified below—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
A	53° 36' 40.490'' N	00° 50' 41.571'' E
B	53° 36' 54.624'' N	00° 51' 31.062'' E
C	53° 37' 22.048'' N	00° 55' 08.301'' E
1	53° 37' 22.048'' N	00° 55' 08.301'' E
2	53° 37' 30.025'' N	00° 55' 03.615'' E
3	53° 37' 40.393'' N	00° 55' 01.826'' E
4	53° 37' 50.656'' N	00° 55' 04.547'' E
5	53° 37' 58.609'' N	00° 55' 10.070'' E
6	53° 38' 04.286'' N	00° 55' 16.359'' E

7	53° 38' 10.156'' N	00° 55' 25.880'' E
8	53° 38' 14.547'' N	00° 55' 36.526'' E
9	53° 38' 18.433'' N	00° 55' 52.770'' E
10	53° 38' 19.667'' N	00° 56' 06.330'' E
11	53° 38' 19.497'' N	00° 56' 17.003'' E
12	53° 38' 18.089'' N	00° 56' 28.969'' E
13	53° 38' 14.135'' N	00° 56' 44.345'' E
14	53° 38' 07.743'' N	00° 56' 58.162'' E
15	53° 37' 59.074'' N	00° 57' 09.156'' E
16	53° 37' 51.599'' N	00° 57' 14.631'' E
17	53° 37' 38.643'' N	00° 57' 17.843'' E
D	53° 37' 38.643'' N	00° 57' 17.843'' E
E	53° 37' 56.680'' N	00° 59' 39.524'' E
F	53° 38' 15.917'' N	01° 02' 08.601'' E
G	53° 39' 35.134'' N	01° 06' 29.785'' E
H	53° 41' 22.549'' N	01° 11' 30.804'' E
I	53° 42' 14.598'' N	01° 10' 44.250'' E
J	53° 41' 19.717'' N	01° 06' 44.682'' E
K	53° 39' 41.954'' N	01° 01' 38.714'' E
L	53° 39' 16.652'' N	01° 01' 01.016'' E
M	53° 38' 45.654'' N	00° 57' 01.237'' E
N	53° 37' 36.904'' N	00° 52' 22.841'' E
O	53° 37' 29.991'' N	00° 51' 27.606'' E
P	53° 37' 30.124'' N	00° 50' 57.716'' E

(7) The grid co-ordinates for disposal site reference HU210 (Hornsea Project One Sandwave Clearance Disposal Area 1B) are specified below—

<i>Point</i>	<i>Latitude</i>	<i>Longitude</i>
W	53° 43' 14.348'' N	01° 19' 13.563'' E
X	53° 43' 52.989'' N	01° 22' 07.248'' E
Y	53° 44' 22.957'' N	01° 21' 47.484'' E
Z	53° 43' 44.110'' N	01° 18' 53.902'' E

(8) 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 34 of the Order.

Duration

3. 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 No. 4 must not—

- (a) exceed 60 metres in height above MHWS;
- (b) have a platform which at its greatest extent exceeds 1,800 m² or 40 metres in width.
- (2) Each offshore HVDC converter station forming part of Work No. 4 must not—
 - (a) exceed 63 metres in height above MHWS;
 - (b) have a platform which at its greatest extent exceeds 7,200 m² or 120 metres in width.
- (3) The offshore reactive compensation substation comprised in Work No. 5 must not—
 - (a) exceed 63 metres in height above MHWS;
 - (b) have a platform which at its greatest extent exceeds 1,800 m² or 45 metres in width.

2.—(1) The diameter of the electrical circuits comprising the electrical circuits must not exceed the following limitations:

- (a) within Work No. 4, 300 mm;
- (b) within Works Nos. 6 and 7, 200 mm where the mode of transmission is HVDC and 300 mm where the mode of transmission is HVAC.
- (2) The total length of the electrical circuits comprised in Work No. 4 must not exceed 80 km.
- (3) The total area of cable protection for the electrical circuits comprising Work No. 4 must not exceed 80,000 m².
- (4) The total area of cable protection for the electrical circuits comprising Work No. 6 located outwith the Humber Estuary Special Area of Conservation must not exceed 1,468,000 m².
- (5) The total area of cable protection for the electrical circuits comprising Work No. 6 located within the Humber Estuary Special Area of Conservation must not exceed 12,800 m².
- (6) The total length of the electrical circuits comprised in Works Nos. 6 and 7 seaward of MHWS must not exceed 600 km.
- (7) The total volume of cable protection for the electrical circuits comprising Work No. 4 must not exceed 100,000 m³.
- (8) The total volume of cable protection for the electrical circuits comprising Work No. 6 located outwith the Humber Estuary Special Area of Conservation must not exceed 1,835,000 m³.
- (9) The total volume of cable protection for the electrical circuits comprising Work No. 6 located within the Humber Estuary Special Area of Conservation must not exceed 16,000 m³.

3. The electrical circuits comprised in Works Nos. 4 and 6 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.

4. The electrical circuits comprised in Work No. 7 must be installed by use of, or a combination of, ploughing, trenching and jetting.

5.—(1) The undertaker must in fixing to the seabed any structures comprised in Works Nos. 4 and 5 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 station.
- (3) The following parameters apply in respect of the foundation methods used to fix offshore HVAC collector substations comprised in Work No. 4 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 1,419 m²;

- (ii) the diameter of each foundation must not exceed 8.5 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 m²;
 - (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 m²;
 - (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 m²;
 - (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 stations comprised in Work No. 4 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 4,330 m²;
 - (ii) the number of piles per jacket must not exceed 18;
 - (iii) 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 12,723 m²;
 - (ii) the number of piles per jacket must not exceed eight;
 - (iii) 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 19,500 m²;
 - (ii) the number of pontoons for each individual structure must not exceed two;
 - (iii) the pontoons must not exceed 110 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 comprised in Work No. 5 to the seabed:
- (a) where monopile foundations are used—
 - (i) the area occupied by the foundations and the scour protection must not exceed 1,419 m²;
 - (ii) the diameter of each foundation must not exceed 8.5 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 m²;
 - (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 m²;
- (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 m²;
 - (ii) the seabed levelling diameter must not exceed 70 metres;
 - (iii) the cone diameter must not exceed 50 metres at its base.

Notifications and inspections

6.—(1) The undertaker shall 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 vessels 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 19 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 in writing at least five working days prior to the commencement of the licensed activities or any phase of them.

(7) Prior to the commencement of the licensed activities the undertaker must publish in the Kingfisher Fortnightly Bulletin details of the vessel routes, timings and locations relating to the construction of the authorised scheme.

(8) The undertaker shall ensure that a Notice to Mariners is issued at least ten 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 turbine locations.

(9) The Notices to Mariners must be updated and reissued not less frequently than weekly and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under licence condition 16(2)(a). Copies of all notices shall be provided to the MMO.

(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
- (b) the MMO once the authorised scheme is completed and any required lighting or marking has been established.

Aids to navigation

7. 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) notify Trinity House as soon as reasonably practicable of both the progress and completion of the authorised scheme (or any phase of it) and any aids to navigation established from time to time;
- (d) provide reports on the working condition of aids to navigation periodically as requested by Trinity House;
- (e) notify Trinity House and the MMO of any failure of the aids to navigation and the timescales in which such failure will be remedied, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

Provision against danger to navigation

8. In case of injury 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 injury, destruction or decay, notify Trinity House and must lay down such buoys, exhibit such lights and take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

Navigational Practice, Safety and Emergency Response

9.—(1) No part of the authorised scheme seaward of MHWS is to commence until the Secretary of State, in consultation with the MCA, has given written approval for an Emergency Response and 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 authorised scheme seaward of MHWS is to commence until the Secretary of State, 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 and Co-operation Plan must be implemented as approved, unless otherwise agreed in writing by the Secretary of State, in consultation with the MCA.

(4) The undertaker must during the whole period from the start of construction of the authorised scheme seaward of MHWS to the completion of decommissioning provide relevant information to the MCA to assist in the timely and efficient issuing of notices to mariners and other navigational warnings of the position and nature of the works, such information to be provided to mariners in the shipping and fishing industry as well as to recreational mariners.

Colour and lighting

10. Except as otherwise required by Trinity House under Condition 7, the undertaker must colour all structures comprised in Works Nos. 4 and 5 submarine grey (colour code RAL 7035).

Chemicals, drilling and debris

11.—(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 shall 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 shall ensure that any debris arising from the construction of the authorised scheme or temporary works placed below MHWS are removed on completion of the authorised scheme, where practicable.

(6) 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 MMO becomes aware that any of the materials on the audit sheet cannot be accounted for it shall require the undertaker to carry out a side scan sonar survey to plot all obstructions across the offshore Order limits where construction works and related activities have been carried out under this licence. Local fishermen shall be invited to send a representative to be present during the survey. Any new obstructions that the MMO believes to be associated with the authorised scheme shall be removed at the undertaker's expense, where practicable.

(9) The undertaker shall inform the MMO of the location and quantities of inert material disposed of each month under this licence at each of disposal site reference HU206 (Hornsea Project One Subzone 1), disposal site reference HU205 (Hornsea Disposal Area 1), disposal site reference HU209 (Hornsea Project One Sandwave Clearance Disposal Area 1A) and disposal site reference HU210 (Hornsea Project One Sandwave Clearance Disposal Area 1B), 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.

(10) The undertaker shall ensure that only inert material of natural origin and drilling mud, produced during construction drilling and seabed preparation for foundation works comprised in:

- (a) Work No. 4, shall be disposed of at disposal site reference HU206 (Hornsea Project One Subzone 1); and
- (b) Work No. 5, shall be disposed of at disposal site reference HU205 (Hornsea Disposal Area 1).

(11) The undertaker shall ensure that only inert material of natural origin, produced during cable sandwave preparation works comprised in Work No. 6 shall be disposed of within disposal site reference HU209 (Hornsea Project One Sandwave Clearance Disposal Area 1A) and disposal site reference HU210 (Hornsea Project One Sandwave Clearance Disposal Area 1B).

(12) The undertaker shall 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 should be contained to prevent run-off entering the water through the freeing ports.

(13) The undertaker shall 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

Force majeure

12. If, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit the authorised deposits outside of the offshore Order limits or to deposit unauthorised deposits within or outside of the offshore Order limits 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

13.—(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) To ensure conformity with the description of Works Nos 4 to 7 and compliance with licence conditions 1 to 5 above, a plan, to be agreed in writing with the MMO in consultation with Trinity House and the MCA, which shows:
 - (i) the proposed location and choice of foundation of all offshore HVAC collector stations, all HVDC converter stations and any reactive compensation substation, subject to any micro-siting required due to anthropological constraints, environmental constraints, difficult ground conditions or to give adequate spacing between other infrastructure;
 - (ii) the height, length and width of all offshore HVAC collector stations, all HVDC converter stations and any reactive compensation substation;
 - (iii) the length and arrangement of all electrical circuits comprising Works Nos 4, 6 and 7 subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions;
 - (iv) the proposed dimensions of all monopile foundations;
 - (v) the proposed dimensions of all gravity base foundations;
 - (vi) the proposed dimensions of all jacket foundations; and
 - (vii) the proposed layout of all HVAC collector substations, all HVDC converter stations, any reactive compensation substation and all electrical circuits including all exclusion zones comprised in the licensed activities and showing the indicative programming of particular works as set out in the indicative programme to be provided under condition 13(2)(a).

(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) have been submitted to and approved in writing by the MMO; such approval to be provided in the case of any construction and monitoring programme submitted pursuant to sub-

paragraph (a), any project environmental management and monitoring plan pursuant to sub-paragraph (c), and any scour protection management and cable armouring plan pursuant to sub-paragraph (d) in consultation with the relevant statutory nature conservation body and the Environment Agency; in the case of any construction method statement pursuant to sub-paragraph (b) and any marine mammal mitigation protocol submitted pursuant to sub-paragraph (e) in consultation with the relevant statutory nature conservation body; in the case of any cable specification and installation plan pursuant to sub-paragraph (f) in consultation with Natural England and the Environment Agency; in the case of any proposed survey and reinstatement plan for Salicornia forming Annex 1 Habitat pursuant to sub-paragraph (h) and any offshore project maintenance plan pursuant to sub-paragraph (i) in consultation with the Environment Agency; and in the case of any written scheme of archaeological investigation submitted pursuant to sub-paragraph (g) in consultation with English Heritage.

- (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 18, 19 and 20. The preconstruction 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 project description and Environmental Statement and including details of:
 - (i) foundation installation, including any seabed preparation, drilling and disposal of arisings methods;
 - (ii) installation of HVAC collector substations, HVDC converter stations, any reactive compensation station, 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 below MHWS;
 - (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) waste management and disposal arrangements;
 - (iv) offshore project maintenance plans including offshore electrical circuit maintenance;
 - (v) locations of any archaeological exclusion zones agreed as part of the written scheme of archaeological investigation approved under paragraph (g) of this licence condition;
 - (vi) any seasonal restrictions on construction works;
 - (vii) the appointment and responsibilities of a fisheries liaison officer, an environmental liaison officer and an intertidal ecological clerk of works; and
 - (viii) a disposal plan detailing the locations, methods and timings of dredging and disposal, as well as disposal site monitoring requirements.

- (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, to include, but not be limited to:
 - (i) identification of a Marine Mammal Monitoring 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; and
 - (vi) where appropriate, methods for the application of acoustic deterrent devices.
- (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 intertidal 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 intertidal zone are installed using the horizontal directional drilling method.
- (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. 7, 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.

14. The undertaker shall ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting an English Heritage OASIS form with a digital copy of the report. If the report relates to the foreshore, the undertaker shall notify Lincolnshire County Council that the OASIS report has been submitted to the National Record of the Historic Environment.

15.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 13—

- (a) shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO; and
- (b) shall be accompanied by—
 - (i) a statement confirming that the undertaker has complied with Requirement 19(1) of Part 3 of Schedule A to the Order in relation to such programme, statement, plan, protocol or scheme; and
 - (ii) any comments received by the undertaker under Requirement 19(2) of Part 3 of Schedule A to the Order, or a statement from the undertaker confirming that no such comments were received.

(2) The undertaker shall comply with the plans and documentation approved under licence condition 13 in carrying out the licensed activities unless otherwise agreed in writing by the MMO.

Reporting of engaged agents, contractors and vessels

16.—(1) The undertaker shall 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

17.—(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 (6).

(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) No radio beacon or radar beacon operating on the marine frequency bands shall be installed or used without the prior written approval of the Secretary of State.

(4) All vessels' names or identification shall be clearly marked on the hull or superstructure of the vessel.

(5) All communication on VHF working frequencies shall be in English.

(6) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

Pre-construction monitoring and surveys

18.—(1) The undertaker shall, in discharging condition 13(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)(c) and (d), in consultation with the Environment Agency, of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report; and

- (a) the survey proposals 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, it is expected that 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 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, including a 500m buffer around the site of each works; 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 Works Nos. 5 and 6 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 areas HU209 and HU210.

(3) The undertaker shall 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

19.—(1) The undertaker must, in discharging condition 13(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 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, it is expected that 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. 4 to be constructed under this licence where driven or part-driven pile foundations are used; and
- (b) recording of any visual sightings or acoustic detection of marine mammals where required as part of the marine mammal mitigation protocol under condition 13(2)(e).

(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

20.—(1) The undertaker shall, in discharging condition 13(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), (c) and (e), in consultation with the Environment Agency, of proposed post-construction surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals 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, it is expected that 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 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) a grab survey and particle size analysis in the part(s) of the offshore Order limits within which dredging and disposal activities relating to Works Nos. 5 and 6 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 areas HU209 and HU210; and

- (d) 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; and
- (e) one high resolution bathymetric survey of a representative sample area, to 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.

(3) The undertaker shall 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

21. 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.

Offshore Decommissioning

22. 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.

Restrictions in intertidal area and Humber Estuary Special Area of Conservation

23.—(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. 6 or Work No. 7 in the intertidal area between 1 October and 31 March (inclusive) unless otherwise agreed in writing with the MMO, in consultation with Natural England.

(4) In the event that the MMO notifies the undertaker that other works are planned to take place in the intertidal area comprised within the offshore Order limits or within the area whose co-ordinates are set out in paragraph (5) below, the undertaker must not construct or install those licensable activities comprised in Work Nos. 6 and 7 within one kilometre seaward of the seawall during the period of time commencing two hours before a high tide greater than 7.7 metres (as measured at Grimsby) and ending two hours after a high tide greater than 7.7 metres (as measured at Grimsby) between 1 April and 31 May (inclusive) and 1 August to 30 September (inclusive), unless otherwise approved in writing by the MMO, in consultation with Natural England.

(5) The co-ordinates (in Eastings and Northings in OSGB36 Datum, British National Grid Projection) referred to in paragraph (4) above are:

<i>Point</i>	<i>Easting</i>	<i>Northing</i>
1	537699	402686
2	537731	403353
3	538008	404035
4	538853	403352
5	538203	402660
6	538077	402847

SCHEDULE L

Article 40

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 or flood defence;

“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;

“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 affect any drainage work;

2.—(1) Before beginning to construct any specified work, the 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 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 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 any part of a specified work or any protective work required by the drainage authority is constructed otherwise than in accordance with the requirements of this part of this Schedule, the drainage authority may by notice in writing require the undertaker at the undertaker's own expense to comply with the requirements of this part of this Schedule or (if the undertaker so elects and the drainage authority in writing consents, such consent not to be unreasonably withheld or delayed) to remove, alter or pull down the work and, where removal is required, to restore the site to its former condition to such extent and within such limits as the drainage authority reasonably requires.

(4) Subject to sub-paragraph (5), if within a reasonable period, being not less than 28 days from the date when a notice under sub-paragraph (3) is served upon the 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 undertaker.

(5) In the event of any dispute as to whether sub-paragraph (3) 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 (4) until the dispute has been finally determined.

5.—(1) Subject to sub-paragraph (5) the undertaker must from the commencement of the construction of the specified works maintain in good repair and condition and free from obstruction any drainage work which is situated within the limits of deviation on land held by the undertaker for the purposes of or in connection with the specified works, whether or not the drainage work is constructed under the powers conferred by this Order or is already in existence.

(2) If any such drainage work which the undertaker is liable to maintain is not maintained to the reasonable satisfaction of the drainage authority, the drainage authority may by notice in writing require the undertaker to repair and restore the work, or any part of such work, or (if the undertaker so elects and the 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 undertaker, the undertaker has failed to begin taking steps to comply with the reasonable requirements of the notice and has not subsequently made reasonably expeditious progress towards their implementation, the drainage authority may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in so doing from the undertaker.

(4) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (2), the drainage authority must not except in a case of emergency exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined.

(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 undertaker to the reasonable satisfaction of the drainage authority and if the undertaker fails to do so, the drainage authority may make good the impairment or damage and recover from the undertaker the expense reasonably incurred by it in doing so.

7. The 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; and
- (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.

8.—(1) Without prejudice to the other provisions of this part of this Schedule, the 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 undertaker, its contractors, agents or employees whilst engaged upon the work.

(2) The drainage authority must give to the undertaker reasonable notice of any such claim or demand and no settlement or compromise may be made without the agreement of the 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 undertaker in accordance with a plan approved or deemed to be approved by the drainage authority, or to its satisfaction, or in accordance with any directions or award of an arbitrator, does not relieve the undertaker from any liability under the provisions of this part of this Schedule.

10. Any dispute arising between the undertaker and the drainage authority under this part of this Schedule, if the parties agree, is to be determined by arbitration under article 41 (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 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

“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 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 16 (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 27 (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 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 undertaker may serve upon the engineer written notice requiring the engineer to intimate approval or disapproval within a further period of 28 days beginning with the date upon which the engineer receives written notice from the undertaker. If by the expiry of the further 28 days the engineer has not intimated approval or disapproval, the engineer 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 undertaker that Network Rail desires itself to construct any part of a specified work which in the opinion of the engineer will or may affect the stability of railway property or the safe operation of traffic on the railways of Network Rail then, if the undertaker desires such part of the specified work to be constructed, Network Rail must construct it with all reasonable dispatch on behalf of and to the reasonable satisfaction of the undertaker in accordance with the plans approved or deemed to be approved or settled under this paragraph, and under the supervision (where appropriate and if given) of the undertaker.

(4) When signifying approval of the plans the engineer may specify any protective works (whether temporary or permanent) which in the engineer's opinion should be carried out before the commencement of the construction of a specified work to ensure the safety or stability of railway property or the continuation of safe and efficient operation of the railways of Network Rail or the services of operators using the same (including any relocation de-commissioning and removal of works, apparatus and equipment necessitated by a specified work and the comfort and safety of passengers who may be affected by the specified works), and such protective works as may be reasonably necessary for those purposes must be constructed by Network Rail or by the undertaker, if Network Rail so desires, and such protective works must be carried out at the expense of the undertaker in either case with all reasonable dispatch and the undertaker must not commence the construction of the specified works until the engineer has notified the undertaker that the protective works have been completed to 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 undertaker must, notwithstanding any such approval, make good such damage and must pay to Network Rail all reasonable expenses to which Network Rail may be put and compensation for any loss which it may sustain by reason of any such damage, interference or obstruction.

(3) Nothing in this part of this Schedule imposes any liability on the undertaker with respect to any damage, costs, expenses or loss attributable to the negligence of Network Rail or its servants, contractors or agents or any liability on Network Rail with respect of any damage, costs, expenses or loss attributable to the negligence of the undertaker or its servants, contractors or agents.

17. The undertaker must—

- (a) at all times afford reasonable facilities to the engineer for access to a specified work during its construction; and
- (b) supply the engineer with all such information as 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 undertaker reasonable notice of its intention to carry out such alterations or additions (which must be specified in the notice), the undertaker must pay to Network Rail the reasonable cost of those alterations or additions including, in respect of any such alterations and additions as are to be permanent, a capitalised sum representing the increase of the costs which may be expected to be reasonably incurred by Network Rail in maintaining, working and, when necessary, renewing any such alterations or additions.

(2) If during the construction of a specified work by the undertaker, Network Rail gives notice to the undertaker that Network Rail desires itself to construct that part of the specified work which in the opinion of the engineer is endangering the stability of railway property or the safe operation of traffic on the railways of Network Rail then, if the undertaker decides that part of the specified work is to be constructed, Network Rail may assume construction of that part of the specified work and the 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 undertaker may reasonably require.

(4) If the cost of maintaining, working or renewing railway property is reduced in consequence of any such alterations or additions a capitalised sum representing such saving must be set off against any sum payable by the undertaker to Network Rail under this paragraph.

20. The undertaker must repay to Network Rail all reasonable fees, costs, charges and expenses reasonably incurred by Network Rail—

- (a) in constructing any part of a specified work on behalf of the undertaker as provided by paragraph 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 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 undertaker has been given notice in writing before the approval of those plans of the intention to make such change).

(3) Subject to sub-paragraph (5), the undertaker must in the design and construction of the authorised development take all measures necessary to prevent EMI and establish with Network Rail (both parties acting reasonably) appropriate arrangements to verify their effectiveness.

(4) In order to facilitate the undertaker’s compliance with sub-paragraph (3)—

- (a) the undertaker must consult with Network Rail as early as reasonably practicable to identify all Network Rail’s apparatus which may be at risk of EMI, and thereafter must continue to consult with Network Rail (both before and after formal submission of plans under paragraph 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 undertaker all information in the possession of Network Rail reasonably requested by the undertaker in respect of Network Rail’s apparatus identified pursuant to sub-paragraph (a); and
- (c) Network Rail must allow the undertaker reasonable facilities for the inspection of Network Rail’s apparatus identified pursuant to sub-paragraph (a).

(5) In any case where it is established that EMI can only reasonably be prevented by modifications to Network Rail’s apparatus, Network Rail must not withhold its consent unreasonably to modifications of Network Rail’s apparatus, but the means of prevention and the method of their execution 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 undertaker must

immediately upon receipt of notification by Network Rail of such EMI either in writing or communicated orally (such oral communication to be confirmed in writing as soon as reasonably practicable after it has been issued) forthwith cease to use (or procure the cessation of use of) the undertaker's apparatus causing such EMI until all measures necessary have been taken to remedy such EMI by way of modification to the source of such EMI or (in the circumstances, and subject to the consent, specified in sub-paragraph (5)) to Network Rail's apparatus.

(7) In the event of EMI having occurred—

- (a) the undertaker must afford reasonable facilities to Network Rail for access to the undertaker's apparatus in the investigation of such EMI;
- (b) Network Rail must afford reasonable facilities to the undertaker for access to Network Rail's apparatus in the investigation of such EMI; and
- (c) Network Rail must make available to the undertaker any additional material information in its possession reasonably requested by the undertaker in respect of Network Rail's apparatus or such EMI.

(8) Where Network Rail approves modifications to Network Rail's apparatus pursuant to sub-paragraphs (5) or (6)—

- (a) Network Rail must allow the undertaker reasonable facilities for the inspection of the relevant part of Network Rail's apparatus;
- (b) any modifications to Network Rail's apparatus approved pursuant to those sub-paragraphs must be carried out and completed by the undertaker in accordance with paragraph 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 41 (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 undertaker informing it that the state of maintenance of any part of the specified work appears to be such as adversely affects the operation of railway property, the undertaker must, on receipt of such notice, take such steps as may be reasonably necessary to put that specified work in such state of maintenance as not adversely to affect railway property.

23. The undertaker must not provide any illumination or illuminated sign or signal on or in connection with a specified work in the vicinity of any railway belonging to Network Rail unless it has first consulted Network Rail and it must comply with Network Rail's reasonable requirements for preventing confusion between such illumination or illuminated sign or signal and any railway signal or other light used for controlling, directing or securing the safety of traffic on the railway.

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 undertaker, be repaid by the undertaker to Network Rail.

25.—(1) The undertaker must pay to Network Rail all reasonable costs, charges, damages and expenses not otherwise provided for in this part of this Schedule 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 undertaker or of any person in its employ or of its contractors or others whilst engaged upon a specified work,

and the undertaker must indemnify and keep indemnified Network Rail from and against all claims and demands arising out of or in connection with a specified work or any such failure, act or omission: and the fact that any act or thing may have been done by Network Rail on behalf of the undertaker or in accordance with plans approved by the engineer or in accordance with any requirement of the engineer or under 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 undertaker from any liability under the provisions of this sub-paragraph.

(2) Network Rail must give the 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 undertaker.

(3) The sums payable by the 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 undertaker, from time to time provide the undertaker free of charge with written estimates of the costs, charges, expenses and other liabilities for which the undertaker is or will become liable under this part of this Schedule (including the amount of the relevant costs mentioned in paragraph 25) and with such information as may reasonably enable the undertaker to assess the reasonableness of any such estimate or claim made or to be made pursuant to this part of this Schedule (including any claim relating to those relevant costs).

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 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 34 (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 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 39 (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 Electronic Communications Act 2003(a);

“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; and

“operator” means the operator of an electronic communications code network.

32. Paragraph 23 of Schedule 2 to the Telecommunications Act 1984(b) (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 27 (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
- (b) there is any interruption in the supply of the service provided by an operator, the 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.

(a) 2003 c.21.
(b) 1984 c.12.

(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 41 (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,

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;

(a) 1989 c.29.

(b) 1991 c.56.

“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

“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 or C.GEN Killingholme Limited.

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 408 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 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 undertaker must, subject to sub-paragraph (3), afford to the utility undertaker the necessary facilities and rights for the construction of alternative apparatus in other land of the undertaker and 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 undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, the utility undertaker in question must, on receipt of a written notice to that effect from the undertaker, as soon as reasonably possible use 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 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 undertaker or in default of agreement settled by arbitration in accordance with article 41 (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 41, and after the

(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).

grant to the utility undertaker of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this part of this Schedule.

(6) Regardless of anything in sub-paragraph (5), if the 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 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 undertaker.

(8) Nothing in sub-paragraph (6) authorises the undertaker to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within 300 millimetres of the apparatus.

40.—(1) Where, in accordance with the provisions of this part of this Schedule, the undertaker affords to a utility undertaker facilities and rights for the construction and maintenance in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights are to be granted upon such terms and conditions as may be agreed between the undertaker and the utility undertaker in question or in default of agreement settled by arbitration in accordance with article 41 (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 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 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 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 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 undertaker under paragraph 39(2), the 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 undertaker, reasonably requires the removal of any apparatus and gives

written notice to the undertaker of that requirement, paragraphs 39 and 40 apply as if the removal of the apparatus had been required by the undertaker under paragraph 39(2).

(5) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any works, a new plan, 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 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 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 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 undertaker or, in default of agreement, is not determined by arbitration in accordance with article 41 (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 undertaker must—

- (a) bear and pay the cost reasonably incurred by that utility undertaker in making good such damage or restoring the supply; and
- (b) make reasonable compensation to that utility undertaker for any other expenses, loss, damages, penalty or costs incurred by the utility undertaker.

by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of a utility undertaker, its officers, servants, contractors or agents.

(3) A utility undertaker must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise 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.

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 no. 6, 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

“specified work” means so much of work no. 6 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 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 39 (certification of plans etc) of this Order, the 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 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 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 undertaker must with all reasonable dispatch, or after a reasonable period of notice in writing from A. B. Ports requiring the 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 undertaker.

(2) If the 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 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 41 (arbitration), that any accumulation or erosion has been caused wholly or partly by the construction of the specified works, the 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 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 undertaker.

52. The 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 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 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 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 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 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 undertaker notice in writing of any claim or demand for which the 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 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 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 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; and

“plan” includes sections, drawings, specifications and method statements.

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 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 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 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 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 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 undertaker, Anglian Water must, on receipt of a written notice to that effect from the 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 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 undertaker or in default of agreement settled by arbitration in accordance with article 41 (arbitration).

64. In the situation, where in exercise of the powers conferred by the Order, the 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 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 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 41 (arbitration).

66. If in consequence of the exercise of the powers conferred by the Order the access to any Apparatus is materially obstructed the 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 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 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 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 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 41 (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; and

“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.

74. Before extinguishing any existing rights for Centrica to 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 undertaker, with the agreement of Centrica, must create a new right, which is consistent with the existing right being extinguished, to 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 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 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 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 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 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 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 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 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 undertaker or Centrica, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, Centrica must, on receipt of a written notice to that effect from the 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 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 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 undertaker, construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this part of this Schedule.

77.—(1) Where, in accordance with the provisions of this part of this Schedule, the undertaker affords to Centrica facilities and rights for the construction and maintenance in land of the 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 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 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 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 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 promoter must be limited to £50,000,000 per claim or series of claims arising from one event.

79. The 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 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 41 (arbitration).

PART 8

For the protection of VPI Immingham LLP

82. In this Part of this Schedule—

“VPI” means VPI Immingham LLP (Company number OC300980); and

“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).

83. 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 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 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 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 undertaker reasonable notice of any such claim or demand and no settlement or compromise 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.

87. Any dispute arising between the undertaker and VPI under this Part of this Schedule must be determined by arbitration as provided in article 41(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. In this Part of this Schedule—

“P66” means Phillips 66 Limited (Company number 00524868); and

“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 pipelines as are specified by section 65(2) of the Pipe-Lines Act 1962.

89. 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 pipelines and access to them, the 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 pipelines and access to them 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 pipelines; and
- (b) the requirement for P66 to have uninterrupted and unimpeded access to the pipelines 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 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 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 undertaker reasonable notice of any such claim or demand and no settlement or compromise 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.

93. Any dispute arising between the undertaker and P66 under this Part of this Schedule must be determined by arbitration as provided in article 41 (arbitration).

PART 10

For the protection of C.GEN Killingholme limited

94.—(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. For the avoidance

of doubt, paragraphs 95(4), 96(1) and 109(1) of the following provisions shall apply only in respect of such parts of the grid connection land in which C.GEN have a land interest or have powers under any statutory instrument to acquire such an interest.

(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 of this Schedule and shall be the undertaker 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 404 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 substation 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 relevant 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;

“pylon land” means the area of land shown cross-hatched in black on the plan;

“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.

95.—(1) C.GEN must not under the powers of any existing statutory instrument acquire—

- (a) new rights over the C.GEN relevant land; or
- (b) new rights for the purposes of access and maintenance over the thermal buffer zone; or
- (c) new rights over the crossing zones,

without the consent of the undertaker, such consent not to be unreasonably withheld or delayed but which may be given subject to reasonable conditions (which may include a condition to ensure that access to or egress from the Hornsea Project Substation Site or services to or from the Hornsea Project Substation Site will be maintained at all times).

For the avoidance of doubt, it shall not be unreasonable for the undertaker to withhold consent where C.GEN has requested rights over the C.GEN relevant land along the corridor passing through the points marked ‘G-H’ on the plan to construct the specified work without first demonstrating to the undertaker that C.GEN has used reasonable endeavours to obtain all necessary rights and approvals (including for the further avoidance of doubt National Grid’s

consent pursuant to any protective provisions in National Grid's favour provided by C.GEN under the statutory instrument) to instead carry out the relevant works within the C.GEN relevant land along the corridor passing through the points marked 'A-B' on the plan, but that such rights and approvals have been refused. In circumstances where C.GEN has obtained all necessary rights and approvals to carry out the relevant works within the C.GEN relevant land along the corridor passing through the points marked 'A-B' on the plan, it shall not be unreasonable for the undertaker to withhold consent where C.GEN has requested rights over the C.GEN relevant land along the corridor passing through the points marked 'C-D' on the plan to construct the specified work without first demonstrating to the undertaker that C.GEN has used reasonable endeavours to instead carry out the relevant works within the C.GEN relevant land along the corridor passing through the points marked 'E-F' on the plan.

(2) Nothing in sub-paragraph (1) shall permit C.GEN under the powers of any existing statutory instrument to acquire—

- (a) a permanent right of more than 3m in width for its cable connection in the C.GEN relevant land and the crossing zones and must use all reasonable endeavours to ensure the 3m strip abuts the eastern boundary of the C.GEN relevant land and the crossing zones; and
- (b) a right of access and maintenance of more than 5m in width directly abutting the permanent right referred to in sub-paragraph (a) above in the C.GEN relevant land, the crossing zones and the thermal buffer zone.

(3) Other than as provided for in sub-paragraph (1), C.GEN must not under the powers of any existing statutory instrument acquire—

- (a) any of, or rights over, the Hornsea Project Substation Site without the consent of the undertaker; or
- (b) any of, or rights over, the pylon land without the consent of the undertaker, not to be unreasonably withheld or delayed but which may be given subject to reasonable conditions.

(4) 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;

without the consent of C.GEN, such consent not to be unreasonably withheld or delayed but which may be given subject to reasonable conditions.

96.—(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 emergency exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined.

97. The promoting party must give to the approving party 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 the approving party written notice of such completion.

98. 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.

99.—(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.

100.—(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.

(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.

101.—(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.

102. 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.

103. Other than in respect of paragraph 95(3)(a), 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.

104. 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 42 days beginning with the date on which the application for consent or approval was submitted to the approving party.

105. Without prejudice to the generality of paragraph 103 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).

106. Without prejudice to the generality of paragraph 103 of this part of this Schedule, and in addition to the circumstances described in paragraph 105 above, it shall not be reasonable for the undertaker or C.GEN 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 96 of this part of this Schedule demonstrate that all reasonable steps have been taken to minimise thermal interaction between the circuit and any other circuit, whether existing or proposed.

107. 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.

108. 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.

109.—(1) In the event that the undertaker begins to carry out the specified work before C.GEN and the undertaker 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 C.GEN, such approval not to be unreasonably withheld or delayed but may be given subject to reasonable conditions.

(2) In the event that C.GEN begins to carry out the specified work before the undertaker and C.GEN 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 undertaker, such approval not to be unreasonably withheld or delayed but may be given subject to reasonable conditions.

110. 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.

111. The undertaker must not exercise the powers conferred by article 17 (compulsory acquisition of land) or article 18 (compulsory acquisition of rights) in respect of the Order land shown numbered 408 on the land plans to extinguish any rights that C.GEN has to connect into the North Killingholme National Grid substation.

112. The provisions of this part of this Schedule will enure for the benefit of the undertaker, C.GEN and any statutory successor which is licensed under section 6 of the Electricity Act 1989 and is in occupation or use of the Hornsea Project Substation Site, the grid connection land or any part thereof pursuant to their undertaking.

113. Any dispute arising between the promoting party and the approving party or between the undertaker and C.GEN under this part of this Schedule is to be determined by arbitration under article 41(arbitration).

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 three generating stations in the sea approximately 103 kilometres off the coast of Yorkshire together with all 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 39 (certification of plans, etc) of this Order may be inspected free of charge at the offices of SMart Wind at 140 London Wall, London EC2Y 5DN.