

## **The Planning Act 2008**

### **The Galloper Wind Farm Order [201X]**

### **Panel's Report to the Secretary of State**

#### **Panel**

**Lead Member**  
**Jan Bessell**

**Member**  
**Annie Coombs**

**Member**  
**Michael Hayes**

**Panel's Report of Findings and Conclusions, and  
Recommendations in respect of an application for a Development  
Consent Order for the Galloper offshore generating station and its  
associated electrical connection**

**Date: 27 February 2013**

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**File Reference EN010003**

**The Galloper Wind Farm Order [201X]**

- The application, dated 21 November 2011 was made under section 37 of the Planning Act 2008 (as amended) (PA 2008).
- The applicant is Galloper Wind Farm Limited.
- The application was accepted for examination on 19 December 2011.
- The examination of the application began on 29 May 2012 and was completed on 29 November 2012.
- The development proposed is the Galloper offshore generating station and its associated electrical connection.

**Summary of Recommendation:**

**The panel recommends the Secretary of State make the Order with modifications in the form appended.**

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**ERRATA SHEET – Galloper Offshore Wind Farm - Ref. EN010003**

**Examining authority's Report of Findings and Conclusions and  
Recommendation to the Secretary of State for the Department of Energy  
and Climate Change, dated 24 May 2012**

**Corrections agreed by the Examining authority prior to a Decision being  
made**

<b>Page No.</b>	<b>Paragraph</b>	<b>Error</b>	<b>Correction</b>
6	para 2.4	Omission of reference to section 15	Insert after 14 , <b>15</b> so that it reads: sections 14, <b>15</b> and 16
20	para 3.53	Spelling of licence	Change license to licence
29	para 5.32	Spelling of an	Second line change a to <b>an</b> so that it reads: roosting bats <b>an</b> EPS
37	para 5.76	Formatting - quotation not in italics	Second para starting It continues – text in quotation to be in italics
38	para 5.79	Typographic error	Replace "Sabellaria spinosa" with "Sabellaria spinulosa"
46	para 5.131	Second to last line typographic error for instead of forward	Second to last line change for to <b>forward</b> so that it reads: drafting put <b>forward</b>
50	para 5.153	Brackets not required around RSPB in sixth line	Remove brackets from RSPB in sixth line so that it reads: the RSPB that
51	para 5.157	Omission of comma in fifth line after (PVA)	Add comma after (PVA) so that it reads: (PVA), modelling
78	para 5.304	Correction to cross-referencing	In the third line change the reference to "5.302" rather than "3.302"
78	para 5.304	Omission of bracket in second line before 50%	Add bracket before 50% so that it reads: Mortality ( <b>50%</b> of the
114	para 9.1	Omission of the word of in the sixth line after account	Add <b>of</b> after account so that it reads: Account <b>of</b> the potential
146	para 11.53	Omission of the word the in first line before Crag	Add <b>the</b> before Crag so that it reads: That <b>the</b> Crag is composed
221	para 19.50	Typographic error	Delete erroneous "the" in the first line

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## APPENDICES

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## **1 INTRODUCTION**

1.1 On 15 March 2012 a panel of three Commissioners was appointed (PD4) by the then Chair of the Infrastructure Planning Commission to handle the application dated 21 November 2011 for development consent for an offshore generating station and related electrical infrastructure off the Suffolk Coast at Sizewell. The panel comprised:

- Jan Bessell – lead member of the panel;
- Annie Coombs – member of the panel;
- Michael Hayes – member of the panel.

The Infrastructure Planning Commission was abolished on 30 March 2012 and its functions transferred to the Planning Inspectorate. The members of the panel are now termed Examining Inspectors and collectively constitute the Examining authority for this application.

1.2 This document sets out in accordance with s74 of the Planning Act 2008 (as amended) (PA 2008) the panel's report of findings and conclusions and the recommendations as to the decision to be made on the application.

1.3 The proposed development for which consent is required under s31 of the PA 2008 comprises construction and operation of the proposed Galloper Wind Farm (GWF) which consists of up to 140 offshore wind turbine generators (WTG), and associated offshore and onshore infrastructure, with an installed capacity of up to 504MW. The application also comprises construction, keeping and operating new overhead lines connecting at 400kV between a new sealing end compound and existing steel lattice towers and associated infrastructure.

1.4 The proposed GWF offshore generating station is to be situated adjacent to the existing Greater Gabbard Offshore Wind Farm (GGOWF) and is approximately 27km off the coast of Suffolk. It is partly within the Renewable Energy Zone (REZ) and partly within the United Kingdom (UK) territorial sea<sup>1</sup>. The proposed grid connection comes ashore at Sizewell in Suffolk. The new overhead lines and associated infrastructure are proposed at a location to the west of Sizewell A and B nuclear power station and approximately 1km inland from the Suffolk coast. It is within England and comprises two nationally significant infrastructure projects (NSIP) as defined by s14(1)(a) and (b), s15(3) and s16 of the PA 2008.

1.5 The application is Environmental Impact Assessment (EIA) development as defined by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009. It was

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<sup>1</sup> s1(1) the Territorial Sea Act 1987

accompanied by an Environmental Statement (ES) which in the view of the panel, when taken together with all other information supplied during the course of the examination on the environmental effects of the development, met the definition given in Regulation 2(1) of these Regulations. In reaching the recommendation, the environmental information as defined in Regulation 2(1) (including the ES and any other information on the environmental effects of the development) has been taken into consideration in accordance with Regulation 3(2) of these Regulations.

- 1.6 The Secretary of State is the competent authority for the purposes of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive), the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations) and Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) (the 2007 Offshore Regulations). The findings, conclusions and recommendations on the issues affecting European sites reported by the panel are intended to assist the Secretary of State in deciding whether appropriate assessment is required and in making an appropriate assessment under the Habitats Regulations, if necessary.
- 1.7 A preliminary meeting was held on 29 May 2012 at which the applicant and all Interested Parties (IP) were able to make representations to the panel about how the application should be examined.
- 1.8 The Examining authority's procedural decisions under Rule 8 of the Infrastructure Planning (Examination Procedure) Rules 2010 (EPR) were issued on 8 June 2012 (PD11). Our first written questions were issued with the Rule 8 letter on 8 June 2012 and our second written questions were issued on 3 September 2012 (PD13 and PD14). Requests for further information or written comment under Rule 17<sup>2</sup> were issued on 7 September 2012 (PD15), 5 November 2012 (PD16), and 27 November 2012 (PD17). The Rule 8 letter set out the decisions about how the application would be examined and the examination proceeded in accordance with this. A full record of the main events occurring during the examination and the main procedural decisions taken by the Examining authority are set out at Appendix A.
- 1.9 The panel carried out an inspection of the onshore site and surroundings in the company of IPs on 29 August 2012.
- 1.10 As set out in the timetable for the examination (PD11) and as a result of requests made, the following hearings were held:
  - 30 August 2012 first Issue Specific (IS) hearing on the draft Development Consent Order (DCO), requirements, deemed

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<sup>2</sup> Rule 17 of the Infrastructure Planning (Examination Procedure) Rules 2010

Marine Licence (DML), s106 undertaking and related Local Impact Report (LIR) matters. Held at the 'Ip-City Centre', Ipswich;

- 17 October 2012 Open Floor (OF) hearing. Held at the White Lion Hotel, Aldeburgh;
- 17 October 2012 IS hearing on biodiversity, biological environment and ecology. Held at the White Lion Hotel, Aldeburgh;
- 18 October 2012 continuation of the IS hearing on biodiversity, biological environment and ecology. Held at Ipswich Town Hall;
- 19 October 2012 second IS hearing on the draft DCO, requirements, DML, s106 undertaking and related LIR matters. Held at Ipswich Town Hall;
- 22 and 23 October 2012 Compulsory Acquisition (CA) hearing. Held at the 'Ip-City Centre', Ipswich;
- 24 October 2012 IS hearing relating to offshore matters. Held at the 'Ip-City Centre', Ipswich.

1.11 The examination closed on 29 November 2012 (PD18).

### **Undertakings**

1.12 During the examination three s106 undertakings were prepared and offered by the applicant in response to matters raised in the LIR submitted jointly by Suffolk Coastal District Council (SCDC) and Suffolk County Council (SCC), representations from IPs and questions on funding by the panel all as set out at sections 5, 9 and 18 of this report.

1.13 The undertakings are:

- s106 agreement relating to the south of Sizewell Gap Road in the County of Suffolk. Made as a deed under section 106 of the Town and Country Planning Act 1990 (as amended) (1990 Act) between Galloper Wind Farm Limited (GWFL), Glencairn Stuart Ogilvie, SCDC and SCC to provide funds to be used for works and measures that contribute to the appearance, setting, amenity, accessibility and enjoyment of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) (S106-1);
- unilateral undertaking relating to land to the south of Sizewell Gap Road in the County of Suffolk pursuant to s106 of the 1990 Act given by GWFL and Glencairn Stuart Ogilvie in favour of SCDC to provide funds to deliver and monitor the Alde-Ore Estuary Special Protection Area (SPA) management measures (S106-2);
- unilateral undertaking relating to land 150m south of the hamlet of Sizewell in the County of Suffolk and extending 1300m west pursuant to s106 of the 1990 Act given by GWFL and Glencairn Stuart Ogilvie in favour of SCDC to provide



security of funding in relation to compulsory acquisition (S106-3).

- 1.14 These undertakings have all been taken into account to some degree in making our recommendations within this report.

### **Other Consents and Commitments**

- 1.15 The applicant identified on the application form (APP2) a list of consents, licences and commitments as follows:

- agreement under s106 of the 1990 Act;
- safety zones in accordance with the Energy Act 2004;
- European Protected Species (EPS) Licence;
- ratification of the proposed extension to the East Sunk Traffic Separation Scheme Issued by the International Maritime Organisation;
- certificate under s127 of the PA 2008.

- 1.16 During the course of the application three undertakings were provided under s106 of the 1990 Act as set out above.

- 1.17 The matters relating to safety zones were examined and questions asked of the applicant and IPs on matters raised in representations as set out in section 12 of this report.

- 1.18 Confirmation was received from Natural England (NE) dated 18 November 2012 (REP61) in response to the submission of a draft EPS mitigation Licence for bats that:

*"Following our assessment of the resubmitted documents, I can now confirm that, on the basis of the species information and proposals provided, Natural England is satisfied that the Purpose and No Satisfactory Alternative (NSA) tests would be met should the application be formally submitted using the same information and the development is successful in achieving all necessary consents. The Favourable Conservation Status Test (FCS) has also been met in order for us to issue you with this letter of comfort at this stage."*

NE and the Joint Nature Conservation Committee (JNCC) also confirmed (SOCG13) that based on the information available, there was no reason why an EPS licence for cetaceans would not be granted.

- 1.19 Confirmation was received from the Maritime and Coastguard Agency (MCA) during the examination that the extension to the East Sunk Traffic Separation Scheme had been ratified (REP14).

- 1.20 At the outset of the examination a certificate was sought under s127 PA 2008. However, during the examination agreement was reached between EDF Energy and the applicant resulting in the withdrawal of the representations relating to the compulsory

acquisition of statutory undertakers land and interests (HE34). As a result the s127 certificate application was also withdrawn by the applicant (s127-22). The full explanation of the process in relation to the certificate sought under s127 PA 2008 is set out in section 18 of this report.

### **Structure of the Report**

- 1.21 The contents are set out ahead of the introduction at section 1 of this report.
- 1.22 Section 2 of the report sets out in summary the main features of the proposed development and section 3 identifies and summarises the legislative and policy context applicable to the application and its consideration and therefore our recommendations.
- 1.23 Sections 4 to 17 set out the panel's main findings, conclusions and recommendations in respect of each of the main considerations and relevant matters identified by the panel. Within this part of the report section 5 considers those matters that relate to European sites and Habitats Regulations and section 17 contains the panel's conclusions on the planning case for the proposed development taking into account all application documentation, representations and all matters considered by the panel to be important and relevant.
- 1.24 Section 18 considers compulsory acquisition matters and section 19 the representations made on the draft DCO, DML and s106 undertakings. Section 20 sets out our overall conclusions and recommendations to the Secretary of State.
- 1.25 As set out above, the main events taking place throughout the examination and the main procedural decisions taken by the panel as Examining authority are listed at Appendix A. A full list of those who attended the preliminary meeting, accompanied onshore site inspection and hearings is provided at Appendix B. A full list of submitted documents is brought together as an examination library at Appendix C. A full list of IPs is provided at Appendix D. Appendix E sets out the abbreviations used within this report. The sixth draft DCO (DCO6) is the version submitted by the applicant at the end of the examination and this forms the base on which we have track changed further modifications that we recommend the Secretary of State should make in the form of a recommended draft DCO provided at Appendix F.

## 2 THE APPLICATION

### Outline of the Proposal

- 2.1 The application is made by Galloper Wind Farm Ltd (GWFL) for a Development Consent Order (DCO) to construct and operate an offshore wind farm and for associated infrastructure to facilitate the export of power to the national electricity transmission system.
- 2.2 The applicant, GWFL, is an unincorporated joint venture between SSE Renewables Holdings UK Limited and RWE npower Renewables Limited.
- 2.3 A grid connection agreement has been secured between GWFL and National Grid Electricity Transmission (UK) (NG).
- 2.4 The application proposes the construction of two nationally significant infrastructure projects (NSIPs), as defined by sections 14 and 16 of the Planning Act 2008 (as amended) (PA 2008).
- 2.5 A full schedule of proposed 'works' is set out in Schedule 1 Part 1 and Part 2 of the sixth draft DCO (DCO6).
- 2.6 Proposed 'work 1' is an NSIP and comprises the construction and operation of up to 140 offshore wind turbine generators (WTG) with a maximum generating capacity of 504MW, along with up to two offshore platforms, up to three meteorological masts and intra-array and export cables from the WTG array to mean low water, south of the hamlet of Sizewell.
- 2.7 In addition to 'work 1', proposed 'works 2, 3A, 3B, 4, 5, 6 and 7' are associated development within the meaning of section 115(2) of PA 2008, and broadly comprise up to three offshore substation platforms and the connections between them, underground onshore grid connection cabling, jointing bays, two compounds forming an electrical substation and a screening landform.
- 2.8 Proposed 'works 8A and 8B' are a second NSIP and comprise overhead 400kV electric lines connecting two sealing end compounds to the existing pylon infrastructure.
- 2.9 In addition to 'works 8A and 8B', proposed 'works 9A, 9B, 10 and 11' are associated development within the meaning of section 115(2) of PA 2008, and broadly comprise an electrical substation compound and the grid connection cabling between the sealing end compounds and the proposed substation.
- 2.10 The two compounds at 'works 6 and 10' comprise a new 132kV substation compound and a 132kV/400kV transmission compound. The two compounds would be located alongside each other and together are referred to as the Galloper Wind Farm (GWF) substation (the substation).

- 2.11 Plans showing the location of the GWF site and the location of its associated electrical grid connection 'works' were provided with the application documents and subsequently updated. The updated application plans are listed at article 30 of the sixth draft DCO (DCO6). An overview of the project can be gained from viewing the Order limits plan onshore (REP155) and offshore (APP5) and the onshore 'works' plan (REP156) and offshore 'works' plan overview (REP162)<sup>3</sup>.

### **The Offshore Site**

- 2.12 The generating station would be located on the bed of the North Sea approximately 27km, at its closest point, from the Suffolk coast. It would encompass a maximum area of approximately 183km<sup>2</sup> and lie partly within English territorial waters<sup>4</sup> and mostly within the adjacent Renewable Energy Zone (REZ). The array is proposed in a maximum of three areas; areas A, B and C, situated largely seaward of the Greater Gabbard Offshore Wind Farm (GGOWF) which is now fully commissioned and exporting power. The coordinates for proposed array areas A, B and C are detailed in Schedule 1 Part 1 Paragraph 1(a) of the sixth draft DCO (DCO6) and shown on the offshore 'works' plan overview (REP162)
- 2.13 The offshore export cable corridor is proposed to run adjacent to that of GGOWF. The offshore cable corridor route is defined by coordinates provided at Schedule 1 Part 1 Paragraph 3 of the sixth draft DCO (DCO6) and shown on the offshore 'works' plan overview (REP162).

### **The Onshore Site**

- 2.14 The onshore 'works' would be located in the terrestrial environment westward of the proposed cable landfall and south of Sizewell nuclear power station site. The onshore cable export corridor would commence crossing a strip of coastal shingle/dune habitat at landfall before running westward, south of Sizewell Gap, then briefly northward to the proposed substation. This is shown on the onshore general arrangement plan (REP158) and onshore connection and transmission 'works' – general arrangement plan (REP159).
- 2.15 The substation and transmission compounds would be located north of Sizewell Gap, approximately 1km inland; mostly within a plantation woodland known as Sizewell Wents and partly on cultivated arable land and an area of grazed pasture (Broom Covert). The two compounds forming the substation would encompass a total area of approximately 3.1ha.

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<sup>3</sup> The applicant submitted the offshore works plan overview, but omitted to refer to this drawing expressly in the sixth draft DCO. As submitted by the applicant, the sixth draft DCO has no offshore overview plan providing a key to the detailed series of offshore drawings. We believe this was a drafting omission.

<sup>4</sup> s1(1) the Territorial Sea Act 1987

- 2.16 There are four temporary construction areas within the Order limits which would be returned to agricultural/amenity use post construction. Approximately 4ha of arable farmland, 2ha of woodland and 0.7ha of pasture grassland would be lost as a result of the development.
- 2.17 The onshore cable corridor crosses beneath a coastal Public Right of Way (PRoW) and two long distance coastal walks. The substation is also located close to Sandy Lane, another PRoW. There is no need for closure or redirection of the PRoWs as all 'works' in these locations are underground or adjacent to the PRoWs.
- 2.18 The onshore 'works' are located wholly in the county of Suffolk, on land under the two tier administration of Suffolk County Council (SCC) and Suffolk Coastal District Council (SCDC).
- 2.19 Land within the onshore Order limits is mainly in arable agricultural use, with some pasture grassland and woodland. The topography of the site along the proposed terrestrial cable export corridor and in the vicinity of the proposed substation and transmission compounds is largely flat.
- 2.20 The closest settlement to the proposed onshore site is the hamlet of Sizewell, immediately to the east of the proposed substation and north of the proposed onshore cable corridor. Other notable settlements in the vicinity of the onshore site are the village of Thorpeness (approximately 3km south) and the main towns of Leiston (approximately 2km west) and Aldeburgh (approximately 6km south).
- 2.21 Further details of the site and its surroundings can be found in the Environmental Statement (ES) (APP34-75) that accompanied the application and in the Design and Access Statement (APP86).

### **Transport Links to the Onshore Site**

- 2.22 The main access road serving Sizewell and the existing GGOWF is Lover's Lane (U2822), which originates at the B1122 around 1km north of Leiston. Lover's Lane passes Leiston Common and Halfway Cottages and in the vicinity of Crown Farm becomes Sizewell Gap (C228), which continues to the road's terminus at Sizewell Beach.
- 2.23 The A12 is the closest primary route to the site, running in an approximate SSW-NNE direction between London and Great Yarmouth.
- 2.24 The closest rail link to the site is the Lowestoft to Ipswich line, with the closest passenger station approximately 9km to the west at Saxmundham. A spur of this line, which terminates at Leiston, is utilised by Sizewell nuclear power station for transporting fuel

flasks. There is currently no provision for passenger services along this spur.

### **Amendments to the Application**

- 2.25 The only changes to the application advanced by the applicant during the examination period have been changes made to the draft DCO documentation and limitation of the array areas in response to points that the panel has raised or have been raised by Interested Parties (IPs). None of the changes are of such significance as to alter the substance of the proposal. We consider that the proposal remains within the parameters of the Environmental Impact Assessment (EIA) and consultation undertaken during the pre-application stage and submitted as part of the application and examination documents.
- 2.26 The applicant's penultimate submission, (REP60) in response to the Examining authority's request for further information under Rule 17 of the Infrastructure Planning (Examination Procedure) Rules 2012 (EPR) (PD16), proposed final changes to the draft DCO, including the renumbering of 'works' under Schedule 1 Part 1 of that Order. These submissions are to be found in the sixth draft DCO (DCO6).
- 2.27 The applicant also submitted alternative mitigation drafting in relation to: requirement 3; requirement 4 and condition 2 exclusion zone coordinates; and offshore plans which define the Area B exclusion zone. The applicant offered these measures should the Secretary of State require 'fisheries reduction' mitigation and mitigation in relation to collision risk mortality for the lesser black-backed gull. This is explained in more detail in sections 5, 6 and 19 of this report and means that plans for the offshore 'works' are shown without the Area B exclusion area (REP162) and with the Area B exclusion area (REP163).
- 2.28 As set out at section 19 of this report the Marine Management Organisation (MMO) raised, late in the examination, a question concerning the ability of the draft DCO to grant the power to split the benefit of a deemed Marine Licence (DML). As a result of these matters being raised we have had regard to all submissions from IPs and recommend that the draft DML is only transferred as a whole.
- 2.29 We have considered all these changes to the draft DCO in our findings and in reaching our conclusions and recommendations.

### 3 LEGAL AND POLICY CONTEXT

3.1 National policy in respect of energy generating development such as offshore wind farms and overhead electricity lines is set out in designated National Policy Statements (NPSs) EN-1<sup>5</sup>, EN-3<sup>6</sup> and EN-5<sup>7</sup>. In these circumstances s104 (2) of the Planning Act 2008 (as amended) (PA 2008) sets out the matters to which the Secretary of State must have regard in deciding this application submitted in accordance with the PA 2008:

*"(a) any national policy statement which has effect in relation to development of the description to which the application relates (a "relevant national policy statement"),*

*(aa) the appropriate marine policy documents (if any), determined in accordance with section 59 of the Marine and Coastal Access Act 2009,*

*(b) any local impact report (within the meaning given by section 60(3) ) submitted to the Secretary of State before the deadline specified in a notice under section 60(2),*

*(c) any matters prescribed in relation to development of the description to which the application relates, and*

*(d) any other matters which the Secretary of State thinks are both important and relevant to the Secretary of State's decision."*

This report sets out the panel's assessment of the proposal in relation to each of these criteria.

3.2 The following application documents contain a detailed description of the legislative and policy framework that the applicant considers relevant to the proposal:

- Environmental Statement (ES) chapter 2 Project Need, Policy Framework and Guidance (APP36)
- ES chapter 3 Legislative and Planning Context (APP37); and
- Planning Statement (APP85)

3.3 During the examination we requested a number of submissions from both the applicant and Interested Parties (IPs) in our first (PD11 Q11.1, Q11.2) and second (PD13 Q26.1 and Q26.2) written questions and through requests for statements of common ground. At the biodiversity, biological environment and ecology Issue Specific (IS) hearing (the biodiversity hearing) (HE20) oral and written questions were asked with respect to European sites and environmental legislation. This written questioning was to ensure that all parties were satisfied that the policy framework

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<sup>5</sup> Overarching NPS for Energy (EN-1)

<sup>6</sup> NPS for Renewable Energy Infrastructure (EN-3)

<sup>7</sup> NPS for Electricity Networks Infrastructure (EN-5)

was appropriate and up to date and that the proposals met the key tests in relation to national and local planning and maritime policy both onshore and offshore.

- 3.4 Suffolk Coastal District Council (SCDC) and Suffolk County Council (SCC) (jointly referred to as the Councils), made a number of representations in respect of legal or policy issues during the examination concerning:
- whether the tests set out in SCDC's saved policies for locating development in the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) had been met and if so whether mitigation proposed was adequate (LIR1 s5);
  - the procedures adopted by the applicant to consider alternative locations for onshore substations outside the AONB (RR24); and
  - a request to the Examining authority to address whether the requirements of para 116 of the National Planning Policy Framework (NPPF) had been met in respect of development within an AONB (REP50 para 3).
- 3.5 Our opinion on the appropriate policy context for this application is set out below.

### **National Policy Statements**

- 3.6 S104(1) of the PA 2008 states that "*This section 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.*"
- 3.7 S104(2) of the PA 2008 further requires that, with exceptions including whether the development would result in adverse impacts outweighing the benefits, in deciding the application the Secretary of State must have regard to any NPS which has effect in relation to development of the description to which the application relates (a "*relevant national policy statement*").
- 3.8 The NPSs most relevant to this application were designated by the Secretary of State for Energy and Climate Change on 19 July 2011 in accordance with s5 of the PA 2008 and comprise:
- Overarching NPS for Energy (EN-1);
  - NPS for Renewable Energy Infrastructure (EN-3); and
  - NPS for Electricity Networks Infrastructure (EN-5).
- 3.9 EN-1, EN-3 and EN-5 therefore provide the primary basis for our examination, findings, conclusions and recommendations (NPS EN-1, para 1.1.1).



### **Overarching National Policy Statement for Energy (EN-1)**

- 3.10 EN-1 sets out national policy for energy infrastructure and in para 3.4.3 the role of offshore wind, which is expected to provide the largest single contribution towards the 2020 renewable energy targets. Part 4 makes clear that the assessment of applications for energy NSIPs “*should start with a presumption in favour of granting consent*” (para 4.1.2) and sets out the assessment principles to be applied in considering applications for development consent.
- 3.11 Those assessment principles we regard as particularly important in relation to this application are:
- Development Plan Documents (DPD) or other documents in the Local Development Framework (LDF). Notwithstanding this, NPS EN-1, paragraph 4.1.5, advises that, in the event of a conflict between these or any other documents and an NPS, the NPS prevails for the purposes of decision-making given the national significance of the infrastructure;
  - section 4.2 sets out in para 4.2.1 that an ES is required for projects that are subject to the European Environmental Impact Assessment Directive (para 4.2.3) and that it should cover the environmental, social and economic effects arising from the pre-construction, construction, operation and decommissioning of the project (para 4.2.3). The decision-maker is required to be satisfied that likely significant effects, including any significant residual effects, taking into account any proposed mitigation measures or any adverse effects of those measures, have been adequately assessed (para 4.2.4);
  - section 4.3 refers to the Conservation of Habitats and Species Regulations 2010 which require that prior to granting a Development Consent Order (DCO) consideration must be given to whether the project may have a significant effect on a European site (or site with equal protection) either alone or in combination with other plans or projects (para 4.3.1) and if necessary the decision-maker should conduct an appropriate assessment, including information on any mitigation measures that are proposed to minimise or avoid likely effects;
  - from a policy perspective, there is no general requirement to consider alternatives or to establish whether the proposed project represents the best option (section 4.4);
  - good design for energy infrastructure goes far beyond aesthetic considerations but is important for fitness for purpose and sustainability. It is acknowledged 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 (section 4.5);
  - section 4.8 refers to climate change adaptation and in para 4.8.8 requires the decision-maker to be satisfied that

applicants for new energy infrastructure have taken into account the potential impacts of climate change using the latest United Kingdom (UK) climate projections available. These should be taken at the time the ES was prepared to ensure that appropriate mitigation or adaptation measures have been identified – including covering the estimated lifetime of the new infrastructure.

- section 4.10 refers to pollution control and other environmental regulatory regimes and requires the decision-maker to be satisfied that development consent can be granted taking full account of environmental impacts and to work in close cooperation with the Environment Agency (EA) and/or the pollution control authority, and other relevant bodies, such as the Marine Management Organisation (MMO) and Natural England (NE). However, para 4.10.3 makes it clear that the decision-maker should focus on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or discharges themselves. (para 4.10.3)
- in relation to common law nuisance and statutory nuisance para 4.14.2 makes it clear that *“at the application stage of an energy NSIP possible sources of nuisance under section 79(1) of the (Environmental Protection) Act 1990 and how they may be mitigated or limited are considered by the decision-maker so that appropriate requirements can be included in any subsequent order granting development consent.”*

- 3.12 Part 5 of EN-1 sets out a wide range of generic impacts, which are anticipated to arise most frequently in assessments of energy infrastructure development proposals, and the way in which the decision-maker should take these into account. We have given appropriate consideration to each of these potential impacts including: biodiversity and geological considerations; protection of habitats and other species; mitigation; effects on civil and military aerodromes; lighting tall structures; coastal erosion and deposition; flood risk; landscape and visual effects; AONB designation; noise; socio-economic impacts; and transport infrastructure.

***National Policy Statement for Renewable Energy Infrastructure (EN-3)***

- 3.13 EN-3 sets out policy relating specifically to renewable energy applications including offshore wind generation exceeding 100MW (para 1.8.1).
- 3.14 Detailed assessment principles for offshore wind are described in section 2.6 and include the following that are relevant to the Galloper Wind Farm (GWF) proposal:
- biodiversity;
  - fish;

- intertidal;
- marine mammals;
- birds;
- subtidal;
- commercial fisheries and fishing;
- historic environment;
- navigation and shipping;
- physical environment; and
- seascape and visual effects.

3.15 These matters were all taken into account in the application documentation and examination undertaken.

***National Policy Statement for Electricity Networks Infrastructure (EN-5)***

3.16 EN-5 sets out policy relating specifically to electricity network infrastructure. Section 2 sets out additional technology-specific considerations on the following generic impacts considered in EN-1:

- biodiversity and geological conservation;
- landscape and visual; and
- noise and vibration.

3.17 In addition, EN-5 specifically identifies electric magnetic fields (EMF) as a consideration to be taken into account, but advising at para 2.10.16 that: *“Where EMF 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.”*

3.18 EN-5 also provides a simplified route map for dealing with EMF identifying that evidence should be provided that the line complies with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) limits at the nearest residential property.

3.19 These matters were all taken into account in the application documentation and examination undertaken.

**European Legal Requirements and Related UK Regulations**

3.20 Guidance on the relevant European directives and their transposition into UK law is given in the NPSs. The principal directives referred to during the examination and which we have taken into account as relevant are those dealing with renewable energy and habitats as identified below.

### **Renewable Energy Directive 2009**

- 3.21 The Renewable Energy Directive<sup>8</sup> 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. This represents a seven-fold increase in UK renewable energy consumption from 2008 levels. The UK Renewable Energy Strategy 2009 (Renewable Energy Strategy) sets out how the UK proposes to meet the targets<sup>9</sup>.
- 3.22 This application if consented, constructed and brought into operational production would contribute to the delivery of the UK target and Renewable Energy Strategy.

### **Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive)**

- 3.23 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.

### **Council Directive 2009/147/EC on the conservation of wild birds (codified version) (the Birds Directive)**

- 3.24 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 (listed in Annex I). 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.
- 3.25 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

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<sup>8</sup> Renewables Directive 2009/28/EC

<sup>9</sup> UK Renewable Energy Strategy 2009

wild birds at a level which corresponds, in particular, to ecological, scientific, and cultural requirements while taking account of economic and recreational requirements.

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

- 3.26 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 consolidated all the many amendments which have been made to the regulations since they were first made in 1994.
- 3.27 The Conservation of Habitats and Species Regulations 2010 apply in the terrestrial environment and in territorial waters out to 12 nautical miles. The EU Habitats and Wild Birds Directives are transposed in UK offshore waters by separate regulations – The Offshore Marine Conservation (Natural Habitats &c.) Regulations 2007 (as amended).

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

- 3.28 The Conservation of Habitats and Species (Amendment) Regulations 2012 came into force on 16 August 2012, during the examination.
- 3.29 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.
- 3.30 We asked NE if these Regulations altered advice given previously in respect of European sites in relation to this application. NE confirmed they did not. This is reported more fully in section 5 of this report.

***Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) (the 2007 Offshore Regulations)***

- 3.31 The Offshore Marine Conservation (Natural Habitats, & c.) Regulations 2007 (as amended) transpose Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) and Council Directive 79/409/EEC on the conservation of wild birds (Wild Birds Directive) into national law. They came into force on 21 August

2007. These regulations apply to the UK's offshore marine area which covers waters beyond 12 nautical miles (nm), within British Fishery Limits and the seabed within the UK Continental Shelf Designated Area. The Habitats Regulations form the legal basis for the implementation of the Habitats Directive and Birds Directive in terrestrial areas of the UK and territorial waters out to 12 nm.

- 3.32 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.

***Offshore Marine Conservation (Natural Habitats, &c.) (Amendment) Regulations 2012***

- 3.33 The Offshore Marine Conservation (Natural Habitats, &c.) (Amendment) Regulations 2012 came into force on 16 August 2012 during the examination.
- 3.34 The Offshore Marine Conservation (Natural Habitats, &c.) (Amendment) Regulations amend the 2007 Offshore Regulations. They place duties on competent authorities in relation to the offshore marine area, to take steps to meet the objective of preserving, maintaining and re-establishing habitat for wild birds, and use all reasonable endeavours to avoid any pollution or deterioration of habitats for wild birds. They also provide for a duty on the Secretary of State to take such steps to encourage research and scientific work relating to the offshore marine area as he considers necessary for the purpose of the protection, management and use of wild bird populations.
- 3.35 Each of the habitats directives and regulations set out above are relevant to the discussion on European sites, including a number of SPAs in relation to the application.
- 3.36 We have therefore fully taken into account each of the habitats directives and regulations identified above in our examination and in our recommendations. Our findings and conclusions on habitats matters are set out at section 5 of this report.

**The UK Marine Policy Statement**

- 3.37 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.

- 3.38 The MPS is the framework for preparing Marine Plans and taking decisions affecting the marine environment. It contributes to the achievement of sustainable development in the UK marine area. The UK marine area includes the territorial seas and offshore area adjacent to the UK, which includes the area of sea designated as the UK Exclusive Economic Zone (the Renewable Energy Zone until the Exclusive Economic Zone comes into force) and the UK sector of the continental shelf. It includes any area submerged by seawater at mean high water spring tide, as well as the tidal extent (at mean high water spring tide) of rivers, estuaries and creeks (see Marine and Coastal Access Act 2009 s42(3) and (4)).
- 3.39 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.
- 3.40 The MPS has provided the overarching policy context for the consideration of the application offshore 'works' and deemed Marine Licence (DML).

### **East Inshore and Offshore Marine Plans**

- 3.41 Plans for the East Offshore and East Inshore marine areas - which stretch from Flamborough Head to Felixstowe - are being prepared by the MMO and draft plans for consultation are expected to be published leading to a decision by the Secretary of State towards the end of 2013. Although these plans are at an early stage, and in our view can only be of limited weight until adopted, we had regard to the emerging objectives of the plans and the extent to which the application proposals contributed to those objectives.

### **The Development Plan**

- 3.42 Para 4.1.5 of NPS EN-1 indicates that the decision-maker may consider Development Plan Documents (DPDs) or other documents in the Local Development Framework (LDF) both important and relevant to his consideration of the application.
- 3.43 In para 2.5.3 of ES chapter 2 (APP36) the applicant lists the following documents as comprising the approved development plan, although the (draft) Suffolk Coastal Core Strategy is not yet approved and in our view can only be of limited weight until it is adopted:
- The East of England Plan (East of England Regional Assembly, 2008);
  - Suffolk Structure Plan (Suffolk County Council, 2001) - saved policies from May 2008;

- Suffolk Coastal Local Plan - 2nd Alteration (Suffolk Coastal District Council, 2006) - saved policies from September 2007;
  - Suffolk Coastal Core Strategy (Suffolk Coastal District Council, 2010);
  - Suffolk County Local Transport Plan 2011-2031 (Suffolk County Council, 2011); and
  - Suffolk Coastal Climate Change Strategy (Suffolk Coastal District Council, 2009).
- 3.44 We considered these documents and the policies they contain, in assessing the on-shore elements of the proposed development.
- 3.45 It should be noted that on 11 December 2012 after the close of the examination the Secretary of State for Communities and Local Government laid an Order in Parliament revoking the East of England Regional Strategy. Although the East of England Regional Strategy was taken into account (being policy in effect at the time of examination) our findings, conclusions and recommendations are not altered or affected by this revocation.
- 3.46 It should also be noted that the first DPD in SCDC's LDF, the Core Strategy and Development Management Policies Development Plan Document was submitted to the Secretary of the State for Communities and Local Government on 8 May 2012. Hearings into the draft SCDC DPD took place in late October and November of 2012.

### **Other Policy Documents**

#### ***National policy and legislation***

- 3.47 The application was dated 21 November 2011. At the time it was submitted, in addition to NPS's, planning policy statements (PPS), planning policy guidance (PPG) and other Government documents, which were relevant to the application and identified by the applicant included:
- PPS 1: Delivering Sustainable Development (January 2005);
  - Planning Policy Statement: Planning and Climate Change – Supplement to Planning Policy Statement 1 (December 2007);
  - PPS 22: Renewable Energy (August 2004);
  - PPS 23: Planning and Pollution Control ( November 2004);
  - PPG Note 24: Planning and Noise (October 2004);
  - PPS 25: Planning and Flood Risk (December 2006 and consequent updates);
  - Energy White Paper: Meeting the Challenge (May 2007);
  - UK Low Carbon Transition Plan, National Strategy for Climate and Energy ( July 2009);
  - UK Renewable Energy Strategy (July 2009); and



- Planning our electric future: a White Paper for secure, affordable and low carbon electricity (July 2011).

- 3.48 On 27 March 2012 a final approved National Planning Policy Framework (NPPF) was published. The NPPF replaced a number of policy documents including: PPSs 1 (including supplement), 22, 23, 25 and PPG 24 set out in para 3.47 above.
- 3.49 We have therefore had regard to the NPPF regime that has been in operation since the publication of the approved NPPF and is in effect for the examination and reporting of this application.

***The National Parks and Access to the Countryside Act 1949***

- 3.50 The Act provided the framework for the establishment of National Parks and AONBs. It also established powers to declare National Nature Reserves, to notify Sites of Special Scientific Interest (SSSIs) and for local authorities to establish Local Nature Reserves.
- 3.51 An AONB has statutory protection in order to conserve and enhance the natural beauty of its landscape. AONBs are designated for their landscape qualities. The purpose of designating an 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.

***The Wildlife and Countryside Act 1981 (as amended)***

- 3.52 The Wildlife and Countryside Act 1981 is the primary legislation which protects animals, plants, and certain habitats in the UK. The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs). These sites are identified for their flora, fauna, geological or physiographical features by the countryside conservation bodies (in England Natural England). The Act also contains measures for the protection and management of SSSIs.
- 3.53 The Act is divided into 4 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.
- 3.54 This has relevance to our consideration of impact on SSSIs and on protected species and habitats, which are dealt with in section 5 of this report.

***The Countryside and Rights of Way Act 2000***

- 3.55 The Countryside and Rights of Way Act brought in new measures to further protect AONBs, with new duties for the boards set up to

look after AONBs. These included meeting the demands of recreation, without compromising the original reasons for designation and safeguarding rural industries and local communities.

- 3.56 The role of local authorities was clarified, to include the preparation of management plans to set out how they will manage the AONB asset. There was also a new duty for all public bodies to have regard to the purposes of AONBs. The Act also brought in improved provisions for the protection and management of SSSIs.
- 3.57 This is particularly relevant to the examination of effects on and mitigation in relation to impacts on the Suffolk Coast and Heaths AONB, which is discussed under landscape and visual effects in section 9 of this report.

### ***Natural Environment and Rural Communities Act 2006***

- 3.58 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.
- 3.59 This is of relevance to biodiversity, biological environment and ecology and landscape matters for this project, reported in sections 5 and 9.

### ***Transboundary Effects***

- 3.60 Under Regulation 24 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (EIA Regulations) and on the basis of the information available from the applicant, the former Infrastructure Planning Commission was of the view that the proposed development was likely to have significant effects on the environment in another European Economic Area (EEA) State. In reaching this view the precautionary approach (as explained in the Planning Inspectorate Advice Note 12 Transboundary Impacts Consultation) was applied. Transboundary issues consultation under Regulation 24 of the EIA Regulations was therefore considered necessary in relation to bird species with the following countries: Sweden (TB5), Belgium (TB7), Denmark (TB4), France (TB3) and the Netherlands (TB1).
- 3.61 A notice was placed in the London Gazette on 19 January 2012 (TB8). Letters were sent to the relevant bodies in the countries listed above. Replies were received only from Sweden (TB10) and the Netherlands (TB11). Both stated they did not wish to take part in the examination process.

- 3.62 We were mindful of those responses, but also of the ongoing duty to have regard to transboundary matters throughout the examination. Nothing new in relation to transboundary effects was raised during examination or remained outstanding or unresolved in this regard at the close of the examination.
- 3.63 We are also satisfied that with regards to regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010, all transboundary biodiversity matters were addressed and there are no matters outstanding that would argue against the Order being confirmed.

## **4 INTRODUCTION TO THE MAIN MATTERS FINDINGS AND CONCLUSIONS**

### **Introduction**

- 4.1 Our findings and conclusions on the main matters raised by Interested Parties (IPs) and ourselves are set out in sections 4 to 17 of this report.
- 4.2 We have had regard to all representations made, our legal responsibilities as a panel and Examining authority, the relevant designated National Policy Statements (NPS) and Marine Policy Statement (MPS), and the Local Impact Report (LIR) submitted jointly by Suffolk Coastal District Council (SCDC) and Suffolk County Council (SCC). We have also had regard to the engrossed s106 (Town and Country Planning Act 1990 (as amended)) agreement and unilateral undertakings submitted by the applicant and all Statements of Common Ground (SoCG).
- 4.3 A wide range of matters have been informed and assessed in the applicant's submitted application documentation including the Environmental Statement (ES) and raised separately by submissions from IPs.
- 4.4 We have considered all application documentation, supporting material and information and representations submitted in coming to our conclusions as a whole, but concentrate on reporting on the principal issues identified and matters raised by IPs during the examination of the application.
- 4.5 The matters set out below are taken in alphabetical order and do not seek to imply any weight or importance in the order they are reported on.

### **Initial Identification of Principal Issues and Matters to be Examined**

- 4.6 Our initial assessment of principal issues was prepared in accordance with s88 of PA 2008 and Rule 5 of the Infrastructure Planning (Examination Procedure) Rules 2010 (EPR).
- 4.7 The principal issues were identified and developed from the application documentation and relevant representations received and were appended to the Rule 6<sup>10</sup> letter (PD4) notifying IPs of the preliminary meeting.
- 4.8 During the examination other detailed considerations under the issues identified were addressed taking into account representations made at the preliminary meeting and in subsequent submissions and in relation to other consents sought

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<sup>10</sup> Rule 6 Infrastructure Planning (Examination Procedure) Rules 2010

or legislative tests such as compulsory acquisition and Habitats Regulations matters.

- 4.9 In reaching our decision as to what issues we should consider, we also had regard to the legislative framework set by s104 of the PA 2008 and policy and guidance set out in relevant designated NPSs, other legislation and published guidance as set out above in section 3 of this report.
- 4.10 Overarching NPS for Energy (EN-1) (section 4.10) advises us that issues relating to discharges or emissions from a proposed project which affects air quality, water quality, land quality and the marine environment, or which include noise and vibration may be subject to separate regulation under the pollution control framework or other consenting and licensing regimes.
- 4.11 In considering an application for development consent, we have focussed on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or discharges themselves. We have worked on the advised assumption that the relevant pollution control regime and other environmental regulatory regimes, including those on land drainage, water abstraction and biodiversity, will be properly applied and enforced by the relevant regulator. We have therefore acted to complement but not seek to duplicate these regimes.

## **5 BIODIVERSITY, BIOLOGICAL ENVIRONMENT AND ECOLOGY**

### **Introduction**

- 5.1 Overarching National Policy Statement (NPS) for Energy (EN-1) section 5.3 requires the decision-maker to attach appropriate weight to designated sites of international, national and local importance, protected species, habitats and other species of principal importance. Sites of greatest importance for biodiversity are those which are identified through international conventions and European directives.
- 5.2 EN-1 further requires decision-makers to ensure Sites of Special Scientific Interest (SSSIs) that are not European sites are given a high degree of protection. Many species and habitats of less than European importance receive statutory protection under the Wildlife and Countryside Act<sup>11</sup>. EN-1 requires decision-makers to refuse consent where the development will cause harm or detriment to these features, unless the benefits of the development, including need, outweigh that harm.
- 5.3 EN-1 requires the applicant to propose appropriate mitigation for all stages of the development as an integral part of the 'works'. If the applicant cannot demonstrate that appropriate mitigation measures will be put in place the competent authority should consider what appropriate requirements should be attached to any consent and/or planning obligations to achieve the required mitigation (para 5.3.19). EN-1 also requires decision-makers to take into account agreement reached between the applicant and Natural England (NE) and the Marine Management Organisation (MMO) over mitigation measures and intentions to refuse or grant licences for protected species (para 5.3.20).
- 5.4 The NPS for Renewable Energy Infrastructure (EN-3) lists the effects on the subtidal environment that should be assessed. It states that construction and decommissioning methods should be designed to minimise effects on subtidal habitats and the decision-maker should be satisfied that activities have been designed taking into account sensitive subtidal environmental aspects.
- 5.5 In addition, EN-3 lists the effects that should be assessed and makes specific reference to offshore piling, which can reach noise levels that are high enough to cause injury or even death to some species. If the noise or vibration generated by piling could lead to an offence such as disturbing or killing a European Protected Species (EPS), an application for a wildlife licence is required. The decision-maker should be satisfied that designs reasonably minimise significant disturbance effects on marine mammals.

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<sup>11</sup> Wildlife and Countryside Act 1981

- 5.6 The Joint Nature Conservation Committee (JNCC) and NE's written representation (REP17) sets out the respective responsibilities of the two organisations and the legislative framework for all aspects for sites and species relevant to this application.
- 5.7 The proposed development is located within both United Kingdom (UK) territorial waters and UK offshore waters that lie beyond the 12 nautical mile (nm) territorial waters out to the UK continental shelf designated areas limits. Consequently both NE and the JNCC have statutory responsibilities and have responded as joint consultees on marine matters. Ornithology is addressed by NE alone because the relevant international sites are all located within the 12nm limit.
- 5.8 This section of our report therefore addresses the following matters in the sequence set out below:
- nature conservation designations;
  - terrestrial ecology: onshore protected species (excluding the reptile mitigation strategy) and other onshore habitats and species and a separate section on the reptile mitigation strategy;
  - marine (non ornithological) ecology: marine and intertidal and marine mammals;
  - ornithology;
  - discussion relating to European sites and Habitats Regulations Assessment (HRA).

### **Nature Conservation Designations**

- 5.9 The applicant assessed the impacts on designated conservation sites within 2km of the substation site in Environmental Statement (ES) chapter 8 (APP42). A distance of 2km was considered appropriate and proportionate by the applicant, suggested at scoping stage, with no objections raised. Sites of European significance are dealt with in the discussion on European sites and HRA process section of this report.

### ***Sites of Special Scientific Interest (SSSIs)***

- 5.10 Within 2km of the substation the sites are:
- Leiston to Aldeburgh SSSI;
  - Minsmere to Walberswick Heath and Marshes SSSI; and
  - Sizewell Marshes SSSI.
- 5.11 The applicant predicts 'minor' adverse impacts only on the Sizewell Marshes SSSI due to potential physical damage, indirect disturbance from noise and loss of air quality during construction (APP42) and Annex B1 (response to Q1.7) (REP29).
- 5.12 The construction 'works' are predicted to give rise to permanent and temporary loss of habitat for nationally rare and uncommon

invertebrates. The limited nature of the 'works' led the impact to be assessed by the applicant as 'minor' adverse (APP42). The potential for accidental pollution incidents is also recognised.

- 5.13 No other issues were raised by Interested Parties (IPs) during the examination in relation to SSSIs, other than those to do with ornithological interests, which are dealt with under the discussion on European sites and the HRA process. The applicant predicted there would be no operational impacts; and impacts during decommissioning would be no more significant than during construction.
- 5.14 JNCC and NE jointly stated (REP17) that they considered suitable mitigation to avoid negative effects on the Sizewell Marshes SSSI (and the Suffolk Shingle Beaches County Wildlife Site) could be addressed through developing the Construction Code of Practice (CCoP) with the applicant.
- 5.15 Subsequently the applicant and JNCC/NE agreed in the non ornithological Statement of Common Ground (SoCG) (SOCG13) that the CCoPv4 (HE45), will set out the means by which the negative effects on the Sizewell Marshes SSSI will be addressed. Requirement 27 in the sixth draft Development Consent Order (DCO) (DCO6) requires the CCoP to be approved by the relevant planning authority, after consultation with the highway authority and NE, before any onshore 'work' commences.
- 5.16 The applicant's final draft CCoPv4 (HE45) states that future versions of the CCoP will set out the construction methods to be used to minimise the effects on Sizewell Marshes SSSI and the Suffolk Beach Shingle County Wildlife Site (CWS).
- 5.17 Suffolk County Council (SCC) and Suffolk Coastal District Council (SCDC) (the Councils) and NE confirmed at the biodiversity hearing (HE20) that they considered the controls set out for addressing impacts on the Sizewell Marshes SSSI were fit for purpose.
- 5.18 We conclude that the final draft CCoPv4 (HE45) and requirement 27 will provide adequate mitigation of adverse impacts on the Sizewell Marshes SSSI and recommend it is secured in the DCO by the Secretary of State.
- 5.19 Other SSSIs that are component parts of international sites and covered in the European sites and HRA discussion below are:
- component SSSI of Alde-Ore and Butley Estuaries Special Protection Area (SAC) and Alde-Ore Estuary Special Protection Area (SPA) and Ramsar: Alde-Ore Estuary SSSI;
  - component SSSI of Flamborough Head and Bampton Cliffs SPA: Flamborough Head SSSI;



- component SSSI of Minsmere to Walberswick Heaths and Marshes SAC and Minsmere to Walberswick SPA and Ramsar: Minsmere-Walberswick Heaths and Marshes SSSI;
  - component SSSI of Orfordness to Shingle Street SAC: Alde-Ore Estuary SSSI;
  - component SSSIs of Sandlings SPA: Sandlings Forest SSSI, Leiston-Aldeburgh SSSI, Snape Warren SSSI, Sutton and Hollesley Heaths SSSI and Tunstall Common SSSI.
- 5.20 In their written representations JNCC/NE (REP5) raised concerns that cable protection might modify coastal processes in connection with the (non-European site) geomorphological features of the Alde-Ore SSSI. These concerns are explained further in JNCC/NE's written representation (REP17) which questions some of the statements in the applicant's ES. They note that they will need to be consulted over the scour protection study that will form part of the detailed design process.
- 5.21 The non ornithological SoCG between the applicant and JNCC/NE (SOCG13) confirms agreement that the predicted effects on the physical environment are not anticipated to be significant and as such no specific mitigation is required.
- 5.22 The SoCG between the applicant and the MMO (SOCG4) states that agreement has been reached that the applicant has assessed all coastal processes adequately.
- 5.23 Draft deemed Marine Licence (DML) condition 9 generally, and specifically 9(c), deals adequately with the matter of cable protection and potential scour effects by requiring a construction method statement which will include details of how the construction phase mitigation proposed in the ES will be delivered to be approved by the MMO, in consultation with NE and JNCC prior to the commencement of any 'works'. We therefore recommend the Secretary of State includes those controls in the DML.
- 5.24 We are satisfied there are no matters outstanding that would argue against the Order being confirmed. Based on the evidence before us, including confirmation from NE, we concluded that the proposed mitigation will be effective in ensuring there will not be damage to the SSSIs the applicant assessed. Therefore in our view notifications to NE under s28I(2) of the Wildlife and Countryside Act will not be required.

### ***County wildlife sites (CWS)***

- 5.25 The non-statutory, designated sites within 2km of the substation site are: Sizewell Levels and Associated Areas County Wildlife Site (CWS); Southern Minsmere Levels CWS; Suffolk Shingle Beaches CWS; Leiston Common CWS; Dower House CWS; and Aldringham to Aldeburgh Disused Railway CWS. A distance of 2km was

considered appropriate and proportionate by the applicant, suggested at scoping stage, with no objections raised.

- 5.26 The applicant predicted that impacts would occur only on the Suffolk Shingle Beaches CWS. Discussion of this is set out below under terrestrial ecology.

### ***Areas of Outstanding Natural Beauty (AONBs)***

- 5.27 Potential impacts on the Suffolk Coast and Heaths AONB are dealt with under the landscape and visual effects, section 9 of this report.

### **Terrestrial Ecology**

#### ***Onshore protected species (excluding the reptile mitigation strategy) and other onshore habitats and species***

- 5.28 The applicant sets out the terrestrial ecology impacts in chapter 23 of the ES (APP57), with some cross referencing to chapter 8 (APP42), which covers nature conservation designations. Likely significant effects on European sites are listed in ES Tables 23.6 and 23.7.
- 5.29 Impacts are assessed on statutory and non-statutory designated conservation sites; habitats and flora; reptiles; bats; breeding birds; water vole; otter; badger; great crested newts and other amphibians; invertebrates and other notable species of conservation importance (hedgehog, brown hare and water shrew).
- 5.30 Ecological survey reports are contained in appendices 23.A and 23.B of Technical Appendix 6 of the ES (APP75). There is a summary of relevant pre-application consultations identifying issues and how they were addressed in Table 23.1 of the ES. The non ornithological SoCG between the applicant and JNCC/NE (SOCG13) confirmed this provides a fair summary of the issues raised during pre-application by JNCC and NE.
- 5.31 The applicant's conclusions presented in Table 23.17 (APP57) are that the unmitigated impacts on terrestrial ecology are 'negligible' to 'major' adverse during construction and decommissioning, and 'negligible' during operation. With the proposed mitigation in place, the residual impact ranges from 'none' to 'minor' adverse.
- 5.32 The only predicted 'major' impact without mitigation is in relation to direct disturbance to roosting bats a EPS, an issue that was discussed at the Issue Specific (IS) biodiversity, biological environment and ecology hearing (biodiversity hearing) (HE20). The Councils stated in the joint Local Impact Report (LIR) (LIR1) that the value of the site for bats needed further clarification. The LIR also recommended that if bats are found a bat mitigation

strategy will be required and lighting needs to be designed to avoid disturbance to bats.

- 5.33 'Moderate' adverse effect without mitigation is also predicted in relation to bats (other than roosting) and from disturbance to the sensitive coastal Suffolk Shingle Beaches CWS habitat; and 'moderate' adverse construction stage impacts are predicted on reptiles associated with the dune habitats and hedgerows where they are affected by the proposed onshore cable corridor (APP57).
- 5.34 The applicant considers construction and decommissioning impact in association with other onshore activities in the area: Greater Gabbard Offshore Wind Farm (GGOWF) electrical connection; Sizewell B dry fuel store; proposed new nuclear development (Sizewell C); and decommissioning of Sizewell A and concludes there are no significant cumulative impacts between the proposed development and any other known or planned activity.
- 5.35 The applicant does acknowledge there is potential for cumulative impact on terrestrial ecology receptors with the proposed future development of Sizewell C, but the applicant states that the information necessary for a quantitative assessment is not available due to the early stage of project planning for Sizewell C. In the absence of such data, the applicant concludes there are no significant operational terrestrial impacts assessed associated with other development, and no cumulative impacts are predicted. The evidence before us on this matter described below (including representation from EDF Energy and NE), does not raise any matter that leads us to consider this is not a reasonable and precautionary conclusion and that any proposals coming forward at Sizewell C will need to be assessed and have regard to the Gallopier Wind Farm (GWF) proposals.
- 5.36 In its written representation (REP17) JNCC/NE noted that the ES contains much of the advice given for the preliminary environmental report (PER); the outstanding issues related to reptiles (set out below) and made clear its desire to continue working with the applicant on the CCoP.
- 5.37 ES Table 23.17 (APP57) is repeated as Table 6.2 in the non ornithological SoCG between the applicant and JNCC/NE (SOCG13). It is agreed in this SoCG that apart from the reptile mitigation strategy (set out below), "*the residual impacts identified in Table 6.2 are, where relevant, a reflection of the likely efficacy of the mitigation measures put forward*" and "*the mitigation measures for terrestrial ecology listed in Table 6.2 are appropriate and commensurate for the proposal based on current available information.*" The means by which the mitigation is secured are described below.
- 5.38 The potential for disturbance to terrestrial ecology was identified by IPs in relevant representations. The Suffolk Wildlife Trust

(SWT) (RR33) raised concerns regarding habitat loss at the substation location, including woodland where there is a recorded heronry; discrepancies in the application documents regarding habitat creation figures; the importance attributed to Broom Covert in the ES; and the effectiveness of enforcing bat mitigation.

- 5.39 In the SoCG between the applicant and SWT (SOCG11) it was agreed that issues raised in connection with Broom Covert are resolved and mitigation is provided by the new areas of acid grassland on the new landform ('work 7') in the sixth draft DCO (DCO6).
- 5.40 A correction to the ES was confirmed in the SWT SoCG (SOCG11) with regard to the stated area of new woodland. Para 23.6.31 of the ES (APP57) should refer to a "*total of 4.3ha of woodland and woodland edge habitat including those trees that are to be retained in the Sizewell Wents woodland*" rather than 4.3ha of new woodland. (The temporary and permanent habitat disturbance is set out in ES Table 23.15).
- 5.41 In the SoCG with SWT (SOCG11) the applicant confirms recording grey heron presence and nesting in 2006 and 2008. More recent walkover surveys in 2011 by the applicant have not identified location and use of the heronry, but the applicant and SWT agree this does not confirm the absence of the heronry because of the time of year the surveys were undertaken. The applicant and SWT agree the heronry is of interest as there are few other examples in the area and that if it is in the location previously identified, it will be lost during tree clearance required for the substation. It is also agreed that mitigation as provided by the new woodland planting will offer replacement nesting areas in the future. This SoCG also makes reference to bats and reptiles, both of which are covered later in this report.
- 5.42 We sought clarity in matters regarding protected species and habitats under different consenting regimes and regulatory requirements and in our first round of questions (sent out with the Rule 8 Letter) (PD11) we asked the applicant to set out against each habitat or species how mitigation measures were to be secured and how derogation tests were met (Q1.7). We also asked for a table setting out all the mitigation relied upon in the ES and how it would be secured (Q10.1).
- 5.43 The applicant responded with tables at Annex B1 (response to Q1.7) and Annex F (response to Q10.1) (REP29). We referred to these tables in the agenda for the biodiversity hearing and used them to establish if IPs were satisfied that the mitigation measures and controls proposed were considered fit for purpose. The tables referred only to construction and decommissioning; we asked IPs to identify any potential operational phase impacts. None were identified.

- 5.44 The applicant had reached agreement over most of the relevant mitigation with JNCC/NE and SWT through SoCGs by the time of the biodiversity hearing, but we also wished to hear the views of other IPs. At the biodiversity hearing (HE20), we heard confirmation from the Councils, SWT, JNCC and NE, as appropriate, that these IPs were satisfied with the controls proposed for terrestrial matters, subject in some cases to clarification of the content of the SoCGs.
- 5.45 Predicted 'moderate' adverse effects on the Suffolk Shingle Beaches CWS and reptiles associated with the dunes and hedgerows is proposed to be mitigated by use of directional drilling, segregation and storage of shingle layers and protection of access tracks with gridded matting, all covered in the applicant's last submitted CCoPv4 (HE45), as secured through requirement 27 of the sixth draft DCO and covered by requirement 26, the Ecological Management Plan (EMP).
- 5.46 Other measures in the CCoPv4 (HE45) that form part of the overall terrestrial ecological mitigation are:
- directional drilling beneath all hedges to protect habitats for bats, birds and reptiles;
  - pre-construction bat roost surveys and if required by NE a dedicated bat mitigation strategy;
  - lighting placed as far as practicable, taking security into account, away from linear foraging features and use of appropriate low intensity, sodium lighting with light spill towards retained linear features reduced to a minimum using cowls as necessary;
  - vegetation clearance undertaken outside of breeding season or only after appropriate searches by appropriately qualified people for nesting birds and other measures if birds are found;
  - vegetation protection, reinstatement and replacement;
  - habitat creation (which is also covered by the sixth draft DCO requirement 21, which requires submission and approval of the landscape mitigation scheme);
  - provision of suitable nest boxes;
  - walkover surveys to establish presence/absence of badgers;
  - hand searching habitats suitable for hibernating hedgehogs;
  - other construction housekeeping to avoid impacts on otter, hedgehogs and badger, including covering trenches or pits or providing ramp escape routes, leaving linear routes unobstructed; and
  - best practice noise control and air quality management will be employed and monitored.
- 5.47 We are satisfied that these controls and future approvals that are to be secured from the relevant planning authority and NE will achieve the mitigation required.

- 5.48 The granting of an EPS licence by NE in relation to disturbance to bats was the only outstanding issue raised at the biodiversity hearing (HE20). Information was required by NE from the applicant; however, NE confirmed there only appeared to be one matter relating to one roost.
- 5.49 A letter of comfort from NE to the applicant (REP61) was submitted to the Examining authority stating that all the necessary tests have been met, but that further survey work is required. The applicant confirmed it intends to carry out this work in spring/summer 2013 (REP60). Providing the applicant carries out the work, we consider there is no reason in principle why the licence could not be issued. The need for EPS licences is covered in the sixth draft DCO requirement 32. Bat related mitigation is also covered in the CCoPv4, which is required under sixth draft DCO requirement 27 and operational lighting requires approval from the relevant planning authority in consultation with NE under sixth draft DCO requirement 30.
- 5.50 IPs confirmed they were satisfied that mitigation for protected species and habitats can be achieved through measures in the DCO, CCoP and EMP. There have been no further representations on this matter. With regard to the panel's and the Secretary of State's duties in relation to nationally protected species and conservation of biodiversity under EN-1 and the Natural Environment and Rural Communities Act 2006, the protected species and habitats identified on and near the site, we are satisfied there are no matters outstanding that would argue against the Order being confirmed.

***Reptiles associated with the reptile mitigation strategy***

- 5.51 The reptiles associated with the reptile mitigation strategy were the subject of more detailed representations from the Councils, SWT and EDF Energy, which raised concerns that we considered required more detailed examination.
- 5.52 The applicant sets out the predicted impacts on reptiles in chapter 23 of the ES (APP57). All four common reptile species: adder; common lizard; grass snake; and slow worm were recorded within the footprint area of the proposed substation, which is considered a site of county importance for reptiles. These species are protected against intentional killing or injury under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).
- 5.53 The vegetation clearance required for the construction of the substation will have the potential to kill or injure reptiles and will result in temporary and permanent loss of feeding, basking, refuge and hibernating areas, an effect assessed by the applicant as 'high' magnitude. Impact is assessed as 'moderate' adverse, with the residual impact being 'negligible' based on a dedicated reptile mitigation strategy.

- 5.54 SWT (RR33) and EDF Energy (RR23) were concerned, because the area proposed by the applicant for translocation is currently the area delivering landscape and visual mitigation for the operational GGOWF. SWT queried the capacity of the area to accommodate both developments and its long term suitability and, additionally, called for post construction terrestrial monitoring.
- 5.55 EDF Energy (RR23) referred to an earlier letter before the examination, suggesting that the applicant should work closely with EDF Energy as landowner in respect of suitable locations for reptile translocation to allow operations from Sizewell B to continue with minimum disturbance.
- 5.56 The Councils considered that the mitigation for displaced reptiles set out in the CCoP is appropriate, but awaited a detailed reptile mitigation strategy, which they understood would be finalised and agreed before the end of the examination (LIR1). We examined two areas further; the availability of the land and the absence of the agreed reptile mitigation strategy that will resolve details about the mitigation.

*Availability of land for reptile mitigation*

- 5.57 EDF Energy made representations (written and oral at IS DCO hearings REP11, REP30, REP 39, REP53, HE17, HE19, HE20) regarding the conflict between the applicant's proposed temporary use of Rosery Field and its own future use for reptile mitigation in connection with the proposed development of Sizewell C nuclear power station. EDF Energy stated that although the applicant's use would be temporary in the northern part of Rosery Field there would be insufficient time to return the site for reinstatement of habitats to meet the EDF Energy proposed timeframe and referred to EDF Energy's September 2012 proposed Sizewell C Reptile Mitigation Management Plan covering part of Rosery Field (REP39 Appendix 1).
- 5.58 The applicant provided reasoned argument that there was no incompatibility between the GGOWF planting and the GWF reptile receptor site because the receptor site was temporary and the reptiles would move into the wider landscape. Further, the northern part of Rosery Field land is shown as important for reptile dispersal between the GWF receptor site and the wider landscape in the applicant's reptile mitigation strategy.
- 5.59 At the biodiversity hearing we questioned Mr Hinton, EDF Energy's expert responsible for integrated land management plans at the Sizewell Estate including habitat creation trials for reptile mitigation. He was unable to confirm accurate dates for when the future Sizewell C reptile translocation sites were needed; but explained that, based on the habitat enhancement work to date, 3 to 5 years are required to develop the invertebrate food source for the reptiles (HE20).

- 5.60 Mr Hinton stated that 21ha of new planting elsewhere on heavier soils had established much more readily than that on the light soils of the 1.6ha area of Rosery Field. He explained the total target for the proposed Sizewell C reptile translocation area is 35ha demonstrating that the northern part of Rosery Field is a small proportion of the area required for the proposed Sizewell C reptile mitigation.
- 5.61 The applicant and EDF Energy's joint statement (HE34) presented to us at the compulsory acquisition (CA) hearing on the 23 October 2012 confirmed that the commercial land agreement had resolved EDF Energy's representations regarding the use of Rosery Field and its potential future use for Sizewell C reptile mitigation. EDF Energy confirmed it no longer required replacement land for this activity.

*The agreed reptile mitigation strategy*

- 5.62 In its written representation (REP17) NE called for the reptile mitigation strategy including translocation plan and monitoring to be provided ahead of the determination of the application to mitigate negative impact on schedule 5 species of the Wildlife and Countryside Act 1981 (as amended). The Councils were expecting the mitigation strategy to be finalised before the end of examination (LIR1).
- 5.63 We asked a series of detailed questions about reptile mitigation in our second written questions (PD13). The applicant responded (REP35) and submitted a reptile mitigation strategy in advance of the biodiversity hearing, enabling us to address the details of the matter at the biodiversity hearing.
- 5.64 We noted from the detailed mitigation strategy that the applicant required access to the land in October 2012. We heard from Dr Saunders, the applicant's reptile expert, that time to create hibernacula could be extended to December 2012 at the latest (HE20). We also raised queries about securing improvements if post construction monitoring showed adverse effects. Dr Saunders was of the opinion that adverse effects would be unlikely and this eventuality could be covered in the revised strategy.
- 5.65 At the biodiversity hearing, the only outstanding issue was NE's request that additional wording be included in the reptile mitigation strategy in relation to breeding birds and a requirement for further consultation if the stated programme could not be met (HE20).
- 5.66 Once the commercial agreement over land was reached between the applicant and EDF Energy, the applicant was able to confirm a revised reptile mitigation strategy (HE49 Annex C1). Confirmation of the acceptability of this was received by the panel from the Councils (HE51), NE (HE50) and SWT (HE52).



- 5.67 Reptile mitigation will be achieved by the implementation of the strategy, which was agreed by the relevant IPs by the close of examination. Agreement has been reached on the availability of the required land and implementation of the reptile mitigation strategy is controlled through the sixth draft DCO requirements 26 and 27 in relation to the EMP and the CCoP, which makes specific reference to the receptor site and the reptile mitigation strategy, including the outstanding matters previously raised by NE.
- 5.68 Our concerns and those of other IPs over reptile mitigation have been addressed through the strategy and land agreement and we recommend the Secretary of State seeks and controls the mitigation required through confirmation of the recommended draft DCO, CCoP and EMP as described above. We are satisfied there are no matters outstanding that would argue against the Order being confirmed.

### **Marine (non ornithological) Ecology**

- 5.69 The applicant sets out the marine ecology impacts in ES chapters 12 Marine and intertidal ecology (APP46) and 14 Marine mammals (APP48). There are summaries of relevant pre-application consultations identifying issues identified by consultees and proposals to address them in Tables 12.1 (APP46) and 14.3 (APP48).

### **Marine and intertidal ecology**

- 5.70 Impacts are assessed on sub-tidal and intertidal ecology. The only benthic species or habitat of conservation concern identified by the applicant and reported in the ES chapter 12 (APP46) is the reef forming Ross worm *Sabellaria spinulosa*. It commonly forms aggregations of tightly packed individuals in low encrustations, which are ephemeral. Under some circumstances, the species can form a biogenic reef, which is not subject to disaggregation and is of high ecological importance. The benthic surveys commonly recorded *S. spinulosa* as individuals and on occasion aggregations.
- 5.71 The applicant assesses the construction impacts based on the worst case scenario in terms of construction techniques. Direct impacts on intertidal and subtidal ecology are assessed as 'minor' adverse at worst. The impacts are summarised in ES Table 12.7 (APP46).
- 5.72 The applicant acknowledges that if *Sabellaria* biogenic reef is found to be present, the impact will be higher than 'negligible' because it is an Annex 1 Biogenic Reef Habitat under the Habitats Directive<sup>12</sup>. Proposed mitigation measures will be adopted first to undertake pre-construction surveys to identify the location of any *Sabellaria* reef and if present, second to consult with the Statutory

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<sup>12</sup> European Union Directive 92/43/EEC

Nature Conservation Bodies (SNCBs) over micro-siting of the wind turbine generators (WTGs). The applicant predicts 'minor' to 'negligible' impacts during the operational phase from maintenance activities and during decommissioning.

- 5.73 In chapter 12 of the ES (APP46) the applicant sets out the interrelationships where indirect impacts on marine ecology can arise from increased suspended sediments and/or contaminants and from changes to physical processes.
- 5.74 The MMO (RR25) considered the ES to have identified and assessed all marine ecology impacts. There were no other relevant representations on these matters, although the JNCC commented generally about the adequacy of data for assessment and for licences.
- 5.75 In the LIR (LIR1) the Councils noted that offshore impacts on *Sabellaria* reef remain unresolved. In its written representations (REP17) and associated summary (REP25) JNCC/NE raised matters related to assessment methods and statements in the ES regarding the Annex 1 Biogenic reef features formed by *Sabellaria spinulosa*. In its second response (REP31), the applicant responded specifically to the SNCB's concerns with more detailed information on survey and assessment methods and more information on the methods associated with the proposed mitigation measure of micro-siting.
- 5.76 In the later non ornithological SoCG between applicant and JNCC/NE (SOCG13) it is agreed that the site specific surveys carried out are sufficient to provide the basis for assessment. The additional information provided by the applicant has enabled confirmation that the worst case scenario as assessed is appropriate, the impacts as assessed in the ES are appropriate and the residual impacts as presented in Table 12.9 of the ES (APP46) are *"where relevant, likely to be a true reflection of the likely efficacy of the mitigation measures put forward."*

It continues, "Based on GWFL response to the Natural England and JNCC Written Representation.... relating to marine and subtidal ecology, it is agreed that no further mitigation of impacts, in addition to that outlined in Table 12.9 (sic)<sup>13</sup> is likely to be necessary."

- 5.77 We asked the applicant to set out against each habitat or species how mitigation measures were to be secured. The applicant responded with tables, Annex B1 (response to Q1.7) and Annex F (response to Q10.1) (REP29) and we referred to these tables in the biodiversity hearing.

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<sup>13</sup> There is no Table 12.9 in the ES. We believe this should be Table 12.7 Summary of Impacts.

- 5.78 At the biodiversity hearing (HE20) we heard confirmation from the Councils, SWT, the MMO, JNCC and NE that these parties were satisfied that mitigation for marine and intertidal ecology matters was fit for purpose and controlled, subject to the appropriate provisions within the DML regarding assessment, monitoring and mitigation.
- 5.79 Controls are needed in relation to the potential identification of *Sabellaria spinosa* biogenic reef and subsequent responses if it is found pre or post construction. The controls are covered in the DML under:
- condition 9(a)(iii) requiring agreement of the pre-construction surveys with the MMO and NE;
  - condition 9 (c)(ii) and (iii) requiring a construction method statement covering equipment and cable installation (because mitigation is through micro-siting);
  - condition 15 requiring pre-construction monitoring with 15(2)(a) referring to benthic habitats of importance;
  - condition 16 requiring construction monitoring;
  - condition 17 requiring post construction monitoring, with condition 17(2)(a) referring to benthic habitats of importance; and
  - condition 18 in relation to decommissioning, which requires a written decommissioning programme to be submitted to the Secretary of State for approval under s105(2) of the Energy Act 2004 .
- 5.80 Should benthic assemblages have developed to an extent that the decommissioning process would result in unacceptable levels of impact, the decommissioning plan would need to address areas where structures remain on the sea bed. This will be for the Secretary of State to determine as part of the decommissioning plan approval.
- 5.81 The statutory agencies and other IPs are in agreement that the mitigation will reduce the level of impact from construction and operation to an acceptable level. We agree and recommend the Secretary of State includes the conditions outlined above in the DML. We are satisfied there are no matters outstanding that would argue against the Order being confirmed with regard to marine and intertidal ecology.

### ***Marine mammals***

- 5.82 The applicant sets out the legislation covering marine mammals in Table 14.1 in the ES (APP48). The Habitats Directive<sup>14</sup> protects all cetaceans because they are classified as endangered, vulnerable or rare.

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<sup>14</sup> European Union Directive 92/43/EEC

- 5.83 In order to assess disturbance in relation to the Habitats Directive objectives, species are assessed in terms of their Favourable Conservation Status (FCS). FCS is central to the Habitats Directive, which requires measures be designed to maintain or restore it.
- 5.84 Eight species of marine mammals regularly occur over large parts of the North Sea; however, the only one regularly sighted in significant numbers around the GWF site is harbour porpoise, *Phocoena phocoena*. FCS assessment for harbour porpoise is 'favourable' (APP48).
- 5.85 The potential adverse impacts on marine mammals from the proposed development comprise construction related noise, lethal effect and auditory; physical injury construction and operation collision risk; and construction stage loss of prey species.
- 5.86 The applicant summarises the predicted impacts on marine mammals in ES Table 14.29 (APP48) and concludes that there are no residual impacts anticipated after mitigation is in place. The mitigation proposed will be set out in the Marine Mammal Mitigation Programme (MMMP)<sup>15</sup> and includes use of soft start piling and alerting vessels to potential collision risk.
- 5.87 The applicant also considers cumulative impact if construction periods overlap with other off shore wind farms. The ES concludes significant effect is unlikely because of the relatively low numbers of mammals found in the area and the use of the mitigation measures.
- 5.88 The MMO (RR25) considered the ES to have identified and assessed all marine ecology impacts. The MMO calls for soft start piling, which we have taken from wider representations to be in relation to impacts on both marine mammals and fish. An EPS licence issued by the MMO (in consultation with the SNCBs advising on the quality of the EPS assessment) will be required to cover the risk of potential disturbance to cetacean species.
- 5.89 JNCC/NE stated (REP4) that there are a number of aspects of the information presented that are not sufficient to answer all of the derogation tests required as part of the EPS licensing process; a point which is repeated in their written representation (REP17). However, at this point in the examination they confirmed they were working with the applicant through the SoCG process to resolve the differences to ensure the information is provided. They concluded that subject to the information being provided and subject to the FCS test there is no reason in their opinion why a licence would not be granted.

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<sup>15</sup> Applicant uses MMMP to refer to both Marine Mammal Mitigation Protocol and Marine Mammal Mitigation Programme in ES chapter 14.

- 5.90 JNCC/NE (REP17) however were of the opinion that the applicant's assessment focussed strongly on harbour porpoise but did not justify lack of assessment of other species. In its second response (REP35), the applicant responded specifically to the SNCB's comments by setting out its position with regard to white-beaked dolphin, minke whale and seals. The applicant also referred to ES Appendix 13B - Technical Appendix 3 (APP72), which provided a detailed review of mitigation measures and concluded that soft start piling is the only measure that is proven and cost effective in reducing risk of physical and auditory risk to marine mammals.
- 5.91 The applicant clarified it was not applying for an EPS licence at that stage, but planned to do so following final scheme design and at least 4 months before the commencement of activities that might necessitate such a licence.
- 5.92 In the later non ornithological SoCG between the applicant and JNCC/NE (SOCG13) methodologies were agreed, including the focus on harbour porpoise, subject to a rider that an EPS licence application (if required) should focus on those cetaceans whose presence was recorded with a risk assessment and any further information on project details; however, on the information available there was no reason why a licence would not be granted.
- 5.93 The JNCC/NE SoCG (SOCG13) recorded the party's agreement to the worst case definition, the assessment conclusions in the ES and mitigation to include soft and slow start piling, the implementation of an MMMP, monitoring and inclusion of a protocol for collision risk between marine mammals and vessels.
- 5.94 We asked the applicant to set out against each habitat or species how mitigation measures were to be secured. The applicant responded with tables, Annex B1 (response to Q1.7) and Annex F (response to Q10.1) (REP29). We heard confirmation from the MMO, JNCC and NE that these parties were satisfied that the mitigation and controls were fit for purpose, subject to provisions within the DML regarding assessment, monitoring and mitigation for marine mammals (HE20).
- 5.95 Controls are needed to mitigate for both collision risk and noise related lethal effect or auditory damage. DML condition 9(f), which requires approval by the MMO in consultation with NE and JNCC to a MMMP prior to the commencement of any 'works' has been expanded in our recommended draft DCO (Appendix F) from the applicant's sixth draft DCO (DCO6). It now includes a requirement for the MMMP to include protocols for both awareness raising and responding to events in respect of collisions or the possibility of collisions between vessels and marine mammals. In addition there is a requirement for a soft start procedure to piling events in the case when driven or part-driven pile foundations are proposed. All of these matters are agreed in the non

ornithological SoCG (SOCG13) between the applicant and JNCC/NE.

- 5.96 We recommend the Secretary of State accepts these proposed changes as they clarify the EPS requirement in the marine environment and set out controls that have already been agreed between the applicant and the SNCBs in the SoCG (SOCG13). We are satisfied there are no other matters outstanding that would argue against the Order being confirmed.

## **Ornithology**

### ***Introduction***

- 5.97 This section is to be read in conjunction with the discussion which follows in respect of the European sites and Habitat Regulations Assessment (HRA). Taken together they form a substantial part of the Biodiversity, Biological Environment and Ecology section of this report because of the tests to be considered; the complex issues which arise concerning European sites and the HRA process; and the need to consider a significant amount of evidence. The European sites and HRA section has a separate introduction describing its contents.
- 5.98 For readers not concerned with the detail of these matters, conclusions on ornithology matters not associated with European sites are set out at para 5.113 and conclusions and recommendations from the discussion on European sites are set out at para 5.401. Overall conclusions are set out in paras 5.402-5.405.
- 5.99 Here we deal with the ornithology matters which are not covered by HRA. Below we set out the relevant tests in the NPSs and cover the general ornithological representations, some of which also make reference to HRA matters. We describe the applicant's initial assessment, the views of IPs and the recommendations we reach.
- 5.100 In addition to the tests described earlier in EN-1, EN-3 sets out how offshore wind farms have potential to impact on birds. It states that the scope of any assessment should be discussed with the relevant statutory advisor, and that the competent authority will need to be satisfied that any collision risk model (CRM) has been conducted to a satisfactory standard having had regard to comments from the relevant statutory advisor (paras 2.6.102-2.6.104).
- 5.101 EN-3 para 2.6.108 states WTGs should be laid out in a way that minimises collision risk where CRM shows significant risk of collision and para 2.6.110 states that as the exact timing of peak migration events is inherently uncertain, shutting down turbines during estimated peak migration routes is unlikely to offer suitable mitigation.

- 5.102 The applicant's case is first set out in the ES Non Technical Summary (APP34), ES chapter 11 Ornithology (APP45) with its offshore ornithology report Appendix 11A in ES Technical Appendix 2 (APP71) and the HRA Report (APP79) and HRA Report Checklist (APP80).
- 5.103 The conclusions in the applicant's ES are that there are some impacts during construction, mainly associated with habitat loss, direct disturbance and displacement and indirect disturbance due to changes in prey supply and habitats. Operational impacts are associated with the risk of collision mortality with WTG rotors, barrier effects, disturbance from operational maintenance and indirect effects in terms of prey availability and attraction to lit structures. Decommissioning impacts are predicted to be similar to construction and "*no more adverse*" (APP45).
- 5.104 The applicant assessed impacts on the following species:
- associated with European sites: red-throated diver, lesser black-backed gull, common guillemot, gannet, and common gull;
  - not associated with European sites: great skua, great black-backed gull, razor bill, herring gull, arctic skua, fulmar, and kittiwake.
- 5.105 The applicant's assessment identifies species' sensitivity to specific impacts in ES Table 11.6 (APP45). Impacts are assessed and summarised on ES Tables 11.29 and 11.51 (APP45). Construction impacts comprise displacement through direct habitat loss, direct disturbance and displacement from underwater noise on prey species and vessel and human presence. Operational impacts comprise mortality from collision with WTGs and other structures, barrier effects, attraction to lit structures and disturbance from maintenance. Decommissioning impacts comprise direct disturbance from increased human and vessel activity and habitat loss for prey species.
- 5.106 The applicant's impact assessment predicts that after mitigation the majority of effects will be of 'minor' adverse or 'negligible' significance. There are 'moderate' adverse but tolerable impacts on guillemot during construction and operation and similarly for razorbill and predicted collision risk mortality for lesser black-backed gull during operation.
- 5.107 The applicant's cumulative impact assessment concludes that when considered with other projects in the Thames Strategic area, there will be no significant changes in the predicted level of effects on any species and that all potentially significant cumulative effects of displacement and collision risk can be mitigated to a 'moderate tolerable level' (para 11.13.3).

- 5.108 The JNCC/NE written representations (REP17) and its associated summary representation (REP25) set out the statutory advice of the SNCBs on both ornithological and non ornithological matters. It is appended with citations, boundary maps and conservation objectives for the relevant designated sites, a report on ornithology from NE's expert, Dr Caldwell, and responses to our first written questions.
- 5.109 In these written representations JNCC/NE did not raise any ornithological issues other than in relation to European sites, which are covered in the section below. Ongoing submissions were received in relation to lesser black-backed gull; gannet; and red-throated diver, which relate to European sites and are therefore also covered below.

***Species other than gannet, red-throated diver and lesser black-backed gull***

- 5.110 In the SoCG between the applicant and NE on ornithological matters (SOCG6) it is agreed that the desk-based assessment of regional ornithological interest was adequately compiled; the assessment of potential impacts on ornithological interest uses industry standards; and the worst case definitions were based on a realistic scenario using a 'Rochdale envelope' approach. Section 3.7.3 of the SoCG sets out predicted residual impacts for species for the proposed development alone and in-combination, confirming these have been summarised fairly and accurately in Table 11.51 of the ES (APP45).
- 5.111 In our second written questions we explored (PD13) whether the 2012 amendments to the Habitats Regulations<sup>16</sup> which came into force on 16 August, during the examination period, affected IP representations in any way. In response, NE (REP40) advised the panel that the Amendment Regulations make no substantive changes to what is required of the competent authority, but there is a broadening of the scope with regard to wild bird habitat. NE drew attention to arctic and great skua as non-SPA species that may collide with the proposed wind farm.
- 5.112 Subsequently NE confirmed at the biodiversity hearing (HE70) that having considered those two species by reference to the requirement in Regulation 9A<sup>17</sup>, NE was able to advise that the duty has been satisfied in this case in relation to those species identified (HE70).
- 5.113 In view of the agreement between the applicant and NE on these issues, and with no other disagreement from any other IP, our further consideration of bird species is therefore confined to the

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<sup>16</sup> The Conservation of Habitats and Species (Amendment) Regulations 2012 (the Amendment Regulations)

<sup>17</sup> *ibid*



species associated with European sites. We recommend that the Secretary of State need only consider these species further. We are satisfied there are no matters outstanding that would argue against the Order being confirmed.

## **Discussion Relating to European Sites and Habitat Regulations Assessment**

### ***Summary***

5.114 This section of our report discusses the assembled evidence regarding likely significant effects for all European sites potentially affected by the proposed development. We draw conclusions and make recommendations for the Secretary of State regarding the likely significant effects on European sites and the available mitigation options where we consider them necessary.

5.115 This section is organised as follows:

- the approach of the panel;
- Report on the Implications for European Sites (RIES);
- policy context;
- project location in relation to European sites;
- project description and potential impacts on European sites;
- scope of the assessment;
- assessment of effects resulting from the project alone or in combination with other plans and projects. This discussion covers each European site and provides a recommendation regarding each site;
- overall conclusions and recommendations.

5.116 From the weight of evidence presented, we conclude there is no reason for the competent authority to consider sites other than the Alde-Ore Estuary SPA and Ramsar for appropriate assessment. Therefore discussion of this site also includes sections on:

- mitigation for impacts on the lesser black-backed gull; and
- effects on integrity.

### ***The approach of the panel***

5.117 As stated earlier, we identified biodiversity as a principal issue and were aware from application documents that there were differences in opinion between the applicant and some IPs. We anticipated we would need to explore matters at a hearing and confirmed this at the preliminary meeting. All parties present at the preliminary meeting confirmed agreement to the need for a hearing and the suggested approach.

5.118 In our first written questions (PD11 Annex D) we sought general views on the adequacy of HRA material and methodologies for assessing impact. We also set out the issues over which SoCGs

were sought from the applicant and a number of IPs, including NE and the Royal Society for the Protection of Birds (RSPB).

- 5.119 By the time of issuing our second written questions (PD13), it was clear progress was slow on ornithology SoCGs and there was still a good deal of variance in the evidence and views being submitted. As well as asking more detailed questions, we also requested the applicant to provide a table of differences so we could be clear about the areas of difference before the biodiversity hearing. This was provided by the applicant as Annex D to its response (REP41).
- 5.120 At the first DCO IS hearing the applicant and NE jointly requested a review of the length of time provisionally allocated for the biodiversity hearing because of the outstanding issues between parties. We confirmed that one and three quarter days had been allocated in response to this request which we considered adequate.
- 5.121 We sent out a detailed agenda (HE7) so parties were clear about the objectives, which were to explore the differences further to see if parties could reach closer agreement on parameters (with upper and lower limits where possible) and/or to establish trigger points.
- 5.122 At the hearing, we were only able to explore differences between the applicant and NE. The RSPB was specifically invited to attend the biodiversity hearing on 17 and 18 October 2012 (HE7), but chose not to attend. Consequently we were unable to explore and test the RSPB's views orally in an area we had identified from the outset as being sufficiently complex to require oral examination and upon which the RSPB had made, and subsequently made strong representations.
- 5.123 Following the receipt of written summaries of the oral submissions made at the biodiversity hearing, we issued and consulted upon the RIES which set out matrices of all the European sites screened through HRA with footnotes covering the submissions we had received. The RIES is described in more detail below.
- 5.124 Following receipt of comments on the RIES and written summaries of oral submissions made at the biodiversity hearing, we had some final requests for further information and written comments which we issued for response before close of the examination.

***Report on the implications for European sites (RIES)***

- 5.125 The purpose of the RIES (and the consultation responses received on it) is to inform our report to the Secretary of State as to:
- the implications of the project for European sites; and
  - whether, in our view the integrity of any European sites would be adversely affected.

- 5.126 Responses to the RIES are not incorporated into the RIES. They form additional information which we used in preparing this report and which the Secretary of State, as competent authority, can use to inform an appropriate assessment, if the Secretary of State considers that one is required.
- 5.127 The applicant prepared the 'working matrices', dealing specifically with screening and effects on integrity on European sites to inform the HRA. The RIES (RIES1) took these 'working matrices' and drew on material up to and including the biodiversity hearing on 17 and 18 October 2012 and the subsequent written summaries to include what we considered the agreed position and the principal differences between parties on HRA matters to be.
- 5.128 The RIES consists of matrices collating evidence put before us on whether the development proposals are likely to have a significant effect on the key features of each European site. The RIES also contains matrices summarising the anticipated effects on the integrity of the Alde-Ore Estuary SPA; this being the site where a likely significant effect is predicted and agreed.
- 5.129 The RIES was issued under a Rule 17 request on 5 November 2012, with a deadline of 26 November for responses (PD16). As a detailed response to the RIES was received from the RSPB, which continued to raise areas of disagreement with both the applicant's view and elements of NE's advice, we took the decision to ask for further information with regard to European sites and HRA via a further Rule 17 request (PD17). This was extremely late in the examination process, and we were only able to give 3 working days for response. However, we did receive information in response to this request.
- 5.130 The written responses to the request for views on the RIES (PD16) and the follow-up rule 17 request (PD17) were received from:
- the applicant (REP60, REP68 and REP69);
  - NE (REP65 and REP71); and
  - the RSPB (REP66 and REP72).
- 5.131 There was no final consensus on mitigation proposals that would result in concluding no adverse effects on the integrity of the Alde-Ore Estuary SPA (and Ramsar). Consequently, the detailed proposition that we put forward in the section on mitigation below has not been subject to consultation with other IPs; nor has the applicant considered it, although it is based on options and alternative mitigation drafting put for by the applicant and considered by NE.

### **Policy context**

- 5.132 The European policy context is set out in section 3 of this report. The Habitats Regulations 2010 (as amended)<sup>18</sup>, which implement the Habitats Directive, provide for the protection of European sites.
- 5.133 European sites; Special Areas of Conservation (SACs), candidate Special Areas of Conservation (cSACs) and Special Protection Areas (SPAs) are protected under the Habitats Regulations 2010 (as amended)<sup>19</sup>. As a matter of policy the government also applies the procedures described below to potential SPAs (pSPAs) and Ramsar sites<sup>20</sup>.
- 5.134 EN-1, section 4.3, sets out the policy context to which the decision-maker must have regard under the Habitats and Species Regulations and refers to further information in ODPM Circular 06/2005<sup>21</sup>, which provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England.
- 5.135 EN-1, section 4.3, also states that the applicant should provide the competent authority with the information it can reasonably require to determine whether an appropriate assessment is required; and if one is required, the information required to allow the competent authority to conduct the appropriate assessment, including any information on mitigation measures proposed to minimise or avoid effects.
- 5.136 NE (REP17) also referred us to European Commission guidance:
- Managing Natura 2000 Sites (2000);
  - Assessment of Plans and projects significantly affecting Natura 2000 sites: Methodological Guidance on the provision of Article 6(3) and (4) of the Habitats Directive (2001);
  - Guidance document on Article 6(4) of the Habitats Directive 92/43/EEC (2007); and
  - The implementation of the Birds and Habitats Directives in estuaries and coastal zones (2011).
- 5.137 The Secretary of State is the competent authority for the purposes of the Habitats Regulations. Consent can only be granted if, having assessed the effects the project will have on European sites the competent authority considers that it passes the relevant tests in the Regulations. These tests are set out more fully as an introduction to our section reporting on the assessment of effects

<sup>18</sup> The Conservation of Habitats and Species (Amendment) Regulations 2012

<sup>19</sup> The Conservation of Habitats and Species (Amendment) Regulations 2012

<sup>20</sup> Convention on Wetlands of International Importance Especially as Waterfowl Habitat: Ramsar 2/2/1971 as amended.

<sup>21</sup> Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System (ODPM 06/2005, DEFRA 01/2005).

resulting from the project alone and in-combination with other plans and projects below.

- 5.138 The proposed development can only be consented if the appropriate assessment concludes that the integrity of European site(s) will not be affected (subject to Regulation 62 of the Habitats Regulations; considerations of overriding public interest).
- 5.139 Conservation objectives are set for all sites within all European sites in England by NE. This includes SACs and SPAs. NE also advises government on sites that qualify as Ramsar sites in England. Conservation objectives are defined to assist the maintenance of the interest features of a European site and to reflect the quality of the site in its designated state.
- 5.140 Regulation 61 of the Habitats Regulations requires the competent authority to make an appropriate assessment of the implications for a site in view of the site's conservation objectives. The conservation objectives for the Alde-Ore Estuary SPA, which are set out later in this report, provide measures against which the integrity of that site can be assessed.
- 5.141 Planning Inspectorate Advice Note 10<sup>22</sup> (Advice Note 10) summarises the four stage process that should be followed to ensure sufficient information is available to support the competent authority in satisfying the regulations. This advice note was updated during the examination. The applicant had followed the advice in the superseded version, which was in place at the time of the submission of the application.
- 5.142 There are four stages detailed in Advice Note 10, which are:
- Stage 1 – Screening;
  - Stage 2 - Appropriate assessment;
  - Stage 3 - Assessment of alternative solutions;
  - Stage 4 - IROPI (Imperative Reasons of Overriding Public Interest).
- 5.143 The screening stage is carried out to determine if significant effects alone or in combination with other plans or projects are likely to occur. If significant effects can be excluded on the basis of objective evidence, and if the competent authority agrees this is the case, then no further action is required and the project can be consented.
- 5.144 If significant effects are likely or cannot be excluded the competent authority must undertake an appropriate assessment of the implications of the project for the site in view of the site's conservation objectives. The appropriate assessment is required

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<sup>22</sup> Planning Inspectorate Advice Note 10: Habitat Regulations Assessment relevant to Nationally Significant Infrastructure Projects.

under Regulation 61 of the Habitats Regulations which reflects article 6(3) of the Habitats Directive.

- 5.145 As well as deciding whether or not a project needs an appropriate assessment, the competent authority must decide whether the information provided by the applicant is sufficient to exclude an adverse effect on the integrity of the European site. If this cannot be demonstrated, then the applicant's assessment needs to move to stages 3 and 4 of the HRA process as listed above.

***Project location in relation to European sites***

- 5.146 The proposed development comprises offshore 'works' for the installation, operation and decommissioning of an offshore wind farm approximately 27km from the Suffolk Coast at its nearest point, and onshore infrastructure required for connection to the 400kV national electricity network, which is near Sizewell, 2km east of the town of Leiston.

- 5.147 The European sites for which likely significant effects have been identified in the applicant's HRA are:

- Alde-Ore Estuary SPA;
- Alde-Ore Ramsar;
- Alde-Ore and Butley Estuaries SAC;
- Flamborough Head and Bempton Cliffs SPA;
- Margate and Long Sands cSAC;
- Minsmere to Walberswick SPA;
- Minsmere to Walberswick Ramsar;
- Minsmere to Walberswick Heaths and Marshes SAC;
- Orfordness to Shingle Street SAC;
- Outer Thames Estuary SPA; and
- Sandlings SPA.

- 5.148 Descriptions of these sites and their qualifying features are provided in the applicant's HRA Report (APP79), which includes Natura 2000 standard data forms for these sites in its Appendix E. NE also provides us with a full list of SPA features (REP33). The RIES (RIES1) lists the features in the matrices. The applicant's HRA Report treats SPA and Ramsar sites together where they relate to the same site. The RIES has separated these out for clarity.

***Project description and potential impacts on European sites from the project***

- 5.149 The application is for an offshore wind farm and associated offshore and onshore electrical infrastructure. A fuller project description is provided in section 2 of the applicant's HRA Report (APP79), in chapter 5 of the ES (APP39) and in the applicant's Design and Access Statement (APP86). A précis of the project characteristics is given in section 2 of this report.

- 5.150 The potential impacts on designated sites are described in section 6.2 of the applicant's HRA Report (APP79) and are summarised on the table of impacts considered in section 1.0 of the RIES (RIES1), in the matrices in section 2.0 and through comments on the RIES from IPs.
- 5.151 Potential impacts to the supporting habitats of SPAs and Ramsar sites comprise habitat loss, disturbance and indirect effects through changes in physical processes. Potential impacts to the ornithological interests of SPAs and Ramsar sites comprise habitat loss, disturbance, displacement, collision risk and barrier effects. Potential impacts on SAC designated features comprise habitat loss and disturbance and long distance hydrodynamic effects.

### ***Scope of the assessment***

- 5.152 This section sets out the scope of the applicant's assessment and the overall views of IPs on it. More detailed discussion of the initial and closing positions in relation to each European site follow below. Here, we set out:
- the applicant's assessment;
  - the views of IPs (other than NE and the RSPB) that responded to our first written questions about the adequacy of the applicant's HRA;
  - initial and closing views of NE; and
  - initial and closing views of the RSPB.

### ***The applicant's assessment***

- 5.153 The applicant's HRA Report (APP79) explains the HRA screening that has been undertaken pre-application. A summary of the screening is included as Table 5.1 of the HRA Report. Appendix A of the HRA Report provides evidence of the pre-application EIA and HRA consultation with JNCC, NE, the National Trust (NT) and the (RSPB) that had been undertaken from 2007 to 2011, as well as pre-application discussions with the former Infrastructure Planning Commission.
- 5.154 The applicant's screening report concludes that a likely significant effect on the lesser black-backed gull feature of the Alde-Ore Estuary SPA during the operational phase of the project due to collision mortality, alone or in combination with other plans or projects, cannot be ruled out. The applicant therefore includes information in the HRA Report to inform the appropriate assessment of the lesser black-backed gull feature of the Alde-Ore Estuary SPA.
- 5.155 The HRA Report concludes that the proposed development will have no likely significant effects on all the aforementioned European sites, except the breeding lesser black-backed gull feature at the Alde-Ore Estuary SPA (and we interpret this also to mean Ramsar as the applicant has combined its assessment). No

effects are identified for the remainder of the Alde-Ore Estuary features.

- 5.156 Table 5.1 of the HRA Report (APP79) showed no other predicted likely significant effect on any other site than that described above. The plans and projects under consideration for in combination assessment are described in section 3.5 of the HRA Report (APP79).
- 5.157 The HRA Report is supplemented by information in the applicant's ES Ornithology chapter 11 (APP45), and technical appendix 11A in Technical Appendices 2 of the ES (APP71). During examination additional information was provided by the applicant. This included population viability analysis (PVA) modelling (REP3) and a CRM note (REP41) as well as the points made through the applicant's responses to questions and responses to responses and oral evidence presented and summarised in writing later at the biodiversity hearing.
- 5.158 The conclusions in the HRA Report (APP79) are summarised in a 'no likely significant effects' table, Table 6.2. This is supported by ornithological technical data and reports and a technical note on physical processes with regards to Margate and Long Sands cSAC provided in the appendices to the HRA Report.
- 5.159 The applicant's HRA Report, HRA screening and all other related documents were available for scrutiny by all IPs during the examination.

*The representations of other IPs*

- 5.160 We asked for views in our first written questions (PD11) on adequacy of the applicant's HRA Report. We also asked the applicant to provide screening matrices which would form the basis of the RIES. HRA relevant responses were received from:
- the Councils;
  - the MMO;
  - the NT;
  - NE; and
  - RSPB.
- 5.161 Matters set out in relevant representations and those submissions that are not site specific are reported here; others are dealt with later under the respective European sites. The Councils (REP35) responded that they felt the SNCBs are better equipped to deal with questions on the topic of HRA.
- 5.162 The MMO (REP26) explained its interest in the HRA relates to any conditions arising from the HRA process that are included in the DML. The MMO stated it had reviewed the HRA and had no concerns regarding the sufficiency of information within the report.



*JNCC and Natural England*

- 5.163 JNCC and NE (RR32) stated that they were not satisfied on the basis of the evidence presented that it was possible to exclude a likely significant effect alone or in combination arising in respect of gannet (the main component species of the sea bird assemblage of Flamborough Head and Bempton Cliffs SPA) and red-throated diver, a named feature of the Outer Thames Estuary SPA. This meant that unless evidence could be presented that excluded likely significant effects, JNCC and NE considered an appropriate assessment will also be required for each of these European sites.
- 5.164 We were able to test the matters raised thoroughly at the biodiversity hearing with the applicant and NE. We also received a SoCG on non ornithological matters between the applicant and JNCC/NE (SOCG13) and a further SoCG on ornithology between the applicant and NE (SOCG6).
- 5.165 After commenting on the RIES and the RSPB's submission (REP66), NE re-stated its views indicating there is nothing in the RSPB 26 November submission that compels NE to alter the scientific evidence it has provided to the examination (REP71).

*The RSPB*

- 5.166 The RSPB relevant representation (RR18) highlighted concerns arising from the proposed development alone and in combination with other plans and projects to SPA and Ramsar sites. The RSPB cited concerns about adequacy and analysis of data relating to collision risk in connection with lesser black-backed gull from the Alde-Ore Estuary SPA both alone and in combination and potential cumulative collision risk to gannet from the Flamborough Head and Bempton Cliffs SPA. It considered insufficient evidence had been provided to enable an appropriate assessment to be conducted for both sites.
- 5.167 The RSPB indicated (RR18) its involvement in pre-application discussions, its commitment to ongoing dialogue with the applicant and that it might wish to submit further evidence and appear at hearings on relevant matters. The RSPB had not raised any issues other than those related to species associated with European sites.
- 5.168 The applicant and the RSPB did not conclude a SoCG by the time we closed the examination; although we were told discussions had been ongoing through the examination period. The RSPB stated it was willing to continue the dialogue, but this was not brought to a close. The applicant wrote to us (REP69) explaining it has a different view; which is there was no merit in continuing SoCG discussions because the RSPB had not responded to the applicant's suggestion that an irresolvable impasse had been reached prior to the biodiversity hearing.

- 5.169 There was no testing of the RSPB points at the biodiversity hearing. Even so, we are clear where the differences lie from the penultimate and final representations from the applicant (REP60, REP68 and REP69) and the RSPB (REP66 and REP72) in response to our rule 17 requests (PD16 and PD17).

***Assessment of the effects resulting from the project alone and in combination with other plans or projects***

- 5.170 The tests set out in the Habitats Regulations<sup>23</sup> against which we are reporting are as follows:

*"61.-(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which—*

*(a) is likely to have a significant effect on a European site of a European offshore marine site (either alone or in combination with other plans or projects), and*

*(b) is not directly connected with or necessary to the management of that site,*

*must make an appropriate assessment of the implications for that site in view of that site's conservation objectives."*

*"(2) A person applying for such consent, permission or authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable them to determine whether and appropriate assessment is required."*

*"(3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority may specify."*

*"(4) They must also, if they consider it appropriate, take the opinion of the general public, and if they do so, they must take such steps for that purpose as they consider appropriate."*

*"(5) In light of the conclusions of the assessment, and subject to regulation 62 (considerations of overriding public interest), the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of European site or the European offshore marine site (as the case may be)."*

*"(6) In considering whether a plan or project will affect the integrity of the site, the authority must have regard to the manner*

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<sup>23</sup> *ibid*

*in which it is proposed to be carried out or to any conditions or restrictions subject to which they propose that the consent, permission or other authorisation should be given.”*

- 5.171 Our findings, set out below, are in relation to each site. We report initial positions, movement during examination, final positions and recommend whether in our opinion likely significant effects can be excluded.
- 5.172 In the case of Alde-Ore Estuary SPA and Ramsar sites below, parties agree that there is a likely significant effect for the breeding lesser black-backed gull feature and the lesser black-backed gull part of the assemblage feature alone and in combination, so appropriate assessment is required. We therefore cover effects on integrity and mitigation for these sites.

### **Alde-Ore Estuary SPA**

- 5.173 The applicant identified a likely significant effect for collision risk during the operational phase of the proposed wind farm for lesser black-backed gull (*Larus fuscus*) (APP79). Table 11.51 in ES chapter 11 Ornithology (APP45) summarises the impacts, mitigation and residual significance on all the species.
- 5.174 The applicant concludes that despite additional mortality from collisions with turbines there would be no significant impact on the integrity of the SPA alone or in combination with other wind farms. Outputs from the applicant’s CRM are used in its PVA scenarios to predict lesser black-backed gull population change over a 25 year period and probability of a decline in the gull population when considering additional mortality as a result of collision risk.
- 5.175 The NT (REP18) expressed interest in the lesser black-backed gull colony at Orfordness, part of the Adle-Ore Estuary SPA, as the landowner. It stated that the NT considered all available relevant research on avoidance rates should be used, together with the most advanced population modelling, and where this is lacking, a precautionary approach should be adopted. It gave some information on the EU LIFE+ project habitat improvement work<sup>24</sup>, which it stated is not targeted at lesser black-backed gull.
- 5.176 A joint representation from JNCC/NE (RR32) raised matters relating to the approach the applicant has taken for HRA screening, and in particular the validity of the assessment of collision risk on the lesser black-backed gull population of the Alde-Ore Estuary SPA.
- 5.177 Addendum initial representations from JNCC/NE (REP4) provided more detail for the panel about concerns over EIA and HRA methodologies. It also stated that JNCC/NE disagreed with the

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<sup>24</sup> The EU LIFE+ Nature project Alde-Ore Future for Wildlife (2010-2014)

applicant's conclusion and they concluded on the basis of the information submitted for the HRA process that there will be a likely significant effect on the integrity of the Alde-Ore Estuary SPA as a result of this project. JNCC/NE concluded therefore that an appropriate assessment will be required.

- 5.178 Written representations received from JNCC/NE (REP17) challenged the position with regard to methods used by the applicant and conclusions regarding significance of effects on species that may lead to significant effects on the integrity of European sites. JNCC/NE (REP17) considered that quantitative refinements in the applicant's CRM were poorly evidenced and reduced precaution in the assessment and had concerns over the PVA. Appendix D to this written representation sets out NE's Dr Caldwell's expert opinion.
- 5.179 During examination, it was agreed in the ornithology SoCG between the applicant and NE (SOCG6) that the likely significant effect on the lesser black-backed gull interest feature of the Alde-Ore Estuary SPA arising from potential collision risk mortality during the operational phase needs to be the subject of appropriate assessment. NE also reiterated this strongly in its response to the RIES (REP65).
- 5.180 It is also agreed in that SoCG (SOCG6) that sufficient information to inform appropriate assessment has been obtained with respect to the use of the proposed wind farm site by the gulls and the status of the breeding lesser black-backed gull interest feature of the SPA. This was not accepted by the RSPB at the end of examination, as it continued to have reservations over information required for appropriate assessment and considers amended outputs from the PVA are required to inform appropriate assessment (REP66).
- 5.181 The applicant counters this by advising that it does not consider the outputs put to the panel require further amendment and that the amended outputs were provided to the RSPB on 7 September 2012, but that the RSPB has chosen not to submit the revised outputs to the examination (REP68). We must emphasise therefore that this information has not been put before us for examination.
- 5.182 The RSPB also suggested expert review of the proportion of birds associated with the SPA which would be at risk of collision with the GWF is undertaken before the appropriate assessment can be conducted (REP66).
- 5.183 Earlier the RSPB (REP19) considered the input parameters in the CRM and PVA relating to the conclusion that there will be no adverse effect on the Alde-Ore Estuary SPA lesser black-backed gull interest feature were overly optimistic and do not provide

sufficient information for the competent authority to carry out an appropriate assessment.

- 5.184 At the close of the examination there were still differences between the applicant's view of mortality figures and that of NE as statutory advisor. The RSPB also disagreed with aspects of the applicant's CRM, in places aligning with NE's view and in places taking a different position.
- 5.185 At close of examination the applicant restated its position that no project mitigation is required on the basis of the original HRA submissions and evidence submitted through the examination process. However the applicant acknowledged that NE presented a valid alternative approach to relating collision mortality to a relative increase required in chick productivity (HE36). The applicant also set out a step by step approach to mitigation (HE53).
- 5.186 In acknowledging it is a valid alternative approach, the applicant does not agree with: the 119 gull mortality figure used by NE; need for the mitigation; and the order in which NE suggests mitigation options are applied (REP60).
- 5.187 NE's alternative approach was provided in its 12 October 2012 submission in time for consideration at the biodiversity hearing (REP56). This is described in more detail below and is referred to as the 'mitigation tables'.
- 5.188 EN-3 in para 2.6.10 is clear that the competent authority needs to be satisfied that any CRM has been conducted to a satisfactory standard having regard to the advice from the relevant statutory advisor. In the following paragraphs we briefly review the differences that remained at close of examination, and taking a precautionary approach, set out the figure we consider the competent authority could use and the basis for this. The issues in this CRM where differences remain at close of examination are:
- avoidance rate;
  - use of 2009 data;
  - birds flying at collision height;
  - reduction in mortality due to reduction in fishing effect;
  - restriction of mortality estimates to March-August only; and
  - proportion of birds associated with the SPA.

Further detailed explanation is provided in the RIES (RIES1) and comments thereon by the applicant (REP60), NE (REP65) and the RSPB (REP66), with further comments on comments by the applicant (REP68), NE (REP71) and the RSPB (REP72).

#### *Avoidance rate*

- 5.189 The applicant considers it has used a defensible, precautionary collision avoidance rate of 99% in the light of evidence that

supports rates in excess of 99%. NE points out in its response to the RIES (REP65) that these relate to other species and the principle adopted is where there is uncertainty regarding true avoidance rate, values at the lower end of a suite of values derived from empirical evidence is consistent with a precautionary approach. In the case of lesser black-backed gull, NE considers this should be 98%. The RSPB agrees with NE, holding the position it has stated previously.

- 5.190 On balance we recommend the 98% figure be used, giving an adequate level of precaution as advised by the SNCB because of the lack of species specific evidence which can be used to confirm the avoidance rate with certainty.

*Use of 2009 data*

- 5.191 The applicant has used flight data from the 2009 season only, despite having partial records for 2008 and 2010, arguing the 2009 data comprise the only truly representative set being the only complete breeding season. Both NE and the RSPB have challenged this premise throughout examination. NE considers not using the higher figure derived from use of more data introduces a lack of precaution (HE70). The RSPB agrees (REP66) with NE's position.
- 5.192 NE states the differences in figures, using 98% avoidance rate, are 555 versus 477 birds for annual collision rate and 490 versus 428 birds for breeding season collision (REP65). In each case the higher figure is a mean figure generated from all data years and the lower figure is from 2009 data only.
- 5.193 The weight of evidence leads us to recommend the higher figure, which includes data from more than one year should be used to ensure an adequate level of precaution as advised by NE and agreed by the RSPB.

*Birds flying at collision height*

- 5.194 The applicant proposes a figure of 17% of birds flying at potential collision height based on site specific surveys carried out to inform such matters. NE considers the data should be expanded to include 2004-2006 data from the adjacent GGOWF site, which would give an average of 19%, which would be a more precautionary figure (HE70 and REP65). Neither party agrees with the others' reasoning. The RSPB points out that using Cook et al<sup>25</sup>'s final 2012 report figures, to which the applicant has referred, would give 22% at risk height and maintains this position for deriving an appropriate value (REP48, REP55 and REP66).

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<sup>25</sup> Cook, A.S.C.P., Johnson, A., Wright, L.J. & Burton, N.H.K. (2012) *A review of flight heights and avoidance rates of birds in relation to offshore wind farms*. Report of work carried out by the British Trust for Ornithology on behalf of The Crown Estate for Strategic Ornithological Services (SOSS).

- 5.195 NE (REP56) states this 19% figure has been derived with regard to application of Cook et al 2012<sup>26</sup>. We give weight to the view that it is desirable to use more data when they are available and recommend the 19% figure, advised by NE as precautionary, should be used.

*Reduction in mortality due to reduction in fishing effort*

- 5.196 The applicant proposes a 15% reduction in mortality to account for reduced fishing because gulls' foraging is strongly associated with large trawler fishing vessels, which will be excluded. NE agrees that gull activity is often enhanced in the vicinity of fishing effort, but considers there is no evidence base on which to derive a percentage reduction (HE70). The applicant acknowledges in its HRA Report (APP79) that 15% is an arbitrary figure. The RSPB does not agree there can be reasonable confidence a reduction in gull activity will occur as availability of natural prey may increase and fishing operations, albeit at reduced levels, may continue (REP19 and REP66).
- 5.197 We therefore recommend on this point that no adjustment to the mortality figure is made as there is lack of certainty surrounding the effect and no evidence based mechanism for corroboration.

*Restriction of mortality estimates to March-August only*

- 5.198 The applicant excludes birds not present during the breeding season as it is the breeding population which is the SPA feature. There are differences of opinion regarding the extent of the breeding season and whether breeding birds may be present even if not displaying territorial or courtship behaviour. Both NE (REP17 and HE70) and the RSPB (REP19) suggest evidence supports inclusion of some of the February and September birds.
- 5.199 However, whilst there are differences in opinion, this is not identified by NE (REP56) as an area where there is a lack of precaution. NE accepts, with caution (REP56), the exclusion of the months of February and September. We therefore recommend the applicant's position and that accepted by NE is used.

*Proportion of birds associated with the SPA within the proposed GWF*

- 5.200 The applicant has used a calculation based on maximum mean foraging range of 141km<sup>27</sup> to arrive at a proportion of 31.5% of the birds coming from the Alde-Ore Estuary SPA. Parties acknowledge that there are numerous factors influencing this

<sup>26</sup> Cook, A.S.C.P., Johnson, A., Wright, L.J. & Burton, N.H.K. (2012) *A review of flight heights and avoidance rates of birds in relation to offshore wind farms*. Report of work carried out by the British Trust for Ornithology on behalf of The Crown Estate for Strategic Ornithological Services (SOSS).

<sup>27</sup> From Thaxter et al (2012a) Seabird foraging ranges as a preliminary tool for identifying candidate Marine Protected Areas.

measure, data are currently lacking and a pragmatic, simplified approach to risk is required. The applicant cites work in Scotland where Scottish Natural Heritage (SNH) has accepted the same basis of calculation as it suggests here (REP41).

- 5.201 Both NE (REP46) and the RSPB (REP48) consider the approach is reasonable, but have concerns about the calculation. NE (REP56) uses 31.5%, but later suggested the proportion could be up to 40% if corrected to take account of density with increasing distances from each colony (HE70). The RSPB (REP66) expressed concern over likely variance between colonies on foraging distances and assumptions regarding even prey distribution. The RSPB note that an increased Alde-Ore Estuary lesser black-backed gull colony size will result in a greater proportion of those birds being at collision risk. The RSPB also suggests expert review is needed to finalise methodology and states *"The RSPB would expect this to take place before the Appropriate Assessment can be conducted given the need to present reliable figures of predicted collisions."*
- 5.202 When we questioned further (PD15), NE (REP65) stated it does not consider the 40% figure is suitably evidence based to justify its use in arriving at an alternative quantitative figure for cumulative mortality that can be considered any more realistic because *"the figure was generated in a short time frame by Natural England in an attempt to explore this issue for the Examining authority."* NE continues *"NE advises the figures should be considered indicative only of the need for a degree of precaution to be considered in any impact assessment (and consideration of the magnitude of appropriate mitigation measures that follows)... "*. The RSPB however expresses concern that in the light of uncertainty, methods resulting in lower impact were being used (REP72).
- 5.203 We recommend the 31.5% figure is used in the CRM because neither the SNCBs nor the RSPB are able to advise on an evidence based alternative figure. We do however note NE's advice regarding the need for precaution, which relates to assessment and mitigation.

*Conclusions on CRM parameters*

- 5.204 Completing our review of the parameters, we conclude it will be suitable to apply the methodology that gives the mortality figure of 119 birds, rather than the applicant's 44 birds. The basis of both is set out in the applicant's response (REP60 Appendix F) to NE's 12 October 2012 'mitigation tables' (REP56).
- 5.205 Our recommendation to the Secretary of State is on the basis of advice from the SNCBs, requiring assessment to be duly precautionary because of the lack of certainty surrounding the data and methods and because of the inherent variability in the



behaviour of seabirds (REP17). NE considers the 119 bird mortality figure can reasonably be derived from empirical data; but stated the figure could be as high as 152 and must be considered in the light of the outputs from the PVAs (REP65). We recommend the 119 bird mortality figure is adopted because this is on the basis of 31.5%, rather than 40% being the proportion of birds from the SPA. Our reasons are explained above.

5.206 We now move to the matter of the PVA, which is also the subject of discussion and differences during the examination. The areas we cover are:

- model type (deterministic or stochastic);
- management scenarios for modelling;
- proportion of adults assigned to the breeding population;
- adult survival rates; and
- productivity rates.

We then briefly refer to the other assumptions that are presented in the NE alternative approach in the 'mitigation tables' (REP56).

5.207 The situation with the PVA was that a deterministic model was submitted with the application, but following pre-examination discussions with the SNCBs a stochastic model was submitted during examination, on which there were then submissions. By close of examination there was a suggested alternative approach, presented by NE and confirmed by the applicant to relate mortality to mitigation, but this was not agreed by the RSPB.

*Model type (deterministic or stochastic)*

5.208 The applicant undertook PVA modelling during the EIA process, reported in chapter 11 of the ES (APP45) and the HRA Report (APP79). That model is 'deterministic', which means it reflects a system where no randomness is involved in the development of future states of the system. NE advised an approach to the modelling that incorporated variation in demographic parameters; recommending use of a stochastic model rather than a deterministic one.

5.209 The applicant had also consulted the RSPB on the modelling approach and had received general agreement to the approach. In response the applicant prepared and submitted a stochastic PVA (REP3). The applicant concluded that the results from the two models were very similar.

5.210 It is agreed in the ornithology SoCG between the applicant and NE (SOCG6) that the stochastic model presents PVA outputs in a manner that expresses a range of probabilistic outcomes under different scenarios for the lesser black-backed gull population.

5.211 The RSPB called for further iterations of the PVA model, but NE and the applicant were satisfied with the alternative approach

using the 'mitigation table' provided by NE (REP56). These are described in more detail below under mitigation.

*Management scenarios for modelling*

- 5.212 It is important to note that the Alde-Ore Estuary SPA lesser black-backed gull population has undergone significant ongoing decline in size recorded between 2000 and 2001 and again between 2006 and 2007; having previously exhibited rapid growth from 10,000 breeding pairs to 23,000 breeding pairs in 2000. The 2012 estimated population is 1,811 breeding pairs, with the previous two years being 1,580 (2011) and 1,603 (2010) (REP3 and REP41 Appendix B Piotrowski report).
- 5.213 IPs and the applicant suggest the causes of decline are likely to include removal of food source when piggeries closed, reduced landfill sites, increased fox predation, rat and other small mammal predation, human and dog disturbance and increased vegetation growth on the shingle. The evidence before us leads us to share the view that it is not possible to understand precisely what the causes of the decline have been.
- 5.214 NE and the applicant agree in the ornithology SoCG (SOCG6) the population decline is not a result of collision mortality with offshore wind farms. The RSPB states this in no way lessens the concern over the additional mortality predicted to arise from the development (REP66). However no IPs dispute the statement that the decline is not a result of collision mortality; and we have no reason to disagree.
- 5.215 In response to our questioning at the biodiversity hearing, Ms Hay for NE explained raking of lesser black-backed gull nests as a management measure balancing the needs of avocet and sandwich terns had been undertaken until 2007 (HE21 and HE70). The Piotrowski report (REP41 Appendix B) also refers to gull (herring gull and lesser black-backed gull) nesting being discouraged on Havergate Island "*for the sake of a thriving avocet colony*". The applicant argues this means the gulls have not been a species on which management efforts have been focussed until recently.
- 5.216 The RSPB (REP66) confirmed nest raking took place and explained it was undertaken to balance the needs of various SPA interest features, when there was clear evidence gulls were predating other species. These measures were used in three years between 1981 and 2000 and from 2001 to 2007 when it ceased on the advice of NE. The RSPB disagrees it will have had an impact on population decline. "*Given the localised and limited nature of this measure it is highly unlikely this would have influenced the declining trend witnessed at the SPA at this time.*"

- 5.217 NE reported results of a recent integrated site assessment of the Alde-Ore Estuary SPA/SSSI lesser black-backed gull feature, which found the current conservation status of that gull feature to be 'unfavourable declining' (REP17). This has resulted in a revised population target down from 21,700 to 14,074 pairs. Conservation status and objectives are covered in more detail below.
- 5.218 There are two distinct lesser black-backed gull colonies within the Alde -Ore Estuary SPA; Orfordness (managed by the NT) and Havergate Island (managed by the RSPB). The Havergate colony is not in the same depleted condition as the Orfordness colony. Whilst the potential for improvement is greater at Orfordness, active management is more difficult at this location because of physical site conditions and easier access for predators like foxes, rats and disturbance from human activity.
- 5.219 The applicant (REP3) uses three modelling scenarios relating to different levels of management:
- historic; which represents the situation in the recent past, with low adult survival and productivity rates (chicks per pair): outcome is continued population decline;
  - baseline; with input parameters designed to represent management measures, but not those targeted specifically at lesser black-backed gull: outcome (with modelled mortality of 150) is likelihood that the probability that the population will decline below its current size doubles during the foreseeable future and increases the probability of it falling by 5% or more below current size to 15% (rather than 2% in absence of additional mortality); and
  - management; including adult survival and productivity rates considered representative of the realistic, lesser black-backed gull-specific targeted management measures: growth is positive for all mortality rates, but the population does not reach the 14,074 pair target.
- 5.220 The PVA model assumes no immigration to the SPA by lesser black-backed gulls from other local populations, which the applicant considers to be precautionary. NE and the applicant agree in the SoCG (SOCG6) this means that the impact of any immigration would be to increase mean growth rates of gull population. The NT (REP6) however indicated that birds may also be lost from the breeding colony because emigration to urban areas cannot be ruled out.

*Proportion of adults assigned to the breeding population*

- 5.221 The applicant used 0.66 for the proportion of breeding adults in the population (REP3). NE advised there is no site specific evidence that there is a large pool of non-breeders at present (REP17 and REP65). NE considered the use of the breeding adults

factor may lead to an underestimate of the impact of a given level of collision mortality (REP65).

- 5.222 The applicant countered this with the suggestion that in future it is likely that the population of the restored colony will resemble similar proportions observed in other colonies because of the management measures to be implemented (REP29). The RSPB states it is uncertain if this will be the case and there are no accurate, historic counts of non-breeding birds (REP66).

*Adult survival rates*

- 5.223 The applicant adopted adult survival rates (0.9, 0.93 and 0.95) for the different scenarios in the PVA model which it asserts are based on available evidence from the SPA site, including information from the [www.lifealdeore.org](http://www.lifealdeore.org) web site and other coastal sites (REP3). NE (REP17) advised that 0.91 may be achievable, based on reports based on 2011 site data and published reports from other gull colonies. NE stated adult survival is an important parameter in the way it influences the PVA modelling outcomes, but thinks SPA site management improvements are more likely to increase chick productivity per pair (REP17).
- 5.224 The RSPB shared concerns over the rates used, considering that the data that pre-date the decline in population, are taken from selective references and that it may not be possible to achieve high survival rates for a number of reasons including: limitations on delivering site management; and botulism in the colony (REP19).

*Productivity rates (chicks per pair)*

- 5.225 At the biodiversity hearing NE highlighted the difficulty of giving absolute figures to lowest and highest levels of productivity achievable in response to site management (HE70), but referred us to the 12 October 2012 'mitigation tables' (REP56) that were provided as advice to give the panel degrees of comfort and certainty to enable no adverse impact to be concluded.
- 5.226 The RSPB has provided information on 2012 productivity rates (0.32 for Havergate Island and 0.019 for Orfordness) (REP66), which reinforces its view that the applicant's approach is "*inappropriately optimistic*". The applicant has expressed some strong concern at the lateness in presenting these data and asked us to consider the weight attributed in light of the lack of time in the examination process for responses (REP68).

*Commentary on variables in the NE 'mitigation tables'*

- 5.227 There have been no submissions on the evidence base of the other parameters used in the second part of the NE 'mitigation tables'. These included a population of 1,600 pairs, which is consistent with that of 1,603 used in the stochastic PVA model and with the

population records for 2010 and 2011. The stochastic PVA and the Piotrowski report (REP3 and REP41 Appendix B Piotrowski report) cite populations of:

- 2010:1,603 breeding pairs (Havergate Island 1,053; Orfordness 550);
- 2011:1,580 breeding pairs (Havergate Island 1,030; Orfordness 550); and
- 2012:1,811 breeding pairs (estimated) (Havergate Island 1,171; Orfordness 640).

- 5.228 The PVA model (REP3) uses a population figure of 1,603. There have been no submissions regarding use of 1,600 in NE's approach, apart from the RSPB's strong disagreement with the approach overall (REP66 and REP72).
- 5.229 The NE 'mitigation tables' include an 82% annual survival rate of chicks for the first 4 years stated by NE to be based on evidence from the applicant (REP56). Again there have been no other specific submissions with regard to this parameter. The RSPB states (REP66) that lesser black-backed gull take at least 4 years to reach maturity and therefore breeding age, with only approximately 45% surviving to adulthood. An annual survival rate of 82% per year gives rise to a survival rate of 45% (of chicks originally hatched) by the time the birds reach breeding age at 4 years old.
- 5.230 The NE 'mitigation tables' assume a default linear reduction in mortality from reduction in project turbine numbers in the absence of swept path calculations.

*Concluding remarks*

- 5.231 At the close of examination there are continued differences between the applicant, NE and the RSPB regarding the management scenarios and parameters for input to the PVA. There is agreement over the 'unfavourable declining' status of the SPA as a result of the decline in the lesser black-backed gull population; it is also agreed that the exact causes of the population decline are unknown.
- 5.232 At the close of examination, the applicant's advocated position is that there will not be any adverse effect on site integrity at the Alde-Ore Estuary SPA, either alone or in combination with other plans or projects. NE's position is that without mitigation, it cannot safely be concluded that an adverse impact on integrity alone will not occur. The RSPB (REP66) considers mitigation necessary, but that 'top up' land management measures at the SPA cannot be differentiated from the management required to return the site to favourable conservation status and therefore project based mitigation is required.

5.233 Although the applicant's position as submitted at the end of the examination is that no additional mitigation of any sort is required, it gives the Secretary of State three options to consider should the Secretary of State decide that such measures are necessary:

- providing funds for SPA management measures targeted at the lesser black-backed gull population and secured by the activation of a unilateral s106 undertaking;
- a turbine exclusion area, closely related to preferred trawler fishing grounds, identified as Area B exclusion zone on plan 2.4 A Rev1 (REP163); and
- an approach agreed in principle (but not all details) with NE on a percentage turbine reduction to achieve lower collision risk.

5.234 There is strong disagreement by the RSPB (REP66), to NE's comments regarding the way the applicant's contribution to SPA site based mitigation management could be used and differentiated from management measures being undertaken to address the unfavourable status, constituting "*a broader package of measures and over a longer time frame.*" (HE70). The RSPB (REP66) states "*There appears to be a fundamental omission of reference to the duty on the UK government and thereby Natural England to secure the restoration of SPAs to favourable condition.*"

5.235 We give significant weight to the evidence presented regarding the 'unfavourable declining' status of the lesser black-backed gull population at present, in light of the breeding population of these gulls being one of the SPA interest features. We also give weight to the need for management measures to address this decline as well as the identified project impacts (mortality) on the declining population. For these reasons, we consider because of the uncertainties discussed above mitigation must be considered.

#### ***Mitigation of predicted impact on lesser black-backed gull***

5.236 In this section, we first briefly summarise the approaches to mitigation that have been covered in representations before us and then go on to consider the options available to the Secretary of State with regard to lesser black-backed gull at the Alde-Ore Estuary SPA.

5.237 We have heard that the options for mitigation might include project based measures (at the wind farm) and SPA site based measures (at the Alde-Ore Estuary SPA). Project based mitigation was raised by Dr Caldow, NE's ornithology expert in Appendix D to NE's written representation (REP17) as being in his opinion, more certain to reduce predicted levels of impact and could be achieved by either reducing the number of turbines or imposing periodic periods of shut down during the gull breeding season.

- 5.238 SPA site based mitigation has been described by the applicant, NE and the RSPB in terms of existing and proposed land management measures. It includes a combination of: predator control such as fox and rat control; habitat management including vegetation removal by mechanical means and/or spraying and ditch management; control of disturbance by people and dogs, including fencing; warden patrol; education and signage.
- 5.239 The current position with regard to site management is that the RSPB manages Havergate Island. The management is agreed with NE and currently funded in part by the RSPB and in part through EU LIFE+ funding run jointly with the NT until 2014. The site is managed for the range of SPA features, not specifically aimed at lesser black-backed gull. The management measures were set out in detail in the RSPB's response to our question Q20.34 (REP48).
- 5.240 NE also responded (REP46) with more detail about the Orfordness colony, which is managed by the NT. Again it is stated that the management measures in place are targeted at Annex 1 species, not specifically lesser black-backed gull. The EU LIFE+, funded management mainly includes predator control through culling and use of ditches. An excerpt from the NT's conservation plan for Orfordness is provided as Annex A of NE's submission (REP46).
- 5.241 NE has stated that in its view project based mitigation will be more certain to reduce the level of impact (REP17). It considers project based mitigation with a clear evidence based method of linking the scale of the mitigation to the scale of reduction in mortality should be the first consideration in the mitigation hierarchy. The RSPB (REP66) also advised this order of implementing mitigation measures.
- 5.242 Guidance<sup>28</sup> indicates avoiding or reducing impacts at source as a higher preference for mitigation than abating impacts on site or at receptor. We note the applicant (REP60) has pointed out the courts have ruled this is only guidance.
- 5.243 During examination, NE submitted (REP56 and HE70) that a dual approach that encompasses project based and SPA site based mitigation may be appropriate for this proposed development. This is discussed in more detail below.
- 5.244 In the event that the Secretary of State considers an adverse effect alone or in combination cannot be ruled out, the applicant proposes a step by step approach towards mitigation to ensure no adverse impact on integrity of the SPA will occur in Annex E (HE53). NE has also commented on the suitability of this approach and described some refinements (REP65).

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<sup>28</sup> Assessment of Plans and projects significantly affecting Natura 200 sites: Methodological Guidance on the provision of Article 6(3) and (4) of the Habitats Directive (2001)

- 5.245 We asked NE specifically in our Rule 17 Q40.6 (PD16) "*Can Natural England confirm it does agree with the approach set out in Annex E and if not why not and what other alternative approach it is expecting the Examining authority and SofS to adopt?*"
- 5.246 NE's response (REP65) stated it did "*not agree entirely with the approach*", but then went on to describe where it agreed and where there were differences. We take account of those points of difference from NE in the approach we recommend the Secretary of State adopts.
- 5.247 The applicant (REP60) reiterated its views about the approach to mitigation and the order in which the steps should be taken, with the emphasis on SPA site based mitigation. The following discussion on the mitigation that we recommend the Secretary of State adopts is based on that step by step approach. We recommend its use because we found the approach useful and we had no other approach put before us. We will refer to the step numbers as in the applicant's Annex E (HE53), but it should be noted these are not the same stages as described above from the Planning Inspectorate Advice Note 10.

*Step 1*

- 5.248 This step requires the Secretary of State to determine whether the level of predicted mortality from the unmitigated project can rule out an adverse impact on the integrity alone or in combination with other plans or projects on the SPA. We consider that this cannot be ruled out because of the uncertainty surrounding parameters in the CRM and the advice given by NE, which on this point is supported by the RSPB. In arriving at this recommendation, we have taken a precautionary approach to the 'fisheries reduction' proposal (paras 6.19-6.23, section 6 below).
- 5.249 The applicant's offer of a restricted build area, the Area B exclusion zone, which excludes WTGs from an area of deep water that is trawled, is on the basis that this would enable the 15% reduction to be applied to the CRM output. If the Secretary of State does not accept the 15% reduction, the applicant stated it assumed the Secretary of State will either:
- "*(a) attribute a lower percentage than 15%;*
  - "*(b) not attribute a specific percentage, but expressly state that the Area B Exclusion Area offer is required to give added confidence to his conclusion on predicted mortality; or*
  - "*(c) state that the 'fisheries reduction', with or without the Exclusion Area is to be given no credit in relation to the CRM at all.*" (HE53)
- 5.250 We have heard from NE's expert at the biodiversity hearing (HE21 and HE70) and in responses to questions (REP65) that we may take some comfort that Area B exclusion zone may reduce the



level of bird mortality, but there is no empirical mechanism to assign an absolute value to the scale of reduction of bird mortality. We have seen evidence submitted by the applicant (REP60 Annex E) that the Area B exclusion zone is used by trawlers and excluding it would also support a reduction in the adverse impact on the fishing industry.

*Steps 2 and 3*

- 5.251 These steps require the Secretary of State to decide whether the baseline scenario can be achieved through the demographic parameters used in the applicant's CRM alone, or with the gull targeted measures NE will be undertaking, to reduce the 'declining unfavourable' status and ensure integrity of the SPA. NE (REP65) advised the baseline scenario carries risk because there is no certainty that the growth can be achieved alone, through improved general management or management specifically targeted at gulls.
- 5.252 The RSPB's position is that there cannot be certainty that the baseline scenario will be achievable (REP55) and further considers there is not a package of SPA site mitigation measures alone that could avoid an adverse effect on the integrity of the SPA (REP66).
- 5.253 Based on the evidence and representations from NE and the RSPB, we are not convinced that the NE targeted lesser black-backed gull management measures will be sufficient to ensure adverse effect on integrity can be ruled out. Therefore we recommend to the Secretary of State that further mitigation is required in addition to NE's targeted management measures.

*Steps 4 and 5*

- 5.254 These steps require the Secretary of State to decide whether applicant funded, SPA site management measures and/or the project based mitigation comprising a percentage reduction in WTGs described by NE (REP56) should be applied. There is a difference of opinion between the applicant and NE regarding the order in which project and SPA site based mitigation are addressed. NE has consistently advised that project based mitigation should be the earlier step. The applicant's approach starts with the site management and this point is argued strongly in its response (REP60) to our rule 17 question Q40.6 (PD16).
- 5.255 It is the applicant's view (REP60) that the NE management measures, with the additional applicant funded measures will avoid any conclusion of adverse impact on the integrity of the SPA, alone or in combination with other plans and projects. However, the applicant does continue by stating that if the management measures do not offer the Secretary of State sufficient confidence to avoid a conclusion of adverse impact on the integrity then it is assumed the Secretary of State will consider

what project mitigation percentage reduction in collision rate is required to provide such confidence, taking account of the management measures. The applicant (REP60) offers up to 30% project mitigation, but this is a continuum, not just rising in steps of 10%, as shown on the NE 'mitigation tables'.

- 5.256 In recommending the Area B exclusion zone (set out above and in section 6 below) is implemented, the first step we have taken to securing mitigation is at the project level, although we have not recommended the Secretary of State attributes any specific percentage reduction for that exclusion.

*Step 6*

- 5.257 This states that if consent is to be granted only if project based mitigation is imposed to secure a reduction in predicted mortality; then it is assumed by the applicant that the Secretary of State will specify clearly what percentage reduction is required.
- 5.258 Oral submissions were made at the biodiversity hearing (HE21, HE36 and HE70) that the applicant, in consultation with NE would provide us with an agreed position on swept path calculations and a matrix setting out the turbine design options and mortality reduction that could be achieved.
- 5.259 Following the hearings, in the written submissions, the applicant explained in Annex E (HE53) that information surrounding specific turbine manufacturers and models is extremely commercially sensitive. The applicant suggested an approach whereby if project based mitigation is required, the Secretary of State should specify the percentage reduction required.
- 5.260 If this is the case, the applicant proposed it will then agree the conclusions of a range of permutations of turbine model, number and minimum clearance applying the CRM model with NE to confirm that the proposal meets the stated % reduction.
- 5.261 The applicant will then "*apply to the SoS for approval of the turbine, the Maximum Number and the Minimum Clearance to be approved under the DCO. It is proposed that the SoS will consult with Natural England to confirm that the Percentage Reduction will be met, whereupon the SoS will issue a formal approval which will take place under the DCO.*" (HE53)
- 5.262 The applicant's submission (REP60) continues with proposed drafting for the DCO in connection with the exclusion area and SPA mitigation, which we refer to later and is covered in section 19 of this report on the DCO drafting.

***Panel's approach for considering mitigation***

- 5.263 Our starting point is the application before us, which has been assessed in the ES and associated documents, as defined in article

2 of the recommended draft DCO (Appendix F). To assist the Secretary of State in reaching a decision on mitigation, we first set out some of the key points made by IPs.

- 5.264 As stated earlier there is a difference of opinion between the applicant and NE concerning the ranking of mitigation options. NE and the RSPB have consistently argued that project based mitigation should be considered before SPA, site based mitigation (REP65 and REP66).
- 5.265 Although the RSPB (REP66) agrees with the position that project based mitigation should be explored first, it disagrees with the approach set out by NE (REP56) because it does not consider there is sufficient evidence to have reasonable certainty that it will be possible to achieve the values for adult survival and productivity underlying the PVA scenarios year on year (REP66).
- 5.266 We heard Mr Covey's opinion, on behalf of NE, at the biodiversity hearing (HE21 and HE70) that even with 30% project mitigation, the chick productivity required (as calculated from the mitigation table) to avoid a population decline is higher than that achieved recently. The NE mitigation table assumes 30% project mitigation equates to 30% reduction in mortality from collisions.
- 5.267 Mr Covey made the point that as the level of project mitigation is reduced, the uncertainty increases, so although the mitigation table shows chick productivity still within range recorded at Havergate with no project based mitigation, the certainty of achieving it is much reduced.
- 5.268 Also we take note of Dr Caldwell's evidence (HE21 and HE70), in connection with the proposed Area B exclusion zone. He said that the 15% did not provide sufficient certainty that a specific reduction in fishing effort or lesser black-backed gull mortality will occur. But that the Area B exclusion zone would make a difference and *"could only help as it was reducing the area of sea that would otherwise be covered by turbines."*
- 5.269 We note that the applicant accepts NE's 'mitigation tables' as a valid alternative to its approach as set out in the HRA report and reaffirmed through the examination process (HE36 and REP68). Although the applicant does not agree the figures, or the order in which the mitigation hierarchy is applied, it rightly points out that there are no alternative approaches before us (REP68). The applicant's penultimate submission (REP60) sets out differences between NE's approach and the applicant's view.
- 5.270 On balance therefore we consider the weight of evidence leads us to recommend the Secretary of State to use of the principles in NE's 'mitigation tables' in its Annex E (REP56) and also refer to the applicant's version which shows the 'mitigation tables' with its alternative figures and annotations (REP60). In recommending

this we do have regard to the RSPB's position (REP66) strongly disagreeing with NE's approach. The RSPB states that:

- there is insufficient evidence to have certainty of productivity or adult survival;
- it places too much reliance on specific increases in productivity yet to be adequately trialled;
- preventing losses of adults through collision provides more certainty than increasing chicks per pair; and
- matters relating to NE's statutory duties to restore the SPA to favourable condition and the management required to do this have been overlooked.

- 5.271 The RSPB also questioned whether the baseline for judging an increase in productivity should be set to that of the whole SPA, or whether it should be focussed on Orfordness only, "*given this site would be the focus for the SPA management, and mitigation measures.*" (REP66).
- 5.272 The RSPB is strongly of the view that it will not be possible to distinguish between site management measures required to restore the lesser black-backed gull feature to favourable condition and those required to ensure that the gull population grows sufficiently to accommodate additional mortality resulting from GWF (REP66). It repeated this view (REP72) stating "*The RSPB reiterates that the current distinction between SPA management measures that seek to restore to favourable condition versus measures that seek to provide reasonable certainty of avoidance of adverse effect is an unsound one*".
- 5.273 The RSPB also states that landowners' consent is necessary, but not assured (REP66).
- 5.274 However we heard from NE in response to our questions (REP46) and from NE's expert Mr Covey at the biodiversity hearing (HE21 and HE70) that NE is confident a broader package of measures would deliver extra management and considers it is possible to differentiate and apportion mitigation success at the SPA site; acknowledging a monitoring and adaptive feedback element to the mitigation would be required.
- 5.275 We heard from Ms Hay, on behalf of NE (HE21), that a land managers' meeting had taken place on 12 October 2012, that ongoing site management discussions progress with the NT and that there may be opportunities on adjacent land registered to Babcock. In its final submission (REP71), NE stated it has provided consistent advice on management measures, recognising that applicant funded SPA mitigation would have to be 'top-up', over and above that planned to fulfil NE's statutory duties.
- 5.276 We were able to question the applicant's and NE's witnesses thoroughly at the biodiversity hearing (HE21), and feel it is

reasonable to give weight to evidence presented and have confidence in those positions stated.

- 5.277 We note the applicant's view (REP68) on the status of the RSPB's written submissions (REP66) in response to our Rule 17 request for information and its grievances with regards new information. We do however give some weight to this submission from the RSPB, whilst also acknowledging that NE stated that even though the RSPB's position differs from NE's in some areas, it does not compel NE to alter the scientific evidence it has provided to the examination (REP71).
- 5.278 Returning to the NE 'mitigation tables' (REP56), we note that NE itself states that the likelihood of success of any management measures in delivering improvements to productivity is uncertain. We consider therefore in referring to the methodologies suggested, the Secretary of State should exercise precaution.
- 5.279 The applicant maintains its position that no project based mitigation is required in light of its view on the achievability of the management measures. On balance, considering all the evidence before us, we are not convinced this is sufficiently precautionary to give the Secretary of State the certainty required to rule out adverse effects on the integrity of the SPA.
- 5.280 On balance, we consider the weight of the evidence leads us to recommend a dual approach. We are persuaded by NE's arguments for taking a dual approach to mitigation and we recommend the Secretary of State adopts such an approach. This is because:
- it reduces the likelihood of a single point of failure through reliance on a single mode of mitigation;
  - landowner(s) are not signatories to the s106 unilateral undertaking on SPA site based mitigation, which the RSPB points out (REP66). Despite assurances given by the applicant and NE, we recommend only limited weight can be given to the s106 in terms of potential to deliver. As NE states in its final submission (REP71) *"In the event that the proposed development is granted consent, mitigation for the adverse effect on the integrity of the Alde-Ore Estuary would be for the Applicant to address, not Natural England. The Examining authority needs to be content that there is legal certainty that the mitigation will be delivered if this is required to reach a determination of no adverse impact on the Alde-Ore SPA. Natural England's duty would be to implement management measures which set the lesser black-backed gull population on a trajectory to unfavourable recovering in the first instance. It is for the Applicant to satisfy the Examining Authority it is capable of doing this"*;
  - NE considers (REP56) a dual approach comprising a combination of project based mitigation (such as reducing the

number of WTGs), which reduces the development site impacts combined with SPA site based management which is a smaller component of the mitigation package will reduce the risks of failure and therefore increase certainty;

- there is still uncertainty surrounding CRM outputs;
- a dual approach addresses adult survival more directly, which we have been advised by both NE and the RSPB is a more important parameter than chick productivity; and
- 2012 data presented by the RSPB (REP66) close to the end of examination show unexplained drops in productivity from 2011 both at Havergate Island and Orfordness. We consider these data increase the uncertainty surrounding a SPA site management based approach because of the lack of any trend, for reasons that are not given or speculated upon. We again acknowledge the applicant's frustration at such late receipt of data, but they are before us and we give them some weight.

5.281 We set out our recommendations for the dual approach as follows:

- SPA site based mitigation measures;
- project mitigation;
- Area B exclusion zone.

There is no significance in the order we address these matters, our recommendation is that all are required.

*SPA site based mitigation*

5.282 Monitoring at the SPA is an essential part of the proposed management:

- to establish whether the SPA is moving to an 'unfavourable recovering' condition;
- to establish the success or otherwise of the 'top-up' management.

5.283 This is recognised by NE and the applicant and is covered in the final proposed s106 unilateral undertaking for SPA management measures (s106-2).

5.284 For the above reasons, we consider the site based SPA mitigation, as described in the SPA s106 unilateral undertaking (s106-2) to be a necessary component of the dual approach.

5.285 We consider SPA-site based mitigation to improve chick productivity to be an equally essential component of the dual approach. This will give the Secretary of State more certainty that there will be no adverse effects on the integrity of the SPA.

5.286 Additional management funded in this way, targeted to increasing productivity further, has been demonstrated by trials to make a positive difference. We note the applicant's view (REP68) that the

absence of targeted management measures in the past to support lesser black-backed gull population growth (and indeed activities such as raking nests that may have reduced productivity) will mean that productivity rates achieved will have been lower. However, the data supporting the applicant's view is limited. It is set against a background of evidence presented to us in the examination of largely unexplained variance in chick productivity.

- 5.287 Although the improvements in site management have apparently led to increases in chick productivity, these recent increases have not been shown to endure. To ensure there is no further reduction in the breeding population of lesser black-backed gulls as a result of collision mortality, we recommend additional SPA site based mitigation is required as a component of the overall mitigation for this project. We recommend the proposals as submitted in the SPA s106 unilateral undertaking (s106-2) be included.
- 5.288 We have reported that the RSPB (REP66) has serious concerns over the mechanisms for monitoring results of SPA management separately, between those measures implemented, as the statutory duty to return the conservation status from unfavourable declining and those funded through this proposed s106 unilateral undertaking. The RSPB also has reservations about monitoring without more extensive baseline studies.
- 5.289 In this regard we have stated earlier we give weight to NE's view, which is that the monitoring proposals are sound and the adaptive feedback that is required for management measures to be responsive is embedded in the s106 (s106-2) as follows:  
*"Monitoring of the efficacy of given measures by specific reference to the colony that is the assumed beneficiary of the given measures, to enable an adaptive feedback approach to be followed in indentifying and pursuing measures going forward which are most likely to be cost-effective."*
- 5.290 Both NE and SCDC have confirmed that the form of undertaking in the s106 (s106-2) is agreed. The applicant provides these written confirmations to the examination (REP60).
- 5.291 We therefore recommend the Secretary of State confirms as described under 3.1 (c) of the s106 (s106-2), an express statement if confirming the DCO, *"that the funding potentially made available to Natural England, or at its direction, pursuant to this deed is necessary to assist the Secretary of State in being satisfied that the Development will not adversely affect the integrity of the SPA pursuant to Regulation 61 of The Conservation of Habitats and Species Regulations 2010 and/or Regulations 25 of The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007."* These words and the further process to be adopted below are taken from the s106 (s106-2) submitted by the applicant.

- 5.292 Also as stated further under 3.1 (d) of the above mentioned s106 unilateral undertaking, should there be any doubt arising from the Secretary of State's confirming of the DCO, then we recommend the approach set out in that sub clause (d) is adopted. This requires the Secretary of State to provide confirmation of the points set out above to both the applicant and SCDC.
- 5.293 In any confirmation reference should be made to the unilateral undertaking relating to the land south of Sizewell Gap Road in the County of Suffolk, Pursuant to section 106 of the Town and County Planning Act 1990 (as amended) given by Galloper Wind Farm Limited, Glencairn Stuart Ogilvie in favour of Suffolk Coastal District Council, signed and dated 27 November 2012 (s106-2).

*Project mitigation*

- 5.294 In terms of project mitigation, we have not considered periodic closure of the wind farm as an option because although raised initially by NE's expert (REP17), it has not been sustained throughout the examination. EN-3 advises that periodic closure is unlikely to offer suitable mitigation because of the inherent uncertainty as to when birds might be passing. In this case if related to the gulls' breeding season, the length of closures could be substantial and we give weight to submissions from the applicant in this regard.
- 5.295 We have however considered project mitigation using the principles set out in NE's 'mitigation tables' (REP56), which relate to project mitigation such as turbine number reduction to reduction in mortality.
- 5.296 The applicant has confirmed there is agreement between NE and itself over the technical basis behind the turbine based project mitigation, although not over the order in which the mitigation options should be considered by the Secretary of State (REP60).
- 5.297 First we set out in abbreviated form the calculations used in the mitigation tables. A fuller explanation has been provided by NE initially in its 'mitigation tables' proposal and confirmed in its response to our question Q40.2 (REP56 Annex E and REP65).
- 5.298 The steps (REP65) are as follows:
- take overall annual mortality figure of adult birds assumed to be associated with Alde-Ore Estuary SPA (eg 119);
  - using % level project mitigation, arrive at proportion of mortality figure that will remain, eg 30% mitigation = 70% remaining;
  - calculate revised annual mortality (eg  $119 \times 0.7 = 83$ );
  - back calculate number of chicks needed to fledge to match mortality based on annual survival rate of sub adult birds being 82%; (eg  $83 / 0.82^4 = 184$ );



- divide number of required fledged chicks per annum by assumed colony size in terms of breeding pairs (eg 184 chicks /1,600pairs=0.115 fledged chick per pair or increased productivity); and
- to assess elevated level of productivity required, add required increase to baseline productivity eg 0.5 chicks per pair (eg  $0.5+0.115=0.615$  chick per pair required).

5.299 The RSPB considers that averaging results across years of available productivity data would allow for naturally occurring events such as weather to be accounted for and thus be a more representative and appropriate approach (REP66). The RSPB also restates the view that circumstances are different on Havergate Island from Orfordness and questions whether if the baseline set for judging increases in productivity should be set for the whole SPA or Orfordness only. We take note of this point and in our recommendation below, base the mitigation table on the figures before us on Orfordness.

5.300 The RSPB also draws our attention to the low productivity figures in 2012. We have stated our acknowledgement earlier of the applicant's frustration at the lateness of submission of these data by the RSPB, but still consider we should give them some weight.

5.301 The data we have before us regarding productivity expressed as chicks per pair are a mixture of counts from plots, averages, ranges and estimates. Some are for Orfordness, some for Havergate Island and some for both sites/the whole SPA. To demonstrate to the Secretary of State the range and to justify our choice of comparable figures we list those before us:

*Havergate Island*

- 0.75 (2010) NE Dr Caldow stated similar to Orfordness (HE70)
- 0.35 (2010) applicant (APP79) (justification from [www.lifealdeore.org](http://www.lifealdeore.org))
- 0.5 (2011) applicant (REP3 and APP79) justification from [www.lifealdeore.org](http://www.lifealdeore.org))
- 1.1-1.2 (2011) NE (HE70)
- 0.32 (2012) the RSPB (REP66)

*Orfordness*

- 0.00 (2010) NE (HE70)
- 0.75 (2011) NE (HE70) (overall)
- 0.5-0.7 (2010-2011) NE (HE70) (not overall - several instances)
- 0.019 (2012) the RSPB (REP66)

*SPA*

- 0.5-0.6 advised by the RSPB (REP3)

- 0.45 applicant PVA historic scenario (REP3)
- 0.19 (2012) the RSPB (REP66)
- 0.84 applicant (APP79)
- 0.50 (no date) NE baseline (REP56)

5.302 The assumptions we have used to support the conclusions and recommendations we reach regarding the relative proportions of site based and project based mitigation are as follows:

- the lesser black-backed gull population has declined rapidly in recent years putting the SPA into unfavourable condition. There is also scope for in combination effects with other wind farms. These two factors mean that all increases in mortality as a result of the proposed development have to be entirely countered through mitigation to enable a conclusion of no adverse effect on integrity to be reached. This is based on advice from NE (REP56);
- the total additional mortality generated by GWF will be 119 birds, based on NE's figures for the reasons set out above;
- there is a general agreement that the colony at Havergate is at capacity; the main scope for mitigation through site based management measures will be at Orfordness;
- we have taken a precautionary approach which assumes that the mortality would be experienced entirely by the Orfordness colony. This is a worst case scenario that is unlikely to occur in reality; however if the effects of this scenario can be adequately mitigated then it is reasonable to conclude that an adverse effect on the integrity of the SPA could be avoided;
- the average chick productivity at Orfordness over the last 3 years, based on the RSPB's figures (REP66) is 0.256 chicks per pair;
- the population in 2012 at Orfordness was 640 birds. (This figure has been chosen rather than an average to allow for the slight upward trend shown in recent years);
- in addition to site based management measures there is also scope for reducing adult mortality through reducing the collision risk with the turbines. If the swept area is reduced the collision risk reduces;
- for the Orfordness colony, assuming a population of 640, with 0% mitigation, an additional 0.4113 chicks per pair would be required to avoid population decline (as a result of the wind farm);
- the information before us suggests that assuming a baseline productivity rate of 0.5 chicks per pair (as used in NE's mitigation table) would be difficult to justify for Orfordness. Data from the Orfordness study plots has shown a considerable variation in recent years with no clear trend. Instead we have used the baseline figure of 0.256 (calculated from the RSPB field data). Combined with the additional productivity referred to above of 0.4113, this gives a figure of 0.67 chicks per pair;

- NE advised (HE70) that a figure of 0.5-0.7 productivity has been attained in some study plots so there is a reasonable expectation that a figure of 0.6 chicks per pair could be achieved. However the recent data indicates that there is no consistency or obvious trend in the chick productivity data for Orfordness;
- using a dual approach to mitigation (SPA site based and project based) provides a greater degree of certainty that additional mortality as a result of the proposed development can be entirely mitigated;
- for a chick productivity rate of 0.6 chicks per pair, a 15.2% reduction in mortality as a result of collisions with GWF would be required;
- calculation is as follows:  $(119 \times 0.848 = 100.91 / 0.82^4 = 223.20 / 640 = 0.349 + 0.256 = 0.60)$ ;
- there will also be increases in chick productivity as a result of the site based management measures. To avoid over reliance on one set of measures we have split the risk equally between the site based and project based mitigation. This assumes that 50% of the required reduction in mortality would be mitigated for through increased chick productivity with the other 50% being accounted for through a reduction in collisions with the WTGs;
- Under the s106 unilateral undertaking (s106-2) chick productivity within the SPA will be monitored. The advice we have had from NE leads us to believe that this will offer a reasonable proxy measure for assessing the effectiveness of the management measures in increasing chick productivity and for applying an adaptive feedback process.

5.303 We do not have the information before us to advise what the swept path reduction would be, but consider the applicant's process set out in Step 6 above will give the Secretary of State a suitable approach. This is as follows:

*The applicant will "apply to the SoS for approval of the turbine, the Maximum Number and the Minimum Clearance to be approved under the DCO. It is proposed that the SoS will consult with Natural England to confirm that the Percentage Reduction will be met, whereupon the SoS will issue a formal approval which will take place under the DCO. GWFL will then be able to proceed with the project."*

*"In advance of applying for this approval, GWFL expects to agree with Natural England the conclusions of a range of permutations of turbine, turbine number and minimum clearance applying the CRM model to enable the approval process to run smoothly." (HE53)*

5.304 If the applicant wishes to remove the restriction on the 7.6% reduction in mortality 50% of the 15.2% reduction in mortality identified in para 3.302) to be delivered at the wind farm and to lift the restrictions on Area B exclusion zone then it will be

required to undertake collision risk monitoring at the wind farm. If a decline in the lesser black-backed gull population is recorded which is attributable to the impact of the wind farm then the adaptive feedback process will require different or further site management measures to be implemented.

- 5.305 We recommend the Secretary of State applies a 7.6% collision reduction through DCO requirement 3 as described in section 19 of this report and set out in full at requirement 3 of the recommended draft DCO (Appendix F).
- 5.306 It is clear from the ES that the selection of larger turbines would enable the maximum power generation to be achieved in less than the maximum number of turbines sought in the application. The proposed approach to mitigation would still allow the applicant the option of building out the full capacity of the scheme but with a reduction in the swept path collision risk through the use of a smaller number of larger turbines. The worst case being assessed in the ES being the maximum number of smaller turbines across all proposed array areas. If this approach were to be taken then it would alleviate the need for offshore monitoring, which we heard from both the applicant and NE at the biodiversity hearing can be difficult and expensive to deliver (HE36 and HE70). It should be noted that this last point is challenged by the RSPB (REP66).

*Area B exclusion zone*

- 5.307 In recommending a dual approach, we are also identifying the need for monitoring potentially both offshore and at the SPA. Collision mortality monitoring will be necessary offshore if the limitation on project area is to be lifted. The benefit of adding back in the Area B exclusion zone, or lifting the limit on the percentage reduction to the swept area at any point, would need to be based on evidence of lower than predicted lesser black-backed gull mortality and in the case of the Area B exclusion zone, no significant adverse effect on fishing.
- 5.308 As the restricted build area of Area B exclusion zone will contribute generally to a reduction in lesser black-backed gull mortality and also reduce adverse impact on fishing, we recommend that the Area B exclusion zone is confirmed in the form set out in the recommended draft DCO at requirement 4 and DML condition 2 (Appendix F). We recommend this is excluded on the basis of 2.7 (b) in the applicant's Annex E (HE53) and set out below.
- 5.309 We recommend the Secretary of State confirms the rationale for the restricted build area of Area B exclusion zone and that no specific percentage is attributed, but expressly sets out that the Area B exclusion zone offer is required to give added confidence to the Secretary of State's conclusion on predicted mortality of the lesser black-backed gull.

- 5.310 We recommend the Secretary of State includes provision for the potential lifting of this restriction based on evidence of growth over a minimum 3 year period of the breeding lesser black-backed gull population of the Alde-Ore Estuary SPA, as well as evidence that removal will not have significant effect on trawling and other fishing interests. We recommend this notice only be lifted if both fishing and gull tests are met and in relation to the performance of all mitigation measures. This is covered in the requirement and condition referred to above and set out below.
- 5.311 We consider this recommendation is in line with EN-3's advice regarding wind turbines being laid out on site in a way that minimises collision risk where CRM shows there is significant risk of collision. It also addresses project mitigation as the first in the mitigation hierarchy of the proposed development as assessed in the ES.
- 5.312 Therefore in conclusion, our mitigation recommendations are:
- the s106 to secure SPA site based mitigation is taken into account on the basis it will increase chick productivity and will include monitoring of efficacy of the given SPA site based mitigation measures to enable an adaptive feedback approach to be followed;
  - a 7.6% collision reduction project based mitigation is required on the basis it will provide confidence to offset the full predicted mortality from the project when taking account of the other mitigation mentioned above;
  - the Area B exclusion zone is specified on the basis that it will give greater comfort to the Secretary of State, but is not identified as providing a quantifiable contribution to the mitigation. It also provides a fishing benefit as well; and
  - provision for lifting the limitations on Area B exclusion zone and the project mitigation is restricted and may only be lifted on an evidential basis.

Returning to the tests in the Habitat Regulations, set out in the section above, the competent authority must make an appropriate assessment of the implications for the Alde-Ore Estuary SPA in view of that site's conservation objectives.

- 5.313 The conservation objectives for the Alde-Ore Estuary SPA are as follows:

*"With regard to the individual species and/or assemblage of species for which the site has been classified ("the Qualifying Features" listed below);*

*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.*

*Qualifying features:*

- *A081 Circus aeruginosus; Eurasian marsh harrier (Breeding);*
- *A132 Recurvirostra avosetta; Pied avocet (Non-breeding);*
- *A132 Recurvirostra avosetta; Pied avocet (Breeding);*
- *A151 Philomachus pugnax; Ruff (Non-breeding);*
- *A162 Tringa totanus; Common redshank (Non-breeding);*
- *A183 Larus fuscus; Lesser black-backed gull (Breeding);*
- *A191 Sterna sandvicensis; Sandwich tern (Breeding);*
- *A195 Sterna albifrons; Little tern (Breeding).*

*Additional qualifying features identified by the 2001 UK SPA review:*

- *Seabird assemblage;*
- *Waterbird assemblage.*<sup>29</sup>

5.314 NE advised the revised FCS population target for the lesser black-backed gull population of the Alde-Ore Estuary SPA following the conservation status being found to be 'unfavourable declining'. The new population target is 14,074 pairs (REP17).

5.315 It is the integrity of the breeding gull population of the entire SPA which is the European site feature and the likely effect of additional gull mortality on that entire feature which is important in terms of the HRA.

5.316 The key issue in connection with the existing condition is the 'unfavourable declining' conservation status of the SPA combined with the lack of certainty surrounding the reasons that this has occurred.

5.317 We set out our conclusions below under the 'Habitat Regulations' tests.

*61.-(1)*

5.318 All parties that have commented agree that the competent authority should make an appropriate assessment of the

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<sup>29</sup> Provided by NE as an annex to its written representation (REP17)

implications for the Alde-Ore Estuary SPA and Ramsar sites. We see no reason to disagree with this advice.

61.-(2)

5.319 We have reported above on areas of concern the RSPB has in connection with the soundness of the evidence for appropriate assessment and the need for further modelling and data. However the competent authority is required to have regard to representations made by the relevant SNCBs.

5.320 On balance we find the position set out by NE to be persuasive with regards adequacy of information. We consider this is in line with EN-3. We consider such information has been provided as the competent authority may reasonably require for the purposes of the assessment is provided.

61.-(3)

5.321 As we stated earlier, the panel did not have a firm proposal populated with all the necessary figures demonstrating delivery of mitigation in the examination material. We have taken what we consider to be a precautionary approach, to arrive at a suggested dual approach to mitigation (project and SPA site based), using NE's proposals. We consider this is necessary to remove all reasonable doubt that the integrity of the Alde-Ore Estuary SPA will not be adversely affected by the project. It should be noted that neither the applicant nor any of the IPs have had an opportunity to comment on these detailed figures and dual approach.

61.-(4)

5.322 There have been no representations from the general public, but there have been strong representations from the RSPB.

61.-(5)

5.323 The competent authority needs to be convinced of the level of predicted impacts or mortality in order to move to the next stage. We accept NE's argument that the loss of all predicted 119 birds from the population has to be mitigated to avoid an adverse effect on integrity.

5.324 The basic requirement is to offset the predicted mortality arising from the proposed wind farm. However, this has to be undertaken in the context of the current 'unfavourable declining' condition of the SPA, ensuring no adverse effect on the integrity of the SPA. The question is, whether the competent authority considers it possible to mitigate the impacts of the wind farm on the SPA adequately, and if so how.

- 5.325 As has been stated earlier, there have been submissions about the hierarchy of mitigation approaches. There have also been strong representations about the uncertainty regarding what SPA site based mitigation can achieve and the view that project based mitigation will help to reduce that uncertainty. The applicant holds its view that no project mitigation is required on the basis of its original HRA submission.
- 5.326 However, the applicant also acknowledges that NE's submission with the 'mitigation tables' (REP56) presents a valid alternative approach to relating collision mortality to a relative increase required in chick mortality, if such an assessment approach were to be utilised by the competent authority. There are no other approaches proposed in the examination material, although the RSPB states strong disagreement with this approach (REP66 and REP72).
- 5.327 We have presented an approach that we consider will assist the competent authority in arriving at conclusions with regards to: whether mitigation is possible; in what form or combination, taken from the hierarchy, and the level of 7.6% collision reduction project mitigation that taken with all the mitigation measures we propose would result in there being reasonable certainty of no significant adverse effects on the integrity of the SPA.
- 5.328 Our recommended approach has been described in more detail above but in short comprises a combination of SPA based mitigation measures, project mitigation and the Area B exclusion zone.
- 61.-(6)
- 5.329 We consider that the recommended draft DCO, DML (Appendix F) and SPA s106 unilateral undertaking (s106-2) as attached to this report and recommendation are needed to ensure the proposed wind farm will not adversely affect the integrity of the European site.
- 5.330 The Secretary of State will need to confirm by express statement, as described under 3.1 (c) of the s106 (s106-2), that the funding potentially made available to NE, or at its direction, pursuant to the deed is necessary to assist the Secretary of State in being satisfied that the development will not adversely affect the integrity of the SPA pursuant to the Habitat Regulations.

### ***Alde-Ore Estuary Ramsar***

- 5.331 We consider that the weight of evidence supports the applicant's assertion that the Ramsar site is too far away from the proposed development and onshore substation for any of the habitat features, for which the site was listed, to be affected.



- 5.332 The points with regards to collision risk for the lesser black-backed gull, a species occurring at levels of international importance, regularly supported through the breeding season, are the same as for the Alde-Ore Estuary SPA above.
- 5.333 In our view the evidence in relation to the lesser black-backed gull strongly suggests that there will be a likely significant effect on the Alde-Ore Ramsar that will need to be considered and addressed.

#### ***Alde-Ore and Butley Estuaries SAC***

- 5.334 The applicant concludes no likely significant effect alone or in combination with other plans and projects on the habitat features of this SAC. This conclusion is reached as the applicant demonstrates that the construction impacts will be localised and temporary and no effects are identified that can result in changes to the coastal features or habitats other than within the immediate footprint of the 'works'. The footprint of the 'works' is at some distance from this SAC.
- 5.335 In our view the weight of evidence supports the applicant's conclusion of no likely significant effect. There were no further representations on these points.

#### ***Flamborough Head and Bempton Cliffs SPA***

- 5.336 The applicant identified that gannet (*Morus bassanus*) is the only possible assemblage species from the Flamborough Head and Bempton Cliffs SPA that could be at risk of collision from the proposed wind farm, over 250km away. The applicant's HRA Report (APP79) suggests the site is included because of gannet's large foraging range and in the summer months the foraging range is likely not to exceed 100km of the colony.
- 5.337 The applicant included collision risk for gannet from the Flamborough Head and Bempton Cliffs SPA in its HRA following consultation with JNCC and NE. The applicant's HRA report (APP79) concluded no likely significant effect either alone or in combination with other plans and projects for collision risk. The applicant argued this is because those gannet present in the proposed project area are likely to be on migration only, so the project will not contribute significantly to cumulative mortality.
- 5.338 Both NE (REP17) and the RSPB (REP19) considered there were some uncertainties surrounding the arguments put forward by the applicant in terms of avoidance rates (NE and the RSPB), flight height data and range of offshore wind farms included (the RSPB).
- 5.339 The RSPB (REP19) also stated that in its view, the applicant's conclusion of no likely significant effect on the Flamborough Head and Bempton Cliffs gannet population is predicated on under precautionary assumptions in the applicant's HRA report.

- 5.340 All parties agreed that the effect of additional mortality should be considered in the light of the WWT (2012) Population Viability Assessment (PVA) model<sup>30</sup>. In its advice for gannet (REP56), NE advised us that it is satisfied that likely significant effect can be excluded on the gannet feature of the Flamborough Head and Bempton Cliffs SPA due to collision risk from the project alone. This is because the colony has experienced stronger growth than average and the modelled figure for mortality is likely to be an underestimate of sustainable mortality not captured in the PVA, and the total year round figure does not exceed the threshold derived from the PVA.
- 5.341 In looking at the assessment in combination with other wind farms, NE also considered the in combination assessment included with the submission carried out for the Triton Knoll Offshore Wind Farm (TKOWF). NE suggested (REP56) that in the absence of an up to date colony specific model for the SPA an alternative model known as Potential Biological Removal (PBR) could be used as a guide to establish if impacts exceed thresholds.
- 5.342 On the basis of a PBR, using standard gannet demographic parameters, NE derived a more precautionary estimate of in combination collision mortality of 242 or 351 adults per annum (figures vary depending on two key parameters). Applying the 12.5% growth rate recorded at the SPA, the 351 deaths falls within the PBR limit. This used appropriately conservative values and may be considered precautionary as it is based on an avoidance rate of 98% (HE21, REP17 and REP56). Using 99% avoidance the mortality figures would fall to 121 or 176 birds.
- 5.343 NE advised (REP56) us that there is sufficient confidence in the PBR to conclude that the in combination collision impact figures presented for this application do not pose a likely significant effect for the gannet feature at the Flamborough Head and Bempton Cliffs SPA.
- 5.344 The ornithology SoCG (SOCG6) between the applicant and NE agreed that the additional material supplied to us makes clear likely significant effect can be ruled out alone and in combination on the gannet population at the Flamborough Head and Bempton Cliffs SPA.
- 5.345 The RSPB (REP66) did not agree that there is sufficient evidence to support even a 99% avoidance rate in CRM for gannet. It considers the assumptions made to apportion collision risk to the SPA population are not based on adequate consideration of empirical evidence. The RSPB noted that NE's revised position is in part based on refinements made to the in combination CRM for

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<sup>30</sup> Wildfowl and Wetlands Trust Consulting, RPS and MacArthur Green on behalf of Strategic Ornithological Support Services Group (2012), *Gannet Population Viability Analysis*.

TKOWF, but stated that the RSPB also had reservations about the approach to apportioning collision risk on the TKOWF application.

- 5.346 The RSPB agreed that it is appropriate to account for the growth of the colony size since 2004, but that it would be more scientifically valid to produce a new estimate for the threshold of acceptable mortality using the WWT (2012)<sup>31</sup> model than deriving it from PBR modelling, as it considers this to be, as yet, an un-validated technique in this context.
- 5.347 We were able to question the NE expert at the biodiversity hearing and heard here that the applicant and NE were in agreement over the revised precautionary mortality figure, the avoidance rate and use of a PBR model. We were anticipating receipt of the RSPB's response to the advice given in NE's 12 October 2012 advice (REP56) for the hearing summary deadline of 29 October 2012. In fact we only received the RSPB's views in response to our Rule 17 request on 26 November 2012.
- 5.348 On receipt of the RSPB's written submission (REP66) on 26 November 2012, we therefore sought views from other IPs through a final Rule 17 request for information (PD17), but there was limited time for responses due to the examination timetable's closure date. NE responded (REP71) acknowledging differences exist in views, but not altering the scientific advice given to us. The applicant asserted that PBR modelling is no less valid than PVA modelling for the purposes for which it is being used and applied (REP68).
- 5.349 At the close of examination the RSPB (REP72) is unable to agree there can be reasonable certainty that there will be no likely significant effect on the integrity of the Flamborough Head and Bempton Cliffs SPA and therefore remains of the view that an appropriate assessment is required. It does not agree with points made by NE regarding CRM parameters.
- 5.350 We are faced with a difference of opinion between NE and the RSPB as to whether a likely significant effect can be ruled out in connection with collision risk for the gannet population of the seabird assemblage feature in combination with other wind farms; and therefore whether appropriate assessment is required.
- 5.351 As we have explained above, we have tested these differences as far as we can through written representations. All parties agreed that the revised increased gannet population should be accounted for in assessment of likely significant effects. The RSPB maintains that appropriate assessment is required because revised modelling

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<sup>31</sup> Wildfowl and Wetlands Trust Consulting, RPS and MacArthur Green on behalf of Strategic Ornithological Support Services Group (2012), *Gannet Population Viability Analysis*.

using the WWT (2012)<sup>32</sup> PVA for population modelling to inform the CRM has not been undertaken. NE considers the PBR offers a suitably precautionary, alternative approach. The applicant agrees with NE on this point.

- 5.352 We are guided in reaching our recommendation to the Secretary of State by EN-3, which states that the decision-maker *“will want to be satisfied that the collision risk assessment has been conducted to a satisfactory standard, having had regard to the advice from the relevant statutory advisor.”*
- 5.353 We have received a reiteration from NE (REP71), as an SNCB, following submission of the RSPB’s position that *“it does not consider that significant evidence is provided by the RSPB which compels Natural England to alter the scientific evidence it has already given the Examining Authority.”*
- 5.354 We have also received confirmation from NE (REP46) in response to our question regarding the implications of 2012 Habitat Regulations amendments that *“Natural England has already given its statutory advice in respect of Annex 1 wild bird species associated with particular SPAs which may be affected by this development. So far as these bird species are concerned, Natural England is satisfied its duties (and the duties of Secretary of State acting as competent authority in this regard) have been discharged in this case, because these birds fall to be considered as part of the Habitats Regulations Assessment.”*
- 5.355 We therefore recommend the Secretary of State should give significant weight to NE’s advice in reaching a view on the need for appropriate assessment and we consider the weight of evidence supports NE’s and the applicant’s position that there is reasonable certainty of no significant effect alone or in combination on the integrity of the Flamborough Head and Bempton Cliffs SPA.

### ***Margate and Long Sands cSAC***

- 5.356 The applicant assessed construction, operation and decommissioning impacts on site features of sandbanks in its HRA report (APP79). In response to scoping opinion comments from JNCC/NE about the potential for operation impacts in combination with other projects as a result of changing hydrodynamic and sedimentary processes the applicant included a technical note, Appendix B on the Margate and Long Sands cSAC (APP79).
- 5.357 Modelling studies from GGOWF are included, which the applicant stated demonstrate strong evidence that the hydrodynamic and sediment dynamic effects are local to the wind farm and will not

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<sup>32</sup> Wildfowl and Wetlands Trust Consulting, RPS and MacArthur Green on behalf of Strategic Ornithological Support Services Group (2012), Gannet *Population Viability Analysis*.

affect the cSAC, so there will be no impact on its integrity (APP79).

- 5.358 The potential construction and decommissioning stage impacts on the *Sabellaria spinulosa* reef are found to have no likely significant effect because there is no potential pathway, as impacts will be localised.
- 5.359 NE (REP17 Annex C and D) confirmed it no longer had concerns with regards to the Margate and Long Sands cSAC. The SoCG between the applicant and NE on non ornithological matters (SOCG13) confirmed agreement that there are no likely significant effects as a result of geomorphologic processes on the coastal and marine habitats of the Margate and Long Sands cSAC.
- 5.360 The RSPB (REP34) stated it has no comments regarding the Margate and Long Sands cSAC.
- 5.361 In our view the weight of the evidence supports the applicant's conclusion of no likely significant effect alone or in combination with other plans or projects to be correct.

#### ***Minsmere to Walberswick SPA***

- 5.362 The applicant assesses impact of disturbance on European site features of breeding birds; avocet, bittern, little tern, marsh harrier, nightjar, shoveler, gadwall and over wintering species; hen harrier and white fronted goose.
- 5.363 As the proposed project does not sit within the SPA, the applicant concludes there is no potential influence on physical conditions affecting the species. Given the distance of 2km from the onshore 'works', the applicant concludes there will be no likely significant effect from noise or vibration disturbance during construction, operation or decommissioning.
- 5.364 There were no further representations on these points other than from NE confirming no concerns, but pointed out reference should be made to the onshore substation for completeness in the RIES (REP65).
- 5.365 In our view the weight of the evidence supports the applicant's conclusion of no likely significant effect alone or in combination with other plans or projects.

#### ***Minsmere to Walberswick Ramsar***

- 5.366 The applicant assessed the impact of disturbance on the site feature assemblage of rare breeding birds associated with marshland and reedbeds including some of the same bird species as for the Minsmere to Walberswick SPA plus teal and bearded tit. The same conclusion of no likely significant effect is reached (APP79).

- 5.367 The applicant also assessed the impact of potential habitat loss of Ramsar criterion habitats during the construction, operation and decommissioning stages of the project. The applicant concludes that evidence from the GGOWF hydrodynamic modelling shows predicted effects would be contained to near the wind farm, which is 35.5km away and there is no potential pathway for in combination effects.
- 5.368 The non ornithological SoCG (SOCG13) agreed that there are unlikely to be any significant impacts on shoreline habitats and species as a result of the proposed project, when successfully mitigated by the agreed cable laying plan.
- 5.369 There were no further representations on these points other than from NE, which confirmed that it had no concerns, but pointed out that reference should be made to the onshore substation for completeness in the RIES (REP65).
- 5.370 In our view the weight of the evidence supports the applicant's conclusion of no likely significant effect alone or in combination.

***Minsmere to Walberswick Heaths and Marshes SAC***

- 5.371 The applicant assessed (APP79) the impact of habitat loss and disturbance on the European site feature habitats of the annual vegetation of drift lines, European dry heaths and perennial vegetation of stony banks for the construction, operation and decommissioning stages of the project alone and in combination with other plans and projects.
- 5.372 The applicant concludes that there are no likely significant effects on the basis that the potential construction and decommissioning impacts related to cable laying near the landfall on the annual vegetation of drift lines as a result of physical processes are anticipated to be small scale and localised because of the method of cable laying installation to be used. No operation impacts on coastal processes are predicted based on the hydrodynamic modelling from GGOWF, which predicts no far field impacts on the basis of the wind farm being 35.5km away.
- 5.373 The non ornithological SoCG (SOCG13) agreed there are unlikely to be any significant impacts on shoreline habitats and species as a result of the proposed project, when successfully mitigated by the agreed cable laying plan.
- 5.374 There were no further representations on these points other than from NE, which confirmed that it had no concerns, but pointed out that reference should be made to the onshore substation for completeness in the RIES (REP65).
- 5.375 In our view the weight of the evidence supports the applicant's conclusion of no likely significant effect alone or in combination.

### **Orfordness to Shingle Street SAC**

- 5.376 The applicant assessed (APP79) the impact of habitat loss and disturbance on the European site feature habitats of annual vegetation of drift lines, perennial vegetation of stony banks and lagoons for construction, operation and decommissioning alone and in combination with other plans and projects.
- 5.377 The applicant concludes that there are no likely significant effects on the basis that the potential construction and decommissioning impacts related to increased suspended sediments during cable laying and foundations installation will be localised and temporary. No operational impacts on coastal processes are predicted based on the hydrodynamic modelling from GGOWF, which predicted no far field impacts on the basis of the wind farm being 28km away.
- 5.378 The non ornithological SoCG (SOCG13) agreed there are unlikely to be any significant impacts on shoreline habitats and species as a result of the proposed project, when successfully mitigated by the agreed cable laying plan.
- 5.379 In our view the weight of the evidence supports the applicant's conclusion of no likely significant effect alone or in combination.

### **Outer Thames Estuary SPA**

- 5.380 The applicant concluded there are no likely significant effects on the red-throated diver (*Gavia stellata*) feature of the Outer Thames Estuary SPA alone or in combination with other wind farms as a result of habitat loss, disturbance, displacement, collision risk and barrier effect (APP79).
- 5.381 The applicant pointed out that the wind farm lies outside the SPA boundary and that red-throated diver shows high avoidance of wind farms. In terms of the effects assessed the applicant concluded that (APP79):
- habitat loss will only be short term and temporary during cable installation;
  - disturbance of birds will be limited to installation, maintenance and removal of the inshore cable;
  - displacement effects will be short term and unlikely to affect birds that are part of the SPA population;
  - collision risk is low based on evidence from other studies regarding flight height; and
  - barrier effects, where wind farms act cumulatively, would not occur and even if they did for migratory birds, they would not be from the Outer Thames Estuary SPA.
- 5.382 NE was not convinced by all the points made by the applicant as it considered that there was a lack of evidence behind some of them. At the start of the examination, NE had concerns over some of the effects assessed by the applicant. NE also wished to see the

figures presented with regards displacement of red-throated diver in the Outer Thames Estuary SPA (REP17 Annex C and D).

- 5.383 NE (REP17) acknowledged that the proposed wind farm is outside the boundary of the SPA, but pointed out that does not mean that displacement of birds from that area cannot have an adverse effect on the SPA red-throated diver population. Therefore NE initially considered that the issue of indirect habitat loss could not be discounted from potentially having a likely significant effect on the SPA. This is because the displacement caused by the proposed development in combination with other wind farms through loss of foraging habitat could increase the amount of time birds forage in the SPA, increasing the density of birds per unit of food resource in the SPA.
- 5.384 The RSPB (RR18) mentioned concerns about the adequacy and analysis of data associated with potential cumulative disturbance and collision risk on red-throated diver of the Outer Thames Estuary SPA. There were no further submissions from the RSPB regarding red-throated diver.
- 5.385 NE (REP46), in response to our questions, agreed with the applicant that changes in density of red-throated diver in the SPA will be small. However, NE pointed out (REP56) that the displacement cannot be treated in isolation and the possibility exists that increased bird numbers could lead to a reduced number of birds meeting their food requirements. NE was unable to advise if the intensity of competition will reduce the capacity of the site to support the designated population, but stated the possibility could not be ruled out.
- 5.386 At the biodiversity hearing (HE21 and HE70), NE reconsidered its earlier advice regarding the information supporting the conclusion of no likely significant effect on red-throated divers on the Outer Thames Estuary SPA and agreed with the applicant's view that displacement will not lead to a likely significant effect through immigration alone or in combination.
- 5.387 NE explained (HE21 and HE70) that figures provided in the HRA addendum report submitted by Vattenfall Wind Power Limited in support of the Kentish Flats Extension application, give rise to a lower density of birds in the areas within the SPA to which birds could be displaced.
- 5.388 This lower density was used by NE to rework the applicant's figures. This showed that in order for immigration into the SPA due to displacement to result in a significant net reduction in the number of birds supported within the SPA, the strength of density dependence would need to be as strong or stronger than the most extreme values simulated (HE21 and HE70).



- 5.389 Therefore NE advised (HE21 and HE70), it was able to conclude that the likelihood of density dependence being significantly strong to result in any density related increase in numbers not supported within the SPA exceeding the numbers that may relocate into it as a result of displacement from the proposed wind farm, is sufficiently low for such relocation not to constitute a likely significant effect.
- 5.390 NE pointed out that it still has some concerns over two of the reasons the applicant put forward regarding displacement effects. These were the assumption that habitat in the proposed wind farm area is sub optimal and that because peak numbers occur in winter, many birds displaced would be migratory and not from the SPA (HE21 and HE70).
- 5.391 NE also acknowledged (HE21 and HE70) that a number of factors do have a bearing on the likelihood of a significant effect. When taken together they mean that the likelihood of a significant effect on the Outer Thames Estuary red-throated diver feature arising through indirect habitat loss is sufficiently low as not to constitute a likely significant effect.
- 5.392 NE concluded, (although emphasised this view is specific to this case and not necessarily applicable to other proposed developments in the Outer Thames Estuary) "*the likelihood of density dependence being sufficiently strong to result in any density related increase in numbers not supported within the SPA exceeding the numbers that may relocate into it as a result of displacement from GWF, is sufficiently low for such relocation not to constitute a likely significant effect.*" (REP65).
- 5.393 When we specifically asked NE at the biodiversity hearing if the Area B exclusion zone would have any effect for red-throated diver, NE's expert confirmed (HE21 and HE70) that any exclusion zone such as Area B, had the potential to be beneficial to red-throated diver, by reducing the footprint of the proposed wind farm.
- 5.394 The applicant and NE now agree there is no likely significant effect alone or in combination on the over wintering red-throated diver feature. We have no reason to disagree with that shared view.

### **Sandlings SPA.**

- 5.395 The applicant's assessment concluded no likely significant effect as a result of disturbance of supporting habitats or the site feature breeding bird species; nightjar and woodlark alone or in combination with other plans or projects during construction, operation or decommissioning (APP79).
- 5.396 Operational noise was assessed to be below levels that would disturb species identified on the site. The operational noise level assessment was based on the inclusion of the completed screening

mound, which is secured as 'works 7' through the recommended draft DCO (Appendix F). Lighting is stated to be designed to minimise effects on birds foraging near the substation site. This is covered through the CCoP.

- 5.397 NE (REP17) advised that if the site south of Sizewell Gap Road (one of a number of alternative sites) was selected for the substation, then screening for an appropriate assessment for nightjar and woodlark would be required for the Sandlings SPA. In fact the application included a firm proposal for the substation to be sited north of Sizewell Gap.
- 5.398 The RSPB, in response to our specific questions (REP27) commented that as the Suffolk Coast woodlark has declined in recent years, activities that hinder population recovery should not be permitted. It said birds may winter on fields left as stubble, which are likely to be part of the Sandlings SPA population. The RSPB advised that works during winter should first assess for suitable habitat and apply restrictions if necessary and that lighting should be carefully designed to minimise impact on birds. There were no further representations from the RSPB and this matter was not raised in response to the RIES (RIES1).
- 5.399 All parties invited to comment (the Councils, NE and SWT) at the biodiversity hearing (HE20) confirmed that in their opinions the mitigation measures in connection with indirect and direct disturbance on breeding birds set out in the applicant's Annex B1 (REP29) were fit for purpose and no further mitigation was required. This includes measures in the CCoPv4 (HE45) and the EMP.
- 5.400 The weight of the evidence supports the applicant's conclusion of no likely significant effect alone or in combination on the breeding nightjar and woodlark features to be sound. We consider adequate controls are in place in the CCoP and the EMP as delivered through requirements 26 and 27 of the recommended draft DCO (Appendix F) regarding ecological assessments in advance of 'works' and noise and lighting mitigation.

### ***Conclusions and Recommendations for European sites***

- 5.401 Our final conclusions and recommendations to the Secretary of State with regard to European sites are as follows:
- we conclude that the only site for which there is a likely significant effect is the Alde-Ore Estuary SPA and Ramsar site. This point is agreed by the applicant and IPs, with the exception of the RSPB;
  - we conclude that the information required for the Secretary of State to undertake the appropriate assessment for the Alde-Ore Estuary SPA and Ramsar has been made available

- through the examination. This point is agreed in the SoCG between applicant and NE. It is not agreed by the RSPB;
- we recommend the Secretary of State should adopt a dual approach to mitigation for lesser black-backed gull mortality at the Alde-Ore Estuary SPA comprising project and SPA site based mitigation measures. This should include SPA site mitigation through the s106 unilateral undertaking for management improvement measures at the SPA and a 7.6% reduction in lesser black-backed gull mortality, project mitigation which can be used with swept path calculations to agree the number, type and details of turbines submitted to the Secretary of State in consultation with NE;
  - we recommend the Secretary of State should also include provision in the DCO for the Area B exclusion zone on the basis it will add confidence on predicted mortality without a specific percentage reduction being directly attributed to this exclusion, and this should be stated clearly;
  - we recommend the Secretary of State should include the provisions we have recommended in the DCO and DML to allow for the potential lifting of both the Area B exclusion zone and the project mitigation with suitable evidence on bird strike, fishing and efficacy of SPA mitigation measures as appropriate;
  - we recommend the Secretary of State should require the s106 unilateral undertaking as proposed by the applicant, which includes for monitoring of efficacy of the given SPA site based mitigation measures to enable an adaptive feedback approach to be followed;
  - we recommend the Secretary of State should apply a 7.6% reduction in lesser black-backed gull mortality to the project, which will be used to confirm the final project details. This should be stated clearly to provide confidence to offset the full predicted mortality from the project when taking account of the other mitigation mentioned above;
  - we recommend the Secretary of State consults on these mitigation proposals and bases the final decision on our recommendations set out above and informed by comments received from parties, but in particular NE as the relevant SNCB; and
  - we recommend the Secretary of State includes the provisions we have recommended above regarding the CCoP and other DCO and DML requirements and conditions to cover mitigation at other European sites to ensure no adverse significant effects on site integrity.

### **Overall Conclusions for Biodiversity, Biological Environment and Ecology**

- 5.402 With regard to the panel's and the Secretary of State's duties in relation to nationally protected species and conservation of biodiversity under the Natural Environment and Rural Communities Act 2006, the protected species and habitats

identified on and near the land based site and wind farm site, we are satisfied there are no matters outstanding that would argue against the Order being confirmed.

- 5.403 We are also satisfied that regard has been given to the general duty every public authority has with regard to the purpose of conserving biodiversity under the Natural Environment and Rural Communities Act 2006 and that the mitigation secured through the DCO and DML delivers this.
- 5.404 We have stated above we are satisfied that notifications to Natural England under section 28I(2) of the Wildlife and Countryside Act 1981 will not be required. We are also satisfied that on the basis of advice given to us by the SNCBs there is nothing that will prevent EPS licences being issued if and when required.
- 5.405 Our conclusions on European sites are set out above. This is a matter for the Secretary of State, but we see no reason for consideration of European sites and HRA matters to prevent the Secretary of State from making a DCO. We are also satisfied that all transboundary biodiversity matters were addressed.

## **6 COMMERCIAL FISHERIES AND FISHING**

### **Background**

- 6.1 In chapter 15 of the Environmental Statement (ES) (APP49) the applicant provides a baseline characterisation of commercial fishing activities recorded within the study area and wider region through the analysis of fisheries statistics, surveillance data and direct consultation with the fishing industry. Additionally it provides an assessment of the magnitude and significance of the effects resulting from the construction, operation and decommissioning of the proposed Galloper Wind Farm (GWF) development, as well as those resulting from cumulative interactions with other existing or planned projects and where relevant mitigation measures are detailed.
- 6.2 The applicant's detailed assessments of impacts on shipping safety, the natural fish resource on which the commercial fisheries are based and the impacts on recreational fishing are provided in ES chapter 13 (APP47), 16 (APP50) and 24 (APP58) and are considered under these headings elsewhere in this report.
- 6.3 ES chapter 15 (APP49 Table 15.14) summarises the potential impacts of the GWF proposal for the commercial fishing sector, both inshore and offshore, in the construction and operational phases and the proposed mitigation measures – the analysis assumes that impacts during the decommissioning phase are the same as those for the construction phase.
- 6.4 The effects described by the applicant provide for the maximum potential adverse impacts as a result of having assessed the worst case scenario, set out in Table 15.7 of chapter 15 of the ES. All impacts are accorded 'negligible' or 'minor adverse' significance prior to mitigation; apart from the temporary loss of access during construction and decommissioning for the passive gear sector; the increased potential for fishing vessels to collide with offshore wind farm structures during the construction (decommissioning) phase and the potential effect on fishing vessel safety during the operational phase, which are all assessed as 'moderate adverse'. After the introduction of mitigation measures, all residual impacts are assessed as 'negligible', 'minor adverse' or 'as low as reasonably practicable' (ALARP).
- 6.5 The panel notes that there was no significant disagreement with the applicant's analysis of the potential, worst-case scenario impacts of the proposal in respect of commercial fishing (SOCG4 and SOCG14).

## Issues, Questions and Responses Raised During the Examination

- 6.6 Relevant representations and further submissions were received from operators within and representatives of both the inshore and offshore fishing interests relating to:
- loss of grounds and compensation measures (RR3, RR8, RR10, RR13, RR14, RR27, RR34);
  - lack of communication, liaison and planning from the applicant (RR14, RR27);
  - the potential for damage to gear from debris left on the seabed, particularly in the cable corridor (RR8, RR30);
  - underestimation of the impact of the loss of fishing grounds;
  - the need for appropriate monitoring to assess the proposal's impact on fishing activities and fish stocks (RR27);
  - the impact of displaced trawlers and increased maritime activity associated with construction and maintenance on fixed gear operations (RR30).
- 6.7 In first written questions we asked the applicant what steps were being taken to address compensation issues for both local and foreign fishing interests (PD11) and asked further questions of all Interested Parties (IPs) in our second written questions (PD13) along with a request for comments on a number of statements in the applicant's ES concerning the post mitigation impact of the proposal on commercial fishing interests (PD13).
- 6.8 Three responses were received from IPs:
- the Orford and District Inshore Fisherman's Association (ODIFA) who represent the *"majority of the small inshore fishing boats operating in the area currently being developed for the Greater Gabbard Wind Farm and the area where approval is now being sought for a second phase of this development"* (REP47) and included comments from the New Under Ten Fisherman's Association (NUTFA), who represent members of the industry using boats of under 10m length overall (LOA). The ODIFA outlined the experience of its members in relation to the construction of wind farms and, particularly issues around communication and negotiation, construction timescale overruns, clean up after cable installation, the operation of exclusion zones, interference with gear from service boats, exposed cables, the impact of the proposal on bass and compensation issues. In response to our second written questions ODIFA drew particular attention to the potential negative impact of cable laying and the need to undertake post-installation surveys of the disturbed ground and the importance of the position of turbines in undertaking drift netting for bass;
  - NUTFA also commented on the need for meaningful engagement with the inshore fishing interests, noise, general

- disturbance, electric and magnetic field (EMF), the impact on fish stocks, especially bass, and compensation;
- the National Federation of Fisherman's Organisations (NFFO), VisNed and Nord-Pas de Calais/Picardie Regional Fisheries - Comité Régional des Pêches Maritimes et des Elevages Marins (CRPMEM) made detailed representations in relation to consultation, mitigation and residual impacts, licence conditions, a fisheries mitigation and coexistence strategy, detailed points on the ES and monitoring (REP15). Further NFFO and VisNed responded to the second round questions (REP44) and raised issues around compensation, the significance of impacts on the Dutch and French trawler fleets as 'minor adverse', opportunities for relocation to alternative grounds and the need for a Fisheries Co-existence Plan in the DCO.

6.9 We requested Statements of Common Ground (SoCG) between the applicant and a number of IPs in relation to commercial fishing issues (PD11). SoCGs were agreed by the applicant with the Marine Management Organisation (MMO) and the Eastern Inshore Fisheries and Conservation Authority (EIFCA); but agreement with NFFO, VisNed and CRPMEM was not achieved.

6.10 The SoCG with the MMO (SOCG4) recognised agreement on the following topics in relation to commercial fisheries:

*Assessment methodology*

Including that:

- the descriptions provide an accurate and appropriate characterisation of existing commercial fisheries activity; and
- that commercial fisheries activity within the proposed GWF site comprises mainly trawling by non-UK vessels (in particular Belgian and Dutch beam trawling) which target the sole and plaice fishery.

*Baseline environment surveys*

Including that:

- the existing data sources used and the site specific surveys and subsequent analyses carried out for the project have been completed in accordance with relevant guidance and are sufficient to characterise the existing commercial fisheries and to provide the basis for the impact assessment; and
- that the industry specific consultation with the local, regional and foreign parties that has been carried out by Galloper Wind Farm Limited (GWFL) for the purposes of the Environmental Impact Assessment (EIA) has been appropriate and has been undertaken in line with the relevant guidance and requirements.

*Pre-construction fish surveys*

Including that:

- the requirement for, and detail of, any further pre and post construction monitoring at GWF will be established through consultation with the MMO (and Cefas) at least four months prior to any (pre-construction) 'works' commencing.

*Forecasting methodologies*

Reflects the same response as set out for the baseline environment surveys above.

*Effects*

There was agreement that the commercial fisheries study area as described is a suitable area on which to base the impact assessment.

*Appropriate monitoring and mitigation*

Agreement was reached in relation to:

- piling restrictions to cover sensitive spawning periods - that, in order to mitigate for the potential impacts associated with construction noise, soft start piling will be employed, and seasonal restrictions (for piling activity) will be adhered to in accordance with condition 12 of the deemed Marine Licence (DML). Also agreed that these measures will ensure there are no significant impacts upon fish and shellfish communities during construction or operation;
- ecological monitoring - agreed that fisheries liaison and, where necessary, pre-construction discussions to agree suitable mitigation measures, will be undertaken in order to mitigate for the potential impacts upon commercial fisheries. In addition, in relation to potential impacts associated with seabed obstruction, it is agreed that any lost objects will be located and recovered and large spoil mounds would be levelled. It is agreed that these measures will ensure there are no significant impacts upon commercial fisheries during construction or operation.

The SoCG with EIFCA (SOCG 14) was accompanied by a letter from EIFCA commenting in detail on an earlier draft of the SoCG, with a request that the final SOCG be read "*in conjunction with*" EIFCA's letter (para 2.1.3). EIFCA's area of responsibility extends to six nautical miles out to sea and therefore includes the proposed export cable corridor; but not the 'works' associated with the generating station. The SoCG recognised agreement on the following topics in relation to commercial inshore fisheries:



### *Fisheries baseline surveys and assessments*

There was agreement that the range of data and information sources presented in the ES (APP49) is sufficient to characterise the existing commercial fisheries activity in the vicinity of the GWF export cable corridor; the ES (APP49) provides an accurate description of the benthic ecology and fish and shellfish ecology within the study area surrounding the export cable corridor; the ES (APP49) provides an accurate characterisation of commercial fisheries activity based on the existing data available.

### *Need for pre-construction surveys*

Agreement was reached that there are no significant adverse residual impacts predicted from the construction, operation and decommissioning of the GWF project upon fish and shellfish relevant to the GWF project. However, notwithstanding there being no residual significant adverse effects predicted, GWFL agreed (through post-application consultation with the MMO) to undertake fish resource monitoring as provided for in condition 15 (2) (e) of the DML (note this is amended to condition 15 (2) (d) in the sixth draft (DCO6) and recommended draft (Appendix F DCOs), which provides for: "*a fish resource survey covering the area(s) within the offshore Order limits in which it is proposed to carry out construction works, and any wider area(s) where appropriate, which is required to test predictions in the Environmental Statement concerning key fish resource interests of relevance to the authorised scheme.*"

### *Impact assessment methodology*

It was agreed that the impact assessment methodologies, as set out in chapters 12, 13 and 15 of the ES (APP46, APP47 and APP49) (with further detail presented in chapter 4 EIA Process (APP38)), provide an appropriate approach to assessing the potential impacts of the proposed GWF project on benthic ecology, fish and shellfish ecology and commercial fisheries.

### *Effects*

There was agreement that:

- the assessment of the potential impacts on commercial fisheries in chapter 15 of the ES (APP49), arising from all stages of development is detailed and accurate; the level of consideration of the potential effects as a result of EMF from the operational phase of the project is appropriate; the potential effect on fish and shellfish resource is predicted to be of 'minor adverse' significance under unmitigated circumstances;
- cable armouring and burial protection form appropriate means of mitigation for EMF effects, cable armouring is part of the proposed design and that the cable protection

commitments are appropriate and achievable. Schedule 6, Part 2 condition 9(g) of the draft DML (APP27) requires a cable specification and installation plan to be submitted to the MMO for approval prior to construction;

- cumulative impacts arising from all stages of development are assessed accurately and in detail;
- the drift netting that takes place at GWF, and that which takes place at London Array and Kentish Flats (as identified in Table 15.11 of the ES) will not be undertaken by the same vessel operators, and therefore, temporary cumulative effects on overlapping construction phases between these sites will not occur; and that
- in relation to monitoring and mitigation identified best practice measures in relation to cable laying would reduce the identified adverse impacts and that the measures identified within Table 15.14 of the ES, are appropriate to reduce the identified adverse impacts associated with commercial fisheries.

6.11 Matters not agreed in the SoCG between the applicant and EIFCA were that:

- section 15.8.2 (APP49) presents an accurate assessment of the potential impacts on commercial fisheries arising from the decommissioning stage; however, subsequently it has been agreed that the DML does not permit the decommissioning of the authorised scheme. Condition 18 of the DML requires that the Secretary of State approves a decommissioning programme in accordance with an approved programme under s105(2) of the Energy Act 2004 (sixth draft DCO/DML) (DCO6);
- monitoring of EMF effects should be a dedicated condition within the DML – see section 7 in this report;
- effects of protection material (required to protect any exposure of buried cables), on inshore local fleets has been adequately considered within the ES; however, condition 9(g) (i) (ii) (iii) of the sixth draft (DCO6) and recommended draft DML (Appendix F) sets out the content of the cable specification and installation plan to be approved by the MMO after consultation with the MCA and THLS and, in the case of para g(ii) the EA, and includes:
  - (a) the technical specification of offshore cables below MHSW, including a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice;
  - (b) a detailed cable laying plan for the offshore Order limits, including geotechnical data and cable laying techniques;
  - (c) a cable burial risk assessment to inform cable burial depths;

- the magnitude of effects (on fish resource) would remain the same if the piling activity duration was increased from one year to three years as discussed in para 13.10.22 of ES chapter 13 (APP47);
- the cumulative impact assessment in section 15.10 of ES chapter 15 (APP49), has fully assessed the potential effects of displacement on local inshore vessels.

### **The Panel's Response to the Examination**

- 6.12 The principal issues discussed during the examination were:
- compensation for loss of access to fishing grounds and lost or damaged gear;
  - communication and liaison between the applicant/developer and both inshore and offshore fishing interests;
  - pre-construction surveys and post construction monitoring;
  - impact of cable laying on inshore fishing, particularly fixed and passive gear;
  - impact of foundation piling; and
  - decommissioning impacts.
- 6.13 The National Policy Statement (NPS) for Renewable Energy Infrastructure (EN-3) requires the decision-maker to consider the adverse or beneficial impacts on different types of commercial fishing on a case by case basis; transboundary issues; impact on species of fish with ecological value and the imposition of safety zones. The decision-maker should be satisfied that the site selection process has been undertaken in a way that reasonably minimises adverse effects on fish stocks, including during peak spawning periods and the activity of fishing itself; and that the proposal has been designed having consulted representatives of the fishing industry in order to minimise the loss of fishing opportunity.
- 6.14 This section discusses the principal issues raised during the examination and the range of responses from the applicant and IPs in representations, submissions and SoCGs. It sets out the panel's view on the outcome in the light of the considerations set out in EN-3 outlined above.

#### ***Compensation for loss of access to fishing grounds and lost or damaged gear***

- 6.15 Compensation for loss of ground was a concern expressed in a number of representations and was the subject of a question from the panel in our first written questions (PD11). In reply the applicant pointed out that there is no legal entitlement to compensation for the impact of offshore energy projects on fishing interests (REP29 para 2.2.1) and outlined the basis of a scheme aimed at fishermen pursuing static fishing operations, and not those pursuing mobile fisheries such as trawling, to agree

disturbance payments with individual fishermen to assist in *“ensuring co-operation during the construction of the development and in the interests of health and safety”* (REP 29 para 2.2.1).

- 6.16 The applicant presented evidence as to why it was not necessary for these arrangements to be in the DCO (REP29 para 2.2.4). In light of the evidence provide by the applicant in relation to the legal position and the steps being taken to establish formal liaison arrangements with the fishing sector, including the appointment of a Fisheries Liaison Officer (REP29 para 2.2.6 ff) the panel accepts this position.
- 6.17 In response to the ODIFA suggestion that arrangements be made to review the condition of the seabed within the export cable corridor, following the laying of cables (REP54 section 2.2) the applicant proposes to undertake appropriate pre-construction and post-construction surveys to a methodology to be agreed with both the local fishing industry and the MMO. This undertaking is realised through conditions 9, 15 and 17 of the DML, which deal with pre-construction plans and documentation and pre-construction and post-construction monitoring and are subject to MMO approval (DCO6). The panel supports this approach.
- 6.18 The applicant refused the NFFO’s request for a compensation scheme for the mobile fleet on the grounds that there is no legal or national policy requirement to do so (REP54 para 2.2.4) and the Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) Best Practice Guidance, Appendix 5 *“does not provide a methodology by which any compensation might be calculated nor assume that compensation will be a relevant consideration for every development”* (REP54 para 2.214).
- 6.19 However, the applicant has offered to exclude an area of the Order limit from turbine development on the eastern side of Area B, should the Secretary of State require further comfort in terms of likely significant effect on the integrity of the Alde-Ore Estuary SPA in respect of collision risk of lesser black-backed gull (REP54 par 2.1.114). Although the primary reason for this proposal is to reduce the collision risk of lesser black-backed gull, the applicant recognises that it will also have a positive impact on access to fishing grounds in an area already significantly fished by the Belgian and Dutch trawler fleet.
- 6.20 The applicant has offered this proposal as one of three different *“extra levels of precaution”* (REP54 para 2.1.113) in relation to establishing the absence of reasonable scientific doubt that GWF will not lead to ‘adverse’ effects on the integrity of the Alde-Ore Estuary SPA. The applicant makes what it considers to be a conservative estimate that the proposed turbine exclusion area (as set out in plan form in Annex A to its comments on responses to the Examining authority’s second questions (REP54 para 2.1.114)) will achieve a reduction of 15% of trawler fishing effort from the

turbine area (and hence increase the level of trawler activity above that envisaged in the submitted proposal).

- 6.21 The panel does not have evidence before it that supports the accuracy of this figure; but is of the view that the proposed turbine exclusion area would achieve a reduction in the loss of access to fishing grounds for the trawler fleet. This would reduce the collision risk for lesser black-backed gull and the area from which trawling will be potentially excluded, and will have the further consequence of potentially relieving pressure from displaced trawlers on the inshore and fixed gear fishing areas.
- 6.22 The applicant has requested that the exclusion zone's reduction to collision risk for lesser black-backed gulls is recognised as a 15% credit within the collision risk model. However, the panel does not feel that the evidence before it supports this approach. The measure could however give additional comfort to the Secretary of State that adverse effects on the integrity of the Alde-Ore Estuary SPA can be avoided. For this reason, and because of the fisheries benefit, the panel advises that this measure should be incorporated into the DCO as set out in the recommended draft DCO (Appendix F).
- 6.23 The co-ordinates for the proposed Area B exclusion zone restricted build area are set out in requirement 4 of the recommended draft DCO and condition 2 of the draft DML (Appendix F). In both cases provision is made in the drafting for the Secretary of State to discontinue the operation of the exclusion in Area B if he is satisfied that the evidence provides sufficient justification of growth over a minimum period of three years of the adult breeding population of the lesser black-backed gull at the Alde-Ore Estuary SPA in relation to its target 'favourable conservation status' and that the removal of the restriction will not have any significant 'adverse' impact on fishing activity of both the trawling and inshore fishing interests identified in the applicant's ES.

***Communication and liaison between the applicant and both inshore and offshore fishing interests***

- 6.24 Representations were made, particularly by the NFFO, on the need for a fisheries liaison plan and fisheries co-existence plan to be achieved through engagement with relevant stakeholders (RR27).
- 6.25 The applicant responded by committing to the preparation of a Fisheries Liaison Plan which would be the responsibility of the Fisheries Liaison Officer (FLO), a post provided for under condition 9(d) and (v) of the DML. In responding to further representations from ODIFA, the applicant also indicated that a Fisheries Industry Representative (FIR) would be appointed to work with local stakeholders (REP54 para 2.2.3) and in responding to NFFO's final representations reported that NUTFA would be involved and a

Fisheries Working Group would be the forum for agreeing coexistence strategies (REP54 para 2.2.15).

***Pre-construction surveys and post construction monitoring***

- 6.26 The need for pre and post construction monitoring of the impact of the proposal on commercial fish stocks was raised by both the NFFO (REP27) and EIFCA (SOCG14) and principally by the MMO in its relevant representation (RR25). Conditions 15 (2)(d) and 17 (2)(d) of the recommended draft DML now cover these points (Appendix F) in a way that the panel considers suitable for the Secretary of State to include in the Order.

***Impact of cable laying on inshore fishing, particularly fixed and passive gear***

- 6.27 Specific concerns were raised in relation to the potential 'adverse' impact of unburied cables on fishing gear, particularly in the export cable corridor. In particular, representations made by Mr William Pinney (RR30) and Robert Charles Butters on behalf of the Felixstowe Ferry Full Time Fishermen's Association (RR8).
- 6.28 It is the panel's view that the provisions of condition 9(g)(i), (ii) and (iii) in the recommended draft DCO (Appendix F), address this point and put in place safeguards to ensure that, subject to the approval of the MMO, cable laying is undertaken to a satisfactory standard.

***Impact of foundation piling***

- 6.29 The panel is satisfied that the provisions of condition 12 of the sixth draft DCO/DML, which places seasonal restrictions on foundation piling in relation to the spawning seasons for sole and herring and are supported by the MMO meet the need to protect fish stocks during sensitive spawning periods and ensure there are no significant impacts upon fish and shellfish communities during construction or operation.
- 6.30 Specific concerns were raised in relation to the potential adverse impact of noise from piling activities during the construction phase on fish and shellfish (REP47). The MMO identified subsea noise as a 'primary area of focus' in its review of the GWF DCO application (SOCG 4 para 1.5.3). It agreed with GWFL in para 6.11.2 that the conditions set out in the draft DML (APP27) in respect of piling noise during construction (condition 16(3), (4) and (5) Construction monitoring) are 'appropriate and reasonable'. The Examining authority accepts this position in relation to the monitoring of potential adverse noise impacts on fish and shellfish during construction and recommends the Secretary of State to adopt condition 16 of the sixth draft DCO/DML, construction monitoring, amended in respect of sub paragraph (4) to include NE and JNCC as consultees to MMO in responding to the undertaker's reports on noise monitoring (Appendix F).

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## **Conclusion**

- 6.31 In considering the representations made during the course of the examination in relation to the potential impact of GWF, and potentially other offshore wind farms, on the commercial fishing sector establishing effective channels of communication and appropriate liaison arrangements between promoters/developers of offshore wind farms and the different sectors of the fishing industry is particularly important. Best practice in this regard is still being developed through initiatives such as the *FLOWW Recommendations for Fisheries Liaison* published by the Department for Business Enterprise and Regulatory Reform in May 2008. We are of the view that the commitments made during examination, in response to representations and emerging best practice in the industry, particularly in relation to the implementation of a Fisheries Liaison Plan and appointment and role of a fisheries liaison officer (condition 9(d) and (v) of the sixth draft DML) satisfactorily address the question of continuing communication during the construction, operating and decommissioning phases of the proposed project.
- 6.32 The panel concludes that in addressing the potential impacts on the commercial fishing sector during construction, operation and decommissioning the right balance has been struck between requirements, and particularly conditions, in the sixth draft DCO and DML and that the requirements of EN-3 para 2.6.133 have been met. The panel is of the view that the commitments made by the applicant in this regard are adequate for the purpose and that requirement 4 of the DCO and conditions 9, 12, 15 16 and 17 of the DML secure the mitigation safeguards sought by IPs in relation to commercial fishing during the examination and the requirements of EN-3.
- 6.33 We are therefore satisfied that there are no matters outstanding that would argue against the Order being confirmed and accordingly recommend that the Secretary of State approve the recommended draft DCO/DML (Appendix F) as presented.

## **7 ELECTRIC AND MAGNETIC FIELDS (EMF)**

- 7.1 We have considered the advice in the National Policy Statement for Electrical Networks Infrastructure (EN-5) at section 2.10 relating to the technology specific consideration of electric and magnetic fields (EMF). In considering EMF we have had full regard to para 2.10.2 of EN-5 that states:

*"All over head power lines produce EMF, and these tend to be highest directly under a line, and decrease to the sides at increasing distance. Although putting cables underground eliminates the electric field, they still produce magnetic fields, which are highest directly above the cable ..... ."*

- 7.2 The applicant sets out in chapter 28 of the Environmental Statement (ES) (APP62) an assessment of the potential human health impacts associated with EMF produced by the onshore electricity transmission and distribution assets of the application. The potential impacts of EMF on offshore ecology are considered within chapter 12 of the ES (APP46).

- 7.3 The applicant concludes at ES para 28.12.1 that:

*"The equipment associated with the proposed GWF development is compliant with public exposure guidelines for EMF, and therefore will be no significant EMF effects resulting from this project. .... The proposed project meets the requirements of NPS EN-5 which cover the ICNIRP public exposure guidelines and the relevant Government Codes of Practice."*

and at ES para 28.12.2 that:

*"No EMF impacts have been identified for the construction, operation and decommissioning of GWF. No cumulative EMF impacts have been identified as a result of the interaction between fields produced by GGOWF and GWF cables."*

- 7.4 The applicant sets out in the ES at para 14.7.23 to 14.7.27 (APP48) the potential effects of EMF on marine mammals and concludes at para 14.7.27 that:

*"The conservation value of all marine mammals recorded within the wind farm footprint and in proximity to the cable route is high, however, their sensitivity to the EMF of a buried cable is considered to be low. Cetaceans are not present in high numbers in the area around the proposed cable route and are unlikely to use this area on a regular basis. Based on the available evidence the impact magnitude is likely to be low. Consequently, overall impacts from EMF on marine mammals would be considered to be of negligible significance to regional populations."*

- 7.5 Little was raised in relation to EMF in the relevant representations. However, the matters raised are reported below.



- 7.6 The Health Protection Agency in their relevant representation (RR15) stated:
- "At the scoping phase for the project HPA requested that the applicant conduct the assessment of compliance with the referenced Wind Farm Position Statement. The submission is specifically related to its remit in non-ionising radiation and chemicals, and is based on the information contained within the application documents.*
- In respect of the human health impact of electric and magnetic fields (EMF) HPA has reviewed chapter 28 of the Environmental Statement (ES), which assesses the potential human health impacts associated with EMF produced by the onshore electricity transmission and distribution assets of the proposed Galloper Wind Farm (GWF). HPA is satisfied that the applicant has demonstrated compliance with the ICNIRP guidelines and therefore no additional comments are necessary from the standpoint of the health impact of EMF produced by the proposed wind farm."*
- 7.7 The National Federation of Fishermen's Organisations made a relevant representation (RR27) identifying that an:
- "Appropriate monitoring regime will need to be put in place with adequate baselines to assess EMF and fishery effects."*
- 7.8 Monitoring in relation to the fishing impacts is set out in section 6 of this report.
- 7.9 To ensure that matters in relation to EMF were fully examined questions Q4.1 and Q4.2 (PD11) were asked by the Examining authority, particularly of the applicant.
- 7.10 The applicant responded to these questions in their first response for 16 July 2012 (REP29) identifying the commitment to condition 9 of the draft deemed Marine Licence (DML):
- for details of the burial of the marine cabling to be agreed; and
  - that post construction monitoring is also provided for in the DML in responding to the request of the fishing industry.

### **Conclusion**

- 7.11 From the application documentation and the written and oral submissions during the examination the panel concluded that all relevant information has been provided in accordance with EN-5 and that reasonable steps have been taken to seek to address IPs concerns with regard to EMF and monitoring.
- 7.12 Overall our conclusion is that the combination of operational and construction standards and control, limitation, reporting and mitigation measures that are secured by condition 9 in the DML,

will provide adequate safeguards to ensure that the impacts are minimised and controlled to an acceptable level and therefore there are no matters that would argue against the Order being confirmed.

## 8 HISTORIC ENVIRONMENT

- 8.1 The Overarching National Policy Statement for Energy (EN-1) sets out that “*the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment*” (para 5.8.1) and requires applicants to provide, as part of the ES, a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance (para 5.8.8).
- 8.2 Section 5.8 sets out the criteria decision-makers are to apply in considering the significance and value of heritage assets and the weight to be given to their conservation in determining whether or not to approve the development consent application. There should be a presumption in favour of the conservation of designated heritage assets (para 5.8.14).
- 8.3 The National Policy Statement for Renewable Energy Infrastructure (EN-3) recognises the potential importance of the offshore historic environment. Heritage assets can be affected by offshore wind farm development in two principal ways:
- from the direct effect of the physical siting of the development itself; and
  - indirectly from changes to the physical marine environment caused by the proposed infrastructure itself or its construction (para 2.6.139).
- 8.4 The decision-maker should be satisfied that offshore wind farms and associated infrastructure have been designed sensitively taking into account known heritage assets and their status, for example features designated as protected wrecks (para 2.6.144).
- 8.5 The applicant addresses the potential impact of the proposed Galloper Wind Farm (GWF) development on both the onshore and offshore historic environments in Environmental Statement (ES) chapter 19 Archaeology and cultural heritage (APP53) and Technical Appendix 4 (APP73).
- 8.6 ES chapter 19 Archaeology and cultural heritage (APP53) describes:
- the existing environment with regard to artefacts and features of known and potential archaeological and cultural heritage significance within the GWF study area both onshore and offshore; and
  - the potential impacts on archaeological and cultural heritage resources associated with the construction, operation and decommissioning phases of the offshore and onshore aspects of the proposal (para 19.1.1).
- 8.7 ES Table 19.17 summarises the applicant’s view of the predicted impacts of the GWF proposed development on the onshore and

offshore archaeological resource in the construction, operation and decommissioning phases. It describes a number of mitigation measures including Written Scheme of Investigation (WSI), protocols for dealing with unexpected discoveries, exclusion/buffer zones around known wrecks and provision for methods of removal of archaeological features. Taking mitigation measures into account, the applicant assesses no residual impact in relation to the archaeological resource as greater than 'minor adverse'.

- 8.8 English Heritage submitted a relevant representation which provided a commentary on ES chapter 19 (RR19) and Suffolk Coastal District Council (SCDC) and Suffolk County Council (SCC) (the Councils) commented on the onshore historic environment in the Local Impact Report (LIR) (LIR1).
- 8.9 In its relevant representation (RR19) English Heritage commented in relation to onshore matters: "*we are satisfied that the scheme is unlikely to have a significant detrimental impact on the setting of nationally designated heritage assets*" and in relation to the offshore environment made the following observations, amongst others:
- the importance of preparing an Archaeological Written Scheme of Investigation (WSI) in agreement with English Heritage and any relevant local authority;
  - the need for further discussion on the use of Archaeological Exclusion Zones (AEZ) as a mitigation measure;
  - the requirement to ensure that copies of any agreed archaeological assessment reports are deposited with the National Monuments Record if any residual impacts are to be of 'negligible' significance;
  - the need for further clarification about how buffer zones will be drawn in relation to the different wind farm design scenarios allowed within the 'Rochdale envelope' approach and how the final scheme will take account of the buffer zones; and
  - the importance of the commitment made by the applicant to a scheme specific WSI to be produced and delivered in agreement with English Heritage, as per the terms of the draft deemed Marine Licence (DML).
- 8.10 In the LIR (LIR1) the Councils described the onshore archaeological features of the area impacted by the GWF proposal, the finds that have been made and the potential for further finds of at least local and regional interest. They stated that:
- in terms of the overall approach, the Suffolk County Council Archaeological Service (SCCAS) is satisfied with the proposals relating to archaeology and the historic environment, including requirement 25 in the sixth draft Development Consent Order (DCO) (DCO6);

- the archaeological consultants for the project have liaised closely with SCCAS during the pre-submission phase. A common understanding about the potential for, and significance of, the archaeological remains that will be affected by the development has been established; and
  - a similar approach was successfully used in the adjacent Greater Gabbard Offshore Wind Farm (GGOWF) project (SCDC application C/06/2191/FUL) and SCCAS is confident that the current project can also be delivered successfully.
- 8.11 We identified the offshore historic environment as a principal issue for the examination (PD4).
- 8.12 In our first written questions accompanying the Rule 8 letter (PD11) we asked the applicant to confirm that a WSI would be prepared in respect of the offshore historic environment in accordance with the procedures required by English Heritage. Also to confirm how the survey, sampling, exclusion areas (if required), mitigation and reporting be secured, monitored and reported on, published and outputs archived (Q6.1).
- 8.13 The applicant responded to both our question and English Heritage's relevant representation in its first response (REP29) and clarified that WSIs are being prepared in consultation with both English Heritage and SCCAS in accordance with the required procedures. The draft WSI will include a method statement in relation to the implementation of AEZs following determination of the final wind farm layout. There would be a Protocol for Archaeological Discoveries (PAD); geotechnical surveys will include archaeological input at the planning stage; the offshore WSIs will outline mitigation strategies, including monitoring; and reporting and archiving will be in accordance with the model clauses for Archaeological WSI published by the Crown Estate, as required by English Heritage.
- 8.14 No further responses or representations were received in relation to the historic and archaeological environment both on and off shore.
- 8.15 The first draft DCO (APP27) included requirement 25 Archaeology which requires that neither connection nor transmission 'works' for GWF can commence until in relation to the relevant 'works' a written scheme of archaeological investigation has been submitted to and approved by the relevant planning authority in consultation with SCC; and outlines the terms under which the archaeological investigation must be completed and reported upon prior to any connection or transmission 'works' being completed or brought into use.
- 8.16 Further, the first draft DCO (APP27) includes within Part 2 of Schedule 6, the draft deemed Marine Licence (DML) in condition 9(h) and condition 10 the requirements for providing a written

scheme of archaeological investigation, in consultation with English Heritage and SCDC, for the offshore 'works' for approval by the Marine Management Organisation (MMO) prior to any licensed activity commencing; the content required in the written scheme of archaeological investigation; and, in condition 10, the need for reports to be agreed with English Heritage and then deposited with the National Monuments Record.

- 8.17 Requirement 25, condition 9(h) and condition 10 remain unaltered in the sixth draft (DCO6) and recommended DCO (Appendix F).

### **Conclusions**

- 8.18 On the basis of the examination and the submissions and responses it has considered the panel is content that the potential impact of GWF on both the onshore and offshore historic and archaeological environments has been properly addressed in the terms of EN-1 and EN-3. Also that appropriate safeguards are included within the draft DCO to ensure the archaeology of GWF is properly investigated and recorded, in accordance with the procedures required by the statutory agencies and local authorities.
- 8.19 On this basis the panel recommends to the Secretary of State that there are no heritage, or historic environment matters that argue against the Order being confirmed in terms of requirement 25 of the recommended draft DCO and condition 9 and condition 10 of the draft DML (Appendix F).

## **9 LANDSCAPE AND VISUAL EFFECTS**

- 9.1 We have considered advice set out in Overarching National Policy Statement for Energy (EN-1), National Policy Statement for Renewable Energy Infrastructure (EN-3) and National Policy Statement for Electrical Networks Infrastructure (EN-5). Section 5.9 of EN-1 states that energy projects need to be designed carefully taking account the potential impact on the landscape, with a requirement for substantial weight in decision making being attributed to conservation of natural beauty in nationally designated areas. The Legal and Policy Context section 3 of this report sets out the wider policy context that we have also taken into account.
- 9.2 We also have regard to the specific matters to be applied when considering offshore wind farms set out in EN-3 (para 2.6.198-210). When considering the short lengths of onshore electricity networks in the Nationally Significant Infrastructure Project (NSIP) described in para 2.8 of this report, we have had regard to section 2.8 of EN-5.
- 9.3 We address the offshore and onshore landscape and visual effects in separate sections below, together with the closely related matter of the design of the substation.

### **Seascape Assessment - Offshore Effects**

- 9.4 Seascape effects are discussed in chapter 20 of the ES and Appendix 20B in Technical Appendix 5, which contains the Seascape and Visual Impact Assessment (SVIA) (APP54, APP74, REP1).
- 9.5 The applicant demonstrates zones of theoretical visibility (ZTV) of the turbines (both hubs and blade tips) and assesses impact alone and in combination on views and seascape in the context of the proposed wind farm's location. As the proposed wind farm is 27km from the coast at its nearest point and adjacent to an existing wind farm, we consider this assessment to be of a scale proportionate to the predicted impacts and is therefore in accordance with EN-3 which sets out the requirements for testing.
- 9.6 We note that SVIA methodology and viewpoints were agreed with statutory consultees during pre-application discussions. The Joint Nature Conservation Committee (JNCC) and Natural England (NE) commented in its written representation (REP17) that all the component parts of a seascape and LVIA are covered, although it notes that presentation could have been clearer.
- 9.7 The conclusions in the applicant's SVIA, (APP54, APP74, REP1) which, as stated by the applicant, is based on the worst case scenario that the overall presence of the turbines during operation would have a 'minor' to 'negligible' adverse effect for onshore landscape and visual receptors and 'moderate' to 'negligible'

adverse effects for offshore receptors. 'Moderate' effects only relate to offshore visual receptors and were dependent on proximity to the wind farm.

- 9.8 The applicant had identified the worst case scenario (APP54, APP74, REP1) by testing two layouts and concluding there was little perceptible difference. The layouts tested were:
- one with the fewest, most widely spaced large wind turbine generators (WTGs); and
  - one with the most closely spaced, smallest, but largest number of WTGs.

The layout with the tallest WTGs was the one assessed because that would give greater visibility above the horizon from land based viewpoints.

- 9.9 We also considered the overall cumulative effect with existing and consented wind farms, which is assessed by the applicant as "*no more than low to negligible*" for onshore receptors and "*no more than negligible*" for offshore receptors (APP54).
- 9.10 The mitigation the applicant proposes to address seascape and offshore visual impacts is the need for careful consideration of the colour of turbine structures in order to make them visually recessive (APP54 Table 20.1).
- 9.11 We viewed the sea from some locations where the applicant's ZTV in the SVIA identified that the operational Greater Gabbard Offshore Wind Farm (GGOWF) (and other wind farms further away) would theoretically be visible. This was done during both accompanied and unaccompanied daytime site visits, when visibility was fair. On none of these occasions were we able to view evidence of turbines or platforms by naked eye or using binoculars (10 power magnification x 25 objective diameter, in millimetres) (HE11).
- 9.12 The only relevant representation on seascape matters was from Maldon District Council, a local authority in Essex, acknowledging that the wind farm would not be readily visible from that district, but commenting on potential impact on the coastal designations (RR17).
- 9.13 There is no reference to issues of offshore visibility or impact on seascape or on coastal designations in either the Local Impact Report (LIR) (LIR1) or in the Suffolk Coastal District Council (SCDC) and Suffolk County Council's (SCC) (the Councils) relevant representations (RR24).
- 9.14 From our consideration, there was only one area we wanted the applicant to address further. That was the assumption in the SVIA (APP54, APP74 and REP1) that consideration of the potential adverse effects from lighting at night time on coastal sensitive



receptors, during operation, is not required because of distance from shore.

- 9.15 We therefore sought further clarification regarding this point through our questions about glare, glow and flicker; Q23.1 to Q23.5 (PD13 Annex A). The applicant's responses to those questions and accompanying photomontages (REP41 paras 2.4.1-2.4.20) satisfied us that any adverse effect is no greater than negligible, as assessed because the submitted evidence clearly demonstrates that the lighting on turbines and platforms would not give rise to impacts on coastal receptors.
- 9.16 The Council's response also reflected this, (REP50) stating that the views from the coast to the offshore site of the wind farm are not a concern to them as it has not been raised as a significant issue.
- 9.17 The response from Maritime and Coastguard Agency MCA (REP43) indicated that lighting should be in line with Trinity House Lighthouse Service (THLS) requirements, which states that lighting should conform with agreed marine marking, but is subject to change if surrounding circumstances change (REP52).
- 9.18 THLS stated a requirement for all structures to be yellow in colour from at least highest astronomical tide height to a height to be directed by THLS (HE10).
- 9.19 The panel does not consider this to be inconsistent with the seascape mitigation as the SVIA assesses the worst case scenario comprising the tallest WTGs and including THLS requirements. The LVIA states the yellow paint requirements will not increase visibility from the land; and the photomontages and ZTVs demonstrate that it is blades and hubs that are visible from the coastal viewpoints (APP54, APP74 and REP1).
- 9.20 The worst case definition and the conclusions from the assessment of impacts were agreed by the applicant and JNCC and NE in the non ornithological statement of common ground (SoCG), received in October 2012 (SOCG13 section 5). The SoCG confirmed that parties considered adequate mitigation measures have been included.
- 9.21 The controls for ensuring adequate mitigation are now covered by requirement 14 (2) of the applicant's sixth draft DCO (DCO6), which specifies paint colour for structures and requirement 14 (1) sixth draft DCO, which covers the requirement for yellow paint or that required by THLS for the lower parts of all structures.
- 9.22 Overall our conclusion is that the mitigation proposed by the applicant regarding consideration of the colour of WTGs and other structures, which are now defined by requirements in the sixth draft DCO, is satisfactory and we recommend no further control is required other than that stated above.

## Onshore Landscape and Visual Effects

- 9.23 For onshore effects, we gave consideration to the landscape effects to which decision-makers should have regard set out in EN-1. It states that substantial weight should be given to the conservation of the natural beauty of the landscape and countryside where applications for development consent are in nationally designated landscapes such as National Parks and Areas of Outstanding Natural Beauty (AONB). This application proposes the substation (the term used to describe the two compounds located alongside each other) and electricity infrastructure in an AONB and this is considered more fully below.
- 9.24 In referring to mitigation of adverse visual effects, EN-1 identifies that adverse landscape and visual effects can be minimised through siting, colours and materials, on and off site landscaping and that materials and designs of buildings should always be given careful consideration.
- 9.25 We identified landscape and visual effects as a principal issue for examination (PD4). The onshore issues which arose from relevant representations and during examination relate in particular to the location within the designated Suffolk Coast and Heaths AONB and the potential to mitigate and realise effective screening for the substation and sealing end compounds.
- 9.26 The applicant discusses landscape and visual impacts and mitigation in chapter 20 of the ES and appendix 20A in Technical Appendix 5 (APP54 and APP74). The assessment predicts landscape and visual impact which results in significant adverse effects that require mitigation. A landscape mitigation plan is included in the LVIA in the ES (APP74).
- 9.27 The mitigation measures set out in that plan include; retaining existing vegetation, minimising tree loss, a profiled screening landform, a woodland belt round the substation and to the south, lowering the finished level of the substation and using dull recessive colours for structures and buildings as well as fencing.
- 9.28 The accompanied site visit (HE11), enabled us to view the site for the proposed substation from 7 of the 8 viewpoints in the LVIA. We did not visit the viewpoint farthest from the site because we had viewed the site from the west at a closer viewpoint and we had observed this point during an unaccompanied site visit. We also observed other places such as the caravan park at Cliff House and the access track to Home Farm Bungalow from where the substation site is openly visible. (House names are marked on drawing 2890/05D Figure 05 of the LVIA (APP74). We also viewed the proposed locations for the cable corridor 'works' and access route, the transition bay area, sealing end compounds and Pillbox Field.

- 9.29 The extent of mature vegetation removal necessitated by the proposed 'works' was clear to see from site observations and using the annotated photomontages provided, when standing at the prescribed viewpoints. We were also shown the existing woodland planting that comprises some of the GGOWF substation landscape mitigation, which we understood from representations (RR24 and RR33) to be considered to have shown rather slow growth.
- 9.30 During examination, being mindful of the points in EN-1, we focussed on the areas of landscape and visual effects that had been raised by IPs, as we agreed these were the key points to be addressed. We explored some of these issues further through our questions. The areas we therefore now report on are:
- landscape and visual impact of the substation and other infrastructure in the AONB;
  - comparative effectiveness in screening of the landform mitigation with or without extra mitigation;
  - screen planting and long term management and maintenance;
  - Pillbox Field landscape screen planting; and
  - design and base level of the substation.
- 9.31 Below, we describe the landscape and visual matters we have explored in detail, culminating in each case with our agreement with or recommendation for the DCO or other control. Design matters are covered in a separate section at the end.

***Landscape and visual impact of substation and other infrastructure located in AONB***

- 9.32 The applicant had undertaken and presented its assessment of alternative locations for the proposed GWF compound in chapter 6 of the ES (APP40). This chapter also reports the separate option appraisal National Grid Electricity Transmission plc (NG) had undertaken to consider alternatives for the transmission compound and associated infrastructure. Both exercises had consulted local people. Both had concluded the site adjacent to that of the GGOWF substation is the preferred site.
- 9.33 There were still concerns raised, which we shared, about the siting of the substation, sealing end compounds and connections in the narrowest point of the AONB, in a sensitive area.
- 9.34 The Councils cited unresolved issues including the location in the AONB and the adequacy of the AONB Amenity Access Fund (later referred to as the AONB Enhancement Fund) to compensate for the damage caused (RR24).
- 9.35 The later LIR (LIR1 para 5iii and section 7) concluded that the site proposed is the best available but that impacts must be minimised. The Councils confirmed in response to our first written question Q11.2 (PD11) that they are satisfied that site selection

- for the substation is consistent with Local Plan policy and the AONB designation where mitigation is provided; but would not be consistent without mitigation (REP28). The Councils additionally stated that in their opinion the NPPF does not change the criteria for assessment of local impacts as set out in the Local Plan.
- 9.36 The SoCG between applicant and the Councils (SOCG10) set out agreed mitigation measures in Table 8.2, which replicates Table 20.10 in chapter 20 of the ES (APP54) and an in principle agreement to sign a s106 agreement containing an acceptable contribution by the applicant to the AONB Enhancement Fund.
- 9.37 In response to our first round question (PD11 Q5.2) about compensation for impact on the AONB, the Councils indicated they were seeking to agree a s106 legal agreement with the applicant to provide funding to grant aid enhancement projects in the vicinity. The Councils indicated they had experience in this area, having negotiated contributions in association with the approval of the Sizewell B Dry Store (REP28).
- 9.38 NE advised the Examining authority that great weight should be given to the Councils' views with regard to the location within the AONB (REP17 para 5.2.40).
- 9.39 EDF Energy considered that it should be consulted on proposed AONB enhancements because mitigation is likely to take place on, or near EDF Energy's estate (RR23).
- 9.40 At the first DCO Issue Specific hearing (HE13-16 and HE18) the applicant confirmed it considered the draft s106 agreement meets all the legal tests and would consider further the suggestion from EDF Energy that the EDF Energy land should be bound by the agreement, when possible. The applicant agreed to progress negotiations with the Councils.
- 9.41 Once a draft s106 agreement was submitted, we wished to satisfy ourselves over the adequacy of what was proposed because earlier submissions had indicated differences of opinion between 5 and 25 years' contributions.
- 9.42 Responses to our second round questions (PD13 Q20.1, Q20.2 and Q20.3) gave reassurance from the Councils (REP50) that it was index linked and would cover residual effects on the landscape amenity in the AONB.
- 9.43 JNCC/NE stated they had no comments and the applicant confirmed that the s106 addresses the one matter raised in the LIR that cannot lawfully be dealt with in the DCO; that is the funding of the AONB enhancement measures. (REP41 2.1.1-2.1.14).
- 9.44 The panel received a certified copy of the s106 agreement with the applicant's 26 November submission (S106-1). It provides for

index linked payments of £11,000 per year for 17 years, to be used to fund works or measures that contribute to the appearance, setting, amenity, accessibility and enjoyment of the Suffolk Coastal Heaths AONB within stated distances of the substation location.

- 9.45 The Councils have written (REP67) confirming that they have signed the s106 and consider it, with the draft DCO and CCoP, provides a sound basis to control the 'works' and mitigate adverse impact.
- 9.46 JNCC and NE confirm in section 5 of the non ornithology SoCG with the applicant (SOCG13) that they consider reasonable mitigation to offset adverse effects in the AONB has been included, providing implementation of the mitigation package is in full and in consultation with NE.
- 9.47 EDF Energy's joint statement with the applicant confirmed that it no longer requires approval of the 'works' prior to approval by the relevant planning authorities (HE34 para 7.2).
- 9.48 Based on these confirmations and the control exercised through the signed s106 agreement, we are satisfied that the measures contained in the s106 agreement adequately mitigate the impact on the AONB and we recommend that this together with the other mitigation we discuss below forms part of the decision.

***Comparative effectiveness in screening of the landform mitigation with or without extra mitigation***

- 9.49 The applicant describes and assesses two options for landscape and visual mitigation through a minimum gradient (1:10) and a more generous gradient (1:16) substation screening landform design (APP54). All parties that made representations on this matter agreed that the extra mitigation provided by the shallower, more generous landform offered a more effective means of mitigation because the new landform achieves better integration with the natural contours. Initially not all parties that had made representations agreed that the proposed scheme without extra mitigation was the minimum acceptable.
- 9.50 The land for either landform would be subject to CA, if a commercial agreement could not be reached between EDF Energy and the applicant. The respective land-take for the two landform scenarios was therefore relevant to the tests for CA, which is covered in section 18 of this report.
- 9.51 The project description in the ES (APP39 para 5.18.3) stated that the dimensions of the landform for the scheme without mitigation had been agreed with the relevant local authorities as a suitable proposal for CA.

- 9.52 In the LIR (LIR1 paras 7iv-7v), the Councils considered the additional land required for the shallower landform can be justified, taking a proportionate approach, because the location is in a nationally designated landscape (AONB) with a significant number of visual receptors. They considered the extra mitigation offers "*significant landscape benefit*".
- 9.53 In our first written questions, Q5.10 (PD11), we sought clarification, in particular from the Councils, whether they considered the extent of the screening landform without extra mitigation provided sufficient mitigation; or if the extra mitigation was necessary. We referred to the first version of the draft DCO (APP27) 'works' descriptions, namely 'work 7' and 'work 8' in framing our question.
- 9.54 The Councils response (REP28) referred us to the LIR. The Councils written representation (REP21) referred us to the need to moderate adverse impact in line with para 116 of the NPPF and states the Councils view is that the most effective landscape mitigation will be achieved through the scheme with the extra mitigation.
- 9.55 JNCC/NE stated in their written representation (REP17) that the applicant should make every effort to go over and above minimum mitigation, ie create the shallower landform with the larger land-take, because the nationally designated landscape would justify this additional land required.
- 9.56 The applicant also responded to our question 5.10 and referred us to its SoCG with the Councils (SOCG10 8.8.1-8.8.3), which had been submitted at the same time. In this, agreement had been reached that the landform without mitigation is the minimum required by the Councils to mitigate landscape effects to an acceptable level having regard to the AONB status.
- 9.57 Further it is agreed in that SoCG that the landform with extra mitigation "*goes beyond the minimum necessary to be acceptable having regard for the AONB status of the land, although it would be a preferable proposal.*" Parties to the SoCG also agreed that if the applicant reached agreement with the landowner, negating the need for CA, then the extra landform mitigation will be implemented.
- 9.58 Based on the weight of arguments put forward in written representations, responses to our question Q5.10 (PD11) and our unaccompanied and accompanied site inspections we agree with the views stated, that the additional mitigation will achieve better landscape and visual mitigation.
- 9.59 We observed that the southern face of the mitigation landform 'works', which it is stated will look more natural if additional land is taken, is visible from a number of viewpoints and properties

(HE11), not just those selected as representative for the viewpoint analysis in the LVIA (APP74).

- 9.60 EDF Energy's joint statement with the applicant presented at the second DCO Issue Specific hearing (HE34 para 2.1 3) confirmed an 'Option Agreement' has been exchanged which allows for the leasing of the greater land take required to achieve the shallower, more natural landform. It also confirmed that the applicant will commit to undertaking these 'works' (referred to in the aforementioned joint statement as 'work 8'<sup>33</sup>).
- 9.61 This will permit the implementation of the landscape scheme that IPs agreed would provide more successful mitigation for the sensitive AONB location.
- 9.62 The sixth draft DCO (DCO6) incorporated the scheme with extra mitigation as 'work 7' and included a revised drawing (REP156). We recommend the extent for the landform should be as submitted in the applicant's sixth draft DCO for mitigation of adverse landscape and visual effects.
- 9.63 We also recommend the controls through DCO requirement 21 (the approvals of detail by the relevant Councils and NE of the landscape mitigation strategy), requirement 22 (the effectiveness of the landscape management arrangements) and 27 (the approved CCoP) are included to ensure the mitigation is delivered as part of the decision.

***Screen planting and long term management and maintenance***

- 9.64 Screen and replacement planting for areas of woodland that are removed, forms a key part of the landscape mitigation plan described in the LVIA, Appendix 20A of the ES (APP74), which addresses the adverse effects that arise from the proposed development.
- 9.65 IPs mentioned concern about the impact of the amount of woodland lost and make comparisons about potential effectiveness of screening mitigation with visual mitigation planting at GGOWF, which is considered to have shown slow growth, attributed to poor aftercare and light, sandy soils.
- 9.66 In the LIR (LIR1) the Councils considered the outline landscape proposals are commensurate with the scale of development and sensitivity of the landscape. They also highlighted the need to ensure there is a comprehensive programme of aftercare, to a high standard; to ensure the planting achieves effective mitigation. They said these comments are based on lessons

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<sup>33</sup> But subsequently renumbered work no 7 by the applicant in the final submitted version of the DCOv6

learned from GGOWF land-based development, where plant establishment has been slow. This was later pointed out to us on site (HE11).

- 9.67 EDF Energy also expressed concern about the standard to which the management plan will be implemented based on its experience with GGOWF (REP11 paras 17.1-17.5). EDF Energy advocated its own involvement in mitigation proposals so a joined up approach can be adopted in the area (RR23).
- 9.68 EDF Energy stated it required a protective provision requiring consultation with EDF Energy on all landscape and ecological mitigation plans in respect of the land it then owned and also binding GWFL's attendance at quarterly land management meetings for the Sizewell area either in the proposed s106 agreement or through a protective provision (REP11 paras 17.6-17.8).
- 9.69 The applicant disagreed. This area of contention between EDF Energy and the applicant continued until the land matters were resolved in a commercial agreement (as set out below and in section 18 of this report).
- 9.70 In its relevant representation, Suffolk Wildlife Trust (SWT) expressed concern over the additional woodland to be removed when added to that already lost through the GGOWF substation development (RR33). It also pointed out inconsistencies regarding the area of habitat creation for mitigation.
- 9.71 The SoCG between the applicant and SWT (SOCG11) clarified and corrected these inconsistencies. It is agreed between the parties that 1.7ha of mixed plantation woodland will be lost and approximately 1.6ha of core woodland planting and 1.3ha of woodland edge and grassland habitats will be created. This gives a total of 4.3ha of woodland and woodland edge, when taken with the trees to be retained.
- 9.72 SoCGs between applicant and the Councils and the applicant with JNCC and NE agreed that adequate landscape mitigation works are included in the design (SOCG10 paras 8.8.4 and 8.11.1-8.11.3 and SOCG13 para 5.8.2).
- 9.73 The outstanding matters of concern to us were:
- the timing of commencement of the landscape 'works', to ensure screening is initiated early in the construction process; and
  - aftercare or maintenance and management.
- 9.74 We followed up responses to our first round of questions concerning the timing of the landscape 'works' with a further question Q23.6 (PD13). The Councils confirmed the importance of commencing landscape 'works' as soon as possible, which should



include a phased approach to planting and seeding so that planting works start in the first available planting season on an area by area basis (REP50).

- 9.75 When we raised this at the first IS DCO Hearing, the Councils indicated they were content with the programme for landscape 'works' being a subject for future agreement with the relevant authority under the appropriate requirement in the DCO. This is covered in requirement 21 of the applicant's sixth draft DCO (DCO6).
- 9.76 In connection with aftercare, the Councils told us, at the first DCO IS hearing, that the standard of ongoing management and maintenance needed to be high to ensure establishment in these site conditions (HE16).
- 9.77 We also heard from EDF Energy's witness on land matters, Mr Hinton, that planting trials in this area have shown more time is needed to establish vegetation than in other areas; in his opinion because of the lighter soils (HE20).
- 9.78 Based on EDF Energy's experience in the area and with reference to poor growth rates and the GGOWF landscape mitigation that the Councils had reported, we queried whether 5 years aftercare (as stated in requirement 22 (2)) is long enough (APP27).
- 9.79 The Councils advised, at the second DCO IS hearing (HE22), that they have experience of plant failure occurring after 7 years and mentioned that the photomontages demonstrate 15 years worth of growth. They questioned whether 15 years was therefore a more appropriate period for aftercare.
- 9.80 The applicant explained that long term ongoing management and maintenance beyond the 5 years, is covered by draft DCO version 6 requirement 26, which describes the ecological management plan, which provides for landscape management throughout the operational life of the 'works'. In light of the Councils' views, we wanted to ensure that there is no gap in landscape management between the 5 years covered by requirement 21 and that in requirement 26 (HE22).
- 9.81 Requirement 26 in the last submitted draft DCO (DCO5) makes reference to landscape management in the ecological management plan and cross refers to 'work 6' and 'work no 10'. However, we believe there is an omission or oversight here, as this should refer to all 'works' that include any landscape works. To address this we make specific reference to 'works 3B, 4, 5, 7, 9A, 9B and 11' in the recommended draft DCO (Appendix F).
- 9.82 The responsibility for ecological management plan timetabling, which will cover the points above regarding continuity of aftercare and management, needs approval from the relevant planning authority before connection or transmission 'works' commence.

We are therefore assured that controls are in place to ensure continuous management for planting will be addressed as long as all 'works' with a landscape component are addressed in requirement 26.

- 9.83 NE made representations that it wished to be consulted prior to approval of detailed landscape works. This is now incorporated in the sixth draft DCO requirement 21 (DCO6).
- 9.84 When the applicant and EDF Energy reached commercial agreement over the land, their joint statement (HE34) covered the earlier concerns EDF Energy had over landscape management. We are advised by the applicant and EDF Energy that the resolved position is that the terms of the 'Option Agreement' provides for EDF Energy to approve the landscape management scheme before it is submitted to the relevant planning authority and provides for EDF Energy to undertake landscape management on behalf of GWFL.
- 9.85 The joint statement (HE34) specifically states that this will discharge the obligations under requirement 22 (5 year maintenance) and requirement 26 (long term ecological / landscaping maintenance) for the operational life of the substation in a way that allows for an integrated approach to landscape management at Sizewell.
- 9.86 We also sought confirmation from IPs present at the biodiversity Issue Specific hearing (HE20) that the controls proposed to mitigate landscape and visual impact associated with planting that are proposed through requirements 20, 26 and 27 (DCO6) and the (then) proposed s106 deliver appropriate detail control and mitigation. The Councils, SWT, JNCC and NE confirmed that in their opinions they do.
- 9.87 On this basis, taking account of representations, final positions and our additional 'works' references to requirement 26, we consider the controls are in place that will deliver the screen planting and management and maintenance needed for mitigating landscape and visual effects. Our proposed additions are contained in the recommended draft DCO (Appendix F).

### ***Pillbox Field landscape screen planting***

- 9.88 One area of woodland screen planting is proposed to be located east of Sandy Lane in Pillbox Field to filter out views of the sealing end compounds and gantries as well as the substation. The applicant explained that this was not in the early versions of the landscape mitigation, but was included prior to the application being submitted following discussions with the Councils, in particular with reference to views from Sizewell Gap (APP54).
- 9.89 There was objection to the inclusion of landscape planting works in this field from EDF Energy because of concerns over possible

impact on the mains water supply for Sizewell B (and proposed future Sizewell C) as described in section 11 and 18 of this report. EDF Energy argued all landscape screen planting should be west of Sandy Lane, with none implemented in Pillbox Field (REP11).

- 9.90 We had observed the open nature of the view to the sites of proposed substation, sealing end compounds and gantries from viewpoint 4, representing views from Sizewell Gap, on site during our accompanied site visit, when we compared the view on site with that proposed from the LVIA (HE11 and APP74).
- 9.91 We asked the applicant to demonstrate the effectiveness of the alternative planting location proposed by EDF Energy (Q23.7 PD13) In providing the additional information, the applicant concluded there is no scheme as effective in providing the mitigation as the one proposed in the application, which involves planting east of Sandy Lane in Pillbox Field (REP41 paras 2.4.27 – 2.4.38).
- 9.92 EDF Energy confirmed it no longer wished to put forward an alternative location for planting (REP39 para 3.1) and that there would not be an impact on the power stations, providing requirements relating to the water pipe were observed.
- 9.93 We understand from the joint statement between EDF Energy and the applicant that the 'Option Agreement' between the applicant and EDF Energy (HE34) addresses the concerns EDF Energy had raised and proposed an amendment to draft DCO Requirement 21 (DCO6).
- 9.94 This is now included in the DCO and requires the relevant planning authority to give specific attention to the potential for root spread and its potential impact on the water main in Pillbox Field, when approving the landscape scheme. This is also discussed under section 11 of this report on nuclear safety.

### ***Design and base level of the substation***

- 9.95 The applicant's ES assessed the visual and landscape impact of the two compounds that comprise the substation, the sealing end compounds and gantry connections. A worst case scenario is assessed, defining the substation broadly because of the desire to preserve flexibility for future design. (The choice of WTGs will affect the equipment required in the compounds, which will in turn affect the layout, built area, footprint and height of the compounds). Parameters are set for the substation in terms of height, location of taller buildings, built area and base level (APP54).
- 9.96 During pre-application consultation SCDC raised concerns about the use of a 'Rochdale envelope' approach for a substation. It considered the draft DCO should contain details such as slab levels, locating taller buildings close to the existing copse and

reduced corridor widths (APP54 Table 20.1). SCDC also raised the matter of light pollution in terms of minimising sky glow in the AONB, not just considering specific residential receptors.

- 9.97 Further discussion and inclusion of some parameters in the draft DCO led to SoCGs between the applicant and the Councils (SOCG10); and the applicant with JNCC and NE (SOCG13) agreeing the definition of the worst case scenario.
- 9.98 In the LIR (LIR1), the Councils pointed out that this proposal will significantly extend the built footprint in the area; already enlarged in recent years by the GGOWF substation. The LIR was clear that in accepting the application site, being the best of the alternatives, it is necessary to minimise adverse impact on the AONB landscape.
- 9.99 The ES identifies mitigation measures (APP54), which the SoCG between applicant and the Councils agreed are appropriate and sufficient to mitigate the potential landscape and visual impacts associated with the development (SOCG10 section 8.7).
- 9.100 Those relating to the design of the substation comprise: lowering the finished floor level of the substation; and using dull recessive colours for structures including: buildings; equipment and fencing; avoiding pale bright and reflective finishes; complementarity with GGOWF; clustering of tall elements near woodland screening; and keeping within the maximum height limits set.
- 9.101 We sought further clarification from the applicant about how high environmental and design standards could be met, secured and maintained for the built elements (PD11 Q5.3). The applicant referred us to details as described in the Design and Access Statement (APP86 section 7).
- 9.102 This mitigation is secured through draft DCO requirement 19 (DCO6) and requirement 27, the CCoP (HE45). We consider it is now incumbent on the relevant local planning authority to ensure the detailed design, when submitted for approval, meets the stated principles and parameters in the landscape mitigation statement (APP74 section 3) and also covers the lighting matters raised.
- 9.103 We also had concerns about fencing, particularly round the sealing end compounds. We asked if fencing will be required round sealing end compounds and what the details would be (PD11 Q5.4). The applicant confirmed fencing will be required round the sealing end compounds and referred us to requirement 23 in the DCO, which it said required subsequent approval of all permanent and temporary fencing using dull recessive colours (REP29 para 2.5.45-2.5.47).
- 9.104 This is indeed covered in requirement 23. However, the sixth draft DCO (DCO6) has not been updated to reflect that response

regarding fencing round sealing end compounds, so does not currently include the 'works' numbers that comprise sealing end compounds. Requirement 23(5) is therefore amended to cover the sealing end compounds, not just in relation to 'works 6 and 10'. This is included in the recommended draft DCO (Appendix F) and covered in section 19 of this report.

- 9.105 We also asked about lighting (PD11 Q5.6). We are satisfied that the principles set out in the ES and covered in detail in the LVIA (APP74) regarding minimising the lighting are sufficiently robust for the relevant planning authority (in consultation with NE) to be able to require a lighting scheme under requirement 30(1) of the sixth draft DCO (DCO6) that mitigates adverse effects on residents, the character of the AONB and wildlife. This is covered in more detail in section 5 of this report on terrestrial ecology.
- 9.106 Further details of the design of the substation and surroundings such as fencing are subject to approval from the relevant planning authority. We are satisfied that the recommended draft DCO and the CCoP together with the landscape mitigation strategy, provide a sufficient level of control for the planning authority to use for future approvals.

### ***Conclusions***

- 9.107 The location in a designated landscape means we have given substantial weight to the evidence presented concerning the natural beauty of the landscape in the area. We consider the landscape proposals, included to mitigate the negative effects of landscape and visual impact as now proposed by the applicant will reduce adverse effects to an acceptable level. We do not consider there to be landscape or visual issues that would argue against the Order being confirmed.
- 9.108 Taking all these matters together we recommend the landscape and visual mitigation as described above is controlled through requirements in the recommended draft DCO, the CCoP and the s106 agreement.
- 9.109 In coming to this conclusion, we note that SCDC will be the discharging authority for a number of requirements within the DCO which are: the landscape mitigation strategy (requirement 21), landscape maintenance and aftercare (requirement 22), the onshore detail designs for the substation (requirements 19 and 20) and for fencing (requirement 23), the ecological management plan (requirement 26) and the CCoP (requirement 27). SCDC with SCC will also control the direction and use of the funding from the s106 agreement for AONB enhancement.
- 9.110 These different controls all contribute to the effective mitigation of adverse effects. We recommend that one controlling mechanism should not be changed without considering the overall impact.

When taken together, we consider this provides sufficient control on the future development to ensure the requirements set out for decision making in EN-1 and EN-5 are met.

## **10 NOISE AND VIBRATION**

- 10.1 We have considered the advice in the Overarching National Policy Statement (NPS) (EN-1) at section 5.11 that excessive noise can have wide ranging impacts on the quality of human life, health and use and enjoyment of areas of value such as quiet places and areas with high landscape quality.
- 10.2 The applicant sets out in chapter 26 of the Environmental Statement (ES) (document reference 5.2.26) (APP60) an assessment of the potential noise and vibration impacts of the onshore electrical connection for Galloper Wind Farm (GWF) on nearby residences and their occupants. This assessment includes noise and vibration impacts, for the construction (including construction traffic as well as construction plant), operation, and decommissioning phases of the development.
- 10.3 Subsea noise and vibration impacts associated with the construction, operation and decommissioning of the wind turbines is discussed within chapter 13 fish and shellfish and chapter 14 marine mammals of the ES (document reference 5.2.13 and 14) (APP47).
- 10.4 The applicant advises that given the separation distance of the offshore development and the nearest onshore receptors (approximately 27km) an assessment of airborne noise associated with all phases of the offshore development has not been undertaken. The Marine Management Organisation (MMO), Suffolk County Council (SCC) and Suffolk Coastal District Council (SCDC) (the Councils) raised no objection to this approach.
- 10.5 Potential noise impacts upon terrestrial ecology receptors are discussed within chapter 23; terrestrial ecology of the ES (document reference 5.2.23) (APP57).
- 10.6 Noise and vibration impacts on wildlife and biodiversity are considered above in section 5 of this report.
- 10.7 Noise and vibration impacts on fisheries and fishing interests are considered above in section 6 of this report.
- 10.8 The potential for disturbance due to noise was raised by a number of Interested Parties (IPs) in their relevant representations (RR24, RR2, RR35, RR36, RR17). In particular the Councils raised potential adverse impacts on residential amenity during the construction phase of the proposed development; Mr Stuart Maggs raised noise effects of laden and unladen construction vehicles; Mr Martin Freeman and Miss Maria Toone both raised noise levels, working hours and monitoring; Maldon District Council raised concerns about potential cumulative noise impact in association with Gunfleet Sands Wind Farm.

- 10.9 From our consideration of the application documentation and relevant representations received we identified a number of matters that we wished the applicant to address in relation to noise and vibration including: disturbance from construction vessels and equipment; construction noise impacts; operational noise effects; disturbance from maintenance vessels and equipment; noise and vibration from transportation and effects particularly during construction and use of assessment methodologies and mitigation.
- 10.10 We focussed on this matter in our first and second written questions (PD11 and PD13) and observed the proximity of two residential properties to the onshore 'works' in particular, and nature and context of the background noise environment during the unaccompanied and accompanied site visits.
- 10.11 We also considered the spatial relationship of the offshore 'works' with other wind farm locations including Gunfleet Sands; London Array; Greater Gabbard Offshore Wind Farm (GGOWF) and proposed East Anglia Offshore Wind Farm in considering any likely potential for cumulative impact offshore.
- 10.12 Apart from GGOWF which has now completed its construction phase and was considered for in combination effects which were found by the applicant to be minimal, the other wind farm locations identified are well separated from the defined Galloper Wind Farm DCO area, therefore the examination concentrated on the potential impacts of onshore construction and operations.
- 10.13 The joint Local Impact Report (LIR) (LIR1) submitted by the Councils identified that: *"The local area is rural in nature with low background noise levels. There will be an increase in noise levels locally arising from construction works, traffic movements and the operation of the substation. Noise from construction activities is likely to be limited in its impact provided the working hours proposed in the DCO are adhered to. The exceptions to the working hours in paragraph 28 of Schedule 1 Part 3 of the DCO will inevitably give rise to potentially significant adverse impacts on local residents and visitors but this will be short lived."*
- "During operations, noise from the substation will have limited impact upon its immediate surroundings, most notably the public right of way to the north of the site. There will be negligible impact on the nearest residential properties provided the noise limits set under Schedule 1, Part 3 paragraph 29 are adhered to."*
- 10.14 In response to our question 24.1 (PD13): the Councils jointly responded (REP50) by confirming that:
- "The construction works, including landscape earthworks, have been restricted to take place between 07:00 and 19:00 on Mondays to Saturdays."*



*Contractors are also required to demonstrate good practise to minimise noise and to notify residents at least 24 hours in advance of any noise which exceeds 64 dBA expressed as a LAeq 1 Hour value.*

*The control measures GWFL have indicated they will implement to mitigate against potential noise intrusion from Constructional noise has been laid out within a draft Construction Code of Practice dated 02/05/12. This Code of Practice has been discussed and agreed with the District Council's Head of Environmental Services and Port Health.*

*Mitigation measures include a range of management measures to ensure noise is minimised by use of best practise, pre notification of intense or unusual activities and noise monitoring surveys in the event of complaints.*

*With regard to operational noise from above ground equipment, specific noise levels have been recommended to protect the nearest residential properties. These have been based on existing background noise measurements undertaken by the Environmental Protection Team at the District Council in the vicinity of the development. The recommended noise levels are specifically aimed at protecting against noise intrusion at night, as day time levels will fall below current day time background measurements. Providing these noise limits are achievable we can confirm we will be satisfied with the requirements laid out by GWFL.*

*Tonal noise such as distinguishable low frequency or impulsive noise is included within the operational noise limits and will attract an additional penalty of 5 dBA expressed as a LAeq 5 minute value. This is in line with the BS 4142:1997 British Standard Assessment Method. Again providing these noise limits are achievable we can confirm we will be satisfied with the requirements laid out by GWFL."*

- 10.15 The applicant proposed three measures to address noise and vibration: Construction Code of Practice (CCoP) secured through requirement 27; construction hours secured through requirement 28; and control of noise during the operational phase secured through requirement 29 of the draft DCO. In considering the potential for disturbance it is important to take the three measures together.
- 10.16 The CCoP allows for the set up of reporting and liaison lines of communication which seeks to address direct criticism arising from the locally reported experience of the GGOWF development construction.
- 10.17 The working hours set out in requirement 28, although allowing for some identified exclusions, restrict normal operations and

construction transportation to 0700 hours and 1900 hours Monday to Saturday, with no activity on Sundays or bank holidays. Any work outside of these hours must be notified and agreed in advance with the local planning authority (LPA).

- 10.18 Maximum noise limits emanating from 'work 6' and 'work 10' are set for identified monitoring locations in the proximity of local residential properties. This also includes lower limits in relation to noise with a distinguishable tone, impulsive or otherwise irregular nature.
- 10.19 The panel did raise further oral questions at the second DCO Issue Specific (IS) hearing (HE22) seeking confirmation particularly from SCDC that the controls proposed are adequate and that construction 'works' are unlikely to result in the creation of noise nuisance, particularly in relation to the potential for construction noise from 'work 7' to cause disturbance as this involves un-attenuated earthworks. The only control relating to 'work 7' is the operational hours and CCoP.
- 10.20 The CCoP incorporates a construction environmental management plan, which will particularly focus on the compliance and policing of the construction phase of the development.
- 10.21 Measures that will assist with management of construction noise within the CCoP include:
- screening and fencing with acoustic properties;
  - use of industry best practice for equipment;
  - construction traffic management plan to reduce mobile plant noise;
  - noise and vibration control measures set out in full at section 5 of the draft CCoP (fourth draft HE45) with the overall objective of compliance with relevant legislation and standards identified in the CCoP and in minimising noise and vibration impacts on nearby residents to acceptable levels.
- 10.22 Overall in the CCoP a level of 64 dB(A) 1 hour Leq is provided as the advised level for construction noise by SCDC. There is no indication at which location this is to be assessed and measured and therefore we recommend that in the final CCoP construction monitoring locations are agreed with the LPA prior to construction work commencing, to enable any breach of the advised level to be assessed and remedied on the identified basis.
- 10.23 Operational noise post-construction was not a matter of particular concern from IPs. However, the panel did ask questions in relation to the noise assessment and attenuation effects of the landscaping mound 'works' around the onshore substation, compound and electrical equipment. The panel also sought confirmation from the LPA that the survey, assessment and

attenuation proposed was appropriate for the location and 'works' proposed.

### **Conclusion**

- 10.24 Following the initial matters raised in relevant representations no IP continued to raise any additional matters in written or oral response to noise and vibration in relation to residential amenity or offshore cumulative impact.
- 10.25 We identified a number of matters in relation to noise and vibration that explored and expanded on concerns raised by IPs.
- 10.26 Confirmation was sought from both the applicant and LPA on how noise and vibration were to be minimised and controlled and if this was reasonable. The panel sought confirmation of the set up and operation of local liaison and reporting mechanisms to provide direct access by the local community.
- 10.27 From the application documentation and the written and oral submissions made, the panel consider that the short term construction period prior to and during the formation of 'work 7' and any advised works outside the normal construction hours provides the greatest risk of noise impacts on the small number of local residents.
- 10.28 The panel conclude that reasonable steps have been taken to seek to address IPs concerns with regard to normal operational hours; identified noise limitations in relation to 'work 6 and 10', at specified property locations and in providing for local liaison and reporting.
- 10.29 The panel also conclude that although there is likely to be some negative impact on a small number of local residents during the initial construction 'work's; formation of 'work 7' and any notified non-standard hours or continuous working, steps have been put in place through the CCoP to:
- set a level of 64 dB(A) 1 hour Leq as the advised level for construction noise by the LPA;
  - at least 24 hour advance notice of out of hours working; and
  - direct liaison for reporting and feedback.
- 10.30 Operational noise has been dealt with primarily through design of the landscaping scheme, creating a planted earth mound around the main onshore electrical substation and compound areas.
- 10.31 Our own observations during the accompanied site visit of the existing operational environment at the GGOWF onshore electrical substation and compound is that although there is some background noise that this is only evident in close proximity to the equipment.

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- 10.32 The Councils both confirmed that the measures put in place by requirement and through the CCoP were appropriate in seeking to address both potential nuisance and amenity issues, including in the landscape designated area of outstanding natural beauty and that the assessment undertaken by the applicant was adequate (HE22).
- 10.33 Overall our conclusion is that the combination of operational control, limitation, reporting and mitigation measures that are secured by requirements 28 and 29 and the CCoP address the concerns raised by IPs, amenity issues raised in the LIR, and will provide adequate safeguards to ensure that impacts are minimised and controlled to an acceptable level and that the majority of the noise and vibration impacts will be experienced during the limited construction period.
- 10.34 In seeking to address the advice in the relevant NPS excessive noise has been limited by requirement controls and best practice to be delivered through a CCoP and therefore wide ranging impacts on the quality of human life, health and use and enjoyment of areas of value such as quiet places and areas with high landscape quality have been largely mitigated and avoided.
- 10.35 Therefore we are satisfied that there are no matters outstanding that would argue against the Order being confirmed and accordingly recommend the Secretary of State approve the recommended draft DCO/DML (Appendix F) as presented.

## 11 NUCLEAR SAFETY AND OPERATIONAL IMPACTS

- 11.1 The Overarching National Policy Statement (NPS) for Energy (EN-1) is clear that the UK needs all types of energy infrastructure; it is not for planning policy to set targets or limits on different technologies; and all applications for development consent should be assessed on the basis that the Government has demonstrated that there is a need for them (para 3.1). EN-1 further states that the need for new renewable electricity generation projects is urgent (para 3.4.4).
- 11.2 The applicant addresses the relationship with the Sizewell nuclear plants in a number of places within the Environmental Statement (ES) and accompanying reports. It is clear from ES chapter 6 Site Selection (APP40) and the Design and Access Statement (APP86) that proximity to the large and dominant structures of Sizewell A and B was a positive driver in the decision to locate the onshore transmission equipment and compounds, so that the impact of power generation facilities and associated infrastructure on the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) was restricted to one location.
- 11.3 In ES chapter 18 Other Human Activity (APP52) the applicant recognises the need to avoid the offshore structures associated with Sizewell A and B and the planned Sizewell C plant (para 18.4.16-18 and 18.6.11) during the construction, operation and decommissioning phases. The applicant states that "*it is unlikely that the operational GWF will significantly interact with the Sizewell C installation*", because it is anticipated it will be located to the north of the existing A and B plants, i.e. furthest away from GWF (para 18.7.4).
- 11.4 Issues around the nuclear safety and operational impacts of GWF on nuclear power generation at Sizewell were raised principally by the statutory undertaker EDF Energy on behalf of the EDF Energy Group of Companies, owners and operators of Sizewell A and B generation plants and promoters of proposed Sizewell C. First in a relevant representation (RR23) and subsequently in written representations and a series of responses to the Examining authority's questions and further representations and submissions in relation to hearings (REP11, REP30, REP39, REP40 REP53 and HE17, HE27, HE32, HE33, HE34). At the Compulsory Acquisition (CA) hearing on 23 October 2012 Gallopier Wind Farm Limited (GWFL) and EDF Energy presented a joint statement to the panel (HE34) outlining the terms of an 'Option Agreement' between the two parties by amendment to the draft DCO and agreed commercial terms, which resolved all the issues that had previously been raised by them in relation to nuclear safety, operational impacts and future development conflicts.
- 11.5 Throughout the examination we were aware of the significance of the issue, paid close attention to both the onshore and offshore

relationship of the proposed GWFL development to the nearby Sizewell A and B nuclear power generation plants and the emerging proposals for a Sizewell C nuclear generation plant. Ensuring that if the GWF proposal goes ahead the operational continuity, safety and security of Sizewell B and the potential for Sizewell C to be developed (subject to a proposal being promoted and consent being granted) were issues that the panel addressed throughout the examination and in our recommended draft DCO/DML (Appendix F).

- 11.6 These relationships include potential effects during construction, operation and decommissioning and comprise:
- the physical proximity of various elements of the proposals;
  - site security and safety;
  - the potential for activity on adjoining sites to create in-combination impacts on, for example, traffic generation;
  - ensuring that during all phases secure operational conditions, full site security and security of power generation are maintained for the nuclear power generation facilities at Sizewell B, and
  - the construction and operational requirements of Sizewell C so far as they are known.
- 11.7 The NPS for Nuclear Power Generation (EN-6) assesses a number of potential locations for new nuclear power stations. In relation to the proposed site for Sizewell C it states:
- "The nominated area is approximately 117 hectares. Based on the advice of the Office for Nuclear Regulation there is sufficient area within the nominated boundary to house and provide sufficient defence-in-depth for essential infrastructure. However, the areas to the south of the existing Sizewell A and B Stations and to the west of longitude grid reference 64702 do not provide sufficient space for effective defence-in-depth for a nuclear reactor, including the associated turbine hall, spent fuel and intermediate level waste stores. Similarly, siting such activities into the land north of latitude grid reference 26453 could present security challenges because of the narrowing width of the nominated land. These parts of the site could still be used for locating supporting infrastructure that has no potential to directly cause a radiological hazard"* (Annex II para C8.88).
- 11.8 Suffolk County Council (SCC) made clear at the first DCO Issue Specific (IS) hearing on 30 August 2012 (HE16) its support for both Gallopier Wind Farm (GWF) and the proposed Sizewell C nuclear generating station as important projects for both SCC and Suffolk Coastal District Council (SCDC) (the Councils).
- 11.9 From our consideration of the application documentation and relevant representations we identified nuclear safety and operational impacts as a principal issue for the examination in our

Rule 6 letter (PD4). In our Rule 8 letter and first written questions (PD11) we identified a number of matters that we wished the applicant to address with EDF Energy and other parties including, but not limited to the Office of Nuclear Regulation (ONR) and the Councils. These matters included: water quality, supply and security; continuity of electrical supply; effects on the Sizewell B emergency plan; access; and nuclear site licence conditions and effects in relation to the emergency planning zone.

- 11.10 As the examination progressed additional detailed matters emerged, particularly in relation to the potential impact of the installation of the GWF export cables and their subsequent maintenance, as they approached landfall, on the existing cooling water infrastructure for Sizewell B and potential cooling water infrastructure for the proposed Sizewell C plant. Up to that point proposals for the location of Sizewell C cooling water intake structures were not in the public domain and were not raised in detail during the pre-application consultation responses or earlier in the examination at the written representations submission stage.
- 11.11 We addressed areas of concern in relation to nuclear safety and operational matters by means of both accompanied and unaccompanied site visits, by asking written questions of the IPs and requests for SoCG and by deciding to hold an IS hearing (HE31) to allow oral representations to be heard on the GWF subsea export cable and its relationship with the proposed Sizewell C proposed outfall and intake for water cooling.
- 11.12 In summary areas of concern in relation to nuclear safety and operational matters in relation to the existing Sizewell B plant include:
- the need for a GWF emergency response plan;
  - the impact of GWF onshore elements on the Nuclear Site Licence and emergency planning zone;
  - ensuring the security of the nuclear power generation site;
  - ensuring continuity of mains water supply via the water main traversing Pillbox Field;
  - ensuring continuity of access via Sizewell Gap Road by mitigating the possibility of flooding from runoff at times of high rainfall and the potential impact on the integrity of the carriageway of directional drilling under the road to install up to nine single core 132kV transmission cables;
  - mitigating the potential for activities associated with cable installation immediately offshore to create suspended sediments and reduce the quality of water entering the Sizewell B cooling water intakes to an unacceptable level; and
  - ensuring vessels engaged in laying cables close to shore and maintenance operate at a suitable distance away from the

Sizewell B cooling water intake and outfall infrastructures to avoid the danger of collision.

- 11.13 The detailed issue that emerged during the course of the examination that required further examination and testing in relation to the proposal for Sizewell C, was the potential impact of inshore cable laying and subsequent cable maintenance on the proposed cooling water intake structures and the reverse possibility of the cooling water intake structure (and the nearby Greater Gabbard Offshore Wind Farm (GGOWF) cable corridor) adversely impacting on the applicant's ability to install up to three, subsea export cables.
- 11.14 Two further issues were addressed in relation to sea defence generally and with the potential to impact adversely on both Sizewell B and proposal C, notably:
- the impact of cable laying on the integrity of the Coralline Crag and the Sizewell Bank;
  - the potential adverse impact of cable laying on the EDF Energy Waverider Buoy, located 4km off Sizewell within the export cable corridor.

### **Emergency response and site security issues**

- 11.15 The panel noted a SoCG between the applicant and the Office for Nuclear Regulation (ONR) (SOCG8) in which it was agreed that the construction of the GGOWF on a site north of Sizewell Gap and adjoining the site of the proposed GWF with its associated cabling and grid connections had "*not adversely affected the continued safe operation of Sizewell B power station*" (para. 6 (a)). It was also agreed that the ONR had not given detailed consideration to the GWF documentation and was not able to comment on either EDF Energy's concerns or on the possible impacts of the GWF proposals on nuclear safety or security or any proposed mitigation in the absence of a safety case from the licensee.
- 11.16 We further noted that the ONR would expect the holder of the nuclear site licence to deal directly with any proposal that might impact on the safety or emergency arrangements of a nuclear power plant. ONR advised that it is the licence holder's responsibility to maintain the conditions of the licence at all times and to make appropriate representations if it cannot maintain an adequate safety or emergency regime in light of the proposed development.
- 11.17 Following discussion between the applicant and EDF Energy, issues in relation to the Emergency Response Plan and site security concerning the construction and operation of the GWF onshore development are agreed to be resolved by their joint proposals as follows:



- the introduction of a new requirement in the draft DCO (requirement 31 (1) and (2)) (DCO6) effectively ensuring that no part of the connection or transmission 'works' will commence until an Emergency Response Plan relating to that part of the relevant 'works' has been submitted to and approved by the relevant local planning authority after consultation with the Emergency Planning Consultative Committee for the nuclear site licences at Sizewell A and B;
- a statement in the Draft Construction Code of Practice (v4) (HE45) at section 3.9, reflecting the DCO requirement, that GWFL and EDF Energy will work together to agree a detailed Emergency Response Plan for each part of the GWF onshore 'works', through integration with the on-site emergency plan; and
- agreement by the two parties in their joint statement (HE34) issued to the panel at the CA hearing on 23 October 2012 that, in relation to site security, no other provision in the DCO is required or appropriate.

11.18 We have considered these proposals and, bearing in mind the clear view of the ONS that responsibility for issues that may prejudice the safe operation of a nuclear power plant rests with the licence holder, we are of the view that the proposals to amend the DCO and the CCoP satisfactorily address the questions raised during the examination in relation to emergency response and site security and recommend that these amendments be accepted.

### **Ensuring continuity of mains water supply via the water main traversing Pillbox Field**

11.19 We were aware from written submissions that EDF Energy identified the continuity of mains water supply to Sizewell B as critical to its operations, particularly in an emergency situation. We pursued the issue through our request for a SoCG between the applicant and EDF Energy and explored the matters further in Question 23.7 of our second round questions (PD13).

11.20 Mains water supply is delivered to Sizewell B via a trunk main located parallel to the west boundary of Pillbox Field (see Essex and Suffolk Water plan in ERDF WRD 3 of the Summary of Written Representations 16 July 2012) (REP11). There was a concern expressed by EDF Energy, that a proposal to install a belt of woodland planting to filter and screen the view of the sealing end compounds and grid connection cables and apparatus when viewed from the east (Drawing no 2.7 Onshore General Arrangement) (APP11), might compromise the integrity of the water main through root penetration or during implementation and maintenance of the woodland planting (section 8 of EDF Energy Summary of Written Representations 16 July 2012) (REP11).

- 11.21 The proposed woodland planting belt within Pillbox Field was strongly supported by the local authorities in verbal responses to our questions at hearings. (HE22).
- 11.22 We viewed the site of the proposed woodland belt on the accompanied site visit and requested further work to test the potential for alternative planting locations, removed from the water main, to provide the required visual screen. We subsequently considered the applicant's submission in relation to possible alternative planting screening (REP41); Essex and Suffolk Water's specification for planting in proximity to mains water supplies (REP31 Appendix B) and EDF Energy's explanation of the reason for their concerns (REP11). In the light of this evidence, we reached the view that planting within Pillbox Field at a suitable distance from the water main and with suitable root barrier details to avoid the possibility of root disturbance, is needed to achieve the objective of screening the sealing end compounds and associated electrical apparatus.
- 11.23 In their joint statement of 22 October 2012 (HE34) EDF Energy and the applicant jointly proposed that the matter is addressed by an amendment to requirement 21 of the DCO (DCO5). The original wording was amended at the CA hearing to include an additional sentence to the pre-amble to that requirement and was re-presented in subsequent submissions. (see EDF Energy written submissions of 26 October 2012, Appendix 1 (HE32)). This change ensures that the landscaping scheme for Pillbox Field must be approved by the local planning authority in consultation with Suffolk County Council and the owner of the water main and must include proposals to prevent the adverse impact of root spread on the water main. The requirement is supported by para 11.2.5 of the draft CCoPv4 (HE45), which requires that tree planting in the vicinity of the water main must be undertaken in accordance with guidance issued by the Essex and Suffolk Water Authority.
- 11.24 The Councils indicated their support for the amendment to requirement 21 (HE22).
- 11.25 We have considered the proposed amendment to requirement 21 of the draft DCO and to para 11.2.5 of the draft CCoP and we are of the view that together they provide sufficient mitigation to ensure the Pillbox Field water main is not threatened by the buffer woodland planting to be undertaken in its proximity. This approach also ensures that the landscape screening can be placed in the most appropriate location identified in the landscape assessment and requested and supported by the Councils.

### **Ensuring continuity of access via Sizewell Gap Road**

- 11.26 EDF Energy has emphasised the importance of maintaining road access to Sizewell B along Sizewell Gap Road, which also serves the GGOWF onshore connection and transmission installation and

will be the route by which GWFL facilities are served. Particular concern was expressed about the potential for damage to the carriageway thereby causing it to be closed, by the laying of nine underground 132kV cables connecting the transition bays to the GWFL substation compounds. Also the possibility of surface water flooding from water running off the GWFL site (HE17). We questioned SCC as highway authority in our second round questions (PD13) and noted its response that there were no reported difficulties (REP50).

- 11.27 Having considered all the representations made, the concerns expressed and the responses of Interested Parties (IPs) to our questions, on balance, we are satisfied that the proposed amendment to requirement 19 of the sixth draft DCO (DCO6) will ensure that the laying of cables or other works under Sizewell Gap Road will only take place to a specification agreed by the local planning authority after consultation with the highway authority. We believe that to ensure continuous access to Sizewell B is maintained, the additional request that the local planning authority consult with EDF Energy is reasonable.
- 11.28 We also support the proposition in para 8.3.2 of the draft CCoPv4 (Ref HE45) that, as requested by SCC, GWFL will include provision to intercept water run off from the GWFL site to prevent flows onto the public highway, including the vehicular access from Sizewell Gap Road. We are of the view that this is an important and responsive amendment to the CCoP and to the development proposal to prevent the possibility of the highway flooding at times of extreme rainfall.
- 11.29 Accordingly, we recommend that the proposed amendments to requirement 19 of the sixth draft DCO and para 8.3.2 of the draft CCoPv4 in respect of the laying of transmission cables under Sizewell Gap Road and the prevention of rainwater run-off onto Sizewell Gap Road are accepted.

### **The quality of water entering the Sizewell B cooling water intakes**

- 11.30 We requested a SoCG on the potential for inshore cable laying and maintenance to create particulate disturbance, silt and contamination to the detriment of the Sizewell B cooling water intake equipment, both in our first written questions issued with the Rule 8 letter (PD11) and our second written questions (PD13).
- 11.31 In addition to the direct procedures for cable laying it is understood that an additional potential source of suspended sediment and contaminants can be caused by the propellers of tugs undertaking anchor laying and barge manoeuvring in shallow waters in particular tidal conditions.

- 11.32 Through their joint statement (HE34) issued at the CA hearing on 23 October 2012, the applicant and EDF Energy are proposing protective provision 12 of Schedule 4 of the sixth draft DCO (DCO6). This defines an area shown on drawing GWF 890 R3 Rev 3 (BEEMS-MS0357A) (REP154) within which, in water of depth less than twice the draft of the tugs being used for cable laying operations, will only take place: during flood tide and +/- 1 hour adjoining slack high and slack low water periods to the south of the dividing line shown on the plan; and during ebb tide and +/- 1 hour adjoining slack high and slack low water periods to the north of the intake.
- 11.33 Having considered the representations made on this point and the jointly agreed proposition for a protective provision as set out above for the area defined on drawing GWF 890 R3 Rev 3 (BEEMS-MS0357A) (REP154), the panel recommends that the proposed protective provision is accepted.

### **The Sizewell B cooling water intake and outfall infrastructures**

- 11.34 EDF Energy raised concerns in both their relevant representation (RR23) and in more detail in their written representations of 16 July 2012 (REP11) about the encroachment of the GWFL cable corridor into a 350m exclusion zone, previously agreed in connection with the installation of the Greater Gabbard export cable corridor, located to the south and in close proximity to the proposed GWFL cable corridor. The exclusion zone, to the north of the planned GWFL export cable corridor, protects the Sizewell B cooling water intake and outfall structures from potential damage as a result of cable laying, subsequent maintenance or decommissioning (see drawing no BEEMS-MS0340 EDRF WRD 5 in EDF Written Representations of 16 July 2012 (REP11)).
- 11.35 We considered these representations and in our second written questions (PD13 SoCG 25.1) asked both the applicant and EDF Energy to submit a SoCG addressing the issue, or failing that to respond to question 25.2, which raised the question of the integrity of the exclusion area around the Sizewell B cooling water intake infrastructure.
- 11.36 Through their joint statement (HE34) issued at the CA hearing on 23 October 2012 the applicant and EDF Energy are proposing protective provision 13 of Schedule 4 of the sixth draft DCO (DCO6), which redefines the buffer zone (exclusion area) to a distance of 300m from the various intake and outfall structures associated with Sizewell B and is shown on drawing GWF 887 R3 Rev 3 (BEEMS-MS0359A) (REP152). Within this zone vessels, anchors or cables associated with GWFL cable laying are prohibited unless EDF Energy has given express prior permission, which is not to be unreasonably withheld.

- 11.37 Having considered the representations made on this point and the jointly agreed proposition for a protective provision as set out above and for the area defined on drawing GWF 887 R3 Rev 3 (BEEMS-MS0359A) (REP152), we recommend that the proposed protective provision is accepted.

**The potential impact of inshore cable laying and subsequent cable maintenance on the proposed cooling water intake structures for Sizewell C**

- 11.38 The two local authorities, Suffolk Coastal District Council and Suffolk County Council, produced their joint Local Impact Report in July 2012 (REP21) and in section 4 (ii) expressed the view that: *"There are (also) concerns that the width of the Order Limit (as shown on drawing 2.4 Rev 9) adjoining the coastline may prejudice the installation of cooling water intakes/outfalls from a potential Sizewell C power station which has been identified as a potential site in National Policy Statement EN-6."*
- 11.39 In its Written Representations of 16 July 2012 (REP11) and for the first time in the preparation, submission and examination of the application, EDF Energy drew attention to a concern that the southernmost of the two preferred cooling water intake positions for the proposed Sizewell C nuclear power station was located approximately at the midpoint of the proposed cable corridor and that the proposed protective buffer zone of the northernmost cooling water intake structures was partly located in the proposed export cable corridor.
- 11.40 In its initial response to this issue in its second response document of 6 August 2012 (REP31) the applicant expressed disappointment that an issue that fundamentally threatened the integrity of the whole project had been raised for the first time *"7 months into the post-acceptance/examination period"* (para 3.1.83) and indicated that the two parties had undertaken to enter into dialogue over the issue.
- 11.41 In its Written Submissions of 30 August 2012 following the first IS hearing on the draft DCO (HE17) EDF Energy provided more detail on the issues; produced a Plan of Sizewell C Infrastructure (BEEMS-MS0345)) demonstrating the location of the proposed cooling water intake structures in relation to the proposed export cable corridor and the proposed buffer zones; and requested an IS hearing to address the issue under the terms of s89(3) of PA 2008.
- 11.42 EDF Energy pointed out that the preferred locations of the two cooling water intake structures, which are substantial structures collecting, filtering and directing sea water into a 6m wide tunnel linked to the power station, had been selected after substantial detailed analysis taking into account a range of factors including distance from the shore, foundation/tunnelling conditions,

suspended sediments and sediment transfer and distance from the outfall apparatus to prevent recirculation of warm water back into the plant. Figure 5 of the EDF Energy response (REP40) to our second written questions shows a diagram of a low velocity side entry intake designed for the proposed Hinkley Point C power station and the design likely to be proposed for Sizewell C.

- 11.43 In our second questions (PD13) we asked both the applicant and EDF Energy to respond further on the issue (Q25.4) and address from their different perspectives the measures necessary to ensure there is no conflict between the location of the cables for GWFL and the proposed cooling water intake infrastructure for the proposed Sizewell C.
- 11.44 Additionally, after careful consideration of the submissions made, we decided under the terms of s91(1) PA 2008 that it was necessary for the examination to include oral representations on the issue of the potential conflict between the proposed Sizewell C cooling water intake infrastructure and the GWFL proposed export cable corridor; to ensure both adequate examination of the issue and that the applicant, EDF Energy and other IPs had a fair chance to put their case. In a request made under Rule 17 of the Infrastructure Planning (Examination Procedure) Rules 2010 on 7 September 2012 we asked the two parties to submit further additional information in advance of the IS hearing (PD15)
- 11.45 The applicant responded in detail to the Rule 17 request in its submission of 24 September 2012 (REP57) and submitted two further drawings: Annex A – GGOWF Export Cable Corridor (REP58) and Annex B – Cable Corridor Nearshore (REP59). It pointed out a number of critical difficulties that arose as a result of the new information in relation to the proposed location of the proposed Sizewell C cooling water intake structures and stated that *"It is important for the ExA to appreciate that, if EDF Energy's preferred option can be accommodated, there will be major cost and liability consequences for GWFL"* (para 1.1 13).
- 11.46 Through their joint statement (HE34) issued at the CA hearing on 23 October 2012 the applicant and EDF Energy are proposing protective provision 11 of Schedule 4 of the sixth draft DCO (DCO5), which describes two areas around the intake apparatus infrastructures within which, after the construction of the cooling water intake structures for Sizewell C:
- within a radius of 250m no activity in connection with the GWFL project will take place except for urgent reasons of vessel safety; and
  - within a radius of 250m – 500m no activity in connection with the GWFL project will take place except with the approval of EDF Energy, who will not unreasonably withhold or delay such approval.

- 11.47 Plan number GWF 888 R3 Rev 3 (BEEMS-MS0345) (REP153) illustrates these proposed protection zones and is referenced in the proposed protective provision 11 (DCO6). Additionally, both parties have indicated in their joint statement (HE34) a willingness to place a reciprocal arrangement in any future Sizewell C DCO (para 9.4) for the protection of the GWFL project.
- 11.48 Having considered the representations made on this point and the jointly agreed proposition for a protective provision as set out above and for the area defined on drawing GWF 888 R3 Rev 3 (BEEMS-MS0345), the panel recommends that the proposed protective provision is accepted.

### **The impact of cable laying on the integrity of the Coralline Crag and the Sizewell Bank**

- 11.49 In ES chapter 9 Physical Environment the applicant states that: "*..... no effects on coastal erosion are anticipated*" (para 9.4.65).
- 11.50 We considered the representations made in respect of the Coralline Crag and in our second written questions asked the applicant and EDF Energy to produce a SoCG or failing agreement to provide a full written submission, with full reasoning and supporting evidence on a number of points (Q25.1) including: "*The location of the Coralline Crag below the seabed and, if its profile varies, indication of the profile across the full area of potential effects; the depth of sediment that lies above it; the level of risk to the integrity of the crag posed by the proposed laying of export cables in the defined cable corridor; the steps that need to be taken by way of detailed survey, installation methods and operational monitoring to ensure the integrity of the crag is not compromised; and any consequential changes to the draft DCO to ensure these measures are carried out and or secured*" (PD13).
- 11.51 The two local authorities, Suffolk Coastal District Council and Suffolk County Council, produced their joint Local Impact Report in July 2012 (REP21) and in section 4(i) expressed the view that: "*the local authorities have concerns that open trenching across the crag may have an adverse impact on the transfer of sediment along the coast. The crag is a critical part of the local control mechanism on coastal process at this point.*"
- 11.52 In responding to our second written questions the two authorities emphasised their support for a precautionary approach and their support for "*the imposition of constraints upon temporary and permanent works such that they do not cause damage to the surface profile of the crag*" (REP50).
- 11.53 The applicant indicates that Crag is composed of "*shelly or silty glautonic sand*" (ES chapter 9 Physical Environment para 9.4.4). "*Relatively thick (17m to 33m) sequences of Pleistocene/Pliocene*

*(deposits) are exposed at the seabed along the inshore portion of the export cable route” and are known here as Coralline Crag. The Crag is held to be important in contributing to the stability of the Sizewell Bank and in providing a degree of protection from inundation from the sea for the coast at Sizewell. The location of the Coralline Crag in relation to the proposed GWFL cable corridor is shown on Figure 4 of the EDF response to our second written questions (REP40).*

- 11.54 The applicant set out a detailed response to the panel’s second questions for 24 September 2012 paras 2.6.1 to 2.6.15 (REP41) and in para 2.6.8: *“Turning to the matter of impacts on the Crag features arising from the installation of the GWF export cables, it is useful firstly to consider the extent of the impacts. Each cable would most likely be installed by a cable plough or, where substantial penetration into the Crag deposits was anticipated, by a rock-cutter or rockwheel tool given the hardness of these deposits (the Coralline Crag being a cemented deposit). This would tend to result in cable trenches of circa 0.5m in width or less, one for each of the three export cables, each separated from the others by circa 60m (see the ES, chapter 5, paragraph 5.12.39). The depth of such trenches would be little more than the diameter of the installed cable, being in the order of 250mm – 300mm. In other words, there would be no coalescence of the cable trenches or wholesale disturbance of any of the Crag deposits, but instead each cable would result in a separate, small scale trench (assuming it were the case that they did indeed need to penetrate the Crag deposits)”.*
- 11.55 It should be noted that the figures ‘250mm to 300mm’ were omitted from the original submission and were supplied and confirmed in the applicant’s post hearing submissions (HE36).
- 11.56 EDF Energy raised questions surrounding the Coralline Crag in their relevant representations (RR23) and Summary written representations of 16 July 2012 (REP11 para 13), in which it proposed a protective provision or requirement to prevent the Crag being cut into for the purpose of cable laying. Further reference was made in the Response made on 6 August 2012 (REP30) and to our second written questions on 2 October 2012 (REP 39 and REP40).
- 11.57 Through their joint statement (HE34) issued at the CA hearing on 23 October 2012 the applicant and EDF Energy are proposing revised conditions 9 Pre-construction plans and documentation and 11 in the draft DML of the sixth draft DCO (DCO6) which require:
- in condition 9 the addition of para (g) (iv) which, along with amendments to the preamble, ensures that a method of working is submitted to and approved by the MMO, after consultation with the MCA and THLS, before the work of cable



laying across the Coralline Crag with a width of no more than 1m and a depth of no more than 1.75m for each cable is commenced. In the event that any proposal for laying cables across the Crag exceeds these dimensions the MMO will consult with EDF Energy prior to making its decision;

- proposed condition 11(2) requires consultation with EDF Energy in the event that there are proposals for the dimensions of the cable laying trench to be exceeded after any prior approval to the 'works' from the MMO.

11.58 In its written submission responding to the second IS hearing relating to the draft DCO (including deemed Marine Licence) (HE68) the MMO stated: *"we are comfortable with the wording of a new DML condition in relation to the installation of the export cable through the Coralline Crag, following concerns raised by EDF Energy (EDFE) ..... We highlight that it is highly unusual to name a private company or individual within a condition of a marine licence. We would usually expect such issues to be subject to a private agreement between the two private entities concerned. In light of the complex issues between the applicant and EDFE and the deadline of Monday 29<sup>th</sup> October 2012 for submission of the final draft DCO, should PINS believe the condition is required in order to permit consent then we are content for the inclusion of this condition within the DML. If the scope of works required are outside those agreed in 9 (g)(iv) we will consult with a number of additional bodies including, but not limited to, NE, EA and MCA in addition to EDFE. When considering comments of the consulted we cannot confirm that our decision will be in agreement with the opinion of EDFE or any other consultee."*

11.59 We have considered the detailed representations made on the question of ensuring the integrity of the Coralline Crag is maintained in the event that export cables are laid across it and are of the view that the amendments proposed to the wording of the draft DML ensure that measures are in place to achieve this end. We recognise the unusual position of having EDF Energy named as a consultee in a DML but are of the view that in the circumstances of the onerous responsibilities the company holds as a statutory undertaker of a licence for the generation of nuclear energy, it is a reasonable measure. Accordingly we recommend that the jointly agreed proposition for the wording of conditions 9 and 11 of the draft DML is accepted.

### **The Waverider Buoy**

11.60 The Waverider buoy and its associated Trinity House Class 2 buoy (WMO ID:62294) is located within the proposed export cable corridor approximately 4km offshore, due east of Sizewell B, at 52° 012'.48N, 001° 041'.08E. Its location is described on BEEMS-MS0345 submitted by both the applicant and EDF Energy (REP153 Plan of Sizewell C Infrastructure).

- 11.61 The Waverider buoy measures wave height and direction, is maintained under a Notice to Mariners and managed on behalf of EDF Energy by Cefas Lowestoft and is *"required to continually assess physical processes affecting the sea defences for both Sizewell A and B power station sites."* (REP11 EDF Energy Written Representations 16 July 2012 para 14.1).
- 11.62 EDF Energy raised the need to avoid disturbing the Waverider buoy in its relevant representation (RR23) and in its written representations of 16 July 2012 (REP11) called for a protective provision and/or requirement prohibiting offshore 'works' within a 740m radius of the buoy to ensure it is not disturbed or damaged.
- 11.63 We considered these representations and, although aware that discussions on this and other issues were proceeding between the applicant and EDF Energy, asked both parties in Q25.3 of our second written questions (PD13) to address the temporary or permanent relocation of the Waverider buoy or, alternatively, a detailed method statement for cable laying that ensured the operation of the buoy was not compromised.
- 11.64 The applicant in its response to our second written questions (REP41 para 2.6.24 to 2.6.27) indicated that following investigations it would be possible to temporarily relocate the buoy to a proposed location approximately 650m north of the existing location and approximately 350m north of the proposed cable corridor without significant reduction in its operational performance. In its fourth response (REP54 para 2.6.21) the applicant reported EDF Energy suggesting that: *"adequate warning of offshore works will be sufficient to permit EDF Energy to relocate the buoy on a temporary basis ....."*
- 11.65 Through their joint statement (HE34) issued at the CA hearing on 23 October 2012 the applicant and EDF Energy indicated they had reached agreement on the issue and are proposing an amendment to the wording of condition 9 Pre-construction plans and documentation para (g) which deals with specific matters to be included in the cable specification and plans, subject to the prior approval of the MMO, in consultation with NE and JNCC, and in the case of para (g) additionally with the MCA and THLS. Their joint statement (HE34) states that: *"If included in the DML in the DCO as made by the Secretary of State, EDF Energy is satisfied that the amended Condition shall ensure the risk of any conflict between the Waverider buoy and the installation works for GWFL's cables is resolved and as such EDF Energy will remove its objection in this matter."* (HE34 para 12.1).
- 11.66 The proposed revision to condition 9(g) of the draft DML inserts a new sub-para (v) as follows:
- "(v) relocation plan for Waverider Buoy and associated Trinity House Class 2 buoy (WMO ID:62294) located at [52° 012'.48N,*

*001° 041'.08E] outside the offshore Order limits during cable installation, after consultation by the undertaker with Cefas and Trinity House"; (HE32 para 5)*

For the reasons set out above, we recommend that this revision to condition 9 (g) be accepted.

## **Conclusions**

- 11.67 The issues arising from the potential impact of the GWFL proposal on the safety and operation of the Sizewell nuclear power plants, both existing and proposed, have been significant elements in the examination. The panel has been mindful of the need for nuclear power generation to take place safely and securely and the onus placed on the licence holder to ensure these conditions are met. Equally, it has borne in mind the important role renewable energy from offshore wind will play in meeting renewable energy requirements (para 4.1.2) and the presumption in EN-1 Part 4 that the decision-maker should "*start with a presumption in favour of granting consent to applications for energy NSIPs.*" (para 4.1.2).
- 11.68 During the examination issues in relation to the safety and security of the Sizewell B nuclear power station, the proposed Sizewell C power station and sea defence in relation to both Sizewell B and C were raised. The Examining authority asked a number of questions in relation to these aspects and sought SoCG, particularly from the applicant and EDF Energy, the operator of Sizewell B and promoter of Sizewell C; we viewed the site of the GWFL proposal in relation to the Sizewell sites on both accompanied and unaccompanied site visits and held an IS hearing to review the various positions in relation to cable laying and its potential impact on existing cooling water intake and outfall infrastructure, proposed cooling water intake and outfall infrastructure and the integrity of the Coralline Crag.
- 11.69 It was clear throughout the examination that the negotiation taking place between the applicant and EDF Energy in respect of the compulsory acquisition of EDF Energy's land to enable the GWFL project to proceed was providing the context within which issues between the parties in relation to nuclear safety and operational impacts were being addressed. It was the satisfactory completion of the negotiation over land acquisition that enabled the parties to produce their joint statement (HE34) at the compulsory acquisition hearing on 23 October 2012. This statement demonstrated that the parties had reached agreement on all the issues of nuclear safety and operational impacts and were proposing practical and achievable measures to address them through amendments to the draft DCO/DML and draft CCoP.
- 11.70 Suffolk Coastal District Council and Suffolk County Council had clear shared views on the importance of both nuclear power generation and energy from offshore wind at Sizewell and the

measures that were important to mitigate impacts, especially on the view of the sealing end compounds and overhead grid connections and the integrity of the Coralline Crag.

11.71 Taking into account the evidence produced by the applicant, EDF Energy and other IPs, the submissions made in response to questions from the Examining authority and the proposals for mitigation, prior approval, protective provisions and management made by the applicant and EDF Energy and set out in the sixth draft DCO/DML (DCO6), the panel is of the view that issues in relation to nuclear safety and operational impacts raised in the examination have been properly addressed and recommends that the various amendments and additions proposed to the draft DCO, draft DML and draft CCoP set out above are approved for implementation.

11.72 We are satisfied that there are no outstanding matters that would argue against the Order being confirmed and accordingly recommend the Secretary of State approve the recommended draft DCO/DML as presented.

## 12 OPERATIONAL SAFETY ZONE AND CABLING SAFETY

- 12.1 We identified operational safety zones and cabling safety as a principal issue in our Rule 6 letter (PD4). These are essentially separate issues, so this report deals with questions around operational safety zones first, followed by cabling safety.

### Operational Safety Zones

- 12.2 EN-3 the National Policy Statement for Renewable Energy Infrastructure recognises that impacts may arise from the granting of safety zones (para 2.6.149); requires applicants to assess the potential effects of safety zones on navigation and shipping (para 2.6.158), including on recreational craft (para 2.6.160); and, amongst other considerations, requires decision-makers to *"be satisfied that the scheme has been designed to minimise the effects on recreational craft"* (para 2.6.166).
- 12.3 PA 2008, Schedule 5 Part 1 (2) identifies *"The creation, suspension or extinguishment of, or interference with, interests in or rights over land (including rights of navigation over water), compulsorily or by agreement"* as a matter potentially ancillary to the development and para 2.6.170 of EN-3 states that the decision-maker may include provisions within the terms of the DCO in respect of rights of navigation within UK territorial waters.
- 12.4 In the Environmental Statement (ES) chapter 16 Shipping and Navigation (APP50) the applicant:
- signals the intention to make application to the Secretary of State for Energy and Climate Change under s95 of the Energy Act 2004 for a 500m safety zone around construction 'works' during the construction phase. *"This precaution will provide a means of regulating the rights of navigation so as to preserve the safety of those working in the proposed GWF and those onboard other vessels that may be navigating in this area. The safety zones (if granted) will act to exclude all vessels not involved in the wind farm operations"* (para 16.6.15);
  - indicates the intention to apply under s95 of the Energy Act 2004 for a 50m safety zone around all structures in the wind farm during the operational phase (see Safety Zone Statement (APP84)) and states: *"(This) safety zone will be consistent with the operational safety zones at the adjacent GGOWF site and is considered adequate by the developer during normal working operation"* (para 16.7.51);
  - recognises that any application for an operational safety zone would need to be supported by a Navigation Risk Assessment incorporating operational experience (Table 16.1); and
  - in setting out the realistic worst case scenario for potential impacts on recreational craft assumes that *"all structures have a 50m operational safety zone around structures and a*

*minimum blade tip clearance of 22m above MHWS” (Table 16.7).*

- 12.5 In ES chapter 24 Land Use, Tourism and Recreation (APP58) the applicant recognises that safety zones are likely to be applied around structures in the wind farm during the operational phase. However, because they will be restricted to 50m and recreational vessels will be able to pass through the wind farm *“no impact is anticipated upon offshore recreation during the operation of GWF”* (para 24.7.19).
- 12.6 The applicant provided a Safety Zone Statement (APP84) which addresses the requirements of s95 of the Energy Act 2004 and explains that it is GWFL’s intention to apply for a safety zone scheme during the construction and operational phases of the project.
- 12.7 During the course of the examination we considered the various representations and submissions made in respect of the applicant’s proposals for operational safety zones and asked a number of questions, giving due weight to the responses in the light of the guidance set out in EN-3.
- 12.8 In particular we explored:
- the justification for and consequence of the applicant’s intention to apply for 50m safety zones around each WTG and other structures associated with the generating station during the operational phase;
  - the relationship between the proposed 50m safety zones and the proposed extinguishment of rights of navigation over the sites of all structures within the generating station set out in Article 8 Public rights of navigation of the second draft DCO (DCO2) and maintained in the sixth draft (DCO6); and
  - whether there was the possibility of flexibility in the size of craft (if any) allowed within the proposed 50m safety zones.
- 12.9 Relevant representations in relation to operational safety zones were made by the Royal Yachting Association (RYA) (RR1), the Maritime and Coastguard Agency (MCA) (RR29), Mr William Pinney (RR30) and the Chamber of Shipping (CoS) (RR37).
- 12.10 The RYA stated that the case for excluding recreational craft of less than 24m in Length Overall (LOA) from the 50m safety zones to be in force in the operational phase is not adequately made in either the ES nor the supporting Navigational Risk Assessment (APP73). The RYA also objected *“to any application to declare a general 50m safety zone during normal operations which would make it a criminal offence for all types of vessels to enter or remain in a safety zone ....”* (RR1);
- 12.11 The MCA pointed out that: *“It is assumed within the ES that a 50m operational Safety Zones will be implemented; this is not the case*

- any Safety Zone application made to DECC is subject to an additional NRA and is dealt with on a case by case basis.” (RR29);*
- 12.12 Mr William Pinney, who represents two commercial fishing boats working out of Orford, said: *“We believe we should be allowed to work within 50 metres of a turbine and 500m of any active installation, not stopped fishing there.” (RR30); and*
- 12.13 The CoS stated: *“We do not support the proposal for 50m safety zones to be enforced during normal operations. We do not believe that a strong enough case has been put forward for these safety zones to be established and that the zones would place unnecessary restrictions on smaller craft operating close to the wind farm. The 50m operational safety zones at the Greater Gabbard Wind Farm should not be used as a justification for the enforcement of similar safety zones at Galloper.” (RR37).*
- 12.14 In responding to our question 12.6 in the first written questions (PD11), the applicant indicated that 50m safety zones during the operational period were necessary to provide a safe environment during maintenance visits to the wind farm structures (REP29 para 2.12.20) and to reduce the risk of third parties colliding with wind farm structures, particularly in poor weather (REP29 para 2.12.21); and that an application to have the safety zones declared will not be made until after consent for the development has been given.
- 12.15 The applicant also pointed out that Article 8 of the draft DCO *“provides for the rights of navigation to be extinguished so far as those rights of navigation would pass through the places within UK territorial waters where the wind farm structures are located” (REP29 para 2.12.28).* The applicant makes it clear that the provisions of Article 8 and any future applications for safety zones are two separate (and independent) processes (para 2.12.30).
- 12.16 The MCA responded that: *“The requirement for a 50m Operational Safety Zone, is subject to a formal application made to DECC, contained within will be a full justification and Navigation Risk Assessment, upon which the MCA is invited to comment on the acceptance or otherwise of the safety zone application.” (REP14).*
- 12.17 In their SoCG (SOCG9) the applicant and RYA agreed that the risk assessment for operational safety zones would be carried out as part of the necessary studies undertaken to support an application for such operational safety zones, at the time of the application. However, it was also stated that: *“At this stage the Parties do not agree as to whether the ES and the supporting navigational risk assessment have made the case for a general operational safety zone to be declared to include recreational craft below 24m LOA.” (para 3.1.1).*

- 12.18 In our second written questions we asked the applicant and IPs to comment further on the opportunity for flexibility in the operation of the proposed 50m safety zones and whether there was a case for allowing vessels of either under 24m LOA or under 10m LOA free access to safety zones, questions Q27.6 Q27.7 and Q27.8 (PD13).
- 12.19 The applicant responded (REP41) by restating the position that applications for and approval of safety zones were subject to a separate legal process outside the PA 2008; there was the possibility of varying the terms of a safety zone consent to allow vessels under a defined size access, but this power rests entirely with the Secretary of State for Energy and Climate Change. The duty under PA 2008 was for the decision-maker to consider whether the impacts from the project, including safety zones, have been properly considered and not to make a recommendation in relation to the risks of the project "*where such a risk-based assessment is clearly intended to be made under a different legal regime.*" (para 2.8.17)
- 12.20 The RYA argued strongly that sufficient safeguards exist to allow recreational vessels below 24m LOA to sail within 50m of WTGs and therefore allowing unrestricted access would not pose an unacceptable level of risk; that any small craft collision was likely to be low impact and low energy and unlikely to cause damage to the craft; and that if safety zones were imposed there needed to be in situ systems to warn mariners if they were encroaching within the zone. Without these systems there is no mechanism for proving an infringement had taken place and therefore recreational boat owners ran the risk of prosecution. In these circumstances the penalty is disproportionate.
- 12.21 In its response for the deadline of 8 October 2012 the applicant (REP54) stated its opinion that the GWF DCO should not seek to impose requirements in respect of the size of vessels which may or may not be allowed access in a safety zone, should they be applied for (para 2.8.17) and confirmed that: "*the eventual application for safety zones, in whatever form, will address the requirements set out in the DECC guidance and which in themselves will address the key points raised by the RYA, namely navigational risk for all vessel types and safety zone monitoring and enforcement.*" (para 2.8.19)
- 12.22 The MCA in its response of 21 September 2012 (REP43) stated its position that operational safety zones of 50m are subject to further navigational risk assessment of activity observed during the construction phase and a detailed navigational risk assessment and justification is required for any operational safety zone application, which will be reviewed and assessed as appropriate. The MCA went on to say that: "*there is no mechanism to make safety zones discretionary on vessel length or type.*" This assertion



is however challenged by the applicant as not a matter that is prescriptively excluded (REP54 para 2.8.21).

12.23 Having considered the submissions made by all the IPs in relation to this issue we have reached the following conclusions:

- there is no disagreement about the need for and value of a 500m safety zone around construction 'works' during the project's construction phase, although we recognise that this is a matter for the Secretary of State for Energy and Climate Change;
- the proposal under article 8 of the final submitted draft DCO (DCO6) to extinguish navigational rights over the location of those structures associated with GWF within territorial waters is sensible in the circumstances, meets best practice requirements, meets the requirements of EN-3 and is supported by the panel;
- consideration of applications for 50m safety zones around GWF structures during the operational phase is also a matter for the Secretary of State for Energy and Climate Change, after consultation with the MCA, in accordance with the requirements of s95 of the Energy Act 2004, should the applicant or another party decide to make such an application. It is a requirement of the procedure under s95 of the Energy Act 2004 that a new navigational risk assessment is carried out in the light of experience during the construction phase. We are satisfied that the ES adequately addressed the question of the impact of possible operational safety zones as required by EN-3 for both commercial fishing and recreational vessels; and
- it is a matter for the Secretary of State for Energy and Climate Change as to whether flexibility or variation is allowed to the terms within which any approved operational safety zones operate, particularly in relation to the possibility of vessels under 24m LOA being granted freedom to enter any safety zones. Particularly in relation to increasing the opportunities for inshore and fixed gear fishing, the role of existing navigation and maritime safety regimes, the difficulties in ensuring enforcement of any safety zone because of the absence of equipment to record the movement of vessels and the claim that criminal prosecution in relation to breaching a safety zone is a disproportionate sanction in respect of smaller vessels. We consider these should be given appropriate weight if and when the Secretary of State makes a decision under s5 of the Energy and Climate Change Act 2004 in respect of operational safety zones within the GWF.

### **Cabling safety**

12.24 EN-3 refers to the need for decision-makers to take into account any adverse impacts from cable laying in association with offshore

wind energy generation in relation to fish (para 2.6.76), intertidal (para 2.6.85) and subtidal (para 2.6.114) zones, historic assets (para 2.6.139) and the physical environment (para 2.6.196); especially in relation to potential impacts caused by electro-magnetic fields (EMF) and to habitats.

- 12.25 This section of the report, however, is concerned only with issues in relation to cabling safety, which were raised by two IPs as relevant representations, including:
- the MMO, which asked that a condition is added stipulating the minimum burial depth for the inter array and export cables and suggested a minimum of 1.5 meters, subject to discussion on the actual depth between the MMO, the applicant and relevant navigation authorities. (RR25); and
  - Mr William Pinney who stated, in relation to the Greater Gabbard Offshore Wind Farm: "*The project has gone on far longer than was originally planned and many cables have been left unburied across the banks for long periods.*" (RR30).
- 12.26 Having identified cable safety, along with operational safety zones, as a principal issue in its Rule 6 letter (PD4) we specifically asked the applicant to identify how full provision has been made within the maximum limits of deviation for cable working zones to be established both during initial construction and then for ongoing maintenance and decommissioning and to set out the proposed approach to the use of cabling bights or replacement methodology for the connection cables, cross array and inter array (PD11 Q7.1).
- 12.27 The applicant presented a detailed explanation of its approach to cable laying in section 12 of ES chapter 5 Project details (APP39) and in Table DCO-9 referenced requirement 6 of Part 3 of Schedule 1 of the submitted draft DCO (APP27), which sets out the maximum cable length to be laid in 'work 3A and 1(e)', that the maximum number of cables in the export cable corridor shall not exceed 3 in number and condition 9(c) of the DML (Schedule 6, Part 2) which requires the MMO to approve a 'construction method statement' to include details of cable installation before construction activities begin (APP39 Table DCO-9).
- 12.28 In responding to our first written questions (PD11) in its first response (REP29 para 2.7) the applicant confirmed:
- the cable corridor had sufficient width to enable the cables to be suitably separated to allow for installation, repair and decommissioning;
  - final decisions on cable installation location will follow pre-construction surveys and approval by the MMO after consultation with NE and JNCC of a cable specification and installation plan as set out in condition 9(g) of the draft DML (DCO1);

- details of the cable installation method will be provided within the Construction Method Statement after approval by the MMO following consultation with NE and JNCC as provided for in condition 9(c) of the draft DML (DCO1); and
  - the installation of cable bights is an “*extremely rare but routine operation*” (para 2.7.5).
- 12.29 The RYA raised an additional concern in relation to the presence of mattresses/rock armour protection at cable crossing points along the offshore export cable corridor route and where the export cables come ashore; and a general concern that this may result in the reduction of water depth to less than 4m below chart datum (CD) and represent a navigation hazard. The RYA does not consider that sufficient quantification of this potential risk has been provided in the GWF application (REP20).
- 12.30 Subsequently, in a SoCG between the applicant and RYA it was agreed that:
- the cable crossings required for the GWF export cable route will not reduce the depth to less than 4m below CD and therefore does not represent an additional shipping and navigation hazard for small recreational vessels (SOCG9); and
  - Schedule 6, Part 2, condition 9 (g)(ii) of the draft DCO includes provision for “*a detailed cable laying plan for the offshore Order limits, including geotechnical data and cable laying techniques*” and that this plan, subject to approval by the MMO in consultation with MCA and THLS, is sufficient to ensure that no adverse effect on the safety of navigation will occur (including that of small recreational vessels) by way of a reduction in safe navigable depth (SOCG9).
- 12.31 In their submission commenting on their SoCG with the applicant the Eastern Inshore Fisheries and Conservation Authority (EIFCA) (SOCG14) expressed the view that cable armouring was a key concern to Suffolk inshore fishermen and agreed that any cable armouring plan must be submitted to the MMO for approval.
- 12.32 The applicant and the MMO had further discussions during the examination and reported in their SoCG (SOCG4) that they were in agreement that the cable burial risk assessment approach will be employed to determine appropriate cable burial depths, rather than references to minimum burial depths, and that condition 9(g) of the DML be updated to reflect this terminology by the addition of a third sub-paragraph to read: “(iii) *a cable burial risk assessment to inform cable burial depth*” (DCO2).
- 12.33 At the second DCO Issue Specific (IS) hearing on 19 October 2012 in answering a question from the panel relating to the certainty of the provisions in requirement 6 with regard to the number and length of cables, the applicant confirmed that it was not intending

to carry out repairs to the cables by way of replacement; but rather through a leave and repair approach using the capacity for bights built into the cable laying method. In the event of repairs being carried out, cable bights would be inserted and the maximum number of cables in the export cable corridor would remain at three. The applicant agreed that any increase in the number of cables beyond three would require a further consent (HE22).

- 12.34 Having considered the representations and responses made by the applicant and IPs in relation to cabling safety, we are of the view that the conditions proposed in the sixth draft DCO (DCO6) in respect of requirement 6, dealing with the number and length of cables overall, and condition 9(c) and (g)(i), (ii) and (iii) of the recommended draft DML (Appendix F), dealing with a construction method statement for the installation of cables and a cable specification and installation plan to be approved by the MMO in consultation with NE and JNCC (and in respect of condition 9(g)(ii) the EA in relation to the foreshore) represent a reasonable and precautionary approach to ensuring cabling safety and recommend that they be included in the Order. Therefore we are satisfied that there are no matters outstanding that would argue against the Order being confirmed and accordingly recommend the Secretary of State approve the recommended draft DCO/DML (Appendix F) as presented.

## 13 RADAR, NAVIGATION AND SEARCH AND RESCUE OPERATIONS

- 13.1 Section 2.6 of the National Policy Statement (NPS) for Renewable Energy Infrastructure (EN-3) advises those making decisions in respect of proposals for offshore wind generation projects in, amongst others, the following terms:
- not to grant development consent if the decision-maker considers that interference with the use of recognised sea lanes essential to international navigation is likely to be caused by the development (para 2.6.161);
  - to be satisfied that the site selection has been made with a view to avoiding or minimising disruption or economic loss to the shipping and navigation industries with particular regard to approaches to ports , strategic routes, lifeline ferries and recreational users of the sea (para 2.6.162);
  - where a wind farm is likely to affect less strategically important shipping routes the decision-makers approach should be pragmatic. The applicant should be expected to minimise negative impacts to as low as reasonably practicable (ALARP)(2.6.163);
  - consent should not be granted for applications that pose unacceptable risks to navigational safety after all possible mitigation measures have been considered (para 2.6.165);
  - schemes should be designed to minimise the effects on recreational craft (para 2.6.166);
  - have regard to the extent and nature of any obstruction of or danger to navigation which is likely to be caused by the development (para 2.6.168); and
  - regard should be had to the likely overall effect of the development in question and to any cumulative effects of other relevant proposed, consented and operational wind farm (para 2.6.169).
- 13.2 The applicant deals with navigation aspects of the proposed development principally in Environmental Statement (ES) chapter 16 Shipping and Navigation (APP50). ES Technical Appendices 4 (APP73) contains the Navigational Risk Assessment (16A) and the Military and Civil Aviation Assessment (17A) and it provides a report on consultation, the Consultation Report, (APP76) (with appendices APP77 and APP78).
- 13.3 The summary to ES chapter 16 Shipping and Navigation (APP50) para 16.13.1 states: *"The main navigational features in the vicinity of the proposed GWF are the Sunk Area (including Traffic Separation Schemes) and the Port Operations at Harwich Haven Authority and Port of London Authority. A variety of vessels use the shipping lanes surrounding the proposed GWF site including fishing vessels, cargo vessels and passenger ferries."*

- 13.4 Table 16.9 in ES chapter 16 (APP50) sets out a summary of impact assessment following mitigation in all phases and for all identified risks. Para 16.3.4 summarises the applicant's view as: "*No potential significant residual cumulative impacts on shipping and navigation due to the proposed GWF and other activities in the area have been identified.*"
- 13.5 We recognised radar, navigation and search and rescue operations as a principal issue attached to the Rule 6 letter (PD4) including:
- baseline assessment and methodology for navigational risk;
  - endangerment, obstruction and interference with shipping;
  - endangerment, obstruction and interference with aviation in particular Manston Airport;
  - safety to mariners; and
  - interpretation of navigational risk assessment and procedure in case of emergencies.
- 13.6 Relevant representations were received from four IPs, namely:
- Manston Airport (RR20) which stated that "*(it) would be unlikely to object to this proposal*";
  - Ministry of Defence (MoD) (RR21) which also stated that it had no objection to the proposal as currently defined and pointed out that the Defence Infrastructure Organisation (Safeguarding) wished to be consulted;
  - the Chamber of Shipping (CoS) (RR37) which expressed concern principally about the lack of a buffer between the northern site boundary and the high densities of east-west traffic travelling along it, which it felt presents a clear navigational safety risk and recommended a minimum 2nm buffer was required. Additionally there were criticisms of the collision risk methodology and the results of a Hazard Review Workshop held by the applicant in May 2011;
  - the Maritime and Coastguard Agency (MCA) (RR29) raised a number of key issues as "*notes of concern*" in relation to emergency response; effects of radar interference; the interpretation of traffic survey data and the level of response to consultation; cumulative and in combination impacts and in particular the relationship with the adjacent East Anglia licensed area and effects on cross-boundary developments. It concluded that: "*the strategic location of this development requires a compelling argument to support its development*".
- 13.7 Further written representations were received from a number of parties, including the National Air Traffic Services Safeguarding (NATS) (REP16) and Trinity House Lighthouse Service (THLS) (REP7).
- 13.8 The Harwich Haven Authority (HHA) wrote direct to the applicant's consultants on 31 July 2012 (REP31). It indicated it had no objections to the proposed Galloper Wind Farm (GWF) or to the

extension to the Sunk East Traffic Separation Scheme (TSS) and stated that it was essential that a radar sensor be installed and maintained at a suitable location within GWF for Sunk Vessel Traffic Services (VTS). The sensor should provide raw radar feeds to appropriate third party stakeholders, including HHA. Following discussion with the MCA (see below) the applicant has met this request in revised requirement 8 (4)(i), (ii) and (iii) of the sixth draft DCO (DCO6).

- 13.9 Having considered the ES, relevant representations and verbal submissions at the preliminary meeting (HE1-4), we asked a number of questions of the applicant and various IPs in our first written questions (PD11) in relation to:
- ratification and implementation of the extension of the Sunk East TSS;
  - the routing of ferries travelling to the north of the proposed GWF and the relationship of these routes to the GWF;
  - shipping movements in relation to the call for a buffer zone to the north of the GWF;
  - further information in relation to the applicant's collision risk assessment;
  - further information in relation to the identification of hazards;
  - measures for securing, implementing, enforcing and monitoring the various mitigation measures listed by the applicant and an estimate of the level of confidence in their success and relationship to the draft DCO;
  - monitoring measures; and
  - the relationship with adjoining wind farms and their cumulative impact on shipping and navigation.
- 13.10 In response to our questions the MCA confirmed that the proposed Sunk East TSS extension had been approved prior to adoption by the International Maritime Organisation (IMO) without further amendment in June 2011 and had been forwarded to the IMO Maritime Safety Committee at its 90<sup>th</sup> session in May 2012, which had accepted the scheme and it would now be implemented (REP14).
- 13.11 In our first written questions appended to the Rule 8 letter (PD11) we requested that the applicant co-ordinate and submit one (or more) statements of common ground (SoCG) with the MMO, CoS, MCA, RYA and HHA dealing with a range of topics. Specifically, we called for the applicant to agree a SoCG with the MCA to address the range of concerns the MCA had expressed in its original relevant representation (RR29).

### **SoCG with the Maritime and Coastguard Agency**

- 13.12 The SoCG with the MCA (SOCG5) states in para 2.2.5: *"it is agreed that the points raised by the MCA in their response to PINS dated 23/2/12 have been addressed to the satisfaction of both*

*parties. In this regard, this SoCG addresses the request made by PINS in the Rule 8 letter (PINS reference SoCG12.2)."* The document goes on to indicate detailed and comprehensive agreement between the two parties on all the outstanding issues with no outstanding areas of disagreement. In particular there was agreement in relation to:

- amended text in relation to requirement 8 of the draft DCO Offshore safety management; consultation in relation to assessing the amount of traffic in the area; cumulative impacts and transboundary effects; agreement *"that the ES contains a complete assessment of all the issues relevant to shipping and the safety of navigation that ought to be included for this type of development in this location"* (para 3.2.4)
- the residual impacts during the operational phase are no higher than tolerable; that the further enhancement to current VTS provision may be required, to support the approved extension to the Sunk TSS subject to further discussions with MCA and HHA. If required, any additional provision will be funded by GWFL;
- a range of mitigation and management requirements and actions which it is agreed should be agreed and/or implemented prior to construction commencing;
- agreement that the approach undertaken to identify and assess cumulative impacts, which includes the consideration of interactions between GWF and other offshore wind farms as well as interactions with other regulated activities was based on the information available at the time of writing and is appropriate; there are unlikely to be any significant cumulative impacts; and
- an amendment to condition 9 of the draft DML which will provide for MMO consultation with the MCA and THLS in relation to Condition 9(b) (the pre-construction approvals process) and 9(g)) (the cable specifications and installation plan) (subject to agreement with the MMO).

### **SoCG with Trinity House Lighthouse Service**

- 13.13 The SoCG (SoCG12) between the applicant and Trinity House (THLS) adopts a similar format to the SoCG with the MCA and confirms agreement on all issues with no outstanding areas of disagreement. There is clear agreement that the requirements of EN-3 paras 2.6.153 – 2.6.160 have been met as have those of Marine Guidance Note 17 Annex 1 section 2(n) and Annex 2 section 5. The SoCG repeats the agreement to modify condition 9(b) and (g) of the sixth draft DML (DCO6).

### **SoCG with the Chamber of Shipping**

- 13.14 While agreement between the applicant and the CoS was reached on all the issues originally made to PINS by the CoS in this SoCG



(SOCG1), substantial disagreement remained in relation to the need for buffer zones to reduce collision risk both to the north and east of the proposed GWF and in relation to the proposed East Anglia ONE Offshore Wind Farm.

- 13.15 In our second written questions (PD13 Questions 27.1-5) we focussed on the continuing call, particularly from the CoS, for a buffer area to be established on the northern boundary of the proposed GWF development and particularly the mitigation measures required to ensure that the level of risk is rated 'tolerable' if 'as low as reasonably practicable' (ALARP), in accordance with the guidance in Marine Guidance Note 371 produced by the MCA.
- 13.16 Following discussions, CoS (REP36) and THLS (REP52) agreed (and reproduced verbatim) in their responses with a view put forward by the MCA (REP43) that, in order for collision risk levels to be deemed 'tolerable if ALARP' on the basis of the information provided by the applicant a 0.5nm buffer zone is required between passing vessels and the northernmost row of wind turbine generators (WTGs). This buffer could be provided within the boundary of the proposed GWF by not placing WTGs within 0.5nm of the wind farm boundary, in the context of the 'Rochdale envelope' approach, thereby meeting the requirements of Marine Guidance Note 371. In support the MCA referred to the 8.8m 'shallow patch' just to the north of the proposed GWF boundary, which had the effect of forcing traffic further south and closer to the proposed turbines.
- 13.17 The applicant responded to this change of stance by the MCA and THLS in its comments on responses to the Examining authority's second questions (REP54) and referred to its earlier responses, to the previously agreed SoCGs with MCA and THLS, stating that the new position had been reached without consultation with the applicant (para 2.8.5). The applicant stated: "*The entire Order Limits are intended to comprise the entire area within which turbines could be developed.*" The applicant produced an explanatory note (REP54 Annex D), which evidenced its view that a 0.5nm buffer zone was not required and sought to demonstrate that, even taking into account the need to avoid the 8.8m shallow patch, deviations by passing vessels to achieve a minimum 0.5nm clearance from the boundary of GWF would require only insignificant increases in both distance and journey time.
- 13.18 In its summary of case put at various hearings 17-24 October 2012 (HE36) the applicant presented Annex A5 and A6 (HE39 and 40) in relation to the question of the need for a buffer zone to reduce the risk of collision to the north of the proposed GWF.
- 13.19 Annex A5 (HE39) is the minute of a meeting between the applicant, MCA, THLS and the CoS, held on 16 October 2012 and associated emails (Annex A6 (HE40) contains further emails). At

the meeting the parties reviewed the development consent application process, the consultations that had been undertaken and the most recent evidence on traffic passing eastwards to the immediate north of the proposed GWF boundary. All agreed that GWF would result in vessels to the north of the wind farm "*shifting their routes further north to maintain a safe passing distance from the wind farm*", creating, in effect, a 'natural buffer' in the unconstrained sea room to the north and on that basis that "*there was no need for a buffer to be imposed on the GWF project even where turbines were located along the northern boundary.*"

- 13.20 Annex A5 contains confirmatory emails agreeing with the minutes of the meeting from MCA and THLS and Annex A6 providing a similar email from CoS.
- 13.21 We accept the agreed position reached by the applicant, MCA, THLS and CoS that there is no need to impose a buffer area along the northern boundary of Area A of the proposed GWF.

#### **DCO requirement 14**

- 13.22 In its third response to Rule 17 requests (REP60) the applicant reported in para 5.6.1 that in a letter of 22 August 2012 THLS requested an amendment to the first sentence of requirement 14 of the draft DCO (regarding aids to navigation) to the effect that "*the undertaker shall colour all structures yellow from at least highest astronomical tide to a height directed by Trinity House, or shall colour the structure as directed by Trinity House from time to time.*"
- 13.23 The applicant was concerned that this would contradict the second sentence of requirement 14, which requires the undertaker to ensure the structures are painted submarine grey, unless directed otherwise by the Secretary of State. In declining to accept the proposed amendment the applicant drew attention to the confusion it believed would ensue if the two sentences were included in the requirement (REP60 para 5.6.1).
- 13.24 Subsequently, following discussions and agreement with THLS, the applicant proposed further rewording of requirement 14 (DCO17) to take the THLS proposal on board and clarify the relationship between the Secretary of State and THLS (in the sixth draft DCO (DCO6)) – see (DCO12) and (DCO15), which summarise the changes between the fourth and fifth drafts. The proposed wording is set out in the sixth draft DCO (DCO6).

#### **Aviation lighting**

- 13.25 On 16 November 2012 the Defence Infrastructure Organisation (Safeguarding) (DIO) (part of the MoD) wrote to the us (REP64) stating that it had no objection to the proposal; but requesting that in the interests of air safety the WTGs are fitted with aviation lighting to a standard of 2000 candela omni-directional red lighting

at the highest practicable point and asking to be informed about the dates upon which construction begins and ends, the maximum height of the construction equipment and the latitude and longitude of every turbine. The DIO also asked to be informed if the application is altered in any way.

- 13.26 The DIO letter arrived just before close of the examination and there was no opportunity for the applicant or other IPs to comment in detail on the submission. We have considered the DIO submission which addresses critically important questions of military aviation safety and propose an amendment to requirement 15 as set out in the recommended draft DCO (Appendix F)
- 13.27 We are of the view that this revised wording is reasonable, precautionary and ensures that the interests and any changes to those interests of both civil and military aviation are properly addressed in the recommended draft DCO.

### **Amendments to requirement 8 – Offshore safety management**

- 13.28 On 20 November 2012 the MCA wrote to the panel (REP63) following its request for final submissions under Rule 17 (PD16) and proposed substantial revisions to the fifth draft DCO (DCO5) "*Schedule 1, Part 3 Article (sic) 8 Offshore Safety Management*" (note the reference should be to requirement 8 Offshore Safety Management). This proposition arose from another case where it became apparent the existing wording under requirement 8 (1)(2) and (3) is "*potentially confusing requirements of the Active Safety Management System (ASMS) and that of the Emergency Response and Co-operation Plan (ERCOP) and therefore requires updating.*"
- 13.29 The MCA offered revised wording, which has been accepted by the applicant and incorporated into the sixth draft DCO (DCO6) at 8(1) and (2) for consideration.
- 13.30 Additionally, the MCA proposed paras 8(3)(4)(i), (ii) and (iii) to be incorporated into requirement 8 formalising the requirements for enhancing the active range of the Sunk VTS and required to facilitate traffic monitoring of the IMO approved extension to the Sunk TSS as discussed earlier. Again the applicant has accepted this additional wording and incorporated it into the sixth draft of the DCO (DCO6) for consideration.

### **Conclusions**

- 13.31 In addressing issues of radar, navigation and search and rescue operations we have carefully considered the wide range of submissions, answers to questions and SoCG that have been presented to us in the context of the advice in the EN-3 and having jointly made an unaccompanied site visit to an offshore wind farm elsewhere within UK territorial waters, which afforded

the opportunity to view WTGs, substations and accommodation platforms close up and at sea level.

13.32 We have placed considerable weight on the advice of those statutory and other bodies with responsibility for advice, technical standards and regulation in relation to navigation and safety both at sea and in the air. We are satisfied that a full dialogue has taken place between them, the applicant and the panel, which has resulted in significant agreement on all the substantive issues and helpful proposals for amending the DCO/DML in the light of that dialogue.

- we believe we have addressed the areas of concern set out in EN-3 including addressing interference with the use of recognised sea lanes essential to international navigation, approaches to ports, strategic routes and ferries the response of IPs indicates that the GWF site avoids and minimises disruption and economic loss to the shipping and navigation industries; reducing negative impacts to ALARP; there are no unacceptable risks to navigational safety;
- the panel has had regard to the extent and nature of any obstruction of or danger to navigation which is likely to be caused by the development; and
- there is agreement that there are no over-riding cumulative effects in relation to other relevant proposals.
- issues around air safety and navigation have been addressed.

13.33 In the light of the outcome of the examination we recommend the Secretary of State accepts:

- the applicant's proposals in the sixth draft DCO (DCO6) to significantly amend requirement 8 Offshore safety management in Schedule 1 Part 3 to clarify safety and emergency response responsibilities and ensure implementation of the Sunk East TSS extension and its required additional radar and radio facilities;
- the applicant's amendment to requirement 14 (aids to navigation) in Schedule 1 Part 3 in the sixth draft DCO (DCO6) to improve the visibility of wind farm structures and clarify the respective roles of the Secretary of State and THLS in relation to their responsibilities in prescribing the colour that structures must be painted;
- our recommendation to reword requirement 15 (aids to navigation) in Schedule 1 Part 3 as set out in the recommended draft DCO (Appendix F) to ensure both civil and military air safety measures are carried out.

13.34 We are therefore satisfied that there are no matters outstanding that would argue against the Order being confirmed and accordingly recommend the Secretary of State approve the recommended draft DCO/DML (Appendix F) as presented.

## 14 SEDIMENT DYNAMICS WASTE AND DEBRIS

- 14.1 The Overarching National Policy Statement (NPS) for Energy (EN-1) requires decision-makers to "*be satisfied that the proposed development will be resilient to coastal erosion and deposition, taking account of climate change, during the project's operational life and any decommissioning period.*" (para 5.5.10)
- 14.2 The NPS for Renewable Energy (EN-3) sets out the following elements of the physical offshore environment that the construction, operation and decommissioning of offshore energy infrastructure can affect: water quality; waves and tides; scour effect; sediment transport; and suspended solids.
- 14.3 Decision-makers should "*be satisfied that the methods of construction, including use of materials, are such as to reasonably minimise the potential for impact on the physical environment.*" (para 2.6.196) They should expect that consideration has been given to the burying of cables to a necessary depth and using scour protection techniques around offshore structures to prevent scour effects around them; statutory consultees should be consulted in respect of appropriate mitigation (para 2.6.197).
- 14.4 The applicant addresses the potential impact of the Galloper Wind Farm (GWF) proposal in the construction, operation and decommissioning phases on sediment dynamics, waste and debris in a number of places in its Environmental Statement (ES) and principally chapter 9 Physical environment (APP43) and chapter 10 Marine and water sediment quality (APP44).
- 14.5 Table 9.11 of ES chapter 9 Physical environment (APP43) summarises the applicant's view of a number of effects during the three phases including wave heights and periods; tidal current velocities; suspended sediment concentrations and transport due to installation of wind turbine generator (WTG) foundations; suspended sediment concentrations and transport due to cable installation processes in the construction phase.
- 14.6 In the operational phase, potential effects on wave regime; tidal regime; sediment transport and morphology; scour effects at WTG foundations and around cables and at the coast need to be considered.
- 14.7 In the decommissioning phase potential effects on wave heights and periods; tidal current velocities; suspended sediment concentrations and transport due to removal of WTG and suspended sediment concentrations and transport due to cable installation processes.
- 14.8 In each case the assessed effect was either 'no effect' or 'negligible' prior to mitigation. The single identified mitigation measure is the provision of scour protection measures at WTG foundations, which delivers a 'no effect' or 'residual effect'.

- 14.9 In Table 10.11 of ES chapter 10 Marine and water sediment quality (APP44), the applicant summarises its assessment of impacts on marine and coastal water quality in relation to re-suspension of sediments; re-suspension of contaminants; accidental spillage of construction materials and deterioration of water and sediment quality as a result of scour effects at the WTG structures in all three phases. All applicable residual impacts are assessed as 'nil' other than accidental spillages in the operation and decommissioning phases, which are assessed as 'negligible'.
- 14.10 The possibility of accidental spillages taking place is addressed by condition 9(d) in Part 2 of Schedule 6 of the sixth draft Development Consent Order (DCO) (DCO6) and the DML, which requires the undertaker not to commence any licensed activities until it has submitted to and received approval from the Marine Management Organisation (MMO), after consultation with Natural England (NE) and the Joint Nature Conservation Committee (JNCC), a project environmental management and monitoring plan (EMMP). We consider the necessary mitigation can be controlled through condition 9(d) in the draft deemed Marine Licence (DML) in Part 2 of Schedule 6 of the sixth draft DCO (DCO6).
- 14.11 In our Rule 6 letter (PD4) we identified sediment dynamics, waste and debris as a principal issue in terms of :
- waste and debris including dredging and disposal and any associated consent requirements;
  - scouring and scour protection;
  - increased turbidity; and
  - chemical pollutants.
- 14.12 In its relevant representation the MMO (RR25) listed a series of concerns about the submitted draft DML (APP27) and requested a series of changes:
- a condition to state that the environmental management and monitoring plan will include the methodology used to minimise the re-suspension of material during construction or dredging operations;
  - a condition to state that all agents, contractors and vessel operators will abide by the conditions of the DCO;
  - a condition to state that all vessels operators will abide by the marine pollution contingency plan submitted by the undertaker;
  - an amendment to state that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team;
  - a condition stating that the undertaker will submit a document stipulating the best environmental practice referred to in part 2 section 7 (2) page 48.

- 14.13 Subsequently a statement of common ground (SoCG) was agreed between the applicant and the MMO (SOCG4), in which each point made by the MMO was resolved to the agreement of both parties (see Table 3)
- 14.14 A number of relevant representations identified issues of sediment dynamics, waste and debris. Paul Norman (RR3), a charter fisherman stated that: *"tidal flows have been adversely affected by the installation of the monopiles as the degree of rips that show around the N Inner Gabbard and the S Galloper are considerably less than prior to the construction activity"*. Roy Sadd (RR11) was interested in what impact GWF would have on the Felixstowe shore line.
- 14.15 Aldringham-cum-Thorpe Parish Council (RR31) stated that *"the Galloper Environmental Statement does not appear to evaluate the aerodynamic impact of the turbine array (rather than the structures) on wave climate and hence possible impacts on the shoreline. We have asked Galloper to demonstrate that the effect of wind perturbation and pressure over the fetch length for wave height and period is negligible (or otherwise) when assessed for the cumulative impact on shoreline sediment transport. If these effects are below statistical significance within natural variations we consider that it is for the developer to demonstrate by analysis. Or if not that the developer should be required to ringfence reasonable resources to mitigate impacts which result from the development."*
- 14.16 In our Rule 8 letter (PD11) we asked the applicant a number of detailed questions in relation to sediment dynamics, waste and debris in relation to:
- the proposed approach to and assessment of the impacts from disposal of dredging material in liaison with the MMO question Q13.1);
  - the matters raised by Interested Parties (IPs) with regard to the impact of cable routeing and coastal processes (question Q13.4);
  - ongoing discussions with Cemex Marine Ltd and the Crown Estate regarding proposed aggregate extraction (questions Q13.5 and Q13.6);
  - if waste, debris, spillage and leaks during operation of the offshore 'works', cabling and the substation site are included in the assessment of a construction code of practice (CCoP) for works near habitats (question Q13.7).
- 14.17 The applicant responded to our first written questions and the relevant representations in full in its first response (REP29).
- 14.18 In response to the relevant representations the applicant:

- reported on the SoCG with the MMO (SO CG4) which dealt in full with the issues raised by the MMO in its relevant representations (para 4.24.1);
- responded in detail to Paul Norman pointing out that the technical assessments had concluded that *"there will be an effect of negligible significance on the tidal regime"* (para 4.3.4);
- pointed out in response to Roy Sadd that the conclusion of the ES in relation to effects on coastal and physical processes *"are anticipated to be, at worst, negligible"* (para 4.11.4); and
- concluded its detailed response to Aldringham-cum-Thorpe Parish Council by stating: *"In the context of the results of the hydrodynamic modelling, and what is understood of potential wake effects( as discussed above), it is highly unlikely for effects on sediment transport of any nature to manifest at the coast as a result of GWF"*. (para 4.30.6).

- 14.19 Mike Chandler a member of Aldringham-cum-Thorpe Parish Council submitted a further written representation (REP8) on behalf of the council outlining in further detail the parish council's concern about coastal erosion at Thorpeness; *"public concern about infrastructure developments which may impact on costal processes"*; the apparently limited knowledge about the effect of 'turbine drag' on other processes; and that consent for GWF should be made contingent on financial provision being made for possible mitigation if needed in the future.
- 14.20 The applicant responded to Aldringham-cum-Thorpe Parish Council's second representation in similar terms to the first response (REP31) (para 3.15.2 – 3.15.6).
- 14.21 In our second written questions (PD13) we asked the local authorities, MMO, NE and Environment Agency (EA) to comment on the applicant's response to Aldringham-cum-Thorpe Parish Council's representations and whether the environmental conservation bodies are aware of additional research that may help understanding of the potential impact of WTGs on wave formation, carry and wake (questions Q28.1 and Q28.2).
- 14.22 The MMO (REP42) answered *"Due to the long distance between the GWF and Thorpeness (approximately 40 kilometres) it is highly unlikely that wake effects, due to the presence of GWF, can impact upon the local wave climate in the vicinity of the Thorpeness coastline and, as a result, affect local sediment transport"* and referenced a Cefas report from DEFRA project A1227 'Assessment of the Significance of Changes to the Inshore Wave Regime as a consequence of an Offshore Wind Array'.
- 14.23 NE and JNCC responded (REP46) that *"Natural England is of the opinion that it is unlikely that changes to hydrodynamics as a result of the wind farm array will result in changes to processes*



*operating at the coast and therefore agrees with the statement provided by the applicant as quoted in Q 28.1."*

- 14.24 The EA accepted the applicant's view that *"whilst the turbines will have a local effect upon wave climate, our view is that it is highly improbable that the development could cause any impact on wave induced coastal processes at Thorpeness or anywhere else on the Suffolk coast."* (REP38)
- 14.25 Suffolk Coastal District Council (SCDC) and Suffolk County Council (SCC) (The Councils) responded: *"Following brief consultation with a reputable coastal processes advisor on this matter, the District Council believes that the risk to the frontage at Thorpeness from wake effects at GWFL are negligible"* (REP50)
- 14.26 We also requested in our second questions one or more SoCG (SOCG13.2) between the applicant and JNCC, NE, MMO, relevant local authorities, Suffolk Wildlife Trust (SWT) and the National Trust (NT) on sediment dynamics, waste and debris on a number of topics including the aerodynamic impact of turbine array on wave climate and impact on shoreline sediment transport.
- 14.27 The applicant and EA produced a SoCG (SOCG2) that in respect of sediment dynamics, waste and debris agreed the following:
- that the application has given due regard to the impact on water quality and resources, in accordance with section 5.15 of EN-1, and that the EA has no objection or representation to make on this matter;
  - that the EA has no objection or representation to make in relation to coastal or near shore impacts covered by EN-3, save for the points made in 3.8.5 to 3.8.7 of this SoCG. (see points below in relation to cable infrastructure);
  - that Sizewell Beach may be subject to inter annual beach variability and longer term potential coastal change. As a coast with an, albeit minor, erosion trend there is a potential for beach cable infrastructure to become exposed at some point in the future;
  - that exposure of cable infrastructure is undesirable to both the EA and Galloper Wind Farm Limited (GWFL) and both parties would seek to avoid exposure if possible and, if exposure occurs, GWFL would seek to expedite reburial at the earliest opportunity;
  - to minimise the risk of beach cable infrastructure being exposed, it is agreed that condition 9 of the DCO Schedule 6 deemed Marine Licence (DML) condition Pre-construction plans and documentation should be modified to require the MMO to consult with the EA in relation to the impact of cable laying on the foreshore.
- 14.28 In the applicant's non ornithological SoCG with NE and JNCC (SOCG13) agreement is recognised in respect of:

- the assessment methodology, as set out in the ES is appropriate for the prediction of the potential impacts of the GWF array on the physical environment and marine water quality (suspended sediments);
- the predicted effects on the physical environment as a result of the array are not anticipated to be significant, and as such no specific mitigation is required.

14.29 The aspects of sediment dynamics that relate to European sites have been discussed earlier under the relevant European site in section 5 of this report.

### **Conclusions**

14.30 We examined issues we felt were important or needed clarification from the applicant and those raised by IPs; through relevant representations and other submissions; and through detailed questions and requests for SoCGs between the applicant and the Councils and statutory consultees.

14.31 Through the responses to our questions from the applicant and other IPs, including the Councils and, particularly, the SoCGs agreed between the applicant and the MMO, EA and NE; we are satisfied that the applicant's ES meets the guidance and criteria set out in EN-1 and EN-3 and that there is agreement with the statutory consultees on all matters.

14.32 The representations made by individuals and Aldringham-cum-Thorpe Parish Council have been addressed in full. The response to the parish council is supported by the Councils, EA, NE and JNCC.

14.33 During the examination detailed wording changes were made to the draft DCO in respect of sediment dynamics, waste and debris particularly to condition 9 of the DCO Schedule 6 DML Pre-construction plans and documentation. Condition 9 as set out in the recommended draft DCO (Appendix F) sets out a series of key procedures for which approval of the MMO, in consultation with a series of appropriate statutory agencies and key IPs, must be obtained by the undertaker prior to commencing any of the activities allowed for in the recommended draft DML (Appendix F).

14.34 We are therefore satisfied that there are no matters outstanding that would argue against the Order being confirmed and accordingly recommend the Secretary of State approve the recommended DCO/DML (Appendix F) as presented.

## 15 SOCIO-ECONOMIC AND OTHER LOCAL EFFECTS

- 15.1 The Overarching National Policy Statement (NPS) for Energy (EN-1) identifies that in any proposal for a nationally significant infrastructure project the applicant should consider the following socio-economic impacts (para 5.12.3):
- the creation of jobs and training opportunities;
  - the provision of additional local services;
  - effects on tourism;
  - the impact of workers; and
  - cumulative effects.
- 15.2 EN-1 requires decision-makers to have regard to, amongst others (para 5.12.6 – 5.12.8):
- potential socio-economic impacts identified by the applicant and others felt to be relevant and important to the decision;
  - any relevant positive provisions made or proposed to mitigate impacts and any legacy benefits.
- 15.3 The applicant's assessment of socio-economic impacts is contained in the Environmental Statement (ES) chapter 21 Socio-economics (APP55). Impacts in relation to tourism and recreation are dealt with in ES chapter 24 Land Use Tourism and Recreation (APP58); for recreational fishing in chapter 16 Shipping and Navigation (APP50) and other potential impacts on the local community in chapter 25 Traffic and Transport (APP59), chapter 20 Seascape Landscape and Visual Character (APP54), chapter 26 Noise (APP60), chapter 27 Air Quality (APP61) and chapter 28 Electric and Magnetic Fields (APP62).
- 15.4 Table 21.11 of ES chapter 21 Socio-economics sets out the applicant's assessment of the sources of materials and equipment for Gallopier Wind Farm (GWF) in the construction phase, based on the figures for the Greater Gabbard Offshore Wind Farm (GGOWF), which illustrates in broad terms the applicant's view that because of the characteristics of the industry's supply chain a relatively small proportion of the overall expenditure will be distributed locally in either Suffolk or the wider East of England (para 21.6.4).
- 15.5 Table 21.12 of ES chapter 21 Socio-economics sets out the estimated breakdown of direct employment during construction for GWF. A total employment of 850 is estimated, of whom 40% are likely to be from the East of England, 33% from the rest of the UK and 27% overseas. It is estimated that approximately 50 technicians will be based in the East of England to support the offshore activity during the operational phase (para 21.7.1).
- 15.6 The applicant summarises the predicted district and regional socio-economic impacts of GWF in all phases in Table 22.14, and assesses no residual impact above 'negligible'. Para 21.12.2 states: "*With regard to cumulative socio-economic impacts, it has*

*been identified that there is the potential for a minor beneficial cumulative impact to direct and indirect employment associated with the number of wind farms and onshore development proposed in the region."*

- 15.7 In considering chapter 21 of the applicant's ES we noted that there appeared to be no specific measures designed to maximise the benefit of the GWF investment opportunity for local business, employment and training and sought to examine this further.
- 15.8 ES chapter 24 Land Use Tourism and Recreation (APP58) summarises the applicant's impact assessment for land use, tourism and recreation in all phases and assesses residual impacts on tourism aspects as no higher than 'negligible'.
- 15.9 Relevant representations in respect of socio-economic impacts were received from the RYA (RR1), Leiston-cum-Sizewell Town Council (RR4), and Suffolk County Council (SCC) and Suffolk Coastal District Council (SCDC) (the Councils) (RR24). The principal issues raised were:
- opposition to the proposal for 50m operational safety zones around all structures in the wind farm for small (i.e. under 24m LOA) vessels (RR1);
  - the impact of the onshore elements on the community, compensation arrangements and learning lessons from the experience of GGOWF construction (RR4);
  - that the consequences of having substantial numbers of construction workers on this site adjacent to two nuclear power stations have been fully considered by the Office of Nuclear Regulation and the County Emergency Planning Team (RR24).
- 15.10 In our Rule 6 letter (PD4), we outlined the following issues we felt were important to address in assessing the impacts of the proposed development on the community:
- local residents and community;
  - fishing industry;
  - Sizewell;
  - Harwich Port or any other proposed primary shore base;
  - tourism and local recreational users.
- 15.11 At the preliminary meeting (HE1) the applicant indicated that no decision had been made in relation to the location of the project shore base and it would be unable to help the panel further on that topic. We responded in our Rule 8 letter (PD11) by confirming that the location of the shore base for GWF should continue to be examined.
- 15.12 In the Local Impact Report (LIR) (LIR1) the Councils set out their views in relation to socio-economic effects as:

- concern that the positive impacts on the local economy would not be significant;
- recognition of a limited impact upon local tourism during the construction phase arising from disruption to the beach area and the access road to Sizewell Beach;
- content that, in the context of the Galloper Wind Farm, concerns raised during the construction of the GGOWF, at the way that the company was using and managing the beach, are adequately addressed in the draft Code of Construction Practice;
- reserving the right to respond to any answer from the applicant to question Q15.3 relating to port use for the offshore construction phase as depending on the choice of port there may be socio-economic and transport impacts, as yet unidentified in the submission.

15.13 Our main concerns in relation to the potential socio-economic impacts were:

- the impact of the onshore 'works' on the local communities of Sizewell and Leiston, including beach users, and whether the earlier experience of constructing the Greater Gabbard Offshore Wind Farm (GGOWF) provided lessons that might be put into practice in the implementation of GWF;
- the broader more strategic potential for the investment in GWF to be positively used to the benefit of business, employment and training in Suffolk and the wider East of England;
- the impact of the offshore 'works' on recreational boat users - raised particularly by the RYA and discussed in this report in the Operational Safety Zone and Cabling Safety section 12 of this report.

15.14 Our consideration of these issues involved a number of formal written questions and responses, and through observations made by us on both the accompanied and unaccompanied site visits.

15.15 In our first written questions accompanying the Rule 8 letter (PD11) we asked the applicant to respond particularly to Leiston-cum-Sizewell Town Council in respect of compensation and capitalising on lessons learnt from GGOWF; and to the specific concerns of the local tourist industry in relation to fishing charters and activities around the beach, including the beach huts.

15.16 In its first response (REP29) the applicant indicated that:

- with construction measures put in place through the Construction Code of Practice (CCoP) the level of impact on the local community would be 'negligible' to 'minor' adverse and consequently compensatory packages were not warranted (para 2,14,1);

- disruption to beach activities would be confined to the temporarily fencing of areas required for works around Mean High Water (para 2.14.5), controlled crossing points of the defined vehicle access routes across the upper shingle and the temporary relocation of the place from which fishing boats are launched to a point approximately 50m to the north (para 2.14.10);
- there would be no loss of access along the beach (para 2.14.8), access to the beach huts will be maintained throughout construction (para 2.14.7) and fishermen will be contacted in advance of the proposed 'works' and given details of the construction extent and programme and contact details (para 2.14.11);
- the onshore outline CCoP (APP68) (para 3.3.5) sets out that temporary fencing will be used to provide safety and minimum inconvenience to the public and requirement 23 of the sixth draft DCO (DCO6) relating to fencing and other means of enclosure sets out that prior to the commencement of any 'works' the relevant planning authority must approve the undertaker's proposals for all fencing both temporary and permanent (para 2.14.13).

15.17 No other Interested Parties (IPs) responded to these questions.

15.18 In our second written questions (PD13) we asked (Q29.5) the applicant and the Councils to consider: "*how best to facilitate communication and liaison with local residents and businesses in the light of the experience of and representations made about the GGOWF development and to propose mechanisms to mitigate this issue for local people and businesses that can be incorporated into the draft onshore CCoP or other suitable provisions?*"

15.19 The applicant responded in its third response (REP41) by committing to extending the communications and liaison with the local community that had been undertaken as part of the consultation stage (para 2.10.28) and to build on the GGOWF experience by "*establishing a local liaison committee made up of representatives of GWFL and the main contractors for both the onshore and offshore works.*" (para 2.10.29) and a detailed series of initiatives.

15.20 We consider these measures which have been incorporated into the fourth version of the CCoP (HE45), along with additional proposals for establishing a public notice board at the Sizewell beach cafe (CCoP paras 2.4.12 – 2.4.15) will provide adequate controls to mitigate the effects identified. We are satisfied that reasonable steps have been taken to ensure good communication links are maintained with the local community and, particularly, beach users, also that management arrangements are put in place to minimise disruption to tourism and local business activities.

- 15.21 In our second written questions (PD13) (Q29.1 – 29.4) we asked how the potential economic benefits of the GWF proposal might be maximised for the benefit of the communities of Suffolk and East Anglia. We noted that the GWF proposal did not identify the location of any onshore bases to service the construction, operation and, decommissioning phases, which means it is not possible to assess the socio-economic impacts of these activities onshore, except at a very high level.
- 15.22 We asked the applicant to explain how an adequate Environmental Impact Assessment (EIA) of the project could be undertaken in the absence of information as to the location of the onshore bases for onshore manufacture, construction and servicing of the development (Q29.1).
- 15.23 In responding (REP41) the applicant argued that the project for which the DCO was sought did not include reference to onshore locations for manufacture, construction and servicing and was not obliged to do so. For the same reason it was not possible to envisage a worst case scenario. Consequently, it was not possible to carry out an EIA assessment except at a high level, which it had done (para 2.10.10). Further consents may be required to deliver the manufacture, construction and servicing operations required by GWF. The area of search for, for example, manufacturing is global; however, *“the area of search for the servicing port is expected to be the east coast of East Anglia.”* (para 2.10.12)
- 15.24 In response to our question (Q29.3) about potential community benefits and the mechanisms by which they might be secured the applicant stated in para 2.10.24 of its response (REP41): *“GWFL is not proposing any community benefits as part of the application for development consent although the proposed development would contribute to the broader development of the UK and regional offshore wind industry.”*
- 15.25 In question Q29.4 we asked IPs other than the applicant to consider and make representations on the minimum information required to ensure an adequate EIA in the circumstances of there being no defined location for onshore operations. In response the Councils (REP50) pointed out that it was likely there would be an onshore base in Suffolk, Norfolk and/or Essex. These three counties are jointly working through the Skills for Energy initiative to assess the skills needed for the energy sector and would be able to work together on any information received from the applicant.

*“The authorities would have anticipated that there should be:*

- *an assessment of the scale of employment likely in the construction and operational phases of the project;*
- *a broad assessment of the scale of different skills likely to be required in each phase;*

- *evidence of comparable skills available in Suffolk, Essex and Norfolk;*
- *measures likely to be taken by GWFL to seek to maximise the use of local employment and businesses;*
- *the degree to which it would be necessary to develop any skills or supply chains to maximise local involvement in the project and measures which might be appropriate to achieve this.*

*With regard to the last two points, there should be provision, possibly in the DCO or, if more appropriate in a section 106, that before commencement of construction, there should be agreement between GWFL and the local authorities on measures to achieve the last two points referred to above. The local authorities would be prepared to work with GWFL before the conclusion of the Hearings to consider exactly how such provisions should be drafted."*

15.26 This proposition was rejected by the applicant in its response (REP54) on the grounds that there is "*insufficient justification*" (para 2.10.19); however, at the second DCO IS hearing on 19 October 2012, SCDC referred to the "*unambitious*" proposals of the applicant in relation to capitalising on potential economic benefits and informed the hearing that the parties were working towards producing a Memorandum of Understanding setting out where the local authorities and GWFL would wish to work together. This action was confirmed by the applicant (HE22).

15.27 Subsequently the applicant produced an Economic Memorandum of Understanding (HE56) and agreement with each of the local authorities (HE57) (HE58). The Memorandum of Understanding remains to be approved by the GWFL main Board but commits the parties to:

*"use reasonable endeavours to achieve the following aims:*

- *to maximise the opportunity for local business to bid for contracts;*
- *to develop a joint supply chain engagement strategy;*
- *to maximise local employment opportunities;*
- *to assess local training needs and delivery mechanisms"*

15.28 It sets out the terms under which a supply chain strategy will be developed and what it will set out to achieve. The project will aim to build stronger links with a wide range of companies and organisations at national, regional and local level for networking, procurement, business opportunities and training.

## **Conclusions**

15.29 We examined the key socio-economic effects that we and IPs identified as important in this case. We are satisfied that the applicant met the requirements of EN-1 to assess the likely



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impacts on the basis of the DCO for which the application is being made. While a more detailed assessment could have been made if information was available on the location of the onshore servicing locations, it is accepted that there is no requirement for this to be done and that should further consents be required, then due process will be applied at that stage.

- 15.30 We note that learning has taken place from the GGOWF experience and the commitment made in the CCoP to improved liaison and communication with the local community. We are satisfied that controls and measures are in place to ensure the onshore 'works', particularly in the beach area, take place with the minimum disruption to business, the local community and tourism.
- 15.31 We regard the adoption of the Economic Memorandum of Understanding as a further step towards ensuring the potential economic benefit of major energy projects are addressed and progressed through a formal strategic partnership linked to individual projects and welcome the Councils' commitment to ensuring it is delivered (HE 58, HE59).
- 15.32 We have addressed the range of both negative and positive impacts outlined in EN-1 and matters identified by IPs in relation to socio-economic effects and conclude that there are no matters outstanding that would argue against the Order being confirmed.

## 16 TRAFFIC AND TRANSPORTATION

- 16.1 The Overarching National Policy Statement (NPS) for Energy (EN-1) recognises the potential for new energy NSIPs to give rise to substantial impacts on the surrounding transport infrastructure and requires decision-makers to ensure that applicants have sought to mitigate these impacts, including during the construction phase (para 5.13.6).
- 16.2 The applicant addresses the potential impacts of the Galloper Wind Farm (GWF) proposal onshore 'works' on traffic and transport in Environmental Statement (ES) chapter 25 Traffic and transport (APP59). It provides a Transport Assessment in Appendix 25.A (APP75) and sets out detailed operational proposals for Transport Management in the first draft Outline Construction Code of Practice (CCoP) (APP68).
- 16.3 ES chapter 25 Traffic and Transport assesses potential impacts on the road network. This includes highway and junction capacity, road safety and pedestrian amenity in the construction, operation and decommissioning phases of the proposed development in a study area defined as the vehicle access corridor from the onshore site at Sizewell to the A12 at Yoxford from the existing Greater Gabbard Offshore Wind Farm (GGOWF) substations along Sizewell Gap, Lovers' Lane and the B1122 Middleton Road (para 25.3.3).
- 16.4 The ES for traffic and transportation states that there will be very little traffic generated by the GWF onshore development during its operational phase (para 25.7.2) and that impacts during decommissioning will be similar to the average construction phase and are assessed as 'negligible' (para 25.8.3).
- 16.5 Impacts are predicted to be greatest during the construction phase and ES chapter 25 Traffic and transportation addresses a number of key factors, including:
- the cumulative impact on traffic and transportation of the construction of GWF in parallel with Sizewell A decommissioning, the operation of Sizewell B and the planned construction of the Sizewell B Dry Fuel Store;
  - capacity of roads and junctions within the access corridor;
  - road safety;
  - pedestrian movements – including severance and amenity
  - abnormal loads; and
  - incidents of increased heavy goods vehicle movements within the construction programme associated with, for example, continuous pouring of concrete.
- 16.6 ES Para 25.6.40 outlines the range of mitigation measures proposed by the applicant to be "*developed in consultation with Suffolk County Council as part of an overall Construction Code of*

*Practice which will be enforceable through the Development Consent Order*". It outlines the following measures:

- phasing deliveries to ensure that heavy goods vehicle (HGV) movements are evenly spread through the day to avoid unnecessary traffic congestion;
- ensuring HGVs and abnormal loads use the prescribed construction traffic route;
- providing details of how the agreed construction traffic route will be identified for deliveries and how this will be monitored to ensure that traffic does not choose alternative routes;
- timing of continuous pours (in consultation with the local community and Suffolk County Council) to avoid known periods of peak traffic activity and to avoid major community activities; and
- introduction of traffic calming measures (speed restrictions) along Lover's Lane and Sizewell Gap, to minimise pedestrian severance, which accords with suggestions received from local residents during the formal consultation.

16.7 ES Para 25.12.1 and Table 25.25 provide a summary of the predicted impacts associated with the construction, operation and decommissioning of GWF upon the local transport network. It concludes that after the implementation of mitigation measures the residual impact will be "*no higher than minor adverse*" (in the single case of pedestrian severance in exceptional peak construction periods) and 'negligible' in relation to all other impacts.

16.8 We identified traffic and transportation as a principal issue in our Rule 6 letter (PD4) in terms of:

- effects including cumulative effects on the road network, in particular in relation to the onshore 'works' effects in relation to the junction between Lovers' Lane and King George Avenue and the maintenance of access at Sizewell Gap;
- effects in relation to the proposed primary shore base.

16.9 Relevant representations in respect of traffic and transportation were received from a number of Interested Parties (IPs). The issues they raised included:

- the general impact of the volume and potential speed of construction traffic on highway safety on local roads; the specific impact on Lovers' Lane and Sizewell Gap and the King George's Avenue/Lovers' Lane junction; and the safety of people involved in leisure pursuits using Sizewell Gap – Mr Stuart Maggs (RR2), Suffolk County Council (SCC) (RR24), Mr Martin Freeman (RR35) and Miss Maria Toone (RR36);
- Dr TC Rogers (RR6) was concerned that insufficient provision had been made for the vehicles of workers constructing the offshore elements of the GGOWF in Harwich, which had

caused “a serious detrimental effect on the local community’s ability to go about its normal business and on tourist visitors”. He proposed that the approval of the GWF project, if granted, contained a provision to prevent or curtail the disruption that he claimed took place in Harwich.

- 16.10 The Highways Agency (RR5) indicated that it did not wish to raise any strategic concerns in relation to the overall project.
- 16.11 In the Local Impact Report (LIR) (LIR1) Suffolk Coastal District Council (SCDC) and SCC (the Councils) expressed concern about:
- the potential cumulative impacts of (these) overlapping construction projects largely relating to traffic on Lovers’ Lane and Sizewell Gap Road as outlined in chapter 25 of the ES (section 25.10); and
  - the potential impact of heavy goods vehicles on the village of Theberton; the importance of construction traffic avoiding Leiston; the impact of the construction ‘works’ on the visual amenity of people using footpaths and rights of way in the vicinity; and the need to resolve the question of access to the transition bays to the south of Sizewell Gap.
- 16.12 We followed up the issue of access to the transition bays in our first written questions appended to the Rule 8 letter Q3.10 (PD11), in the context of the compulsory acquisition (CA) hearing, and it is dealt with in section 18 of this report.
- 16.13 Our view of the key areas to be examined were those identified in our principal issues and those raised by the IPs in relevant representations including: impacts of construction on the local highway network; how mitigation would be achieved; and the question raised by Dr Rogers of the potential adverse impact of worker parking on the location of the onshore base. We addressed these issues in our first written questions on traffic and transportation (PD11) (Q15.1, Q15.2, Q15.3 and Q15.4). In our second written questions (PD13) we examined further the issue of the impact of traffic and the demand for accommodation and other services in any location chosen as the onshore construction base.
- 16.14 The applicant responded in detail to each relevant representation in relation to local issues in its first response (REP29) and in answering the our questions emphasised the key role of the CCoP and explained the measures it contains to provide mitigation (as outlined above) in detail in paras 2.15.1 – 2.15.10.
- 16.15 In response to our question (Q15.4), which reflected the concerns about shore base parking raised by Dr Rogers, the applicant indicated that it was unable to provide a response because given that no decision had been made on the location of the shore base the question was premature. (paras 2.15.11 – 2.15.20).

- 16.16 Following a request from an IP we held an open floor hearing (HE5), which took place on 17 October 2012 (HE20) and was attended by Dr T C Rogers, who made a statement reiterating and expanding on the concerns he had previously expressed about his experience of the adverse impact unregulated parking had on the port town of Harwich during the offshore construction of the GGOWF (HE26).
- 16.17 A discussion took place in the hearing (HE20) in which the applicant gave evidence of the measures that had been taken in Harwich to ameliorate the impact of worker parking and noted there was the prospect of a new development to provide offshore construction worker facilities, including parking, adjacent to Harwich International Port.
- 16.18 At the hearing mechanisms relating to the parking issues raised by Dr Rogers were discussed. There was general agreement that this could be dealt with at such time as a decision in respect of the shore base location is made and the applicant committed to investigate whether provision could be made to address the issue in the draft outline CCoP (HE20).
- 16.19 Subsequently, in its Written Summary of Case at the Open Floor Hearing contained within the fifth response (HE36) the applicant proposed (para 2.1.3) amendments to the Fourth Draft Outline CCoP (HE45) *"which amounts to a public commitment from GWFL to work with the relevant planning authority in relation to this matter to develop a car parking strategy where appropriate."* (para 2.1.3)
- 16.20 The fourth draft outline CCoP (HE45) sets out a construction port car parking strategy in section 4.9 and commits GWFL to identify potential impacts to the local community associated with offshore construction workers' car parking, once the GWF construction port(s) have been identified, and to minimise the potential for these impacts by working with the principal contractor(s) and the relevant local authority to assess car parking needs and availability during the construction phase of the project in order to develop a car parking strategy, in consultation with the relevant local authority, before the commencement of the offshore construction 'works'.
- 16.21 SCDC have indicated their agreement to the wording of section 4.9 (HE48).

### **Conclusions**

- 16.22 We consider that during the examination an appropriate investigation took place into the relevant traffic and transportation issues raised both by the panel itself and IPs.
- 16.23 The requirements of EN-1 have been addressed in respect of traffic and transportation.

- 16.24 We consider the fourth draft outline onshore CCoP (HE45) is an appropriate mechanism to achieve the necessary mitigation measures to deal with traffic and transportation impacts during the construction phase. We welcome the addition of a commitment from the applicant to engage with the appropriate authorities to develop a car parking strategy in the location selected as the onshore base once this is decided.
- 16.25 We note the draft CCoP is supported by the Councils and it will be for the local planning authority to discharge the relevant requirements in consultation with the highway authority. To this end there is a commitment from the applicant and the Councils to work with the relevant local authority once the port and shore base location is decided.
- 16.26 Requirement 27 of the sixth draft DCO (DCO6) requires that *"neither the connection works nor the transmission works shall be commenced until a construction code of practice has been submitted to and, after consultation with the highway authority approved in writing by the relevant planning authority in relation to the relevant works"*.
- 16.27 Further, it states: *"The code shall cover all the subject areas set out in the draft code submitted with the application and any other matters the relevant planning authority reasonably requires. The code approved in relation to the relevant works shall be followed in relation to those works, unless otherwise agreed in writing by the relevant planning authority."*
- 16.28 The wording of requirement 27 has remained unaltered throughout the examination through the various iterations the DCO has undergone and we consider it provides adequate control through the CCoP.
- 16.29 We have addressed the range of potential impacts outlined in EN-1 and raised by IPs in relation to traffic and transportation effects and conclude that there is no reason to refuse the grant of development consent on this account.

## 17 THE PANEL'S RECOMMENDATION ON THE CASE FOR DEVELOPMENT

### The Policy Background

- 17.1 A suite of Energy National Policy Statements (NPSs) was issued by the Secretary of State for Energy and Climate Change and formally designated on 19 July 2011. Of that suite EN-1 Overarching National Policy Statement for Energy, EN-3 National Policy Statement for Renewable Energy and EN-5 National Policy Statement for Electricity Networks Infrastructure form the primary basis for recommendations and decisions on proposed electricity generation from renewables and infrastructure for electricity networks.
- 17.2 The UK Marine Policy Statement (MPS) was prepared and adopted for the purposes of section 44 of the Marine and Coastal Access Act 2009 and was jointly published on 18 March 2011 by all the UK Administrations as part of a new system of marine planning being introduced across UK seas. The MPS is the framework for preparing Marine Plans and taking decisions affecting the marine environment<sup>34</sup>. No marine plans are currently in place.
- 17.3 Our conclusions on the case for development contained in the application before us are therefore reached with full regard to the relevant designated NPSs and MPSs and our recommendations are made in accordance with those identified statements.
- 17.4 The MPS at para 3.3.1 identifies that "*a secure, sustainable and affordable supply of energy is of central importance to the economic and social well being of the UK.*" It goes on to identify that "*the marine environment will make an increasingly major contribution to the provision of the UK's energy supply and distribution.*" Renewable energy is specifically identified as a growing contribution. The para ends by confirming that "*contributing to securing the UK's energy objectives, while protecting the environment*" are a priority for marine planning. The issues for consideration for all energy projects are set out at para 3.3.4.
- 17.5 The Overarching NPS for Energy EN-1 makes it clear at section 3.1 para 3.1.1 that "*the UK needs all types of energy infrastructure ..... In order to achieve energy security at the same time as dramatically reducing greenhouse gas emissions.*"
- 17.6 EN-1 para 3.1.3 identifies that all applications for development consent for energy projects should be assessed on the basis that the "*Government has demonstrated that there is a need for those*

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<sup>34</sup> The Marine Policy Statement has effect for determination in accordance with s59(5) of the Marine and Coastal Access Act 2009

*types of infrastructure and that the scale and urgency of that need is as described for each of them ...."*

- 17.7 EN-1 continues at para 3.1.4 making it clear that substantial weight should be given to the contribution that projects would make towards satisfying this need when considering applications for development consent under the PA 2008.
- 17.8 Looking specifically at renewable energy, para 3.3.10 advises that *"as part of the UK's need to diversify and decarbonise electricity generation, the Government is committed to increasing dramatically the amount of renewable generation capacity."* Para 3.4.5 concludes that para 3.4.1 *"sets out the UK commitments to sourcing 15% of energy from renewable sources by 2020. To hit this target, and to largely decarbonise the power sector by 2030, it is necessary to bring forward new renewable electricity generating projects as soon as possible. The need for new renewable electricity generation projects is therefore urgent."*
- 17.9 NPS for Renewable Energy Infrastructure EN-3 reaffirms that electricity generation from renewable sources is an important element of the Government's development of a low-carbon economy and provides, at section 2.6, policy in relation to offshore wind and factors influencing site selection and design as well as technical considerations.
- 17.10 NPS for Electricity Networks Infrastructure EN-5 identifies at para 2.2.2 that *"the general location of electricity network projects is often determined by the location, or anticipated location, of a particular generating station and the existing network infrastructure taking electricity to centres of energy use. This gives a locationally specific beginning and end to a line."* At section 2.3, policy is provided on the general assessment principles for electricity networks and additional technology specific considerations set out in the rest of the NPS on:
- Biodiversity and geological conservation;
  - Landscape and visual;
  - Noise and vibration; and
  - Electric magnetic fields.

### **Assessing the Impacts**

- 17.11 In looking specifically at the range of potential impacts that would arise should the proposed offshore generating station and associated electrical infrastructure be built and operated (fully set out and explored at sections 4-16 of this report above), we conclude that the principles of the development are in general accord with Government Policy (set out at section 3 in full and para 17.1 to 17.10 above) and that, with the scheme limitations, controls and mitigation proposed, any overriding or substantial impacts will be avoided.



- 17.12 The onshore site lies within the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and this was a matter that was of particular concern and identified within the Local Impact Report (LIR) submitted jointly by Suffolk Coastal District Council (SCDC) and Suffolk County Council (SCC) (the Councils). We consider that the removal of mature woodland will in the short to medium term have a significant impact on the landscape and resultant visual impact of the onshore 'works'. However, all reasonable alternatives have been considered and there is agreement with the Councils that the proposed landscape mounding and planting will over time limit the landscape and visual impacts and that there no other alternative is available.
- 17.13 The 'onshore works' result in conflict with reptiles and therefore there has been a need to mitigate this impact. Reptile mitigation is to be achieved by the implementation of a reptile mitigation strategy and controlled and secured through the requirements within the recommended draft DCO through the construction code of practice and ecological management plan (EMP). We are satisfied that there are no matters outstanding in relation to reptile mitigation that would argue against the Order being confirmed.
- 17.14 With an offshore generating scheme of the scale proposed adverse impacts on bird species and the marine environment are likely to occur. We have examined the biodiversity matters arising in relation to this application and explored the evidence and potential impacts through both written and oral examination. We conclude that there are likely to be significant impacts to European protected species, but that through a combination of measures both land based and offshore scheme based a proportionate but precautionary approach can be taken to securing mitigation of the impacts identified.
- 17.15 Commercial fisheries and fishing were raised by a number of IPs in relation to foreign trawler fishing fleets and the local inshore fishing and charter interests. There is no doubt that during construction there will be disturbance to established fishing interests in the vicinity of the 'offshore works' and that any navigation exclusion zones imposed will remove those areas from fishing activity. Within the recommended draft DCO which includes a draft DML two exclusion areas are proposed with the Area B turbine exclusion zone being proposed to mitigate both fishing impacts and reduce collision risk for lesser black-backed gulls. Survey and monitoring in relation to fish stocks has also been proposed. Although we consider there will be some displacement and reduction of fishing areas during construction and in any confirmed navigation exclusion zones these impacts are limited and do not prevent the continuation of established fishing activity. It is our opinion that the measures to be secured would limit the impacts and harm for both the trawler and inshore fishing interests.

- 17.16 In relation to the various concerns about localised and remote traffic effects and impacts particularly during the construction phase of the whole development, we accept that there would be some minor adverse effects at a localised level. However, the mitigation now proposed through the management of the shore base once selected and the construction code of practice and limited construction hours of operation will serve to minimise and mitigate those effects and these are not matters that would weigh against the Secretary of State deciding to make the DCO.
- 17.17 In relation to technical matters such as: the operational safety zone and cabling safety; noise and vibration; radar and navigation; nuclear safety; and sediment dynamics we accept that there would be some limited adverse effects. However, with the controls and mitigation proposed, our view is that none of the matters raised would weigh against the Secretary of State deciding to make the DCO.
- 17.18 As to other matters, we find no reason to recommend refusal of consent on the basis of other environmental impacts, climate change, localised tourism, residential amenity and construction disturbance grounds. Although there would be some disruption and disturbance during construction this is proposed to be managed through the construction code of practice, the EMP and by communication through a local liaison group to ensure that any matters that do arise can be responded to directly and promptly. The requirements set out in the recommended draft DCO (Appendix F) would, in our opinion avoid any significant harm to local interests and amenity arising.

### **Adequacy of Environmental Statement**

- 17.19 We confirm that in our view the ES as submitted, when taken together with all other information supplied during the course of the examination on the environmental effects of the development, meets the definition given in regulation 2(1) of the Infrastructure Planning (Environmental Impact Assessment) Regulations.
- 17.20 For the avoidance of doubt this means the environmental statement submitted by the applicant with the application on 21 November 2011 and all other relevant matters in the applicant's subsequent submissions as follows: clarifications, corrections and omissions submission accepted by us as a late submission for the 8 June 2012 deadline, applicant's first response submission accepted by the ExA as a late submission for the 16 July 2012, applicant's second response submission for 6 August 2012 deadline, applicant's third response submission for 24 September 2012, applicant's fourth post hearings response submission for 29 October 2012 deadline and applicant's submission responding to Rule 17 request for 26 November 2012 deadline.

- 17.21 We confirm we have taken into account the environmental information as defined in regulation 2(1) of the Infrastructure Planning (Environmental Impact Assessment) Regulations and further defined in regulation 3(2).
- 17.22 At the first DCO IS hearing, we sought views from IPs on whether the Order limits as set were adequate to inform and set parameters for environmental impact assessment. NE raised the matter of whether the depths assessed for the offshore impacts did in fact cover the maximum depths of all works. It was concluded by all parties that the depths as specified were adequate. The MMO and the applicant agreed that dredging works are outside the terms of consent sought under this DML and a separate dredging license would be needed if dredging were required. This resolved all the matters raised with regards extent of assessment of depth and we are satisfied there are no matters outstanding that would argue against the Order being confirmed.

### **Habitats Regulations Assessment (HRA)**

- 17.23 HRA is a matter for the competent authority, which in this case is the Secretary of State as decision-maker. It is clear from the range of submissions in relation to habitats by Interested Parties (IPs) that an appropriate assessment would be required for the Alde-Ore Estuary SPA and Ramsar because there is certainty of likely significant effect (section 5 of this report). In our view (set out above at section 5 of this report) there is no likely significant effect at Flamborough Heads and Bempton Cliffs SPA.
- 17.24 Although the responsibility for HRA matters lie with the Secretary of State, to ensure that there was sufficient information for any such assessment to be carried out and to understand the potential level of impact of the project before us, we explored, requested information and considered HRA matters during the course of the examination.
- 17.25 As part of the examination on European sites and HRA matters we consulted the applicant and all IPs, which included statutory bodies such as Natural England (NE), JNCC and the Marine Management Organisation (MMO) and special interest organisations such as the RSPB and the National Trust, publishing a Report on the Implications for European Sites (RIES).
- 17.26 By the close of the examination there was a broad consensus from all who had made representations, except the RSPB, that through mitigation, significant effects on the integrity of all potentially affected European sites could be reduced to the point where they are no longer significant. There was also agreement on the drafting that would be required within the DCO and DML and securing of funding through a s106 undertaking to enable such mitigation to be secured, but no agreement on the level and extent of mitigation required particularly in relation to the priority

in terms of hierarchy of project mitigation or SPA site based mitigation.

- 17.27 In seeking to narrow the areas of uncertainty we sought confirmation from each of the parties on the parameters and evidence that should be used in reaching a conclusion on the level of mitigation required and whether that should be at the SPA or at the project. Submissions were made in response to this request by the applicant, Natural England and the RSPB.
- 17.28 In reporting and using the information provided by the parties to recommend how and to what mitigation level we believe it is necessary to deliver to achieve a position of 'no likely significant effects' we have had full regard to the:
- uncertainty and or flexibility of elements of the project and data;
  - technical feasibility of what is proposed;
  - quantity and quality of what is proposed including not relying on a single method of resolution when there is any uncertainty about delivery and effect; and
  - level of commitment provided to achieve the mitigation sought including tolerance to address any uncertainty.
- 17.29 The recommendation made and level of mitigation required takes all representations, consultation responses and the considerations set out above into account, as fully reported at section 5 of this report.
- 17.30 Subject to the Secretary of State's appropriate assessment coming to the same or similar conclusion, we see no reason for consideration of European sites and HRA matters to prevent the Secretary of State from making a DCO authorising the proposed offshore wind generating station and associated electricity infrastructure provided the steps, measures and delivery mechanisms we have identified as necessary to avoid any significant adverse impacts are included as set out in the recommended draft Order and secured in the s106 undertakings provided.

### **Overall Conclusions on the Case for Development**

- 17.31 The Planning Act 2008 at s104 requires that an application must be decided in accordance with any relevant national policy statement, except to the extent that one or more of subsection 4 to 8 of s104 applies.
- 17.32 NPS EN-1 (para 4.1.2) advises that, subject to the provisions of s104 of PA 2008, the starting point for the determination of an application for an energy NSIP is a presumption in favour of granting development consent.

- 17.33 In reaching our overall conclusions on the case for the proposed development, we have had regard to the relevant NPSs, the MPS, the LIR submitted jointly by SCDC and SCC, and all other matters which we consider both important and relevant to our consideration and recommendation and to the Secretary of State's decision.
- 17.34 We have also given careful consideration as to whether determining this application in accordance with the relevant NPSs and the MPS would lead the UK to be in breach of any of its international obligations where relevant. We have also considered the legal duties imposed by the Human Rights Act 1998. We have concluded that in all respects we have complied with these duties.
- 17.35 In bringing our examination, reporting and conclusions together to make a recommendation in relation to the case for development we have had full regard to the identified need and support for renewable power generation and delivery of this power to the centres of energy use set out in NPS EN-3 and EN-5. In addition NPS EN-1 and EN-3 make it clear that the need for new renewable electricity generation projects is urgent. In this regard EN-1 also identifies that substantial weight should be given to the contribution which projects would make towards satisfying the identified need when considering applications for development consent under the PA 2008. Galloper offshore wind farm being such a project.
- 17.36 We have explored and considered the impacts of the proposed development and considered the adequacy of the Environmental Statement in the context of the defined project and environment within which it is located as well as information necessary to enable a conclusion to be reached by the competent authority on habitats regulations assessment matters. We have sought at each stage in reaching our recommendations to the Secretary of State, to weigh the adverse impacts against the benefits.
- 17.37 Overall, for the reasons set out in this report, we conclude that the benefits of the proposal would outweigh the negative impacts and, in development terms, the case for granting development consent for the proposals is made.

## 18 COMPULSORY ACQUISITION MATTERS

### The Request for Compulsory Acquisition Powers

- 18.1 The application for the Development Consent Order (DCO) comprises an offshore site and an onshore site, both of which are described in section 2 of this report. However, compulsory acquisition powers are sought only in relation to land within the onshore site. The application was accompanied by a Book of Reference (APP32), Statement of Reasons (APP29), Funding Statement (APP31) and Land Plan Onshore (APP9) identifying the land required for, or affected by, the proposed development and showing the plots of land referred to in the Book of Reference<sup>35</sup>.
- 18.2 Whilst all the land within the onshore site<sup>36</sup> is shown on the land plan onshore and scheduled as plots in the Book of Reference the following plots (coloured green on the land plan onshore (APP9)) are excluded from the request for compulsory acquisition powers:
- Plots 1 to 10 comprise local authority land interests;
  - Plot 33 is owned by EDF Energy Nuclear Generation Limited and occupied in respect of the highway by Suffolk County Council (SCC);
  - Plots 41, 45, 49, 52, are owned by EDF Energy Nuclear Generation Limited and tenanted by AW Mortier Farms Limited.
- 18.3 Compulsory acquisition powers are sought in relation to the land shown coloured blue and pink on the Land Plan Onshore (APP9). This land comprises a total area of 266,308m<sup>2</sup>.
- 18.4 The applicant is seeking the compulsory acquisition of a combination of freehold ownership, permanent rights (such as rights of access) and temporary rights. The applicant has also sought the imposition of restrictive covenants so as to protect its underground infrastructure.
- 18.5 A detailed explanation of the land and new rights to be acquired so as to deliver the onshore infrastructure for which development consent is sought can be found at appendix 1 to the Statement of Reasons (APP30).
- 18.6 The Consolidated Book of Reference (HE65) identifies 177 plots and these are shown on the Land Plan Onshore (APP9).

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<sup>35</sup> During the course of the examination in response to questions from the Examining authority and in response to representations, the applicant submitted a Consolidated Book of Reference (HE64), Statement of Reasons Addendum and Annex K4-1 Master Schedule of Plots (HE65, HE66), Consolidated Funding Statement (HE63), amended Land Plan Onshore (REP157)

<sup>36</sup> Identified on the land plan (1 of 2) (APP9) within the land required for or affected by the proposed development in accordance with Regulation 7 of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009

Compulsory acquisition powers are sought in respect of 162 plots as follows:

- Permanent acquisition of the freehold of plots 11 to 13, 15 to 25, 27 and 28, 30 to 32, 34, 37,39 and 40, 44, 53 to 84, 86, 88 to 105, 107 to 117, 121 and 122, 124 to 140, 145 to 160, 162, 164, 166, 168 and 169, 172 to 174, 176 and 177;
- The acquisition of permanent rights only of plots 26, 119, 123 and 144;
- Temporary possession of plots 14, 29, 35 and 36, 38, 42 and 43, 46 to 48, 50 and 51, 85, 87, 106, 118, 120, 141 to 143, 161, 163, 165, 167, 170 and 171, 175.

- 18.7 As noted above, certain plots are owned by EDF Energy Nuclear Generation Limited. An organisation diagram of the EDF Energy corporate group is submitted in written representations labelled as EDFE WRD 1 (REP11). This shows the relationship between EDF Energy, Nuclear Generation Limited and British Energy Generation Limited. The EDF Energy land affected by the DCO application is owned by NGL. On 1 July 2011 Company Number 03076445 changed its company name from British Energy Generation Limited to EDF Energy Nuclear Generation Limited and on the same date Company Number 07582357 changed its name from EDF Energy Nuclear Generation Limited to British Energy Generation Limited. For the purposes of this report we refer to all parts of the EDF Energy corporate group as EDF Energy.
- 18.8 There are no plots within the onshore 'works' the subject of compulsory acquisition (land coloured blue or pink) where the Crown has an interest. The only Crown interest identified relates to the offshore 'works' (which includes the foreshore) and is the subject of a licence (HE15).
- 18.9 Land owned by the local authorities has been identified and excluded from the compulsory acquisition powers sought.
- 18.10 A significant number of plots are owned by a statutory undertaker and are stated by the owner (REP11 and S127-13) to be held for the purpose of that undertaking.
- 18.11 At the outset of the examination a s127 PA 2008 certificate application (APP33) was made by the applicant to the Secretary of State in relation to statutory undertaker land.
- 18.12 Jan Bessell was appointed to examine matters relating to the s127 certificate and report on her findings (S127-1).
- 18.13 EDF Energy withdrew its objection to the s127 application on 23 October 2012. Following this the applicant withdrew its s127

application. Accordingly, a s127 certificate is no longer required from the Secretary of State<sup>37</sup>.

18.14 An outline of the position with regard to s127 and the submissions and withdrawal made throughout the examination are as set out under each of the sections below in relation to our approach and the case presented by each party.

18.15 The draft DCO provides for:

- the Order to apply as if it were a compulsory purchase order for the purposes of the Compulsory Purchase (Vesting Declarations) Act 1981 and provides for that Act to have effect subject to certain consequential modifications;
- reference to be made to s152 of PA 2008 to make it clear that the compensation payable is the compensation payable for injurious affection, which would normally arise under s10 of the Compulsory Purchase Act 1965, but which, in relation to a Development Consent Order (to which section 10 does not apply), arises instead under s152 of PA 2008.

18.16 S120(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 a DCO and s117(4) provides that, if the DCO includes such provisions, it must be in the form of a statutory instrument. The DCO is therefore in the form of a statutory instrument.

### **What the Planning Act 2008 (as amended) Requires**

18.17 Compulsory acquisition powers can only be granted if the conditions set out in s122 and s123 of the PA 2008 are complied with.

18.18 S122(2) requires, inter alia, that the land must be required for the development to which the DCO 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 must be proportionate.

18.19 S122(3) requires that there must be a compelling case in the public interest for the land to be acquired compulsorily. This means that the public benefit must outweigh the private loss which would be suffered by those whose land is affected.

18.20 In balancing public interest against private loss, compulsory acquisition must be justified in its own right. However, this does not mean that the compulsory acquisition proposals can be considered in isolation from the wider consideration of the merits of the DCO application as a whole.

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<sup>37</sup> s127(1) PA 2008



- 18.21 S123(1) requires that one of three conditions in s123(2)-(4) must be met in order for a DCO to include powers authorising the compulsory acquisition of land.
- 18.22 We are satisfied that the condition in s123(2) is engaged and met as the DCO application requested the authorisation of compulsory acquisition of the land identified. We are satisfied that the condition in s123(4) is engaged and met as the proposals including compulsory acquisition were subject to pre-application consultation and publicity and post-application notification which followed the procedures set out under the PA 2008.
- 18.23 A number of general considerations arise from guidance<sup>38</sup> and in accordance with the legal duties on the decision-maker. These include:
- all reasonable alternatives to compulsory acquisition must be explored;
  - the applicant must have a clear idea of how it intends to use the land and demonstrate funds for compensation are available;
  - 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.

### **The Approach of the Panel**

- 18.24 With the majority of the onshore land being the subject of a request for compulsory acquisition powers, we raised with the applicant and EDF Energy a number of questions relating to the interests, the current use of the land and proposed use (PD11).
- 18.25 Following receipt of responses to our first written questions there were still outstanding questions and matters to be examined and therefore we raised a second set of written questions (PD13), in particular regarding concerns about the extent of freehold interest sought and whether a leasehold interest could be secured, the statutory use of the land and the proposed funding arrangements and how these could be secured.
- 18.26 A compulsory acquisition hearing was confirmed to be held over two days (HE5) and a s127 hearing (S127-18) was also confirmed for half a day timetabled to follow immediately after the completion of the compulsory acquisition hearing sessions.
- 18.27 The compulsory acquisition hearing took place over two days; 22 and 23 October 2012 at the 'Ip-City Centre', Ipswich (HE29 and HE30).

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<sup>38</sup> Planning Act 2008 Guidance related to procedures for compulsory acquisition: DCLG February 2010

- 18.28 EDF Energy was the only affected person which wished to be heard at the hearing. During the second day of the compulsory acquisition hearing a joint statement was submitted by the applicant and EDF Energy settling all outstanding objections by agreement (HE34).
- 18.29 As a consequence of the withdrawal of the s127 certificate application and objections relating to statutory undertakers' interests there was no need for the s127 hearing to be held and all parties to that hearing confirmed their agreement to this position through oral submissions at the compulsory acquisition hearing (HE29 and HE30).
- 18.30 At the compulsory acquisition hearing the applicant submitted additional information relating to funding, including a draft unilateral undertaking under s106 of the Town and Country Planning Act 1990 (as amended). Suffolk Coastal District Council (SCDC) confirmed that they agreed the proposed approach taken by the applicant and understood the options set out in the draft unilateral undertaking to secure the proposed funding in relation to compensation arising in relation to the compulsory acquisition sought.
- 18.31 On 15 November 2012 the applicant submitted a signed and engrossed unilateral undertaking relating to security for funding (S106-3).

### **The Applicant's Case**

- 18.32 The applicant's case for the grant of powers is set out in the Statement of Reasons (APP29) including addendum (HE66) and annex (APP30) and the written summary of case at the compulsory acquisition hearing (HE36) together with the consolidated Funding Statement (HE64).
- 18.33 Detailed supporting information is set out in the Environmental Statement (ES) in particular chapter 2: Project Need, Policy Framework and Guidance document reference 5.2.2 (APP36), chapter 3: Legislative and Planning Context document reference 5.2.3 (APP37), chapter 6: Site Selection and Alternatives document reference 5.2.6 (APP40) and the Planning Statement document reference 8.1 (APP85), all of which formed part of the DCO application.
- 18.34 During the examination the applicant provided additional supporting information in response to our questions, responses to Interested Party (IP) submissions, submissions in response to the s127 PA 2008 process, Rule 17 requests and through oral submissions and summary of those oral submissions made at the compulsory acquisition hearing.

***Requirement for the compulsory acquisition of land***

- 18.35 At the time of the making of the application none of the onshore land was in the ownership of the applicant. The applicant had reached agreement with the local authority for the temporary use of areas of land needed for the project in local authority ownership and therefore these areas were not included in the request for compulsory acquisition powers.
- 18.36 As the examination progressed and at the compulsory acquisition hearing the applicant advised that all land was the subject of contracted arrangements or agreements for necessary rights and interests to be entered into or acquired without objection.
- 18.37 The applicant submitted updated information providing confirmation from affected persons of agreement and withdrawal of all objections to the compulsory acquisition of the land and interests identified. This was provided in a number of forms including letters and joint statements (S127-22, HE33, HE34).
- 18.38 Notwithstanding the applicant's progress in acquiring or securing agreement to take interests in land as outlined above, all plots identified for inclusion in the compulsory acquisition set out in the consolidated Book of Reference (HE65) remain within the powers sought within the draft DCO. Both the applicant and EDF Energy have confirmed that the compulsory acquisition powers are still required in order to ensure that residual interests such as any easements or other private rights are overridden.

***The purpose in seeking to acquire the land the subject of compulsory acquisition***

- 18.39 S122(2) provides that a DCO may include provisions authorising compulsory acquisition of land if the land is:
- required for the development to which the development consent sought relates (s122(2)(a));
  - required to facilitate or is incidental to the development sought (s122(2)(b)).
- 18.40 In relation to s122(2)(a), the guidance<sup>39</sup> states that the applicant must demonstrate to the satisfaction of the decision-maker that the land in question is needed for the development for which consent is sought. The decision-maker should be satisfied, in this regard, that the land to be acquired is no more than is reasonably required for the purposes of the development.
- 18.41 In relation to section 122(2)(b), the guidance<sup>40</sup> states that the decision-maker must be satisfied that the land to be taken is no

<sup>39</sup> Planning Act 2008 Guidance related to procedures for compulsory acquisition: DCLG February 2010

<sup>40</sup> Planning Act 2008 Guidance related to procedures for compulsory acquisition: DCLG February 2010

more than is reasonably necessary for that purpose and is proportionate.

- 18.42 The land the subject of compulsory acquisition is required for the purposes of delivering the DCO application project.
- 18.43 A full description of the 'works' comprised in the proposed development can be found in the Environmental Statement chapter 5 Project Details document reference 5.2.5 (APP39).
- 18.44 The detailed 'works' are set out in part 1 and part 2 of Schedule 1 of the sixth draft DCO (DCO6) identifying a nationally significant infrastructure project as defined in s14 and s15 of the PA 2008 on the bed of the North Sea approximately 27km off the coast of Suffolk, and partly within the Renewable Energy Zone, and a nationally significant infrastructure project as defined in s14 and s16 of the PA 2008 and associated development within the meaning of s115(2) of the PA 2008 as well as ancillary 'works' seaward of mean low water.
- 18.45 There is support for the development of renewable energy projects including offshore wind farms and their associated electrical infrastructure within the energy NPSs<sup>41</sup>. This is considered in sections 3 and 4 of this report.
- 18.46 The applicant sets out in section 11 of the Statement of Reasons (APP29) an explanation of the proposed use of the land in respect of which compulsory acquisition powers are sought. The applicant explains that each part of the land is either required for the development to which the DCO would relate, or is incidental to that development and its implementation and operation, and that the land identified is no more than is reasonably required for the purposes of the development.

### ***Alternatives to compulsory acquisition***

- 18.47 Guidance<sup>42</sup> requires that in relation to compulsory acquisition of land it is appropriate to consider whether any alternative exists which does not require the use of powers of compulsory acquisition.
- 18.48 The applicant refers in the Statement of Reasons to the full explanation and presentation of the assessment process in the Environmental Statement chapter 6 site selection and alternatives document reference 5.2.6 (APP40).
- 18.49 The alternative site considerations have been influenced and directed by a series of technical and environmental factors and

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<sup>41</sup> EN1, EN3 and EN5 which were designated by the Secretary of State for Climate Change on 19 July 2011 in accordance with s5 of the Act

<sup>42</sup> Planning Act 2008 Guidance related to procedures for compulsory acquisition: DCLG February 2010

constraints and informed further by the consultation process undertaken on those alternatives.

- 18.50 The applicant is satisfied that the alternatives have been appropriately scoped, tested and consulted on and that all feasible alternatives have been considered in the context of the technical and environmental constraints identified and that no alternative sites ought to be preferred.
- 18.51 Although SCC and SCDC initially expressed a preference for the onshore substation, compound and associated electrical 'works' to be accommodated within the land forming part of the Sizewell A site, it was agreed that this was not an option that was feasible and that the proposed site was the most appropriate taking all relevant matters into account. This confirmation also acknowledged that it was therefore necessary for the onshore 'works' to be predominantly within the designated Area of Outstanding Natural Beauty (AONB).
- 18.52 EDF Energy initially raised concerns about the potential effect on the use of statutory undertaker land and implications for the development of a future nuclear generating station at what is known as Sizewell C and is identified within NPS EN-6 as a nominated site.
- 18.53 EDF Energy in written representations made submissions that there were alternative solutions to using the area of land known as Pillbox Field for landscape screening, recognising that this land was statutory undertaker land, within the nominated site for Sizewell C and contained the mains water pipe that serves the existing Sizewell complex.
- 18.54 EDF Energy also submitted that landscape screening should be capable of being provided within the area of land to the west of Sandy Lane. Although, SCC and SCDC submitted that the Pillbox Field landscape proposals were necessary.
- 18.55 The summary position with regard to explanation of the applicant's case in relation to alternatives is set out in the summary of oral case put at the compulsory acquisition hearing (section 6 HE36).
- 18.56 At the conclusion of the examination EDF Energy in a joint agreement (joint statement HE34) with the applicant agreed that the matters relating to the statutory undertaker land had been resolved and that Pillbox Field (plots 123, 124, 144 and 145) was required and that there was no alternative that delivered the landscape mitigation required by SCC and SCDC and that compulsory acquisition was still required.

### ***Lesser Interests***

- 18.57 We received representations from EDF Energy (written reps and responses by EDF Energy REP11) stating that freehold interests

were not required and that an agreed lease with adequate controls would be appropriate, but that this could only be achieved by agreement between the parties.

- 18.58 In considering whether there is a potentially less onerous means of achieving the same objective, we asked in our second written questions if both the applicant and EDF Energy consider whether a leasehold interest would be an appropriate interest in land to enable the proposed development and if so, which plots would this apply to and what would be appropriate terms that protect EDF Energy's interests as requested in EDF Energy's submission of 16 July 2012 (para 23.2) (REP11).
- 18.59 In this context the parties were asked to make legal submissions in relation to the potential for the creation of a lease (on appropriate terms) under s120(3) PA 2008 including, in particular, by virtue of schedule 5 para 2, which specifically empowers a DCO to contain provisions for the creation of interests in land, compulsorily or by agreement.
- 18.60 In light of this EDF Energy responded (REP39) by stating that it firmly believed that whilst the creation of a leasehold interest is the appropriate solution it is not something which could be imposed on it. It would have to be by agreement. It was proposed that the lease would be in respect of all the plots over which a permanent, freehold estate was sought by the applicant.
- 18.61 Overall the submissions from the applicant and EDF Energy set out a detailed legal response to question Q22.1(REP39 and REP41) and in summary indicated that both parties considered that PA 2008 did not lawfully allow the acquisition of a lesser interest than freehold by compulsory acquisition powers. Accordingly the acquisition of the freehold was the only appropriate course of action if compulsory acquisition was to be required.

***Sites to be acquired for temporary periods***

- 18.62 The applicant at paragraph 11.4 (a) to the Statement of Reasons states that temporary rights are required for the purposes of a construction laydown area to accommodate site offices, welfare facilities, and plant and equipment storage. This area is required during the construction of the project only and can afterwards be restored to its previous condition and returned to the owner (described in schedule 5 to the Development Consent Order and identified shown blue as plot numbers 14, 29, 35, 36, 38, 42, 43, 46, 47, 48, 50, 51, 85, 87, 106, 118, 120, 141, 142, 143, 161, 163, 165, 167, 170, 171, 175 of the Land Plan).
- 18.63 In response to our second written questions an up to date and more detailed explanation for each plot for which temporary rights are sought was provided in the applicant's third response (24 September 2012) (REP41).

**Plots over which new rights are sought**

- 18.64 The applicant at paragraph 11.4 (b) to the Statement of Reasons states that permanent rights are required to facilitate access to the Onshore Infrastructure and associated 'works' (described in Schedule 3 to the Order and identified shown pink as Plot nos. 26, 119, 123 and 144 of the Land Plan onshore).
- 18.65 In response to our second written questions an up to date and more detailed explanation for each plot for which permanent rights are sought was provided in the applicant's third response (24 September 2012) (REP41).

**Availability of funds for compensation**

- 18.66 Since the application was seeking compulsory acquisition powers it was accompanied by a Funding Statement (APP31).
- 18.67 We raised questions with regard to funding and security of funding in both our first and second written questions and raised the matter in both the DCO and Compulsory Acquisition (CA) hearings.
- 18.68 Following written and oral submissions from IPs and detailed written and oral questions from us the applicant provided a Consolidated Funding Statement (annex K2 GWFL submission 29 October 2012 HE64).
- 18.69 The applicant in its third response dated 24 September 2012 (REP41) confirmed the following in relation to its Joint Operating Agreement:
- *"Under the Joint Operating Agreement an overarching Project Budget has been agreed from which GWFL, as the project's operating company, prepares an Annual Budget for approval by the project's investors to cover anticipated expenditure in each following financial year. Once the Annual Budget is approved, GWFL is entitled to draw down funds from this Annual Budget to meet project expenditure as it falls due and the project's investors are irrevocably bound to settle any request for funds to be drawn down from this Annual Budget (Clause 13.5 of the Joint Operating Agreement).*
  - *In the event that any approved budget (either the Project Budget or the Annual Budget) is required to be amended at any time (for example because the actual expenditure is likely to exceed the previously anticipated expenditure in any given year) then the project's investors may amend the budget by unanimous consent (Clause 16.6 of the Joint Operating Agreement).*
  - *In the context of the compulsory acquisition, in order to ensure funds are available to pay any compensation properly due, GWFL's Annual Budget for 2013/14 will include a contingent amount based on an independent valuation of what compensation is likely to be payable if CPO powers were*

*granted to GWFL. If this is subsequently determined to be insufficient then the amount will be increased accordingly under Clause 16.6 of the Joint Operating Agreement to reflect any shortfall”.*

- 18.70 The applicant has taken professional advice, regarding the estimated cost of acquiring the land and interests required to deliver GWF, and is satisfied that the funding is available to meet these costs (HE64).
- 18.71 The applicant has stated that the funding for the acquisition of land will be provided by the parent companies (identified at para 2.2 above) or a subsidiary of them. No funding from third parties is sought with respect to the land assembly for the project and the cash generated by the day to day operations of the respective groups (identified at para 2.2 above) will be able to fund the costs associated with the acquisition of land as and when they fall due. Both groups have made allowances for the cost of funding GWF, as they would with any large infrastructure project they undertake, and ensured that the necessary funds are available as set out in the consolidated Funding Statement (HE64).
- 18.72 The applicant has stated that there are no potential funding shortfalls associated with the acquisition of land, barring an unprecedented and unforeseen circumstance which would leave either parent company unable to meet their commitments. The applicant states that the possibility of this is extremely remote as reflected in the sound credit ratings of the companies (HE64).
- 18.73 Should any claims for blight arise as a consequence of the proposed compulsory acquisition, the costs of meeting any valid claim will also be met by GWFL and/or its two parent companies.
- 18.74 After the Funding Statement dated October 2011 (APP31) was prepared, the applicant submitted additional information regarding the guarantee of the provision of funds and the proposed form of security as part of its third response dated 24 September 2012 and in their fourth response dated 8 October 2012 (REP41 and REP54).
- 18.75 In its fourth response, the applicant confirmed that it had undertaken an assessment of the level of compensation which may be payable in respect of the then proposed compulsory acquisition pursuant to the DCO of the land and interests owned by EDF Energy. Consequent on a private treaty agreement being reached with EDF Energy, GWFL has given an undertaking to EDF Energy that it will not exercise any powers of compulsory acquisition in respect of EDF Energy’s interests. Accordingly, the



quantum of estimated compensation liability is significantly reduced<sup>43</sup>.

- 18.76 The applicant still seeks powers of compulsory acquisition in the draft DCO in order to provide certainty that interests such as the farm business tenancies, and any other interests that may prejudice the delivery of the GWF project are capable of acquisition.
- 18.77 The applicant confirmed that it will agree to provide a suitable form of security prior to exercising any confirmed powers of compulsory acquisition. The security may include, but not be limited to, a parent company guarantee, bond, bank guarantee or policy of insurance and which shall guarantee a sum of no less than £85,000 (being twice the applicant's estimated valuation of the interests which may necessitate compulsory acquisition).
- 18.78 The security shall not be required to subsist beyond the date 20 years from the date when any powers of compulsory acquisition authorised by the DCO are first exercised so as to extend well beyond the statutory limitation period for making a reference to the Upper Tribunal to determine compensation.
- 18.79 This commitment is to be secured by way of a s106 unilateral undertaking, which has been provided in engrossed form (S106-3).
- 18.80 In essence the unilateral undertaking will ensure that no compulsory acquisition powers are exercised unless there is security in place to cover the cost of paying compensation for the acquisition of any land or interests in land.

### ***A compelling case***

- 18.81 The applicant states that the proposed Galloper Wind Farm development and associated electrical infrastructure and onshore 'works' cannot be carried out without the use of compulsory acquisition powers to acquire the land and rights set out above, and within the sixth draft DCO (DCO6).
- 18.82 The applicant relies on the totality of its case to demonstrate that the land which it seeks to acquire by compulsory purchase is needed for the project and falls within the terms of s122, and that there is a compelling case in the public interest for its acquisition.
- 18.83 The applicant argues:
- that the statutory conditions in s122 of the PA 2008 for the inclusion of compulsory acquisition powers in the Order are

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<sup>43</sup> As all financial liabilities in relation to EDF land and interests have been confirmed as being dealt with by contractual terms whether acquired by agreement or use of compulsory acquisition powers (HE29 and HE30 CA hearing)

satisfied and considers that the tests in paragraphs 20-22 of the Guidance are met. In particular:

- (a) planning and energy policy support is in place for the GWF Project (see section 6 of the statement of reasons);
  - (b) that all reasonable alternatives to compulsory acquisition including modifications to the GWF Project have been explored (see sections 5 and 8 of the statement of reasons);
  - (c) that there are no impediments to the delivery of the GWF Project and that subject to the making of the Order there is a reasonable prospect of the project coming forward (see section 9 of the statement of reasons);
  - (d) that negotiations have been undertaken with those individuals, businesses and organisations affected by the GWF Project (see section 12 of the statement of reasons);
  - (e) that human rights considerations have been taken into account at every stage in the GWF Project's evolution (section 14 of the statement of reasons)
  - (f) that the GWF Project outputs/benefits specified in section 7 of the statement of reasons will outweigh the private loss that would be suffered by those whose land and/or interests are to be compulsorily acquired.
- confirmation of the compulsory purchase powers in the Order is necessary to ensure that the GWF Project can be delivered within a reasonable timescale so as to meet the contractual requirements of the Crown Estate and NG and to make an important contribution towards the achievement of the Government's renewable energy targets. Without compulsory purchase powers, the Order Land could not be assembled, the GWF Project would not proceed, and the applicant's and Government's aims would not be achieved;
  - the Statement of Reasons is further reinforced by the statement of reasons addendum (HE66) which provides additional information in response to the panel's questions and matters raised by EDF Energy.

18.84 Accordingly, GWFL is of the firm view that there is a compelling case (s122(3) of the PA 2008) in the public interest to acquire the Order Land and therefore the condition set out in s122(3) of the PA 2008 is met.

### ***Special considerations***

#### *Crown land*

18.85 Crown land is the subject of a licence agreement and only relates to offshore 'works' (which include the foreshore). This was confirmed by the Crown Estate in response to our question for

clarification at the first DCO Issue Specific hearing (HE15). There are no Crown interests for the onshore 'works' or within the land the subject of compulsory acquisition.

*Local authority land*

- 18.86 Whilst the applicant has listed local authority interests in the Book of Reference (APP32) they are excepted from acquisition and the applicant has confirmed that those interests required to enable the 'works' have been dealt with by agreement. This was confirmed by the local authorities in response to our question for clarification at the first DCO hearing (HE13-16).

*Statutory undertakers land*

- 18.87 Statutory undertakers have interests in the majority of the land that is the subject of compulsory acquisition.
- 18.88 When the DCO application was made and following the close of relevant representations an application for a certificate under s127 PA 2008, was made to the Secretary of State, to acquire statutory undertaker land without consent.
- 18.89 On the second day of the compulsory acquisition hearing the s127 certificate application was withdrawn by the applicant (S127-22) following the withdrawal of objections by EDF Energy (HE33) and an agreed statement (HE34) resolving the objections submitted.
- 18.90 As a consequence of the settled position, appropriate protective provisions relating to statutory undertaker land and equipment (as explained and set out in the joint statement (HE34)) are drafted into the sixth draft DCO (DCO6).

***Human rights***

- 18.91 The applicant acknowledges that three articles of the European Convention on Human Rights incorporated into English law by the Human Rights Act 1998 are engaged where compulsory acquisition powers are sought (Article 1 of the First Protocol, Article 6 and Article 8).
- 18.92 The applicant states that:
- the human rights considerations have been addressed in section 14 of the Statement of Case. The scheme proposed will make a significant contribution to the Government's aims of securing sustainable sources of renewable energy which is a legitimate aim in the public interest. Any interference with Convention Rights will be minimal and clearly outweighed by, and not disproportionate to, the public interest;
  - provided the compulsory purchase provisions are confirmed in accordance with the statutory tests (section 122(2)(a) and (b) and (3)), there will be an overriding justification for the

acquisition which will accord with the law and be in the public interest;

- compliance with article 6 is achieved through compliance with the statutory processes for applying for the DCO and rights to compulsorily acquire land, together with the right to challenge any decision in the courts;
- it is doubtful that article 8 is engaged. No residential land is proposed for acquisition and no significant impacts on residential properties are predicted. In any event, any interference will be proportionate and in the public interest;
- interference with article 1 of the first protocol will be minimal because only 'unknown interests' in land are proposed for acquisition, where it is essential to acquire such interests in order to deliver the scheme;
- other rights have been acquired by agreement;
- the provision of compensation to those whose land or interests in land may be acquired or extinguished will ensure that the interference is proportionate.
- compulsory acquisition is being treated as a means of last resort, alternatives have been examined, and wherever possible acquisition by agreement or lesser interests have been acquired.

### ***Conclusion***

18.93 The applicant concludes that the inclusion of compulsory acquisition in the draft DCO for the purposes of the proposed development meets the conditions set out in s122 of the PA 2008 and guidance.

18.94 Further for the reasons set out in the Statement of Reasons (APP29), addendum (HE66) and summary of oral submissions at the compulsory acquisition hearing (HE36) and relevant supporting documentation and funding undertaking (S106-3):

- the order land is either required for the development to which the development consent sought relates, or is incidental to or required to facilitate the proposed development;
- the order land is no more than is reasonably necessary and required for the legitimate purposes of the order sought;
- there is a compelling case in the public interest for the land to be acquired compulsorily;
- the benefits to be derived from the proposed compulsory acquisition outweigh the private loss that would be suffered by those whose land might be taken.

### **The Objector's Case**

#### ***EDF Energy***

18.95 EDF Energy strongly objected to the compulsory acquisition of its land in its written representation of 16 July 2012 (REP11), other

responses to questions and other IP submissions and in its statement of case in relation to s127 of 16 July 2012 (S127-13) but acknowledged that there were ongoing discussions with the applicant with a view to agreeing lease and/or protective provision terms.

- 18.96 The applicant following discussions and negotiations with EDF Energy concluded an agreed approach to the compulsory acquisition of EDF Energy land, including acknowledging its position as a statutory undertaker and this is set out in a joint statement (HE34) submitted on the 23 October 2012, at the second day of the compulsory acquisition hearing, and dated 22 October 2012.
- 18.97 The agreed statement was also supported by confirmatory correspondence from the applicant withdrawing the s127 certificate application (S127-22) and from EDF Energy withdrawing objection to the use of statutory undertaker land (HE33).
- 18.98 In these circumstances EDF Energy has withdrawn its objection to the grant of compulsory acquisition powers (HE33).
- 18.99 EDF Energy acknowledged at the compulsory acquisition hearing in response to oral questioning by us, that compulsory acquisition was still required for the reasons set out by the applicant and that all plots are required and no alternatives are available including in relation to the land know as Pillbox Field (plots 123, 124, 144 and 145) (HE30).

### ***Other Affected Persons***

- 18.100 No other affected persons made representations opposing the compulsory acquisition of their land or interests and no other party appeared at the compulsory acquisition hearing to oppose the proposed compulsory acquisition powers sought.

### **The Applicant's Response to Objections**

- 18.101 The applicant initially provided responses to the objections and representations made by EDF Energy both to the generality of the compulsory acquisition, the drafting of protective provisions within the DCO and in response to the objections to the certificate application under s127, but also acknowledged and confirmed that continuing discussions and negotiations were taking place to seek resolution by agreement.
- 18.102 The settled position set out in the joint statement submitted by the applicant and EDF Energy finalises the applicant's response to the objections made.
- 18.103 Final submissions by the applicant incorporate the resolved drafting of protective provisions within the draft DCO submitted as

the sixth draft (DCO6) and supporting documentation (REP152, REP153, REP154, APP29, HE66).

### **The Panel's Conclusions**

- 18.104 Our approach to the overall consideration of the granting of compulsory acquisition powers has been to test and address clearly the requirements of sections 122 and 123 of the PA 2008, guidance<sup>44</sup> and Human Rights Act 1998.
- 18.105 These considerations have been set in the context and light of the initial identification of principal issues taken from and informed by the application documentation and the relevant representations and subsequent representations and other information submitted. The key consideration being the test as to whether there is a compelling case in the public interest and if this has been made whilst balancing the public interest with the private loss.
- 18.106 We note that the draft DCO includes, amongst other matters, powers authorising the construction and operation of the proposed development and compulsory acquisition powers. We are of the view that the case for compulsory acquisition powers cannot properly be considered until the position regarding the case for the proposed development has been considered and a view come to on this.
- 18.107 Section 17 of this report reaches the conclusion that consent should, in our view, be granted for the proposed development. In considering the case for compulsory acquisition all matters and issues that arose in relation to consideration of the overall development have also been considered in the case for the grant of compulsory acquisition powers.
- 18.108 This section does not rehearse the whole case but, amongst other matters, considers whether the recommendation to grant development consent forms, in part, a basis for the grant of the compulsory acquisition powers sought.
- 18.109 The effect of s122(1) and s122(2) of the PA 2008 is to provide that the land to be subject to compulsory acquisition must be required for the development to which the development consent relates. This means that we had to look at what land needed to be acquired, and rights and impediments dealt with, in order that the development can be carried out.
- 18.110 The approach we took was to examine:
- the case which has been made for the grant of compulsory acquisition powers in respect of each and every plot set out in the Consolidated Book of Reference (HE65);

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<sup>44</sup> Planning Act 2008 Guidance related to procedures for compulsory acquisition: DCLG February 2010

- the justification for the inclusion of the plots as set out in the Statement of Reasons, addendum and supporting schedule (APP29, HE66, APP30);
- the type and extent of interests sought and whether lesser interests could be taken;
- the stated use of the order land and whether there are clear and necessary proposals in relation to each interest sought;
- the potential effects and consequences of taking the land proposed.

- 18.111 We are satisfied that in the event of the grant of development consent for Galloper Wind Farm and its associated electrical infrastructure there would be a need to have the power to acquire the rights and interests by compulsory acquisition and that the powers sought in the draft DCO would be required to ensure implementation of the development sought in full.
- 18.112 In considering whether there is a compelling case in the public and national interest in accordance with s122(3) there are a number of issues that we have considered in balancing the public interest against the private loss that would occur as a result of the confirmation of compulsory acquisition.
- 18.113 The starting point is the designated NPSs identified as NPS EN-1, EN-3 and EN-5 in section 3 of this report. The energy NPSs clearly identify that there is an urgent need for additional generating capacity within the UK and specifically for offshore wind renewable generating capacity which will make the largest single contribution towards the 2020 renewable energy targets.
- 18.114 Galloper Wind Farm would have up to 140 wind turbine generators and be capable of generating a total of up to 504 MW of electricity thereby making a significant contribution to meeting the urgent need identified and to support the 2020 renewable energy targets.
- 18.115 Having taken all submissions into account it is our opinion that the public benefits associated with the development of Galloper Wind Farm and its associated electrical infrastructure would be supported by national policy, be clear, substantial and compelling.
- 18.116 Making the DCO would be in accordance with NPS EN-1, EN-3 and EN-5 and it has been agreed by the applicant and EDF Energy that it would not cause conflict with NPS EN-6 and the potential future development of Sizewell C new nuclear generating project for the reasons set out in the planning statement (APP85) and joint statement by the applicant and EDF Energy (HE34) and referenced in the Statement of Reasons and addendum (APP29 and HE66).
- 18.117 In making this recommendation we have also considered the wider project benefits including substantial economic benefits and the environmental and other impacts including land take and loss of property rights.

18.118 Overall, the public benefits associated with the project would in our view outweigh the private loss, which is limited in this case, that would be suffered by those whose land and interests are to be acquired to enable the project to occur.

### ***Alternatives***

18.119 To determine whether or not alternatives to the proposed land and interest take exist we have considered this on the basis of the approach adopted by the applicant as set out above.

18.120 The applicant has undertaken a scoping exercise and tested the development scenarios in terms of necessary land take.

18.121 We asked questions particularly relating to the necessity for freehold acquisition and whether this was justified and in terms of the potential alternatives for landscaping at Pillbox Field and access to Pillbox Field.

18.122 We also raised the potential for lesser steps in the form of a leasehold interest in the EDF Energy land but received strong submissions from both the applicant and EDF Energy that PA 2008 did not lawfully allow the acquisition of a lesser interest than freehold by compulsory acquisition powers.

18.123 Following the full examination of the application and compulsory acquisition case it is clear that all parties that have made submissions agree that the applicant has reasonably considered all feasible alternatives, including lesser interests and that there are no alternatives which ought now to be preferred.

18.124 We therefore conclude that on the evidence before us that the applicant has thoroughly and reasonably tested all feasible alternatives, that these have been consulted on and all parties given an opportunity to make submissions on whether there are any other feasible alternatives to that proposed and therefore that there are no alternatives that ought to be preferred.

### ***Funding***

18.125 We are required to make a judgement as to whether adequate funding would be available to meet compulsory acquisition and compensation in the event of compulsory acquisition powers being granted, and exercised.

18.126 In considering funding issues we have had regard to the provisions of the PA 2008, guidance and the Human Rights Act 1998.

18.127 When initially considering the applicant's submitted Funding Statement (APP31) we considered the position was inadequate in terms of ensuring that the necessary resources would be available to the applicant and that these resources would endure until all compensation matters arising had been settled in full.



- 18.128 We raised questions at two stages and were initially disappointed by the applicant's response in relation to the assurance sought. This was raised further at the DCO and compulsory acquisition hearings. Eventually the applicant reviewed the position and having considered the question of appropriate funding mechanisms offered a unilateral undertaking.
- 18.129 The applicant has confirmed that it will agree to provide a suitable form of security (as required in the unilateral undertaking (s106-3) prior to exercising any confirmed powers of compulsory acquisition. The security may include, but not be limited to, a parent company guarantee, bond, bank guarantee or policy of insurance and which shall guarantee a sum of no less than £85,000 (being twice the applicant's estimated valuation of the interests which may necessitate compulsory acquisition).
- 18.130 In essence the unilateral undertaking will ensure that no compulsory acquisition powers are exercised unless there is security in place to cover the cost of paying compensation for the acquisition of any land or interests in land, thus addressing the panel's concerns.
- 18.131 We now consider that the Consolidated Funding Statement (HE64) and supporting unilateral undertaking are adequate to support the compelling case for the grant of compulsory acquisition powers.

### ***Human rights***

- 18.132 A key consideration in formulating a compelling case is consideration of the potential interference with human rights which may occur if compulsory acquisition powers are granted, and exercised.
- 18.133 The applicant acknowledges that the draft DCO engages a number of the articles of the Human Rights Act as set out above.
- 18.134 It would affect Article 1 of the First Protocol (rights of those whose property is to be compulsorily acquired and whose peaceful enjoyment of their property is to be interfered with).
- 18.135 Article 6 entitles those affected by compulsory acquisition powers sought for the project to a fair and public hearing of their objections.
- 18.136 The applicant states that all owners and occupiers of land affected by the proposals have been contacted and that representations could be made in response to notice under s56 of the PA 2008 or at any compulsory acquisition hearing advertised, and held in public by us.
- 18.137 The applicant does not consider that Article 8 is likely to be engaged as no residential land and buildings would be included in the Order.

18.138 In the Statement of Reasons and summary of oral submissions at the compulsory acquisition hearing the applicant set out the considerations that arise and stated that it had carefully considered the balance to be struck between individual rights and the wider public interest.

18.139 Having regard to the relevant provisions of the Human Rights Act we have considered the individual rights interfered with and the submissions made by affected parties in this regard and are satisfied that:

- in relation to Article 1 of the First Protocol that the proposed interference with the individual's rights would be lawful, necessary, proportionate and justified in the public interest;
- in relation to Article 6 we are satisfied that all objections which have been made have been resolved by the applicant in agreement with the objector and through modification of and accommodation within the terms of the draft DCO and that all affected persons have had adequate opportunity to present their case to us at a compulsory acquisition hearing; and
- Article 8 is not engaged because no residential land or buildings are included in the compulsory acquisition land.

### **The Panel's Recommendation on the Request for Compulsory Acquisition Powers**

18.140 With regard to s122(2) and s123(2) of the PA 2008 we are satisfied that the legal interests in all plots described and set out in the Consolidated Book of Reference (HE65) and on the Land Plan (as amended) (REP157) would be required in order to ensure the ability to implement the development as sought.

18.141 With regard to s122(3) we are satisfied in relation to the application that:

- development consent for the development sought should be granted;
- the designated energy NPSs are to be considered the pre-eminent policy;
- the NPS's require that the 'need' case is to be considered as already proven;
- there are no feasible alternatives that are available in relation to the development to which the development consent sought relates, or is incidental to or required to facilitate the proposed development;
- funding has been demonstrated to be adequate and secure in the circumstances of the interests to be acquired and affected in this case. This adequacy is met in this case by the supporting provision of the funding unilateral undertaking;
- the interference with human rights would be lawful, in the public interest and proportionate.

18.142 In these circumstances we consider there is a compelling case in the public interest for the grant of the compulsory acquisition powers sought by the applicant in respect of the compulsory acquisition land as shown on the land plan onshore (as amended) (REP157).

18.143 With regard to the incorporation of other statutory powers pursuant to s120(5)(a), we are satisfied that as required by s117(4), the draft DCO has been prepared and submitted in the form of a statutory instrument and further that no provision of the draft DCO contravenes the provisions of s126(3) which precludes the modification of compensation provisions.

## **19 THE PROPOSED DEVELOPMENT CONSENT ORDER AND THE S106 AGREEMENTS**

### **The Draft Development Consent Order**

- 19.1 A draft Development Consent Order (DCO) incorporating a deemed Marine Licence (DML) (APP27) and Explanatory Memorandum (APP28) were submitted as part of the application for development consent by the applicant Galloper Wind Farm Limited. The Explanatory Memorandum describes the purpose of the application draft DCO and of each of its proposed articles and schedules.
- 19.2 The application draft DCO is based (with some differences) on the Infrastructure Planning (Model Provisions) (England and Wales) Order 2009 (Model Provisions) but departs from those model provisions in some instances and in doing so draws from the drafting used in Orders for similar development made under the Transport and Works Act 1992 and other Acts authorising development.
- 19.3 During the course of the examination, a number of alterations to the application draft DCO were suggested by the applicant and by other Interested Parties (IPs). In response to these submissions and questions by the Examining authority in two written requests and at a series of hearings the applicant produced five successive versions of the draft DCO throughout the course of the examination.
- 19.4 At the end of the examination, the applicant submitted a final sixth draft DCO and DML, which contains the provisions now being sought for approval in the sixth draft DCO (DCO6). This was supported by an updated version of the Explanatory Memorandum (Annex G6 to the GWFL Summary of Case for Hearings 17-24 October 2012) (HE54).
- 19.5 The sixth draft DCO reflects alterations that have been made for a variety of reasons including: for the purposes of clarification; for the correction of minor errors; to reflect changes proposed elsewhere in the application; and to provide protective provisions, particularly in relation to statutory undertakers. A comparison of the submitted draft DCO and the sixth draft DCO was provided by the applicant in its submission of 26 November 2012 (Annex B3) (DCO14).
- 19.6 Throughout our consideration of the main issues and representations set out throughout this report we refer to changes that have come about as a result of our questions and that address matters raised by IPs and provide mitigation and clarification. We do not deal with these matters in detail in this section of the report, but consider and recommend that if

development consent is to be granted then it should be in the recommended form that includes these examination changes.

- 19.7 The majority of the draft DCO is not the subject of objection or proposed amendment in its final sixth draft form. We deal below with those articles and schedules which are the subject of proposals for further alteration. Taking all important and relevant matters into account our recommended changes to the applicant's sixth draft DCO are set out in the recommended draft DCO (Appendix F).
- 19.8 The recommended draft DCO (Appendix F) is marked up with blue text indicating changes we are recommending. Green text is alternative drafting taken from the applicant's Annex E to its post hearing submissions for the 29 October 2012 deadline (HE53) that we are also recommending and red text indicates recommended deletions.
- 19.9 We consider that the clarity of the recommended draft DCO would be improved by the use of plain English when possible and therefore some of the initial explanatory text is proposed to be changed to reflect this as set out below.

#### ***Contents and explanatory text***

- 19.10 Although no direct representations were received with regard to the simplification of the language in the draft DCO, in order to provide a document in plain English we propose minor amendments to remove words such as whereas and change the text so that it is in accordance with the PA 2008 as amended by the Localism Act 2011.
- 19.11 These changes result in references to the Commission being removed and to the inclusion of the former Infrastructure Planning Commission for use when referring to activity or decisions taken by the Infrastructure Planning Commission prior to its abolition.

#### ***Article 1 citation and commencement***

- 19.12 Our proposed minor change is to provide a factual statement that the Order, should it come into effect, comes into force at the set date rather than stating that it "shall come into force" on x date. The reason for this proposed change is for clarity and use of plain English.

#### ***Article 2 interpretation***

- 19.13 The footnotes to the Interpretation article at footnote (g) do not identify the amendments made to the Planning Act 2008 brought about by both the Marine and Coastal Access Act 2009 and the Localism Act 2011. Therefore, we propose that these amendments are made to reflect the legislative position at the date of reporting.

- 19.14 Various terms are defined and set out in alphabetical order and we have recommended some minor typographical changes such as the insertion of the word former in relation to the Infrastructure Planning Commission to reflect the abolition of that organisation. In addition we recommend use of a lower case 'a' in Examining authority to reflect the same drafting as the PA 2008, as well as reference to the 2008 Act rather than the stated 2004 Act within the definition of Examining authority.
- 19.15 During the examination we asked all parties for consideration of the definitions throughout the draft DCO and DML and sought representations on any proposed changes or omissions to these.
- 19.16 Representations were received from Interested Parties (IPs) and a number of their proposed changes are already incorporated into the sixth draft DCO, for example the inclusion of a definition for Environmental Statement (ES) and definition of the EDF Energy group of companies, which is particularly important in the context of the compulsory acquisition powers sought.
- 19.17 Overall, the definitions provided are self explanatory, however there were some unresolved submissions where agreement was not reached by the parties or where there were outstanding matters arising from our written and oral questions. We therefore consider these outstanding definitions in alphabetical order below.

*Construction work(s) and commence*

- 19.18 Commencement of construction work(s) is not currently defined in the draft DCO. Instead it relies on the use of a definition of commence which in turn refers to the authorised project. Ancillary 'works' are defined separately and also included within the definition of authorised project.
- 19.19 We consider that this results in potential uncertainty in relation to triggers for commencement of certain 'works' as currently drafted as construction of the project is referenced in a number of places including but not limited to article 28 and requirements 9, 10, 21, 23, 27 and 28. Requirement 27 is the Construction Code of Practice (CCoP) which is particularly important in this context as is Requirement 28 with regard to construction hours.
- 19.20 Therefore we propose that a definition of commencement of construction work(s) is included relating to the beginning of construction of certain 'works' save for those constituting commencement of development which would be caught by the existing definition of "commence" to which we are also proposing minor amendments to below.
- 19.21 Regardless of whether this new definition is included we would also recommend that the definition "commence" should become "commencement of development" and in the second line of this it

should refer to the "authorised development" rather than the "authorised project".

*Environment Statement*

- 19.22 It was agreed at the first DCO Issue Specific hearing that the definition of 'Environmental Statement' did need to be included in the DCO at article 2 (HE18).
- 19.23 The applicant has included a definition, which refers only to the ES as submitted and refers to tables submitted in response to one of the Examining authority's questions. This definition omits omission material that was submitted during examination.
- 19.24 For the avoidance of doubt this means the Environmental Statement should include the ES submitted by the applicant with the application on 21 November 2011 and the submission accepted by the Examining authority as a late submission for the 8 June 2012 deadline containing errors and omissions.

*Maintain*

- 19.25 The most significant matter for debate and submissions by IPs on the drafting of the definitions within the draft DCO was in relation to the definition of the term maintain. The original submitted draft DCO (APP27) included decommissioning within the definition.
- 19.26 During the examination we asked oral questions regarding the definition of maintain and sought a response from all IPs on whether there was a need to limit the scope of what this definition covers.
- 19.27 The definition of maintain finally requested by the applicant (sixth draft DCO (DCO6)) is:

*"maintain" includes maintain, inspect, repair, adjust, alter, remove, reconstruct and replace and any derivative of "maintain" is to be construed accordingly.*

*The applicant's case for the definition of maintain*

- 19.28 The applicant proposed a definition of maintain based on the Ipswich Rail Chord DCO. The applicant also acknowledges in the Explanatory Memorandum (para 8.3) (APP28) and in written and oral submissions that these are taken from 'model provisions'<sup>45</sup> for railway related projects.
- 19.29 In support of the use of the submitted definition of maintain the applicant particularly drew attention to the extensive use of this

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<sup>45</sup> The Infrastructure Planning (Model Provisions) (England and Wales) Order 2009

definition including the words “replace and reconstruct” in early offshore wind farm Orders, as summarised in the applicant’s written response of 26 November 2012 (paras 4.6.2 to 4.6.7 inclusive) (REP60).

- 19.30 The applicant also explained in general terms the need for a wide range within the definition for the commercial operation and continuity of the project once implemented, in oral submissions at the Issue Specific hearings held into the draft DCO (Audio for all DCO hearings HE13-16, HE22).
- 19.31 Following written and oral submissions the applicant has removed reference to decommissioning from the definition in the sixth draft DCO (DCO6).
- 19.32 Annex G5 (DCO18) sets out amendments sought by other parties but not accepted by the applicant. The applicant considered that article 2(2) is an interpretative provision only and cannot extend beyond the scope of the rights sought in Schedules 3 and 5 of the draft DCO.

*Objections to and representations about the definition of maintain*

- 19.33 Substantive objections to the applicant’s definition of maintain were made by both the Marine Management Organisation (MMO) and Natural England (NE).
- 19.34 During the second DCO Issue Specific hearing (19 October 2012), the MMO raised an issue in relation to the definition of maintain having previously confirmed in oral submissions at the first DCO hearing that they found all drafting submitted acceptable although they had some general concern about the definition of maintain (HE13-16).
- 19.35 In response to our request for the MMO to provide a written submission with full reasoning as to its position on the wording of maintain within the draft DCO the MMO provided a response by letter dated 25 October 2012 (HE69).
- 19.36 This submission strongly opposed the use of a Schedule 2 model provision for railways as the justification for including this definition as worded in relation to a proposed project within the marine environment, which has no physical boundaries.
- 19.37 The MMO submitted that its interpretation of what maintain should cover is “*the upkeep, repair or reasonable improvement of the works*”. The MMO did not consider that the terms remove and reconstruct fall within the definition of maintain in line with Article 19 of the Marine Licensing (Exempted Activities) Order 2011 (no 409).
- 19.38 The MMO further supported its position by reference to the Environmental Statement which assessed the impacts of offshore



construction over a period of five consecutive years and not over the operational period of 25 years (ES chapter 5, para 5.22, Table 5.12) (APP39).

- 19.39 In addition, the MMO submitted that the definition proposed by the applicant had the effect of permitting the ongoing replacement of foundations and sub-sea cables, which the MMO does not deem as maintenance but as large scale construction activities. In support of this position the MMO referenced s66(1)(7) of the Marine and Coastal Access Act 2009, which in summary identifies that it is a licensable marine activity to construct, alter or improve any 'works' within the UK marine licensing area in or over the sea, or on or under the sea bed.
- 19.40 NE also raised concerns about the breadth of the definition of maintain in response to oral questions asked by the panel at the second DCO Issue Specific hearing (on 29 October 2012). NE sets out its position at para 4 of the written summary of its oral case to that hearing (dated 29 October 2012) (HE71).
- 19.41 NE confirmed that it holds similar concerns to the MMO in relation to the inclusion of the terms 'reconstruct' and 'replace' given the marine impacts that could result from, for example, the relaying of cables especially in the light of the statement by the applicant that it was of the view that the wording did encompass the relaying of cables.
- 19.42 NE was particularly concerned that given the terms of article 4, the definition is not constrained by its use within the Order, but instead is of general application to all aspects of the authorised project.

*Our conclusions and recommendations about the definition of maintain*

- 19.43 We do not automatically accept that the use of drafting from the model clauses for railway related projects is an appropriate starting point for drafting relating to a project within the marine environment.
- 19.44 We consider that it would be more appropriate to look at the nature and circumstances of this particular proposed project and representations that have been made on this application, and drafting that has been previously accepted in relation to similar projects in the marine environment.
- 19.45 The applicant sets down a number of examples in its written response of 26 November 2012 (DCO14). All the examples given, except the Lynn and Inner Dowsing Offshore Wind Farms (Amendment) Order SI 2011/84, pre-date the coming into force of the Marine and Coastal Access Act 2009; the Lynn and Inner Dowsing Order is only an amendment Order.

- 19.46 Within the Orders referenced there is some similarity of wording but not a consistent position. Definitions and use of the words maintain and relay are particularly variable within the examples given by the applicant.
- 19.47 In providing these examples the applicant does not explain the use of these definitions within the context of any of the operative articles or requirements proposed in this draft DCO.
- 19.48 Both NE and the MMO are concerned that anything consented should be within the terms of the project assessed within the Environmental Statement.
- 19.49 The MMO raises concerns about the compatibility of the definition with both article 19 of the Marine Licensing (Exempted Activities) Order 2011 (no 409) and s66(1) item 7 of the Marine and Coastal Access Act 2009. Although the Exempted Activities Order 2011 does not directly reference offshore generation the general principle of the types of activities exempted is taken to provide a comparable example to be drawn from.
- 19.50 In considering all of these representations the we are recommending an approach that seeks to have regard to the concerns of the IPs and provides the applicant with a definition that allows the normal operation and maintenance of the proposed wind farm, whilst ensuring that any activities or 'works' within this definition are matters that have been the subject of Environmental Impact Assessment and are compatible with the principles of the Marine Licensing (Exempted Activities) Order 2011 (no 409) and s66(1) item 7 of the Marine and Coastal Access Act 2009.
- 19.51 Our proposed alterations therefore remove the terms reconstruct and replace and insert 'upkeep' and 'relay'. This is proportionate and removes terms that could be considered as new development in their own right.
- 19.52 In addition, to overcome concerns about the extent of article 4, a complementary amendment has been proposed to substitute the word 'replace' with the word 'relay'. In addition, a qualification has been put within article 4 that such 'works' should be within the scope of the Environmental Statement and within the limits of what is proposed to be consented by this Order, otherwise further assessment would have to be undertaken and consent sought.
- 19.53 The scheme specific matters that relate to the need for the proposed changes include the integrity of the Coralline Crag (as discussed at sections 11 and 14 of this report) and armouring/protection measures relating to the proposed offshore cables as well as the risks around any wholesale replacement of major offshore construction elements such as foundations which would have the potential to cause full scale construction impacts to reoccur.

- 19.54 This combination of amendments to the definition of maintain and to article 4 addresses the concerns of NE and the MMO, whilst seeking to provide the applicant with a workable commercial consent, having regard to the principles of the Marine Licensing (Exempted Activities) Order 2011 (no 409) and s66(1) item 7 of the Marine and Coastal Access Act 2009 and the extent of assessment set out in the Environmental Statement.
- 19.55 Confirmation by the applicant that article 2(2) is an interpretative provision only and cannot extend beyond the scope of the rights sought in Schedules 3 and 5 to the draft DCO gives further confidence that no further changes or qualifications are necessary beyond those recommended within the definition of maintain and terms of article 4 as we are proposing to amend them.
- 19.56 There is nothing in the proposed alterations that would prevent or restrict genuine maintenance and upkeep of the proposed project as assessed in the Environmental Statement. However, the recommended changes seek to constrain the breadth of the definition within the context of the marine environment so as to ensure that adequate and proportionate safeguards are in place.

*Mean low water spring tides*

- 19.57 Mean low water spring tides is not currently defined but is referred to in a number of articles, 'works' descriptions and requirements.
- 19.58 We recommend the addition of a definition of mean low water spring tides in the Interpretation article so as to ensure consistency of interpretation throughout the recommended draft DCO and to be consistent with the inclusion of the definition of mean high water springs.

*Territorial waters*

- 19.59 Territorial waters or sea are not currently defined, yet are used within article 8. We recommend inclusion of a new definition of territorial waters that means the territorial sea adjacent to the United Kingdom in accordance with the Territorial Sea Act 1987.

**Article 4 maintenance of authorised project**

- 19.60 Article 4 of the sixth draft DCO is proposed to be amended for the reasons set out above as a consequence of proposed amendments to the definition of maintain.
- 19.61 As set out in the applicant's updated version of the Explanatory Memorandum (Annex G6 to the GWFL Summary of Case for Hearings 17-24 October 2012) (HE54), the drafting follows model provision 3 but adds wording to make it clear that it is a continuing power to maintain and specifically excludes 'works' of decommissioning. In recommending the further changes we have taken a similar approach to making the limitations clear.

**Article 7 benefit of the order**

19.62 As set out in the updated version of the Explanatory Memorandum at para 8.10 (HE54), article 7 provides for the sixth draft Order to be personal to GWFL save as transferred in whole or part.

19.63 The wording of this article is based on the model clauses, but as set out in the sixth draft DCO includes the power to transfer part of an Order, including part only of the DML comprised in Schedule 6.

*The applicant's case for transfer*

19.64 The applicant sets out a summary of its position in support of the transfer provisions including the power to transfer part of a DML in the table of non accepted amendments to the DCO/DML Annex G5 (DCO18).

19.65 The applicant acknowledges that this is an important matter but confirms that GWFL's position is that the powers of the PA 2008 and a DCO generally are wide enough to permit the splitting of a DML, if the point is dealt with expressly.

19.66 The applicant can see no reason in principle why, if the PA 2008 allows for the transfer of part of the benefit and burden of a DCO, that should not also apply to a DML granted under a DCO and that this is entirely consistent with the objectives of the NSIP single consenting regime.

19.67 The applicant envisages that a separated DML would be divided by reference to the licensable marine activities identified. In the case of the offshore wind farm, the only partial transfer envisaged is to the appointed Offshore Transmission Owner (OFTO).

19.68 The applicant submits that on this basis there will be a clear division between the 'works' to be transferred to an OFTO and those to be retained by the original undertaker and that the drafting of the 'works' in the DML has been prepared in anticipation of this division.

19.69 In conclusion the applicant does make the submission that if the Examining authority and the Secretary of State considers that partial transfer of a DML is not possible as a matter of law, or is not desirable as a matter of policy, then GWFL asks to be consulted prior to the making of any DCO, so that Schedule 6 can be amended to cover only the anticipated OFTO 'works' and a new Schedule 7 be inserted to cover the remaining 'works'.

19.70 The applicant also confirms that if this approach is followed then article 10 would also need to be amended to give effect to both schedules.

*Objections to and representations about the extent of transfer*

- 19.71 Substantive objections were made by the MMO.
- 19.72 During the second DCO Issue Specific hearing (on 19 October 2012) the MMO for the first time raised an issue in relation to article 7 and the benefit of the Order in relation to the potential to split a ML having previously confirmed in oral submissions at the first DCO Issue Specific hearing that they found all drafting submitted acceptable (HE13-16).
- 19.73 In response to the our request for the MMO to provide a written submission with full reasoning as to its new position on the wording of article 7 within the draft DCO the MMO provided a response by letter dated 25 October 2012 (HE69) and reaffirmed that position by letter dated 26 November 2012 (REP62).
- 19.74 This submission strongly opposed the drafting of article 7 in a form that enables transfer of partial benefits of the DML. The MMO considers that this is not permissible under the Marine and Coastal Access Act 2009, and if this is not permissible under the Marine and Coastal Access Act 2009, then it is not permissible under the PA 2008.
- 19.75 In support of this position the MMO directly referenced s72(7) and (8) and s71(5) of the Marine and Coastal Access Act 2009, relating to variation, suspension, revocation, transfer of and applications for licences.
- 19.76 The MMO in its written submission dated 26 November 2012 (REP62) welcomes the proposal by the applicant in Annex G5 to amend schedule 6 to cover only the anticipated OFTO 'works' and the inclusion of a second DML in a schedule 7 covering the remaining offshore 'works'.

*Our conclusions and recommendations about the extent of transfer*

- 19.77 Starting with the principle of the relationship of the PA 2008 and the Marine and Coastal Access Act 2009, s120(5) of the PA 2008 expressly states:
- "(5) An order granting development consent may—*
- (a) apply, modify or exclude a statutory provision which relates to any matter for which provision may be made in the order;*
- (b) make such amendments, repeals or revocations of statutory provisions of local application as appear to the Secretary of State to be necessary or expedient in consequence of a provision of the order or in connection with the order;*

*(c) include any provision that appears to the Secretary of State to be necessary or expedient for giving full effect to any other provision of the order;*

*(d) include incidental, consequential, supplementary, transitional or transitory provisions and savings.*

*(6) In subsection (5) "statutory provision" means a provision of an Act or of an instrument made under an Act."*

- 19.78 As currently drafted and explained in the updated Explanatory Memorandum (HE54) the applicant is not expressly seeking to modify provisions of the Marine and Coastal Access Act 2009, such as s71 and s72 of that Act, in this draft DCO under s120(5)(a) of the PA 2008.
- 19.79 It is clear from the submissions made by both the applicant and the MMO that there is a matter to be addressed and resolved and that there is potentially a practical solution that maintains the legislative position both in the PA 2008 and the Marine and Coastal Access Act 2009 without modification in this DCO, but no new drafting was submitted during the examination.
- 19.80 In considering all of these representations we are recommending an approach that seeks to have regard to the concerns of the IPs and therefore does not allow for Schedule 6 to be transferred in part, but does consider that this still provides the applicant with a solution as responsibility and liability under a single Marine Licence can be dealt with by the contractual management of any operation of the OFTO 'works'.
- 19.81 This approach has been taken as we are not in a position to consider and recommend on matters not before us at the examination. Whether the Secretary of State wishes to consider the applicant's proposal (outline in para 19.68 above) is a matter for him.

### **Article 8 public rights of navigation**

- 19.82 Article 8 uses the term territorial waters which in the sixth draft DCO is not defined.
- 19.83 As set out above under article 2, we recommend the use of a proposed new definition of 'territorial waters'.
- 19.84 Overall, article 8 provides for the extinguishment of public rights of navigation within the UK 12 nautical mile inshore waters.
- 19.85 There were no specific representations about the extinguishment proposed under article 8. Wider navigation matters are discussed at section 13 of this report but do not relate directly to this provision.

- 19.86 We asked questions particularly of the applicant at the second DCO Issue Specific hearing seeking clarification as to whether it was intended that the plan to be submitted under article 8 was pre-construction or post construction, and whether the rights should be extinguished permanently or should revive on decommissioning.
- 19.87 The applicant responded that in its table of not-accepted amendments (Annex G5) it confirmed that the sixth draft DCO wording reflects the Secretary of State's practice in relation to navigation declarations issued under section 36A of the Electricity Act 1989.
- 19.88 The applicant also confirmed that the sixth draft DCO wording makes it clear that it is a pre-construction plan as it refers to the locations of the structures to be constructed and that this should be adequate as the extinguishment should take legal effect before the actual obstruction is physically in place.
- 19.89 The applicant also confirmed that it is aware that the Secretary of State has specifically considered the extinguishment versus suspension of rights issue before and that on this basis the applicant is confident that it should remain as extinguishment.
- 19.90 The applicant, although making it clear that it understood the drafting in the sixth draft DCO followed established practice, advised that if the Secretary of State was to change the approach to be taken at GWF then the applicant would request that the following approach to drafting is taken:
- "Article 8(1) would be amended to end "shall be suspended between the date when the notice under Article 8(2) takes effect and the date of removal of the relevant part of the authorised development pursuant to a decommissioning programme approved under s106 of the Energy Act 2004 (including any modification approved under section 108)"; and*
- Article 8(2) would be amended to begin "The suspension of the rights ..... ""*
- Our conclusions and recommendations on extinguishment*
- 19.91 We are satisfied that the response the applicant has provided provides clarity that the plan is to be submitted pre-construction.
- 19.92 We acknowledge the established position set out by the applicant on extinguishment and recognise that this is common practice. However, if the Secretary of State was of the view that it was more appropriate to remove navigation rights for the minimum period necessary to enable the DCO to have effect then we would support the proposed alternative drafting set out at para 19.89 above and as submitted in the applicant's Annex G5.

19.93 These amendments have not been drafted into the recommended draft DCO as the current drafting represents established practice, although we do believe that the alternative drafting approach would deliver the minimum period necessary and therefore minimise any potential impact and ensure that the removal of rights only related to a continuing need.

***Article 22 and 24 rights under and over streets and temporary use of land for maintaining authorised project***

19.94 Article 24 follows model clause 29 and seeks to enable the undertaker, in connection with carrying out of the authorised project, to take temporary possession of land within the Order limits for the purpose of maintaining the authorised development.

19.95 Within the sixth draft DCO article 24 uses the defined term authorised project to identify land within the Order limits that may be subject to the temporary use of land for maintaining the authorised project.

19.96 The terms of schedule 5 of the sixth draft DCO and the explanation in the updated version of the Explanatory Memorandum at para 8.88 (HE54) identify this as land of which temporary possession may be taken.

19.97 The definitions of Order limits and authorised project are cast much wider than the 'Order land', which is the subject of the compulsory acquisition rights set out in Article 16.

19.98 We therefore recommend that further qualification is added to article 22 and 24 restricting the application of these powers to the Order land only.

19.99 The reason for this is to ensure that compulsory powers are not extended beyond land that has been specifically identified as being required for those particular purposes, and where insufficient justification has been given by the applicant for the wider powers sought.

***Article 30 certification of plans***

19.100 We have proposed a number of amendments to the list of plans set out under Article 30. These changes relate to omissions from the applicant's drafting and the substitute plans in relation to the proposed confirmation of the Area B exclusion zone.

***Article 31 arbitration***

19.101 Article 31 follows model provision 42 and allows for any dispute arising under the provision of the Order unless otherwise provided for in the Order or agreed between the parties to be settled by arbitration.



*The applicant's case for retention of the model form*

- 19.102 In relation to article 33 (now article 31 in the sixth draft DCO), NE had raised the question at the first DCO Issue Specific hearing as to whether the arbitration clause is appropriate since it might have the potential to bind NE.
- 19.103 The applicant submitted that NE does not have a decision making role under any part of the DCO/DML. It is simply a consultee in relation to some approvals to be given by other statutory bodies. Accordingly, it does not appear to GWFL that a situation could arise where NE could be overridden by an arbitrator under this article.
- 19.104 The applicant goes on to say that the point NE raises is nevertheless a more general one. The applicant notes, however, that this provision has a long history in Orders under the Transport and Works etc 1982 Act, is taken from the model provisions, has been included in the Rookery South DCO granted by the Infrastructure Planning Commission and is included in The Network Rail (Ipswich Chord) Order 2012. The applicant therefore wishes this provision to be retained as drafted.

*Natural England's case for exclusion from the model arbitration article*

- 19.105 NE raised concerns about the application of the arbitration article in written submissions and from the first DCO Issue Specific hearing as set out in their written summary of the oral case put at that hearing (HE19) and raised again at the second DCO Issue Specific hearing as set out in their written summary of that hearing (HE71).
- 19.106 Whilst NE acknowledges that this article was taken from the model provisions, it is concerned that the article is drafted in such broad terms that it would encompass certain matters provided for in the DCO which would normally be subject to, for example, the process of Judicial Review and in relation to which arbitration would not be appropriate.
- 19.107 NE is particularly concerned about those provisions where approval is sought from statutory bodies before 'works' can be commenced.
- 19.108 NE acknowledges that the article as drafted would not prevent the operation of article 6 of the sixth draft DCO, which provides for certain appeal provisions of the Town and Country Planning Act 1990 to apply in relation to the DCO. Article 6 only applies to requirements of Schedule 1 and therefore does not encompass the conditions found in the DML in Schedule 6.
- 19.109 NE therefore requests that for the reasons set out in para 18 to 19 of its first DCO submission (HE19) and in para 6 to 8 of its second

DCO submission (HE71), what is now article 31 in the sixth draft DCO, should not apply to it, given that it is a statutory body.

- 19.110 In requesting this amendment NE is also concerned that a precedent should not be created and therefore proposes that a sub paragraph (2) should be added to state:

*"This provision shall not apply to Natural England"*

- 19.111 In support of this NE also suggests that should a definition of NE be required as a result of any such change then the definition used in the s106 relating to the Special Protection Area mitigation at the Alde-Ore Estuary SPA should be used (s106-2).

*Our conclusions and recommendations in relation to arbitration changes sought*

- 19.112 Apart from NE no representations were made in relation to the terms of the sixth draft DCO arbitration article.
- 19.113 The MMO in response to our oral questions at the second DCO Issue Specific hearing provided confirmation of the legal provisions and procedures that would apply in relation to the discharge of conditions and enforcement under the Marine and Coastal Access Act 2009 in relation to the DML and therefore confirmed there was no need for the duplication of the terms of article 6 in relation to the DML.
- 19.114 In considering the submissions made by NE we have recognised that the sixth draft DCO article 31 is in a form that has been established for a period of time in the Transport and Works Act consenting regime and has been confirmed in a number of DCOs considered and made under the PA 2008.
- 19.115 There are a number of other statutory bodies other than NE engaged in the provisions of this draft DCO and therefore it is important that any article is consistent in its potential treatment of statutory bodies unless there is clear evidence that there are identifiable differences between bodies that mean one statutory body should be expressly excluded.
- 19.116 There is no evidence before us that indicates that there are any special circumstances in this case, having regard to both article 7 and confirmation from the MMO of the discharge and enforcement powers within the Marine and Coastal Access Act 2009, that would require NE alone to be excluded from the provisions of this article.
- 19.117 We consider that the starting point is the model provision wording, which is followed in article 31 as drafted in the sixth draft DCO, and that no evidence was put before us, which would in our view justify a departure from that wording.

19.118 Although this is a matter that the Secretary of State will wish to consider in a wider context, in view of its potential relevance to all applications for proposed generating stations before him, on the evidence presented in relation to the sixth draft DCO we find no reason to make the amendment sought by NE alone.

### **Schedule 1 Part 3: Requirements**

#### *Requirement 1: Interpretation*

##### *Highway*

19.119 The definition of highway in Part 3 Requirements is not consistent with the definition within the DCO Interpretation.

19.120 We recommend that the definition of highway within Part 3 requirements, interpretation is identical to the main DCO Interpretation definition in article 2 so as to ensure consistency within the overall documentation.

##### *Mean low water springs*

19.121 Mean low water springs is not currently defined but is referred to a number of times within the requirements.

*We recommend the addition of a definition of mean low water springs to ensure consistency of interpretation throughout the recommended draft DCO and requirements and to be consistent with the inclusion of the definition of mean high water springs.*

### **Requirement 3**

19.122 Requirement 3 relates to detailed offshore design parameters and in particular restricts the dimensions and other characteristics of wind turbine generators. Several conservation bodies raised the issue of mitigation necessitated by the turbine characteristics.

#### *The applicant's case against project mitigation*

19.123 The applicant requests that the sixth draft DCO is confirmed and that this is supported by the whole of the case put forward by the applicant in both written and oral submissions.

19.124 In relation to project mitigation at its simplest the applicant considers confirmation that the predicted mortality of lesser black-backed gulls without any additional project mitigation is demonstrated to be adequate taking into account the applicant's submitted collision risk model (CRM).

19.125 The applicant's full position on the baseline tests and modelling assumptions looking at each of the steps requested by the applicant in Annex E of the fifth response of 29 October 2012 (HE53) is set out at section 5 of this report.

19.126 However, the applicant in its fourth response of 8 October 2012 (REP54) explained that, if it were necessary to avoid refusal of the application GWFL had proposals which it would wish to be considered, in a particular order, to seek to avoid such a refusal.

19.127 The applicant's Annex E of the fifth response of 29 October 2012 (HE53) explains how GWFL has requested that these matters are approached by the panel and the Secretary of State. The note includes potential drafting should it be proposed that the sixth draft DCO is amended.

*Objections to and representations about the need for project mitigation*

19.128 NE, supported by JNCC, and the RSPB made substantial representations in written submissions about the level of impact and mitigation required. NE and to a limited extent JNCC also made oral submissions to the examination about the level of impact and mitigation required.

19.129 The IPs position on the baseline tests and modelling assumptions looking at each of the steps requested by the applicant in Annex E of the fifth response of 29 October 2012 (HE53) is set out at section 5 of this report.

19.130 The detailed responses to the proposals set out in the applicant's Annex E are provided in both NE's (REP65, REP71) and the RSPB's (REP66, REP72) responses to the Rule 17 requests for further information of 5 November and 27 November 2012.

*Our conclusions and recommendations in relation to the need for additional mitigation*

19.131 Our full consideration of all IPs' representations and recommendations in relation to the need for mitigation and the form that should take is set out at section 5 of this report.

19.132 These considerations and recommendations result in the drafting set out in the recommended draft DCO and in summary comprise:

- definitions for the number and dimensions of the wind turbine generators;
- percentage reduction in predicted mortality of lesser black-backed gulls required and absolute number of predicted mortalities to be set;
- terms on which evidence may be produced to seek removal or variation of the percentage reduction required.

19.133 This approach and drafting has full regard to the submissions made by the applicant and starts from the drafting provided by the applicant (Annex E of the applicant's fifth response of 29 October 2012) (HE53) and the IPs setting out requirements that support

the dual approach to mitigation and the degree of evidential certainty required to remove or replace any such mitigation.

- 19.134 It is important that the Secretary of State understands that the applicant's drafting has provided for certain matters to be confirmed by the Secretary of State to activate the mitigation to be secured.

***Requirement 4***

- 19.135 Requirement 4 relates to detailed offshore design parameters and expressly prevents the construction of wind turbine generators, platforms and meteorological masts within part of array area A. This is repeated in DML condition 2. Several IPs expressed concerns about the need for further mitigation.

*The applicant's case for retention of requirement 4 as set out in the sixth draft DCO*

- 19.136 The applicant requests that the sixth draft DCO is confirmed as drafted and that this is supported by the whole of the case put forward by the applicant in both written and oral submissions. The applicant confirmed the need for the exclusion from array area A to be retained.

- 19.137 If the Area B exclusion zone is to be imposed, the applicant proposed that article 4 in the draft DCO and condition 2 in the draft DML are amended as set out in section 4 of the applicant's Annex E of the fifth response of 29 October 2012 (HE53).

*Objections to and representations about the need for an additional exclusion area*

- 19.138 NE, supported by JNCC, and the RSPB made representations in written submissions about the scale of the exclusion area. NE and to a limited extent JNCC also made oral submissions to the examination about the drafting of an exclusion area.

- 19.139 NE is particularly concerned that no quantification is given to the percentage reduction to be achieved as a result of the exclusion but does confirm in its submission of 26 November 2012 Annex 1, para 1 (REP65) that NE does support and welcome the exclusion of turbines from proposed Area B exclusion zone on the basis that this is likely to result in a general improvement in terms of reducing lesser black-backed gull mortality as a result of the development.

- 19.140 The RSPB in section 3 of its submission of 29 November 2012 (REP72) confirms that it has no detailed comments on the sixth draft DCO. The RSPB broadly supports the submissions of NE in relation to the proposed drafting except for its strong opposition to the use of the 'mitigation tables' proposed by NE. Its principal concern about the DCO is that, should consent be granted for the

application, the final version of the DCO should make adequate provision for appropriate mitigation of impacts on European sites.

*Our conclusions and recommendations in relation to the need for an exclusion area*

19.141 Our full consideration of all IPs representations and recommendations in relation to the need for an exclusion area and the form that should take is fully set out at section 5 and 6 of this report.

19.142 These considerations and recommendations result in the drafting set out in the recommended draft DCO and in summary comprise:

- inclusion of Area B exclusion zone; and
- inclusion of the qualification allowing the Secretary of State to dis-apply the exclusion but only on the basis of evidence relating to both impacts on the lesser black-backed gull and on fishing.

19.143 We did consider making Area B exclusion zone an absolute exclusion zone, but should the applicant be able to demonstrate with evidence that the exclusion is no longer needed to mitigate lesser black-backed gull and fishing impacts, then it should be reasonable for requirement 4 and DML condition 2 to allow for this but with appropriate safeguards to meet the concerns raised, in particular by NE.

***Part 3 requirements - incorporating express consultation with Natural England***

19.144 There are a number of requirements in the draft DCO and conditions in the draft DML that include provision expressly for consultation with NE. However, throughout the examination of the application and consideration of all iterations of the draft DCO/DML including the sixth draft DCO/DML NE requested a number of additions.

19.145 As the submissions made by NE are identical and relate to a number of requirements in the sixth draft DCO and conditions in the sixth draft DML we deal with the arguments and all instances at this point in our report.

*The applicant's case against amendment to incorporate express consultation with Natural England*

19.146 The applicant does not consider that the outstanding amendments requested by NE are necessary or appropriate.

19.147 The applicant explains in its third response of the 24 September 2012 at para 5.7.5 onwards (REP41) that there has to be a proportionate approach to this matter, guided by those issues where NE has a clear interest.

- 19.148 The applicant does not accept that where NE is not expressly named, then the approving body is somehow discouraged or prevented from exercising its discretion to consult NE. The applicant considers that the approving body has discretion and should be allowed to exercise it in the light of the circumstances.
- 19.149 In relation to consultation on possible variations to an earlier approval where NE is required to be consulted, the applicant considers that in most cases this should be a matter of discretion for the approving body.
- 19.150 The applicant submits that its detailed position on the requests made by NE are set out at para 5.7.12 of its third response of 24 September 2012 (REP41). In summary these responses in relation to the outstanding requests state that NE's interests are fully protected through other means and that consultation or re-consultation should be at the discretion of the approving body.
- 19.151 Overall, the applicant has based its consideration of inclusion on the basis of "*where there is a substantial, direct and clear interest of a body such as Natural England in relation to a particular approval, and it is the planning authority or MMO's normal practice to carry out such consultation, then there is no harm in such consultation being on the face of the DCO/DML.*" (para 5.7.6 of the applicant's third response of 24 September 2012) (REP41).
- 19.152 The applicant also stated (para 5.7.7 of the applicant's third response of 24 September 2012) (REP41) that "*there has to be some limit to this approach, otherwise every potential consultee could be listed for every approval.*" In relation to variations to approvals the applicant is particularly concerned that this should be "*for the decision-maker to reach a view in the light of the variation sought, and the issues it gives rise to, whether consultation with Natural England is required.*"
- Natural England's case for amendment to incorporate express consultation with Natural England*
- 19.153 NE sets out at para 13 to 17 of the first DCO summary submission (HE19) and 15 to 22 of the second DCO summary submission (HE71) a request that consultation with NE which would normally occur in relation to various approvals or changes under the terms of the DCO and DML, be noted on the face of the documentation.
- 19.154 Those provisions where NE has continued to request (submission of 26 November 2012 set out at paragraph 8) (REP65) this change that are still rejected by the applicant<sup>46</sup> are as follows:

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<sup>46</sup> It should be noted that since Natural England's submission of 26 November 2012 the applicant has incorporated the requested reference to Natural England in the equivalent to requirement 31(2) (now requirement 32) and condition 9(a)

## Schedule 1 Requirements

18 Stages of authorised development onshore

22 Implementation and maintenance of landscaping

33 Restoration of land used temporarily for construction

## Schedule 6 Conditions

7(4) Foundation drilling 'works'

12 Seasonal restrictions

15(3) Pre-construction monitoring

16(4) Construction monitoring

17(3) Post construction surveys

19.155 NE accepted that it would routinely be consulted by the relevant approving body and that SCDC had confirmed it would routinely consult NE. However, specific reference to that consultation in the requested provisions would bring them in line with others in the DCO and DML which already specifically refer to approvals being granted in consultation with other bodies.

19.156 NE confirmed that these amendments are not being sought because of any distrust of any approving authority. Instead, NE is concerned that, given the principles that apply to the interpretation of statutory instruments, like the DCO, if consultation with a particular body is specifically referred to in one provision, the absence of a specific reference to consultation with a body in another provision would suggest that such consultation is not required.

19.157 In the light of this concern regarding the interpretation of drafting, if the references to consultation with NE as sought are not accepted in their entirety, NE is of the view that all references to consultation with bodies who would normally be consulted in the areas referred to should be removed so as to ensure consistency in drafting and negate the concerns raised.

*Other IPs case for amendment to incorporate express consultation with Natural England*

19.158 JNCC requested that where NE has requested inclusion an appropriate reference is also made to JNCC.

19.159 Both SCDC and the MMO confirmed that they had no objection to the inclusion of these express references to consult NE.



19.160 Both SCDC and the MMO confirmed that they could use their discretion to consult in the absence of any prescribed requirement or condition.

*Our conclusions and recommendations regarding express consultation with NE*

19.161 The applicant has already confirmed that *"where there is a substantial, direct and clear interest of a body such as Natural England in relation to a particular approval, and it is the planning authority or MMO's normal practice to carry out such consultation, then there is no harm in such consultation being on the face of the DCO/DML."*

19.162 NE has consistently made strong representations that it should be expressly referenced in a number of additional requirements and conditions as set out above.

19.163 Both SCDC and the MMO have confirmed that they do not object to the inclusion of the requested additional references to NE.

19.164 Both SCDC and the MMO have confirmed that it would be their normal practice to consult NE in the areas identified.

19.165 On the basis that there is a clear interest expressed by NE and it is the normal practice of the approving body to consult NE on the matters identified, we recommend that it would be more consistent with the applicant's stated test already applied to include the additional express references requested by NE except for requirements 18 and 33. In addition, to maintain consistency, JNCC has also been included in the amendments made to the recommended draft DML.

19.166 In relation to the inclusion of NE in requirement 33 we have considered the submission by the applicant that this requirement does not expressly relate to landscaping, and that reptile mitigation is being dealt with separately. We have come to the view that as expressed this may involve restoration of the anchor area, temporary beach access, temporary access road and landfall cable working area (onshore general arrangement plan drawing number 2.7 Rev40) (REP158) and could still be relevant to NE's interests, but that this particular matter can be more appropriately dealt with through the discretion of the local planning authority.

19.167 In making this recommendation we have had regard to both the applicant's and NE's submissions on precedent and proportionality, but believe that in the context of all submissions made in this particular case that this is the most proportionate response.

### **Requirement 15**

19.168 This requirement relates to the lighting to be provided in accordance with the requirements of the Air Navigation Order 2009 or as otherwise directed by the Civil Aviation Authority.

#### *The applicant's case in support of requirement 15*

19.169 The applicant in the updated version of the Explanatory Memorandum set out at para 8.61 (HE54) that the requirement in the sixth draft DCO is a standard provision from the previous Electricity Act consents for offshore wind farms including the existing Greater Gabbard Wind Farm.

#### *The Ministry of Defence representations on requirement 15*

19.170 The Ministry of Defence first made a representation in relation to requirement 15 in its submission of 16 November 2012 (REP64). This representation confirmed that there was no objection to the proposal but that in the interests of air safety a request was made concerning aviation lighting.

#### *Our conclusions and recommendations in relation to requirement 15*

19.171 We have had regard to the late stage in the examination when the submission of the aviation lighting request by the Ministry of Defence was made and therefore the difficulty for the applicant in understanding or responding in detail to the matters raised.

19.172 As the submission by the Ministry of Defence relates to aviation safety it is important that this is fully dealt with in any agreed scheme to be implemented. Therefore we recommend that the Ministry of Defence is included as a consultee in requirement 15 and that an additional notification is provided to inform the Ministry of Defence of the parameters and timing of the proposals to be implemented. These amendments are recommended in the interests of aviation safety.

### **Requirement 23**

19.173 This requirement provides that temporary and permanent fencing and other means of enclosure should be approved and implemented.

19.174 From our consideration of the application and all examination submissions we believe that there has been an omission and that all permanent fencing relating to operational 'works' should be in place before bringing into use of those 'works' and not 'work 6' and 'work 10' alone.

19.175 We therefore recommend a minor amendment to include the sealing end compound and not just in relation to 'work 6' or 'work

10' to ensure consistency in relation to any permanent fencing consented as part of any approved scheme.

**Requirement 26**

- 19.176 This requirement provides that the relevant 'works', site clearance and preliminary earthworks shall not commence until an ecological management plan for the relevant 'works' reflecting the surveys, mitigation and enhancement measures in the Environmental Statement has been approved and then implemented accordingly.
- 19.177 From our consideration of the application and all examination submissions we believe that there has been an omission and that all 'works' that include any landscape works or ecological mitigation works should be referenced expressly and not just rely on the example of 'work 6' and 'work 10'.
- 19.178 We therefore recommend a minor amendment to include 'works 3B, 4, 5, 7, 9A, 9B, 10 and 11' to ensure consistency in relation to any landscape management or ecological management mitigation and enhancement approved scheme.

**Schedule 6 deemed Marine Licence Part 2 conditions**

*Condition 9 pre-construction plans and documentation*

- 19.179 This condition provides for the submission and approval before the commencement of licensed activities of a number of details and management plans. These include a marine mammal mitigation protocol.
- 19.180 From our consideration of the application and all examination submissions we believe that there has been an omission and that although the intention is to deal fully with the provision of a full marine mammal mitigation protocol it does not currently reflect the submissions and commitments made during the examination and assessed as set out in the ES and agreed in the SoCG between the applicant and JNCC/NE (SOCG13). A full explanation and consideration of the marine mammal issues that supports this recommendation is set out at section 5 of this report.

- 19.181 We therefore recommend a minor amendment to include at condition 9(f) greater detail in relation to the timing and extent of the overall programme in relation to marine mammal mitigation. This change should also address some of the more general concerns raised by the MMO in consultation with the Centre for Environment, Fisheries and Aquaculture Science (Cefas)

*Condition 15 pre-construction monitoring and condition 17 post-construction*

- 19.182 This condition specifies the manner in which pre-construction surveys will be dealt with and provides examples of expected

surveys in accordance with the terms of the Environmental Statement.

*The applicant's case for not incorporating reference to the term ecological*

- 19.183 The applicant sets out its position particularly in its submission of 29 November 2012 at para 2.2.2 to 2.2.19 (REP68) which responds to the proposal by the MMO for the inclusion of the term ecological within condition 15 and 17.
- 19.184 The applicant explains that the current condition 15 as set out in the sixth draft DML provides for the monitoring of any benthic habitats that are considered to be of conservation or economic importance.
- 19.185 The applicant affirms that the term ecological is too vague to add any benefit to the condition as currently drafted and identifies that the MMO has not given any explanation of what it considers habitats of ecological importance to be as distinct from those already identified or why they are particularly relevant to this site and the predicted impacts from the scheme as set out in the Environmental Statement (which is accepted as appropriate in the MMO statement of common ground (SOCG4))
- 19.186 The applicant further explains in relation to condition 17 that the precise detail of any monitoring plan will be agreed and approved by the MMO at least 4 months prior to commencement of any relevant construction activity.
- 19.187 The applicant advises that the drafting of this condition is deliberately left at a high level so that the commitment to monitoring is given but that the detail is confirmed at an appropriate stage prior to construction once the final scheme has been designed and settled.

*The MMO's case for inclusion of reference to the term ecological*

- 19.188 The MMO made the request for the inclusion of the term ecological within its submissions of 25 October 2012 (HE69) and 26 November 2012 (REP62).
- 19.189 In making this request the MMO states that the reasons for post construction monitoring are not limited to evaluating primary and secondary impacts of the development environment. Other reasons to include such monitoring comprise: to assess the progress of any changes over time which may be attributable to the 'works'; to determine if licence conditions were appropriate in minimising adverse and unacceptable effects; to establish the nature and rate of re-colonisation of benthic invertebrates; and to determine whether further mitigation options should be considered and implemented.

19.190 The MMO claims that the extension of the monitoring (beyond that required to validate the predictions made in the Environmental Statement) is to identify unexpected outcomes or impacts and, where appropriate, trigger the development of corrective actions.

*Our conclusions and recommendations in relation to the case for and against the inclusion of the term ecological in condition 15 and 17*

19.191 The applicant sets out the position with regard to fulfilling the necessary measures in relation to the agreed terms of the Environmental Statement.

19.192 The MMO in consultation with Cefas is seeking to widen the terms of the two conditions with the general term ecological.

19.193 Taking all submissions on these points and the agreed terms of the Environmental Statement into account, we are not persuaded that the term ecological is well enough defined, supported in evidence either by submissions or the agreed Environmental Statement or proportionate to the scheme and impacts before us and therefore we make no recommendation to change the terms of condition 15 or 17.

19.194 It should be noted that we have recommended a change to condition 9(f) as set out above to reflect the advance notification advised in relation to marine mammals to ensure consistency of approach to programmes and monitoring proposals to be agreed prior to construction taking place.

*Condition 17(2)(c) post construction monitoring*

19.195 This condition specifies the manner in which post construction surveys shall be considered in relation to major storm events.

*The applicant's case for not incorporating reference to any major storm event and use of side scan sonar*

19.196 The applicant sets out its position particularly in its submission of 29 November 2012 at para 2.2.21 to 2.2.25 (REP68) in response to the proposal by the MMO.

19.197 The applicant maintains that provision for surveying after every major storm event would be excessive as such surveys involve a significant financial outlay.

19.198 The applicant sets out that it is content to accept a single storm event survey provision and if that first major storm event reveals no significant or unexpected scour then no further survey should be necessary.

- 19.199 The applicant further sets out that it is not aware that this is a standard licence condition and that the same request is not being made of all current offshore wind farm applications.
- 19.200 In support of its position the applicant identifies that nothing was identified within the Environmental Statement or by any stakeholder that suggests this site is particularly sensitive to scour either under normal or storm conditions.
- 19.201 With regard to timing, the applicant draws attention to this being a legacy from historic licence conditions and is not necessarily practical depending on weather constraints.
- 19.202 With regard to side scan sonar the applicant believes that the use of the wider term high resolution acoustic provides flexibility for the most appropriate survey techniques to be determined at the time.

*The MMO's case for incorporating reference to any major storm event and use of side scan sonar*

- 19.203 The MMO does not believe a requirement to monitor after every major storm event (with a threshold of 1 in 10 year storm event) is excessive and considers that such a survey should be carried out if a severe storm occurs in order to check that scour exceeding the predicted amounts has not resulted.
- 19.204 The MMO stated that the timing of the first post construction survey for similar developments is normally three months after completion of construction but would be content for this to be required within 6 months. The need for the post construction survey is to validate the scour predictions made for the development and trigger management decisions and this is a standard condition.
- 19.205 One of the purposes of requesting side scan sonar on the first post construction survey is to look for any debris on the seabed left behind by the construction process.

*Our conclusions and recommendations in relation to the case for and against reference to any major storm event and use of side scan sonar*

- 19.206 The applicant sets out the position with regard to fulfilling the necessary measures in relation to the agreed terms of the Environmental Statement.
- 19.207 The MMO is seeking to increase the amount of survey work that may be required in relation to each major storm event and by specifying side scan sonar for the first post construction survey.
- 19.208 Taking all submissions on these points into account together with the agreed terms of the Environmental Statement we recommend

that there is a first post construction survey specified and that this should take place within the longer 6 month period.

- 19.209 With regard to the need to survey after each defined major storm event we recommend that the approach of survey following each event is more likely to ensure consistency with the terms of the Environmental Statement and there is no evidence before us that indicates that one storm event data will ensure that no scour effects will arise from future events.
- 19.210 With regard to the types of survey, we acknowledge that the sixth draft DML drafting is expressed in general descriptive terms to allow flexibility and determination of the most suitable survey techniques at the time of the survey and that this approach would allow the use of side scan sonar and other techniques to be determined as appropriate. Therefore we find no need to narrow the terms and specification in the outline of a future survey to be agreed.

#### ***Other Schedule and Article cross referencing***

- 19.211 There are some minor inconsistencies in cross referencing articles to schedules and these have been corrected to reflect the appropriate reference.

#### **Development Consent Obligations**

- 19.212 The draft DCO and DML include articles, schedules, requirements and conditions to define, control and mitigate the proposed development. In addition, the impact of the proposed development would be further mitigated by development consent obligations contained in three agreements made under s106 of the Town and Country Planning Act 1990 (S106-1, S106-2, S106-3).
- 19.213 The s106 undertaking relating to the AONB fund was executed on 23 November 2012 (S106-1). The use of the fund is for works or measures within a 5km radius of work 3B to work 12 up to the high water mark, which contribute to the appearance, setting, amenity, accessibility and enjoyment of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB).
- 19.214 The purpose of and need for this agreement is set out in the submissions of Suffolk Coastal District Council (SCDC) and Suffolk County Council (SCC) and is supported by the submissions within the joint Local Impact Report (LIR) (LIR1). The details relating to the landscape and visual impacts and in particular the importance of the AONB are set out in full at section 9 of this report. No other representations or objections were received in relation to this undertaking.
- 19.215 The s106 undertaking relating to compulsory acquisition compensation was executed on 9 November 2012 (S106-3). The

undertaking relates to security for compulsory acquisition compensation.

19.216 The undertaking is drafted only to take effect once any DCO has been made and come into effect and only if in determining the DCO the Secretary of State:

*"5.2.1 grants powers of compulsory acquisition to the Developer in the DCO; and*

*5.2.2 expressly states in his decision letter granting the DCO that the obligations given by the Developer in sections 3 and 4 of this undertaking are necessary and material consideration for the purposes of the Secretary of State's decision to grant such compulsory purchase powers in the DCO."*

19.217 The security to be given in the undertaking is set out in the interpretation clause in relation to the definition of security and covers a number of forms and a sum of no less than £85,000 which shall not subsist beyond a twenty year period from the date any powers of compulsory acquisition authorised are first exercised.

19.218 The need for certainty with regard to funding has been explored widely within the examination in written submissions and oral submissions at both the DCO and compulsory acquisition hearings, particularly in the context of a private company using a project specific development company vehicle as the acquiring body.

19.219 The undertaking provides security for funding at the applicant's assessed level and in the context of the agreement now reached with each of the landowners and interests. SCDC has agreed that it is willing to administer the undertaking and that it is in an acceptable form. EDF Energy confirmed agreement to the undertaking in the form submitted and no other representations or objections were received in relation to this undertaking.

19.220 The s106 undertaking relating to SPA site based mitigation was executed on 27 November 2012 (s106-2). The overall purpose of the undertaking is to provide a secure, long term source of funding for management measures to be carried out at the SPA. The defined objective of the proposed management measures is the *"mitigation of the predicted impact of the development on the breeding population of lesser black-backed gull at the special protection area"*.

19.221 The level of need and certainty with regard to mitigation measures in relation to the SPA and lesser black-backed gull population has been explored widely within the examination in written submissions and oral submissions at both the DCO and biodiversity hearings.



- 19.222 The terms and extent of the undertaking have been discussed in detail with NE and SCDC and have been agreed by both of these parties, although NE does not agree with the applicant's overall approach to project and SPA site based mitigation and the mortality impact to be addressed.
- 19.223 The full submissions and case in relation to the lesser black-backed gull and SPA including project and SPA mitigation are set out at section 5 of this report.
- 19.224 The only outstanding substantive objections to the engrossed undertaking are by the RSPB which sets out its case in respect of the SPA mitigation measures in its submission of 26 November 2012 (REP66).
- 19.225 The RSPB in its submission of 29 November 2012 (REP72) notes that there have been a number of revisions to the undertaking in its final form, but considers that its submissions and concerns still remain applicable.
- 19.226 In support of the RSPB's previous comments on the ability of the applicant and NE to secure the measures set out in the undertaking, it is the RSPB's understanding that no agreement has been reached with the National Trust over the implementation of any measures arising from the undertaking.
- 19.227 In response to this last point the applicant's submission of 29 November 2012, para 2.1.47 to 2.1.49 (REP68) sets out that in various discussions that have taken place between the applicant and the National Trust there has never been any suggestion that access to National Trust's land to carry out management measures agreed with NE would be an issue.
- 19.228 No representations have been received from NE or the National Trust advising that the undertaking benefits would not be capable of implementation.

### **Conclusion**

- 19.229 Subject to the modifications proposed above and as set out in Appendix F, we consider the recommended draft DCO (Appendix F) to be acceptable having regard to all matters forming part of the application, the development sought and put before us at examination.
- 19.230 We have also given careful consideration to the measures contained within and funding to be secured by the three development consent obligations under section 106 and consider that these would provide security and substantial mitigation for the adverse effects of the proposed development.
- 19.231 In considering the amount of mitigation secured we have had regard to the uncertainty raised about guaranteed access to the

land at the SPA. In the absence of submissions from the National Trust objecting to this undertaking we take some comfort from the applicant's submissions about discussions that have taken place. We also have regard to the submission by the RSPB that no confirmed or agreed access for the works to be funded through the undertaking has been secured; and therefore although beneficial if secured we have not relied on the SPA mitigation measures alone as set out in section 5 of this report.

19.232 We therefore conclude that the DCO should be made as recommended in Appendix F.

## **20 OVERALL CONCLUSIONS AND RECOMMENDATIONS**

### **Overall Conclusion**

- 20.1 In coming to our overall conclusions, we have had regard to the matters listed in s104(2) of the PA 2008.
- 20.2 We conclude for the reasons set out above that the proposals have had regard to:
- marine policy documents;
  - the joint Local Impact Report (LIR) submitted, in accordance with the timetable set, by Suffolk Coastal District Council (SCDC) and Suffolk County Council (SCC) (the Councils); and
  - all matters prescribed in relation to an offshore generating station and overhead electricity line.
- 20.3 We conclude for the reasons set out above that the proposals would be in accordance with National Policy Statements (NPSs) EN-1, EN-3 and EN-5 and that there is no sustained conflict or interference with matters set out in EN-6.
- 20.4 Section 104(3) of the PA 2008 requires that the application must be decided in accordance with any relevant NPS unless one or more of the exceptions in s104(4) to (8) applies.
- 20.5 We have considered the application against the test set by s104(7) of the PA 2008 and conclude, for the reasons set out and referenced in this report, that the adverse impacts of the proposed development would not outweigh its benefits.
- 20.6 In consideration of the other exceptions referred to in s104, we find no reason on the basis of the matters before us to believe that deciding the application in accordance with the relevant NPSs would either:
- lead to the United Kingdom being in breach of its international obligations;
  - lead to the Secretary of State being in breach of any duty imposed on the Secretary of State by or under any enactment; or
  - be otherwise unlawful by virtue of any enactment.
- 20.7 We have further considered the effect the proposals would have on all potentially affected European sites and protected species.
- 20.8 The Habitats Regulations Assessment (HRA) is a matter for the Secretary of State as decision-maker and therefore competent authority for the proposals.
- 20.9 We concluded that the only European site for which there is a likely significant effect is the Alde-Ore Estuary SPA and Ramsar site. This point is agreed by other IPs, except for the RSPB.

- 20.10 We also conclude that the information required for the Secretary of State to undertake appropriate assessment has been made available through the examination. This latter point is agreed in the SoCG between applicant and NE (SOCG6), but not agreed by the RSPB.
- 20.11 There is no overall agreement with NE and the MMO on the method and level of mitigation required. There is however agreement that subject to determination by the Secretary of State on the level and combination of mitigation measures to be provided and mechanisms for their delivery and control, this is a scheme that is capable of mitigation and that subject to appropriate requirements and undertakings the integrity of none of the sites would be adversely affected.
- 20.12 It should be noted that the RSPB maintains its representations that additional popularity viability analysis (PVA) modelling is required once the level and means of mitigation has been determined before any conclusion on integrity can be securely reached.
- 20.13 We have recommended a level of mitigation that takes a dual and precautionary approach and we recognise that in undertaking the appropriate assessment the Secretary of State may wish to consider further consultation with the Statutory Nature Conservation Bodies (SNCBs) and nature conservation interest organisations on these specific measures or any other measures the Secretary of State considers necessary.
- 20.14 Overall, we consider that subject to the requirements and mitigation steps we have recommended; a finding of maintenance of integrity, can be made when considered on a proportionate basis, and on the evidence reasonably available.

### **Recommendation**

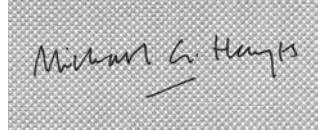
- 20.15 In consideration of our conclusions and recommendation on the tests set out in s104 PA 2008 all relevant and important matters and the merits of the case for the development proposed and the compulsory acquisition of land and rights, we recommend that an Order granting development consent should be made in the form annexed to this report at Appendix F.
- 20.16 In reaching our conclusion and recommendation that development consent should be granted and compulsory acquisition confirmed, we have taken into account all other matters raised in the representations made during the examination. In considering these matters we found no relevant matters of such importance that they would individually or collectively lead us to a different recommendation to that set out above.



Jan Bessell



Annie Coombs



Michael Hayes

## APPENDIX A – EVENTS IN THE EXAMINATION

The table below lists the main events occurring during the examination and the main procedural decisions taken by the ExA.

<b>Date</b>	<b>Examination Event</b>
29 May 2012	Preliminary Meeting and start of the examination
8 June 2012	<p>Notification by the ExA of procedural decision under Rule 8(EPR) following the preliminary meeting. Including Issue of:</p> <ul style="list-style-type: none"> <li>- Confirmation of the examination timetable</li> <li>- First written questions</li> <li>- First request for Statements of Common Ground</li> </ul> <p>Deadline, proposed and confirmed at the preliminary meeting, for receipt of:</p> <ul style="list-style-type: none"> <li>- Submission by applicant of any documents relating to the applicant's proposed corrections and omissions to the application and environmental information</li> <li>- Submission by any other party of corrections and omissions in relation to a relevant representation or an initial submission about the application</li> </ul>
14 June 2012	Issue of note of Preliminary Meeting
15 June 2012	Deadline for receipt of Statutory Parties and persons in certain categories with interests in land, written request to the ExA to become an interested party (IP)
20 June 2012	Issue of confirmation of IP status to any Statutory Party who has registered to be considered as an IP by the set deadline
16 July 2012	<p>Deadline for receipt of:</p> <ul style="list-style-type: none"> <li>- Comments on relevant representations (RRs)</li> <li>- Any summaries of RRs exceeding 1500 words</li> <li>- Written representations (WRs) by all Interested Parties</li> <li>- Any summaries of WRs exceeding 1500 words</li> </ul>

	<ul style="list-style-type: none"> <li>- Responses to ExA's first written questions</li> <li>- First requested Statement of Common Ground (SOCG)</li> <li>- Notification of wish to make oral representations at the first Issue Specific (IS) hearing</li> <li>- Notification of wish to attend site inspection and any representations relating to proposed locations to visit/view at or near the site and in the surrounding area.</li> <li>- Local Impact Report (LIR) by all local authorities</li> </ul>
19 July 2012	Letter issued by the ExA notifying the applicant that the ExA will be exercising its discretion to accept the late representations submitted for the 16 July 2012 deadline.
30 July 2012	Final notification by ExA of date time and place for: <ul style="list-style-type: none"> <li>- The first IS hearing relating to the draft development consent order, requirements, s106 undertaking and related local impact report matters</li> <li>- Accompanied site Inspection</li> </ul>
6 August 2012	Deadline for receipt of: <ul style="list-style-type: none"> <li>- Comments on WRs and responses to comments on RRs</li> <li>- Comments on LIRs</li> <li>- Comments on responses to ExA's first written questions</li> </ul>
22 August 2012	Notification of details and further information relating to the Accompanied Site Inspection to be held on 29 August 2012
29 August 2012	Accompanied site inspection of the onshore elements of the application site at Sizewell, Suffolk, and the surrounding area. Commencing at 10am.
30 August 2012	First IS Hearing on DCO requirements, Marine Licence, s106 Undertaking and related LIR matters. Commencing at 10am, held at IP-City Centre, Ipswich
3 September	Issue of:

2012	<ul style="list-style-type: none"> <li>- ExA's second written questions</li> <li>- Second request for SOCG</li> </ul> <p>Deadline for receipt of:</p> <ul style="list-style-type: none"> <li>- Any written summary of the oral case put at the first session of the specific issue hearing on DCO requirements, s106 undertaking and related LIR matters and any documents requested and resulting drafting amendments</li> <li>- Notification of wish to be heard at an open floor (OF)hearing by IPs</li> <li>- Notification of wish to be heard at a compulsory acquisition (CA) hearing by affected persons</li> <li>- Notification of wish to make oral representations on the specific issue or issues being examined at the IS hearing, relating to Biodiversity, Biological Environment &amp; Ecology, by IPs</li> <li>- Notification of wish to make oral representations on the specific issue or issues being examined at the second IS hearing, relating to the DCO, requirements, s106 undertaking and related LIR matters, by IPs</li> <li>- Notification of wish to make oral representations at any other hearing, (in the event that the ExA decides during the progress of the examination that they are needed) by IPs</li> </ul>
7 September 2012	Notification of the ExA's first request for further information and written comments to be submitted to the examination under Rule 17(EPR)
14 September 2012	<p>Final notification by ExA of date time and place for:</p> <ul style="list-style-type: none"> <li>- OF hearings</li> <li>- CA hearings</li> <li>- IS hearing relating to Biodiversity, Biological Environment and Ecology</li> <li>- The second IS hearing relating to the draft DCO, requirements, s106 undertaking and related LIR matters</li> </ul>



24 September 2012	<p>Deadline for receipt of:</p> <ul style="list-style-type: none"> <li>- Responses to ExA's second written questions</li> <li>- Responses to the first request for comments made under Rule 17(EPR)</li> <li>- Second requested SOCG</li> </ul>
8 October 2012	<p>Deadline for receipt of:</p> <ul style="list-style-type: none"> <li>- Comments on responses to ExA's second written questions</li> <li>- Comments on responses to the first request under Rule 17(EPR)</li> <li>- Any final SOCG</li> </ul>
17 October 2012	<p>OF Hearing. Commencing at 9.30am, at the White Lion Hotel, Aldeburgh.</p> <p>IS Hearing on Biodiversity, Biological Environment and Ecology. Commencing at 11am, at the White Lion Hotel, Aldeburgh.</p>
18 October 2012	<p>IS Hearing on Biodiversity, Biological Environment and Ecology (continued). Commencing at 9.30am, at Ipswich Town Hall.</p> <p>Issue of ExA's written questions in advance of session 2.</p>
19 October 2012	<p>Second IS Hearing relating to the draft DCO including the draft marine licence (DML) requirements, s106 undertaking and related LIR matters. Commencing at 9.30am, at Ipswich Town Hall.</p>
22 & 23 October 2012	<p>CA Hearing. Commencing at 9.30am, at IP-City Centre, Ipswich.</p>
24 October 2012	<p>IS Hearing relating to offshore matters. Commencing at 2pm, at IP-City Centre, Ipswich.</p>
29 October 2012	<p>Deadline for receipt of:</p> <ul style="list-style-type: none"> <li>- Any written summary of the case put orally at the CA hearing</li> <li>- Any written summary of the case put orally at any IS hearing on Biodiversity, Biological Environment &amp; Ecology held</li> </ul>

	<ul style="list-style-type: none"> <li>- Any written summary of the case put orally at the OF hearings held</li> <li>- Any written summary of the oral case put at the second session of the IS hearing on DCO, requirements, s106 undertaking and related LIR matters</li> <li>- Any proposed amendments to the draft DCO, requirements and s106 undertakings</li> </ul>
5 November 2012	Notification of the ExA's second request for further information and written comments to be submitted to the examination under Rule 17(EPR)
26 November 2012	<p>Deadline for receipt of responses to the ExA's second request under Rule 17(EPR), including:</p> <ul style="list-style-type: none"> <li>- Final submissions and representation in response to the proposed draft DCO/DML, table of representations and s106 undertakings;</li> <li>- Consultation response to the Report on the implications for European Sites (RIES)</li> <li>- Final submission of engrossed s106 undertakings to be submitted;</li> <li>- Responses to additional questions</li> </ul>
27 November 2012	Notification of a the ExA's third request for written comments to be submitted to the examination under Rule 17.
29 November 2012	<p>Deadline for receipt of responses to the ExA's third request under Rule 17(EPR). To be submitted by 13:00.</p> <p>Close of examination at 12 midnight</p>
30 November 2012	Letter issued under s99 of the PA2008 to confirm the close of the examination

### **S127 Application Timetable**

<b>Date</b>	<b>Examination Event</b>
1 June 2012	Deadline for confirmation from applicant and affected statutory undertakers of procedure to be followed in s127 (PA2008) process and deadline for receipt of any

	comments on and/or any proposed amendments to the draft examination timetable
8 June 2012	Notification of procedure to be adopted and timetable under s127 of the PA2008 regarding compulsory acquisition of, and of rights over, statutory undertakers' land.
16 July 2012	Deadline for receipt and exchange of full written statement of case from each party in regard to the application made under s127 of the PA2008.
24 August 2012	Deadline for receipt and exchange of any written response to the full written statement of case submitted under s127 of the PA2008
7 September	Final notification of the date, time and place for any s127 hearing
23 October 2012	Notification by the applicant of their formal withdrawal of the s127 application

**APPENDIX B – LIST OF THOSE WHO ATTENDED THE PRELIMINARY MEETING, ACCOMPANIED ONSHORE SITE INSPECTION AND HEARINGS**

**Preliminary Meeting  
29 May 2012**

<b>NAME</b>	<b>ORGANISATION</b>
Jan Bessell	Lead member of the panel
Annie Coombs	Member of the panel
Michael Hayes	Member of the panel
Jessica Potter	The Planning Inspectorate
Richard Price	The Planning Inspectorate
Katherine Chapman	The Planning Inspectorate
Emre Williams	The Planning Inspectorate
Julian Boswall	Burges Salmon for Galloper Wind Farm Ltd
Laura Fuller	Burges Salmon for Galloper Wind Farm Ltd
Steve Bellew	GoBe for Galloper Wind Farm Ltd
Rob Gully	Galloper Wind Farm Ltd
Chris Harris	Galloper Wind Farm Ltd
Kate Harvey	Galloper Wind Farm Ltd
Colin McAllister	Galloper Wind Farm Ltd
Francesca Feather	Galloper Wind Farm Ltd
Martin Davies	National Grid with Galloper Wind Farm Ltd
Peter Simoyi	Alstom Grid UK for Galloper Wind Farm Ltd
Dr T C Rogers	Interested Party
Maria Toone	Interested Party
Martin Freeman	Interested Party
Stuart Carruthers	Royal Yachting Association
Helen Thompson	East Anglia Offshore Ltd
Chris Collins	East Anglia Offshore Ltd
Simone Bullion	Suffolk Wildlife Trust
James Meyer	Suffolk Wildlife Trust
Holly Niner	Joint Nature Conservation Committee
Emma Harling-Phillips	Landmark Chambers for Natural England
Richard Broadbent	Natural England
Sam Stewart	Natural England
Bob Chamberlain	Suffolk Coastal District Council
John Pitchford	Suffolk County Council
John Rayner	Leiston-cum-Sizewell Town Council
Mr M Viera	Nord-Pas de Calais/Picardie Fisheries Committee
Willem (Pim) Visser	VisNed (Dutch Demersal Fisheries Organisation)
Graham Proctor	Maritime and Coastguard Agency
Amy Crossley	RSPB
Anna Heslop	RSPB
Karema Warr	Cefas with Marine Management Organisation
Jonathan Bower	Bond Pearce LLP for EDF Energy
Ben Malfroy	Bond Pearce LLP for EDF Energy
Susan Challenger	EDF Energy

Martin Cubitt	EDF Energy
Nick Lloyd Davies	EDF Energy
Hannah McKinney	EDF Energy

**Accompanied Onshore Site Inspection  
29 August 2012**

<b>NAME</b>	<b>ORGANISATION</b>
Jan Bessell	Lead member of the panel
Annie Coombs	Member of the panel
Michael Hayes	Member of the panel
Jessica Potter	The Planning Inspectorate
Ulrike Hartmann	The Planning Inspectorate
Colin McAllister	Galloper Wind Farm Ltd
John Share	Galloper Wind Farm Ltd
Martin Davies	National Grid with Galloper Wind Farm Ltd
Bob Chamberlain	Suffolk Coastal District Council
Peter Holborn	Suffolk County Council
John Pitchford	Suffolk County Council
Shawn Mills	EDF Energy
Pat Jones	Interested Party
Ron Jones	Interested Party
Pat Hoghan	Non-IP

**First Issue Specific Hearing relating to the draft Development Consent Order (DCO) including draft Deemed Marine Licence (DML), requirements, s106 undertaking and related Local Impact Report matters  
30 August 2012**

<b>NAME</b>	<b>ORGANISATION</b>
Jan Bessell	Lead member of the panel
Annie Coombs	Member of the panel
Michael Hayes	Member of the panel
Jessica Potter	The Planning Inspectorate
Ulrike Hartmann	The Planning Inspectorate
Michael Baker	The Planning Inspectorate
Ava Wood	The Planning Inspectorate
Julian Boswall	Burges Salmon for Galloper Wind Farm Ltd
Rob Gully	Galloper Wind Farm Ltd
Colin McAllister	Galloper Wind Farm Ltd
Peter Gaches	Galloper Wind Farm Ltd
Francesca Feather	Galloper Wind Farm Ltd
Fiona Barker	Galloper Wind Farm Ltd
Martin Davies	National Grid with Galloper Wind Farm Ltd
Jonathan Bower	Bond Pearce LLP for EDF Energy
Ben Malfroy	Bond Pearce LLP for EDF Energy
Susan Challenger	EDF Energy
Colin Tucker	EDF Energy
John Taylor	EDF Energy
Martin Cubitt	EDF Energy
Graham Infern	EDF Energy

Bob Chamberlain	Suffolk Coastal District Council
John Pitchford	Suffolk County Council
Peter Holborn	Suffolk County Council
Wendy Hague	Cambridgeshire County Council
Andrew Hunter	The Environment Agency
Alan Gibson	Marine Management Organisation
Karema Warr	Cefas with Marine Management Organisation
Holly Niner	Joint Nature Conservation Committee
Finlay Bennett	Joint Nature Conservation Committee
Richard Broadbent	Natural England
Sam Stewart	Natural England
Emma Harling-Phillips	Landmark Chambers for Natural England
Stuart Curry	Crown Estate
Helen Chappell	English Heritage

**Open-floor Hearing  
17 October 2012 (am)**

<b>NAME</b>	<b>ORGANISATION</b>
Jan Bessell	Lead member of the panel
Annie Coombs	Member of the panel
Michael Hayes	Member of the panel
Jessica Potter	The Planning Inspectorate
Richard Price	The Planning Inspectorate
John Pingstone	The Planning Inspectorate
Julian Boswall	Burges Salmon for Galloper Wind Farm Ltd
Rob Gully	Galloper Wind Farm Ltd
Tim Norman	Galloper Wind Farm Ltd
Jon Allen	Royal Haskoning for Galloper Wind Farm Ltd
Rafe Dewar	RPS for Galloper Wind Farm Ltd
Peter Gaches	Galloper Wind Farm Ltd
Beth Mackey	Galloper Wind Farm Ltd
Stephen Appleby	Galloper Wind Farm Ltd
Chris Palmer	Burges Salmon for Galloper Wind Farm Ltd
Colin McAllister	Galloper Wind Farm Ltd
Steve Start	GoBe for Galloper Wind Farm Ltd
Martin Davies	National Grid with Galloper Wind Farm Ltd
Stuart Curry	Crown Estate
Peter Holborn	Suffolk County Council
Holly Niner	Joint Nature Conservation Committee
Alan Gibson	Marine Management Organisation
Greg Tomlinson	Marine Management Organisation
Karema Warr	Cefas with Marine Management Organisation
Dr. T C Rogers	Interested Party
Mandy Gloyer	East Anglia Offshore Ltd
Robert Day	A J Woods Engineering (Non-IP)
Tony Woods	A J Woods Engineering (Non-IP)

**Issue Specific Hearing on Biodiversity, Biological Environment and Ecology  
Day 1 - 17 October 2012 (pm)**

<b>NAME</b>	<b>ORGANISATION</b>
Jan Bessell	Lead member of the panel
Annie Coombs	Member of the panel
Michael Hayes	Member of the panel
Jessica Potter	The Planning Inspectorate
Richard Price	The Planning Inspectorate
John Pingstone	The Planning Inspectorate
Julian Boswall	Burges Salmon for Galloper Wind Farm Ltd
Rob Gully	Galloper Wind Farm Ltd
Tim Norman	Galloper Wind Farm Ltd
Jon Allen	Royal Haskoning for Galloper Wind Farm Ltd
Rafe Dewar	RPS for Galloper Wind Farm Ltd
Peter Gaches	Galloper Wind Farm Ltd
Beth Mackey	Galloper Wind Farm Ltd
Stephen Appleby	Galloper Wind Farm Ltd
Chris Palmer	Burges Salmon for Galloper Wind Farm Ltd
Colin McAllister	Galloper Wind Farm Ltd
Steve Start	GoBe for Galloper Wind Farm Ltd
Martin Davies	National Grid with Galloper Wind Farm Ltd
Rachel Saunders	Galloper Wind Farm Ltd
Tracy Simpson	Galloper Wind Farm Ltd
Eleanor Oldershaw	EDF Energy
Graham Hinton	EDF Energy
Richard Broadbent	Natural England
Emma Harling-Phillips	Landmark Chambers for Natural England
Richard Caldow	Natural England
Roger Covey	Natural England
Emma Hay	Natural England
Sam Stewart	Natural England
Holly Niner	Joint Nature Conservation Committee
Alan Gibson	Marine Management Organisation
Greg Tomlinson	Marine Management Organisation
Karema Warr	Cefas with Marine Management Organisation
Bob Chamberlain	Suffolk Coastal District Council
Peter Holborn	Suffolk County Council
Mandy Gloyer	East Anglia Offshore Ltd
Marcus Cross	East Anglia Offshore Ltd
Stuart Curry	Crown Estate
James Meyer	Suffolk Wildlife Trust
Amanda King	Department of Energy and Climate Change (Non-IP)
Paul Reynolds	Renewable UK (Non-IP)

**Issue Specific Hearing on Biodiversity, Biological Environment and Ecology**  
**Day 2 – 18 October 2012**

<b>NAME</b>	<b>ORGANISATION</b>
Jan Bessell	Lead member of the panel
Annie Coombs	Member of the panel
Michael Hayes	Member of the panel
Jessica Potter	The Planning Inspectorate

Richard Price	The Planning Inspectorate
John Pingstone	The Planning Inspectorate
Julian Boswall	Burges Salmon for Galloper Wind Farm Ltd
Rob Gully	Galloper Wind Farm Ltd
Tim Norman	Galloper Wind Farm Ltd
Rafe Dewar	RPS for Galloper Wind Farm Ltd
Peter Gaches	Galloper Wind Farm Ltd
Chris Palmer	Burges Salmon for Galloper Wind Farm Ltd
Colin McAllister	Galloper Wind Farm Ltd
Simm Zisman	RPS for Galloper Wind Farm Ltd
Richard Broadbent	Natural England
Emma Harling-Phillips	Landmark Chambers for Natural England
Richard Caldow	Natural England
Roger Covey	Natural England
Emma Hay	Natural England
Sam Stewart	Natural England
Claire Ludgate	Natural England
Holly Niner	Joint Nature Conservation Committee
Alan Gibson	Marine Management Organisation
Greg Tomlinson	Marine Management Organisation
Bob Chamberlain	Suffolk Coastal District Council
Sue Hooton	Suffolk County Council
Stuart Curry	Crown Estate
Anne Westwood	Crown Estate
Toby Gethin	Crown Estate
Mandy Gloyer	East Anglia Offshore Wind
Marcus Cross	East Anglia Offshore Wind
Amanda King	Department of Energy and Climate Change (Non-IP)
Gero Vella	Celtic Array (Non-IP)
Philip Watkins	Eastern Edge (Non-IP)

**Second Issue Specific Hearing relating to the draft DCO including draft DML, requirements, s106 undertaking and related Local Impact Report matters  
19 October 2012**

<b>NAME</b>	<b>ORGANISATION</b>
Jan Bessell	Lead member of the panel
Annie Coombs	Member of the panel
Michael Hayes	Member of the panel
Jessica Potter	The Planning Inspectorate
Richard Price	The Planning Inspectorate
John Pingstone	The Planning Inspectorate
Katherine Chapman	The Planning Inspectorate
Julian Boswall	Burges Salmon for Galloper Wind Farm Ltd
Rob Gully	Galloper Wind Farm Ltd
Peter Gaches	Galloper Wind Farm Ltd
Chris Palmer	Burges Salmon for Galloper Wind Farm Ltd
Colin McAllister	Galloper Wind Farm Ltd
Graham Hopkins	Galloper Wind Farm Ltd
Stephen Appleby	Galloper Wind Farm Ltd



Sean Leake	GoBe for Galloper Wind Farm Ltd
Michelle Laylor	Eversheds for Galloper Wind Farm Ltd
William Wheeler	LDA Design for Galloper Wind Farm Ltd
Martin Davies	National Grid with Galloper Wind Farm Ltd
Jonathan Bower	Bond Pearce LLP for EDF Energy
Eleanor Oldershaw	EDF Energy
Susan Challenger	EDF Energy
Martin Cubitt	EDF Energy
Graham Hinton	EDF Energy
Richard Broadbent	Natural England
Emma Harling-Phillips	Landmark Chambers for Natural England
Roger Covey	Natural England
Sam Stewart	Natural England
Alan Gibson	Marine Management Organisation
Greg Tomlinson	Marine Management Organisation
Karema Warr	Cefas with Marine Management Organisation
Bob Chamberlain	Suffolk Coastal District Council
John Pitchford	Suffolk County Council
Julia Bolton	East Anglia Offshore Wind

**Compulsory Acquisition Hearing  
22 October 2012**

<b>NAME</b>	<b>ORGANISATION</b>
Jan Bessell	Lead member of the panel
Annie Coombs	Member of the panel
Michael Hayes	Member of the panel
Katherine Chapman	The Planning Inspectorate
Patrycja Picnikzka	The Planning Inspectorate
Julian Boswall	Burges Salmon for Galloper Wind Farm Ltd
Chris Palmer	Burges Salmon for Galloper Wind Farm Ltd
Michelle Naylor	Eversheds for Galloper Wind Farm Ltd
Colin McAllister	Galloper Wind Farm Ltd
Alastair Gill	Galloper Wind Farm Ltd
Tomasz Sulawa	Galloper Wind Farm Ltd
James Pereira	Francis Taylor Building for Galloper Wind Farm Ltd
Martin Davies	National Grid for Galloper Wind Farm Ltd
William Wheeler	LDA Design for Galloper Wind Farm Ltd
Jonathan Bower	Bond Pearce LLP for EDF Energy
Michael Humphries QC	Francis Taylor Building for EDF Energy
Jack Connah	Francis Taylor Building for EDF Energy
Chris Collins	East Anglia Offshore Ltd

**Compulsory Acquisition Hearing  
23 October 2012**

<b>NAME</b>	<b>ORGANISATION</b>
Jan Bessell	Examining authority
Annie Coombs	Examining authority
Michael Hayes	Examining authority
Katherine Chapman	The Planning Inspectorate

Patrycja Picnikzka	The Planning Inspectorate
Julian Boswall	Burges Salmon for Galloper Wind Farm Ltd
Chris Palmer	Burges Salmon for Galloper Wind Farm Ltd
Michelle Naylor	Eversheds for Galloper Wind Farm Ltd
Colin McAllister	Galloper Wind Farm Ltd
Rob Gully	Galloper Wind Farm Ltd
James Pereira	Galloper Wind Farm Ltd
Susan Challenger	EDF Energy
Michael Humphries QC	Francis Taylor Building for EDF Energy
Jack Connah	Francis Taylor Building for EDF Energy
Ian Bryant	EDF Energy
Hugh Hutton	EDF Energy
Ben Malfroy	EDF Energy
Peter Halford	BNP Paribas for EDF Energy
Philip Watkins	Eastern Edge Ltd (Non-IP)

**Issue Specific Hearing relating to the proposed Galloper Wind Farm sub-sea cable and relationship of this infrastructure with the proposed Sizewell C proposed outfall and intake for water cooling 24 October 2012**

<b>NAME</b>	<b>ORGANISATION</b>
Jan Bessell	Examining authority
Michael Hayes	Examining authority
Katherine Chapman	The Planning Inspectorate
Patrycja Picnikzka	The Planning Inspectorate
Julian Boswall	Burges Salmon for Galloper Wind Farm Ltd
Chris Palmer	Burges Salmon for Galloper Wind Farm Ltd
Colin McAllister	Galloper Wind Farm Ltd
Rob Gully	Galloper Wind Farm Ltd
Jonathan Bower	EDF Energy
Susan Challenger	EDF Energy
C Taylor	EDF Energy
Bob Chamberlain	Suffolk Coastal District Council

## **APPENDIX C – LIST OF SUBMITTED DOCUMENTS**

### **1. Application Documents**

#### **Application form and Notices**

- APP1 [1.1 Cover Letter to Galloper Wind Farm Application](#)
- APP2 [1.2 Application Form for the Galloper Wind Farm Project](#)
- APP3 [1.3 Copies of Newspaper Notices](#)

#### **Plans and Drawings**

- APP4 [2.1 Rev 3 Order Limits Plan Onshore](#)
- APP5 [2.2 Rev 4 Order Limits Plan Offshore](#)
- APP6 [2.3.a Rev 21 Works Plan Onshore Omitting Works 8](#)
- APP7 [2.3.b Rev 17 Works Plan Onshore Omitting Works 7](#)
- APP8 [2.4 Rev 9 Works Plan Offshore](#)
- APP9 [2.5 Rev 19 Land Plan Onshore Including Crown Land](#)
- APP10 [2.6 Rev 6 Land Plan Offshore Including Crown Land](#)
- APP11 [2.7 Rev 39 General Arrangement Onshore](#)
- APP12 [2.8 Rev 6 Height Restriction Plan](#)
- APP13 [2.9.a Rev 1 Onshore Connection and Transmission Works General Arrangement Omitting Works 8](#)
- APP14 [2.9.b Rev 1 Onshore Connection and Transmission Works General Arrangement Omitting Works 7](#)
- APP15 [2.10 Rev 1 Transmission Compound General Arrangement and elevations](#)
- APP16 [2.11 Rev 1 Galloper Wind Farm Compound Illustrative Layout](#)
- APP17 [2.12 Rev 1 Galloper Wind Farm Compound Illustrative Elevation](#)
- APP18 [2.13 Rev 1 Sealing End Compounds Illustrative Plan and Layout](#)
- APP19 [2.14 Rev 1 Wind Turbine Illustrative 120m Rotor](#)
- APP20 [2.15 Rev 1 Offshore Substation Topside Illustrative Plan](#)
- APP21 [2.16 Rev 1 Offshore Substation Topside Illustrative Elevation](#)
- APP22 [2.17 Rev 1 Met Mast Topside Illustrative Plan and Elevation](#)
- APP23 [2.18 Rev 1 Transition Bay Illustrative Plan and Section](#)
- APP24 [2.19 Rev 1 Connection Works Illustrative Ducted 132kV](#)
- APP25 [2.20 Rev 1 Transmission Works Illustrative 132 400kV Cross Section](#)
- APP26 [2.21 Rev 4 Extinguishment of Rights of Navigation Plan](#)

#### **draft Development Consent Order**

- APP27 [3.1 Draft Development Consent Order \(Including Deemed Marine Licence\)](#)
- APP28 [3.2 Explanatory Memorandum](#)

#### **Compulsory Acquisition**

- APP29 [4.1 Statement of Reasons](#)
- APP30 [4.1.1 Statement of Reasons Schedule 1](#)
- APP31 [4.2 Funding Statement](#)
- APP32 [4.3.1 Book of Reference](#)
- APP33 [4.4 Section 127 Application](#)

#### **Environmental Statement**

- APP34 [5.1 ES Non-Technical Summary](#)
- APP35 [5.2.1 ES Chapter 1 Introduction](#)
- APP36 [5.2.2 ES Chapter 2 Project Need Policy Framework and Guidance](#)
- APP37 [5.2.3 ES Chapter 3 Legislative and Planning Context](#)
- APP38 [5.2.4 ES Chapter 4 EIA Process](#)
- APP39 [5.2.5 ES Chapter 5 Project Details](#)
- APP40 [5.2.6 ES Chapter 6 Site Selection and Alternatives](#)

APP41	<a href="#"><u>5.2.7 ES Chapter 7 Consultation</u></a>
APP42	<a href="#"><u>5.2.8 ES Chapter 8 Nature and Conservation Designations</u></a>
APP43	<a href="#"><u>5.2.9 ES Chapter 9 Physical Environment</u></a>
APP44	<a href="#"><u>5.2.10 ES Chapter 10 Marine and Water Sediment Quality</u></a>
APP45	<a href="#"><u>5.2.11 ES Chapter 11 Ornithology</u></a>
APP46	<a href="#"><u>5.2.12 ES Chapter 12 Marine and Intertidal Ecology</u></a>
APP47	<a href="#"><u>5.2.13 ES Chapter 13 Fish and Shellfish Resource</u></a>
APP48	<a href="#"><u>5.2.14 ES Chapter 14 Marine Mammals</u></a>
APP49	<a href="#"><u>5.2.15 ES Chapter 15 Commercial Fisheries</u></a>
APP50	<a href="#"><u>5.2.16 ES Chapter 16 Shipping and Navigation</u></a>
APP51	<a href="#"><u>5.2.17 ES Chapter 17 Military and Civil Aviation</u></a>
APP52	<a href="#"><u>5.2.18 ES Chapter 18 Other Human Activity</u></a>
APP53	<a href="#"><u>5.2.19 ES Chapter 19 Archaeology</u></a>
APP54	<a href="#"><u>5.2.20 ES Chapter 20 Seascape Landscape and Visual Character</u></a>
APP55	<a href="#"><u>5.2.21 ES Chapter 21 Socioeconomics</u></a>
APP56	<a href="#"><u>5.2.22 ES Chapter 22 Geology Hydrogeology Land Quality and Flood Risk</u></a>
APP57	<a href="#"><u>5.2.23 ES Chapter 23 Terrestrial Ecology</u></a>
APP58	<a href="#"><u>5.2.24 ES Chapter 24 Land Use Tourism and Recreation</u></a>
APP59	<a href="#"><u>5.2.25 ES Chapter 25 Traffic and Transport</u></a>
APP60	<a href="#"><u>5.2.26 ES Chapter 26 Noise</u></a>
APP61	<a href="#"><u>5.2.27 ES Chapter 27 Air Quality</u></a>
APP62	<a href="#"><u>5.2.28 ES Chapter 28 Electric and Magnetic Fields</u></a>
APP63	<a href="#"><u>5.2.29 ES Chapter 29 Inter Relationships</u></a>
APP64	<a href="#"><u>5.2.30 ES Chapter 30 Cumulative Impact Assessment</u></a>
APP65	<a href="#"><u>5.2.31 ES Chapter 31 Transboundary Effects</u></a>
APP66	<a href="#"><u>5.2.32 ES Chapter 32 Conclusions</u></a>
APP67	<a href="#"><u>5.2.33 ES Glossary</u></a>
APP68	<a href="#"><u>5.3.1 ES Annexe Onshore Outline CCOP</u></a>
APP69	<a href="#"><u>5.3.2 ES Annexe Decommissioning Statement</u></a>
APP70	<a href="#"><u>5.4.1 ES Appendices Technical Appendix 1 - Physical Environment</u></a>
APP71	<a href="#"><u>5.4.2 ES Appendices Technical Appendix 2 - Ornithology and Benthic</u></a>
APP72	<a href="#"><u>5.4.3 ES Appendices Technical Appendix 3 - Fish and Shellfish</u></a>
APP73	<a href="#"><u>5.4.4 ES Appendices Technical Appendix 4 - Shipping and Archaeology</u></a>
APP74	<a href="#"><u>5.4.5 ES Appendices Technical Appendix 5 - Landscape and Seascape</u></a>
APP75	<a href="#"><u>5.4.6 ES Appendices Technical Appendix 6 - Geology, Terrestrial Ecology, Trees, Traffic</u></a>

### **Reports, Statements and other documents**

APP76	<a href="#"><u>6.2 Consultation Report</u></a>
APP77	<a href="#"><u>6.2.1 Consultation Report Appendices A to Z</u></a>
APP78	<a href="#"><u>6.2.2 Consultation Report Appendices AA to AV</u></a>
APP79	<a href="#"><u>6.3 Habitat Regulations Report</u></a>
APP80	<a href="#"><u>6.4 Habitat Regulations Report Checklist</u></a>
APP81	<a href="#"><u>6.5 Flood Risk Assessment</u></a>
APP82	<a href="#"><u>6.6 Statement of Engagement</u></a>
APP83	<a href="#"><u>7.1 Grid Connection Statement and Cable Details</u></a>
APP84	<a href="#"><u>7.2 Safety Zone Statement</u></a>
APP85	<a href="#"><u>8.1 Planning Statement</u></a>
APP86	<a href="#"><u>8.2 Design and Access Statement</u></a>
APP87	<a href="#"><u>8.3 Draft Heads of Terms for Section 106 Agreement</u></a>
APP88	<a href="#"><u>8.4 Scoping Opinion</u></a>

## **2. Relevant Representations**

RR1	<a href="#"><u>Royal Yachting Association</u></a>
RR2	<a href="#"><u>Stuart Maggs</u></a>
RR3	<a href="#"><u>Paul Norman</u></a>
RR4	<a href="#"><u>Leiston-cum-Sizewell Town Council</u></a>
RR5	<a href="#"><u>Highways Agency</u></a>
RR6	<a href="#"><u>Dr T C Rogers</u></a>
RR7	<a href="#"><u>Norfolk County Council</u></a>
RR8	<a href="#"><u>Felixstowe Ferry Full Time Fishermen's Association</u></a>
RR9	<a href="#"><u>Broads Authority</u></a>
RR10	<a href="#"><u>Dave Waldron</u></a>
RR11	<a href="#"><u>Roy Sadd</u></a>
RR12	<a href="#"><u>London Array Ltd</u></a>
RR13	<a href="#"><u>Terry Woodrow</u></a>
RR14	<a href="#"><u>VisNed (Dutch Demersal Fisheries Organisation)</u></a>
RR15	<a href="#"><u>Health Protection Agency</u></a>
RR16	<a href="#"><u>Orford and District Inshore Fishermen's Association</u></a>
RR17	<a href="#"><u>Maldon District Council</u></a>
RR18	<a href="#"><u>The Royal Society for the Protection of Birds</u></a>
RR19	<a href="#"><u>English Heritage</u></a>
RR20	<a href="#"><u>Manston Airport</u></a>
RR21	<a href="#"><u>Ministry of Defence</u></a>
RR22	<a href="#"><u>East Anglia Offshore Wind</u></a>
RR23	<a href="#"><u>EDF Energy Plc</u></a>
RR24	<a href="#"><u>Suffolk County Council</u></a>
RR25	<a href="#"><u>Marine Management Organisation</u></a>
RR26	<a href="#"><u>Environment Agency</u></a>
RR27	<a href="#"><u>National Federation of Fishermen's Organisations</u></a>
RR28	<a href="#"><u>National Grid</u></a>
RR29	<a href="#"><u>Maritime and Coastguard Agency</u></a>
RR30	<a href="#"><u>Mr William Pinney</u></a>
RR31	<a href="#"><u>Aldringham-cum-Thorpe Parish Council</u></a>
RR32	<a href="#"><u>Joint Nature Conservation Committee and Natural England</u></a>
RR33	<a href="#"><u>Suffolk Wildlife Trust</u></a>
RR34	<a href="#"><u>Nord-Pas de Calais/Picardie Fisheries Committee</u></a>
RR35	<a href="#"><u>Mr Martin Freeman</u></a>
RR36	<a href="#"><u>Miss Maria Toone</u></a>
RR37	<a href="#"><u>Chamber of Shipping</u></a>

### **3. Procedural Decisions and letters issued by the Examining authority**

PD1	<a href="#"><u>s55 Acceptance Checklist</u></a>
PD2	<a href="#"><u>s55 Acceptance Decision Letter</u></a>
PD3	<a href="#"><u>s58 Certificates of Compliance</u></a>
PD4	<a href="#"><u>Rule 4 and 6 letter with annexes</u></a>
PD5	<a href="#"><u>Rule 6 Cover Letter IP</u></a>
PD6	<a href="#"><u>Rule 6 Cover Letter SP</u></a>
PD7	<a href="#"><u>Rule 6 Cover Letter Tending DC</u></a>
PD8	<a href="#"><u>Rule 8 Cover Letter IP</u></a>
PD9	<a href="#"><u>Rule 8 Cover Letter SP</u></a>
PD10	<a href="#"><u>Rule 8 Cover Letter Tending DC</u></a>
PD11	<a href="#"><u>Rule 8 Letter Final</u></a>
PD12	<a href="#"><u>Examining authority Letter to GWFL accepting late representation</u></a>
PD13	<a href="#"><u>Examining authority Second Questions Final</u></a>

PD14	<a href="#"><u>Examining authority Second Questions Cover Letter</u></a>
PD15	<a href="#"><u>Rule 17 request - 7 September</u></a>
PD16	<a href="#"><u>Rule 17 request - 5 November</u></a>
PD17	<a href="#"><u>Rule 17 request - 27 November</u></a>
PD18	<a href="#"><u>s99 close of examination letter</u></a>

#### **4. Representations and project documents**

##### **Adequacy of Consultation Representations**

ACR1	<a href="#"><u>Great Yarmouth Adq of consultation response</u></a>
ACR2	<a href="#"><u>Ipswich Borough Council Adq of consultation response</u></a>
ACR3	<a href="#"><u>Mid Suffolk Adq of consultation response</u></a>
ACR4	<a href="#"><u>Norfolk County Council Adq of consultation response</u></a>
ACR5	<a href="#"><u>St. Edmundsbury Borough Council Adq of consultation response</u></a>
ACR6	<a href="#"><u>Suffolk County Council Adq of consultation response</u></a>
ACR7	<a href="#"><u>Suffolk Coastal District Council Adq of consultation response</u></a>

##### **Confirmation of Interested Party Status**

CIP1	<a href="#"><u>Confirmation of Status of IP Captain Dodson Trinity House</u></a>
CIP2	<a href="#"><u>Confirmation of Status of IP Mr Proctor MCA</u></a>
CIP3	<a href="#"><u>Confirmation of Status of IP Mr Sharrock HSE</u></a>
CIP4	<a href="#"><u>Confirmation of Status of IP Mr Stewart NE</u></a>
CIP5	<a href="#"><u>Confirmation of Status of IP Crown Estate</u></a>

##### **Responses to 8th June Deadline set at Preliminary Meeting**

REP1	<a href="#"><u>GWFL Clarifications, Corrections and Omissions</u></a>
REP2	<a href="#"><u>GWFL further submission Population Viability Analysis Letter</u></a>
REP3	<a href="#"><u>GWFL further submission Population Viability Analysis Report</u></a>
REP4	<a href="#"><u>Joint Nature Conservation Committee and Natural England Addendum Representations</u></a>
REP5	<a href="#"><u>Joint Nature Conservation Committee and Natural England Letter re. Additional Representation</u></a>
REP6	<a href="#"><u>National Trust letter to the Examining authority</u></a>
REP7	<a href="#"><u>Trinity House letter to the Examining authority</u></a>

##### **Written Representations**

REP8	<a href="#"><u>Aldringham-cum-Thorpe Parish Council</u></a>
REP9	<a href="#"><u>Cambridgeshire County Council</u></a>
REP10	<a href="#"><u>East Anglia Offshore Wind Ltd</u></a>
REP11	<a href="#"><u>EDF (inc. Response to ExA Questions)</u></a>
REP12	<a href="#"><u>Galloper Wind Farm Limited</u></a>
REP13	<a href="#"><u>Health Protection Agency</u></a>
REP14	<a href="#"><u>Maritime and Coastguard Agency</u></a>
REP15	<a href="#"><u>National Federation of Fishermen's Organisations, VisNed, and Nord-Pas de Calais/Picardie Regional Fisheries Committee</u></a>
REP16	<a href="#"><u>National Air Traffic Services Safeguarding</u></a>
REP17	<a href="#"><u>Natural England and Joint Nature Conservation Committee (inc. Response to ExA Questions)</u></a>
REP18	<a href="#"><u>Orford and District Inshore Fishermen's Association</u></a>
REP19	<a href="#"><u>Royal Society for the Protection of Birds</u></a>
REP20	<a href="#"><u>Royal Yachting Association</u></a>
REP21	<a href="#"><u>Suffolk County Council &amp; Suffolk District Council</u></a>
REP22	<a href="#"><u>Suffolk Wildlife Trust</u></a>
REP23	<a href="#"><u>The Chamber of Shipping</u></a>
REP24	<a href="#"><u>Vattenfall</u></a>

REP25 [Late - Natural England and Joint Nature Conservation Committee](#)

**Responses to Panel's First Questions (set via letter of 8 June 2012, deadline of 16 July 2012)**

REP26 [Marine Management Organisation response to 1st Questions](#)

REP27 [Royal Society for the Protection of Birds response to 1st Questions](#)

REP28 [Suffolk County Council and Suffolk Coastal District Council response to 1st Questions](#)

REP29 [Late - GWFL response to 1st Questions](#)

**Responses to comments on First Questions, Written Representations, and Relevant Representations (set via letter of 8 June 2012, deadline of 6 August 2012)**

REP30 [EDF response to comments on 1st Questions](#)

REP31 [GWFL response to comments on 1st Questions](#)

REP32 [National Grid response to comments on 1st Questions](#)

REP33 [Natural England and JNCC response to comments on 1st Questions](#)

REP34 [Royal Society for the Protection of Birds response to comments on 1st Questions](#)

REP35 [Suffolk County Council response to comments on 1st Questions](#)

**Responses to Panel's Second Questions (set on 3 September 2012, deadline of 24th September 2012)**

REP36 [Chamber of Shipping response to 2nd Questions](#)

REP37 [Dr T C Rogers response to 2nd Questions](#)

REP38 [Environment Agency response to 2nd Questions](#)

REP39 [EDF Response to 2nd Questions](#)

REP40 [EDF Response to 2nd Questions](#)

REP41 [GWFL response to 2nd Questions](#)

REP42 [Marine Management Organisation response to 2nd Questions](#)

REP43 [Maritime and Coastguard Agency response to 2nd Questions](#)

REP44 [National Federation of Fishermen's Organisation response to 2nd Questions](#)

REP45 [National Trust response to 2nd Questions](#)

REP46 [Natural England and Joint Nature Conservation Committee response to 2nd Questions](#)

REP47 [Orford and District Inshore Fishermens Association response to 2nd Questions](#)

REP48 [Royal Society for the Protection of Birds response to 2nd Questions](#)

REP49 [Royal Yachting Association response to 2nd Questions](#)

REP50 [Suffolk County Council and Suffolk Coastal District Council response to 2nd Questions](#)

REP51 [Suffolk Wildlife Trust response to 2nd Questions](#)

REP52 [Trinity House response to 2nd Questions](#)

**Comments on responses to the Panel's Second Questions (set on 3 September 2012, deadline of 8 October 2012)**

REP53 [EDF Comments on responses to 2nd Questions](#)

REP54 [GWFL Comments on responses to 2nd Questions](#)

REP55 [Royal Society for the Protection of Birds Comments on responses to 2nd Questions](#)

REP56 [Late - Natural England comments on responses to 2nd questions](#)

**Rule 17 Responses (set on 7 September 2012, deadline of 24 September 2012)**

REP57 [GWFL Response to Rule 17 questions](#)

REP58 [GWFL Response to Rule 17 request Annex A - GGOWF Export Cable Corridor](#)

REP59 [GWFL response to Rule 17 request Annex B - Cable Corridor Nearshore](#)

**Rule 17 Responses (set on 5 November 2012, deadline of 26 November 2012)**

REP60	<a href="#"><u>GWFL response to Rule 17 request</u></a>
REP61	<a href="#"><u>GWFL letter regarding European Protected Species licence for bats</u></a>
REP62	<a href="#"><u>Marine Management Organisation response to Rule 17 request</u></a>
REP63	<a href="#"><u>Maritime and Coastguard Agency response to Rule 17 request</u></a>
REP64	<a href="#"><u>Ministry of Defence response to Rule 17 request</u></a>
REP65	<a href="#"><u>Natural England response to Rule 17 request</u></a>
REP66	<a href="#"><u>Royal Society for the Protection of Birds response to Rule 17 request</u></a>
REP67	<a href="#"><u>Suffolk County Council and Suffolk Coastal District Council response to Rule 17 request</u></a>

**Rule 17 Responses (set on 27 November 2012, deadline of 29 November 2012)**

REP68	<a href="#"><u>GWFL response to Rule 17 request</u></a>
REP69	<a href="#"><u>GWFL letter in relation to RSPB SoCG</u></a>
REP70	<a href="#"><u>Marine Management Organisation response to Rule 17 request</u></a>
REP71	<a href="#"><u>Natural England response to Rule 17 request</u></a>
REP72	<a href="#"><u>Royal Society for the Protection of Birds response to Rule 17 request</u></a>

**Plans Cited in 6th draft DCO (Submitted during the Examination)**

REP73	<a href="#"><u>C2.4-1 Rev4 Offshore Works Plan</u></a>
REP74	<a href="#"><u>C2.4-2 Rev3 Offshore Works Plan</u></a>
REP75	<a href="#"><u>C2.4-3 Rev2 Offshore Works Plan</u></a>
REP76	<a href="#"><u>C2.4-4 Rev2 Offshore Works Plan</u></a>
REP77	<a href="#"><u>C2.4-5 Rev2 Offshore Works Plan</u></a>
REP78	<a href="#"><u>C2.4-6 Rev2 Offshore Works Plan</u></a>
REP79	<a href="#"><u>C2.4-7 Rev2 Offshore Works Plan</u></a>
REP80	<a href="#"><u>C2.4-8 Rev2 Offshore Works Plan</u></a>
REP81	<a href="#"><u>C2.4-9 Rev2 Offshore Works Plan</u></a>
REP82	<a href="#"><u>C2.4-10 Rev2 Offshore Works Plan</u></a>
REP83	<a href="#"><u>C2.4-11 Rev1 Offshore Works Plan</u></a>
REP84	<a href="#"><u>C2.4-12 Rev2 Offshore Works Plan</u></a>
REP85	<a href="#"><u>C2.4-13 Rev2 Offshore Works Plan</u></a>
REP86	<a href="#"><u>C2.4-14 Rev2 Offshore Works Plan</u></a>
REP87	<a href="#"><u>C2.4-15 Rev2 Offshore Works Plan</u></a>
REP88	<a href="#"><u>C2.4-16 Rev2 Offshore Works Plan</u></a>
REP89	<a href="#"><u>C2.4-17 Rev2 Offshore Works Plan</u></a>
REP90	<a href="#"><u>C2.4-18 Rev2 Offshore Works Plan</u></a>
REP91	<a href="#"><u>C2.4-19 Rev2 Offshore Works Plan</u></a>
REP92	<a href="#"><u>C2.4-20 Rev1 Offshore Works Plan</u></a>
REP93	<a href="#"><u>C2.4-21 Rev2 Offshore Works Plan</u></a>
REP94	<a href="#"><u>C2.4-22 Rev2 Offshore Works Plan</u></a>
REP95	<a href="#"><u>C2.4-23 Rev2 Offshore Works Plan</u></a>
REP96	<a href="#"><u>C2.4-24 Rev2 Offshore Works Plan</u></a>
REP97	<a href="#"><u>C2.4-25 Rev2 Offshore Works Plan</u></a>
REP98	<a href="#"><u>C2.4-26 Rev2 Offshore Works Plan</u></a>
REP99	<a href="#"><u>C2.4-27 Rev2 Offshore Works Plan</u></a>
REP100	<a href="#"><u>C2.4-28 Rev2 Offshore Works Plan</u></a>
REP101	<a href="#"><u>C2.4-29 Rev2 Offshore Works Plan</u></a>
REP102	<a href="#"><u>C2.4-30 Rev2 Offshore Works Plan</u></a>
REP103	<a href="#"><u>C2.4-31 Rev2 Offshore Works Plan</u></a>
REP104	<a href="#"><u>C2.4-32 Rev2 Offshore Works Plan</u></a>
REP105	<a href="#"><u>C2.4-33 Rev2 Offshore Works Plan</u></a>
REP106	<a href="#"><u>C2.4-34 Rev2 Offshore Works Plan</u></a>



REP107	<u>C2.4-35 Rev2 Offshore Works Plan</u>
REP108	<u>C2.4-36 Rev2 Offshore Works Plan</u>
REP109	<u>C2.4-37 Rev2 Offshore Works Plan</u>
REP110	<u>C2.4-38 Rev2 Offshore Works Plan</u>
REP111	<u>C2.4-39 Rev2 Offshore Works Plan</u>
REP112	<u>C2.4-40 Rev2 Offshore Works Plan</u>
REP113	<u>C2.4-41 Rev1 Offshore Works Plan</u>
REP114	<u>C2.4-42 Rev1 Offshore Works Plan</u>
REP115	<u>C2.4-43 Rev1 Offshore Works Plan</u>
REP116	<u>C2.4-44 Rev1 Offshore Works Plan</u>
REP117	<u>C2.4-45 Rev1 Offshore Works Plan</u>
REP118	<u>C2.4-46 Rev1 Offshore Works Plan</u>
REP119	<u>C2.4-47 Rev1 Offshore Works Plan</u>
REP120	<u>C2.4-48 Rev1 Offshore Works Plan</u>
REP121	<u>C2.4-49 Rev1 Offshore Works Plan</u>
REP122	<u>C2.4-50 Rev1 Offshore Works Plan</u>
REP123	<u>C2.4-51 Rev1 Offshore Works Plan</u>
REP124	<u>C2.4-52 Rev1 Offshore Works Plan</u>
REP125	<u>C2.4-53 Rev1 Offshore Works Plan</u>
REP126	<u>C2.4-54 Rev1 Offshore Works Plan</u>
REP127	<u>C2.4-55 Rev1 Offshore Works Plan</u>
REP128	<u>C2.4-56 Rev1 Offshore Works Plan</u>
REP129	<u>C2.4-57 Rev1 Offshore Works Plan</u>
REP130	<u>C2.4-58 Rev1 Offshore Works Plan</u>
REP131	<u>C2.4-59 Rev1 Offshore Works Plan</u>
REP132	<u>C2.4-60 Rev1 Offshore Works Plan</u>
REP133	<u>C2.4-61 Rev1 Offshore Works Plan</u>
REP134	<u>C2.4-62 Rev1 Offshore Works Plan</u>
REP135	<u>C2.4-63 Rev1 Offshore Works Plan</u>
REP136	<u>C2.4-64 Rev1 Offshore Works Plan</u>
REP137	<u>C2.4-65 Rev1 Offshore Works Plan</u>
REP138	<u>C2.4-66 Rev1 Offshore Works Plan</u>
REP139	<u>C2.4-67 Rev1 Offshore Works Plan</u>
REP140	<u>C2.4-68 Rev1 Offshore Works Plan</u>
REP141	<u>C2.4-69 Rev1 Offshore Works Plan</u>
REP142	<u>C2.4-70 Rev1 Offshore Works Plan</u>
REP143	<u>C2.4-71 Rev1 Offshore Works Plan</u>
REP144	<u>C2.4-72 Rev1 Offshore Works Plan</u>
REP145	<u>C2.4-73 Rev1 Offshore Works Plan</u>
REP146	<u>C2.4-74 Rev1 Offshore Works Plan</u>
REP147	<u>C2.4-75 Rev1 Offshore Works Plan</u>
REP148	<u>C2.4-76 Rev1 Offshore Works Plan</u>
REP149	<u>C2.4-77 Rev1 Offshore Works Plan</u>
REP150	<u>C2.4-78 Rev1 Offshore Works Plan</u>
REP151	<u>C2.4-79 Rev1 Offshore Works Plan</u>
REP152	<u>GWF 887 R3 Rev 3 - Sizewell B Buffer Zone Plan (BEEMS - MS0359A)</u>
REP153	<u>GWF 888 R3 Rev 3 - Sizewell C Protective Provisions Plan (BEEMS - MS0345)</u>
REP154	<u>GWF 890 R3 Rev 3 - Sizewell B Quality of Cooling Water Intake Plan (BEEMS - MS0357A)</u>
REP155	<u>2.1 Rev 3 (1 of 2) Order Limits Plan</u>
REP156	<u>2.3 Rev 1 Onshore Works Plan</u>
REP157	<u>2.5 Rev 20 (1 of 2) Onshore Land Plan</u>
REP158	<u>2.7 Rev 40 Onshore General Arrangement Plan</u>
REP159	<u>2.9 Rev 1 Onshore Connection and Transmission Works - General Arrangement</u>

Plan  
REP160 2.10 Rev 2 Transmission Compound - General Arrangement and Elevations

**Additional Plans cited in the recommended draft DCO and associated plans**

REP161 C2.2 A Rev 4 Order Limits (2 of 2)  
REP162 C2.4 Rev 2 - Works Plan Offshore Overview  
REP163 C2.4 A Rev 1 - Works Plan Offshore Overview  
REP164 C2.4-55 A Rev 1 - Works Plan Offshore sheet 55  
REP165 C2.4-56 A Rev 1 - Works Plan Offshore sheet 56  
REP166 C2.4-57 A Rev 1 - Works Plan Offshore sheet 57  
REP167 C2.4-58 A Rev 1 - Works Plan Offshore sheet 58  
REP168 C2.4-60 A Rev 1 - Works Plan Offshore sheet 60  
REP169 C2.4-61 A Rev 1 - Works Plan Offshore sheet 61  
REP170 C2.4-63 A Rev 1 - Works Plan Offshore sheet 63  
REP171 C2.4-64 A Rev 1 - Works Plan Offshore sheet 64  
REP172 C2.4-67 A Rev 1 - Works Plan Offshore sheet 67

**draft Development Consent Order**

DCO2 GWFL - DCO - 2nd Draft  
DCO3 GWFL - DCO - 3rd Draft  
DCO4 GWFL - DCO - 4th Draft  
DCO5 GWFL - DCO - 5th Draft  
DCO6 GWFL - DCO - 6th Draft

**draft Development Consent Order comparisons and related documents**

DCO6 Comparison between 1st draft and 2nd draft DCO  
DCO7 Comparison between 1st draft and 3rd draft DCO  
DCO8 Comparison between 1st draft and 4th draft DCO  
DCO9 Comparison between 2nd draft and 3rd draft DCO  
DCO10 Comparison between 4th draft and 3rd Draft DCO  
DCO11 Deltaview Comparison between 5th and 1st draft DCO  
DCO12 Deltaview Comparison between 5th and 4th draft DCO  
DCO13 Deltaview Comparison between 5th and 6th draft DCO  
DCO14 Deltaview Comparison between 6th and 1st draft DCO  
DCO15 Table of Contents on changes Between 4th draft and 5th draft DCO  
DCO16 Draft DCO Comparison to Support Written Summary of Oral Submission at IS hearing 30 Aug 2012  
DCO17 DCO Status Note  
DCO18 Table of Not Accepted Amendments to the DCO  
DCO19 Commentary on agreed changes to DCO  
DCO20 Commentary on requested changes to DCO  
DCO21 Table of Comments on changes between 5th draft and 6th draft DCO

**Statements of Common Ground**

SOCG1 Chamber of Shipping with GWFL  
SOCG2 Environment Agency with GWFL  
SOCG3 London Array Ltd with GWFL  
SOCG4 Marine Management Organisation with GWFL  
SOCG5 Maritime and Coastguard Agency with GWFL  
SOCG6 Natural England with GWFL concerning ornithology  
SOCG7 Natural England with GWFL (Appendix A)  
SOCG8 Office of Nuclear Regulation with GWFL  
SOCG9 Royal Yachting Association with GWFL  
SOCG10 Suffolk County Council and Suffolk Coastal District with GWFL

- SOCG11 [Suffolk Wildlife Trust with GWFL](#)
- SOCG12 [Trinity House with GWFL](#)
- SOCG13 [Natural England and Joint Nature Conservation Committee \(Non-ornithology\) with GWFL](#)
- SOCG14 [The Eastern Inshore Fisheries and Conservation Authority with GWFL](#)
- SOCG15 [Dong Energy Ltd \(Gunfleet Sands 3 Offshore Wind Farm\) with GWFL](#)
- SOCG16 [Office for Nuclear Regulation with GWFL](#)

### **Local Impact Report**

- LIR1 [Suffolk County Council and Suffolk Coastal District Council Local Impact Report](#)

### **s106 Agreement**

- s106-1 [Area of Outstanding Natural Beauty s106 agreement \(Completed\)](#)
- s106-2 [Special Protection Area s106 agreement \(Completed\)](#)
- s106-3 [Compulsory Acquisition s106 Agreement \(Completed\)](#)

## **5. Hearing Documents**

### **Preliminary Meeting**

- HE1 [Audio Recording Session 1](#)
- HE2 [Audio Recording Session 2](#)
- HE3 [Audio Recording Session 3](#)
- HE4 [Preliminary meeting note with cover letter](#)

### **Notification of hearing from The Planning Inspectorate**

- HE5 [Notification of Hearings to Interested parties](#)
- HE6 [GWFL Notice of Hearings to Interested parties](#)
- HE7 [Hearing Agendas to Interested parties](#)
- HE8 [Notification to Interested Parties of Issue Specific Hearing and Accompanied Site Inspection](#)
- HE9 [GWFL Notice of Issue Specific Hearing](#)
- HE10 [Trinity House Confirming their intention to not attend](#)

### **Accompanied Site Visit of 29 August 2012**

- HE11 [Note of Accompanied Site Visit](#)
- HE12 [Further information regarding the Site Visit](#)

### **Hearing of 30 August 2012**

- HE13 [Audio Recording Session 1](#)
- HE14 [Audio Recording Session 2](#)
- HE15 [Audio Recording Session 3](#)
- HE16 [Audio Recording Session 4](#)

### **Post-hearing submissions for 3 September 2012 Deadline**

- HE17 [EDF Written Summary of Oral Submission at IS hearing 30 August 2012](#)
- HE18 [GWFL Written Summary of Oral Submission at IS hearing 30 Aug 2012](#)
- HE19 [Natural England Written Summary of Oral Submission at IS hearing 30 Aug 2012](#)

### **Hearings 17 - 19 October 2012**

- HE20 [Audio 17 October](#)
- HE21 [Audio 18 October](#)
- HE22 [Audio 19 October](#)
- HE23 [Dr Rachel Saunders Resume](#)

HE24 [Dr Tim Norman Resume](#)  
HE25 [Mr G Hinton Resume](#)  
HE26 [Dr T C Rogers Speaking Notes](#)  
HE27 [EDF comments on agenda](#)  
HE28 [Examining authority written questions for hearing of 18 October 2012](#)

**Hearings 22 - 24 October 2012**

HE29 [Audio Recording 22 October](#)  
HE30 [Audio Recording 23 October](#)  
HE31 [Audio Recording 24 October](#)

**Post-hearing submissions for 29 October 2012 Deadline**

HE32 [EDF Written Submission for Issue Specific Hearings 17-24 October](#)  
HE33 [EDF Letter to the Planning Inspectorate](#)  
HE34 [EDF and GWFL Joint Statement](#)  
HE35 [GWFL Summary of case at Hearings Cover Letter](#)  
HE36 [GWFL Summary of case for Hearings 17-24 October](#)  
HE37 [GWFL Annex A3 - Note regarding Marine Decommissioning Condition](#)  
HE38 [GWFL Annex A4 - Galloper and EDF Energy Joint Statement 22 October 2012](#)  
HE39 [GWFL Annex A5 Minutes of meeting between GWFL, MCA, THLS and CoS and associated emails in relation to the 0.5 buffer](#)  
HE40 [GWFL Annex A6 Further emails from GWFL, MCA, THLS and CoS in relation to the 0.5nm buffer zone](#)  
HE41 [GWFL Annex A7 - Email from the Crown Estate ref DCO changes](#)  
HE42 [EDF - BEEMS-MS0345 - Sizewell C Infrastructure](#)  
HE43 [EDF - BEEMS-MS0357A - Sizewell B Quality of Cooling Water Intake Plan](#)  
HE44 [EDF - BEEMS-MS0359A - Sizewell B Buffer Zone Plan](#)  
HE45 [GWFL Annex B1- Fourth Draft Construction Code of Practice](#)  
HE46 [GWFL Annex B2- Deltaview with Third Draft Construction Code of Practice](#)  
HE47 [GWFL Annex B3- Deltaview with First Draft Construction Code of Practice \(as submitted\)](#)  
HE48 [GWFL Annex B4 draft Construction Code of Practice Agreement with Suffolk County Council](#)  
HE49 [GWFL Annex C1 – Reptile Mitigation Strategy](#)  
HE50 [GWFL Annex C2 Reptile Mitigation Strategy Agreement Natural England](#)  
HE51 [GWFL Annex C3 Reptile Mitigation Strategy Agreement with Suffolk County Council](#)  
HE52 [GWFL Annex C4 Reptile Mitigation Strategy Agreement Suffolk Wildlife Trust](#)  
HE53 [GWFL Annex E - Note regarding possible project and SPA mitigation](#)  
HE54 [GWFL Annex G6 - updated Explanatory Memorandum](#)  
HE55 [GWFL Annex G7 - Deltaview comparison with 1st draft of Explanatory Memorandum](#)  
HE56 [GWFL Annex H - s106 undertaking relating to AONB Fund](#)  
HE57 [GWFL Annex I1 - Agreed Economic Memorandum of Understanding](#)  
HE58 [GWFL Annex I2 Economic Memorandum of Understanding with Suffolk County Council](#)  
HE59 [GWFL Annex I3 Economic Memorandum of Understanding with Suffolk Coastal District Council](#)  
HE60 [GWFL Annex J1 - Engrossed Compulsory Acquisition Funding s106](#)  
HE61 [GWFL Annex J1-2 - Plan 2 \(Appendix 2 to Compulsory Purchase Order Funding s106\)](#)  
HE62 [GWFL Annex J2 - Engrossed Compulsory Purchase Order Funding s106 - DeltaView Comparison with 4th response](#)  
HE63 [GWFL Annex K1 - Ogilvie letter to PINS](#)  
HE64 [GWFL Annex K2 - consolidated Funding Statement](#)

HE65	<a href="#">GWFL Annex K3 - consolidated Book of Reference</a>
HE66	<a href="#">GWFL Annex K4 - Statement of Reasons addendum</a>
HE67	<a href="#">GWFL Annex K4-1 - (Appendix 1 to Annex K4) Updated Master Schedule</a>
HE68	<a href="#">Marine Management Organisation Additional Submission re Enforcement of Deemed Marine License</a>
HE69	<a href="#">Marine Management Organisation Written Summary of Oral Submission for Issue Specific Hearing 19 October</a>
HE70	<a href="#">Natural England Written Summary of Biodiversity Hearing Submissions</a>
HE71	<a href="#">Natural England Written Summary of 2nd DCO Hearing Submissions</a>
HE72	<a href="#">Royal Society for the Protection of Birds letter re Statement of Common Ground</a>

## 6. RIES and Transboundary

### Report on the Implications for European Sites

RIES1	<a href="#">Report on the Implications for European Sites (RIES)</a>
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### Transboundary Notifications

TB1	<a href="#">Reg 24 Transboundary Consultation Letter Netherlands</a>
TB2	<a href="#">Reg 24 Transboundary Consultation Letter Belgium Ministry of Brussels</a>
TB3	<a href="#">Reg 24 Transboundary Consultation Letter France</a>
TB4	<a href="#">Reg 24 Transboundary Consultation Letter Denmark</a>
TB5	<a href="#">Reg 24 Transboundary Consultation Letter Sweden</a>
TB6	<a href="#">Reg 24 Transboundary Consultation Letter Belgium Ministry of Wallonia</a>
TB7	<a href="#">Reg 24 Transboundary Consultation Letter Belgium Flemish Government Environment</a>
TB8	<a href="#">GWFL Reg 24 London Gazette Notice</a>
TB9	<a href="#">Transboundary Screening Matrix</a>

### Transboundary Responses

TB10	<a href="#">Reg 24 Response from Sweden</a>
TB11	<a href="#">Reg 24 Response from Netherlands</a>

## 7. s127 Application

### s127 Procedural Decisions and letters issued by the ExA

s127-1	<a href="#">s127 Appointment of Examiner</a>
s127-2	<a href="#">s127 initial letter to British Energy</a>
s127-3	<a href="#">s127 initial letter to EDF-NGL</a>
s127-4	<a href="#">s127 initial letter to EDF-NNB</a>
s127-5	<a href="#">s127 initial letter to EDF</a>
s127-6	<a href="#">s127 initial letter to GWFL</a>
s127-7	<a href="#">s127 letter to EDF-NGL</a>
s127-8	<a href="#">s127 letter to EDF-NNB</a>
s127-9	<a href="#">s127 letter to GWFL</a>
s127-10	<a href="#">s127 letter to GWFL accepting late representations</a>

### Submissions for Deadline of 1 June 2012

s127-11	<a href="#">EDF letter to the Planning Inspectorate confirming status under s127</a>
s127-12	<a href="#">EDF letter to the Planning Inspectorate regarding procedure</a>

### Submissions for deadline of 16 July 2012

s127-13	<a href="#">EDF Energy Section 127 Statement</a>
s127-14	<a href="#">Late - GWFL s127 Statement</a>

**Submissions for deadline of 24 August 2012**

- s127-15 GWFL response to EDF Section 127 Certificate Statement of Case
- s127-16 EDF response to GWFL s127 Statement of Case
- s127-17 GWFL s127 response

**s127 Hearing Submissions**

- s127-18 Notification of Hearing letter
- s127-19 Notification of Hearing Agenda
- s127-20 GWFL Notice of Hearings
- s127-21 GWFL correspondence regarding s127 Hearing attendance

**s127 Withdrawal**

- s127-22 GWFL Section127 Withdrawal

## APPENDIX D – LIST OF INTERESTED PARTIES

Unique Reference	Name	Organisation Name
GALL-0001	Mr William Pinney	
GALL-0004	Vicky Stirling	National Grid
GALL-0005	Graeme Proctor	Maritime and Coastguard Agency
10014920	Stuart Carruthers	Royal Yachting Association
10015070	Stuart Maggs	
10015081	Paul Norman	
10015090	John Rayner	Leiston-cum-Sizewell Town Council
10015121	Dr T.C.Rogers	
10015126	Stephen Faulkner	Norfolk County Council
10015133	Edward Butters	Felixstowe Ferry Full-Time Fishermans Association
10015321	Fergus Bootman	Broads Authority
10015334	Dave Waldron	
10015335	Roy Sadd	
10015344	Lynsey Upsdell	London Array Ltd
10015433	Terry Woodrow	
10015447	Willem (Pim) Visser	VisNed (Dutch Demersal Fisheries Organisation)
10015448	Clare Gruar	Health Protection Agency
10015449	Roger Hipwell	Orford and District Inshore Fishermen's Association
10015450	Mike Chandler	Aldringham-cum-Thorpe Parish Council
10015451	Holly Niner	JNCC
10015459	James Meyer	Suffolk Wildlife Trust
10015460	M. Viera	Nord-Pas de Calais/Picardie Fisheries Committee
10015466	Miss Maria Toone	
10015467	Mr Martin Freeman	
10015468	Richard Nevinson	Chamber of Shipping
10015470	Jennifer Candler	Maldon District Council
10015473	Amy Crossley	The Royal Society for the Protection of Birds
10015475	Christopher Pater	English Heritage
10015477	Kirsteen MacDonald	Manston Airport
10015478	David Naylor-Gray	Ministry of Defence
10015479	James Donald	East Anglia Offshore Wind

10015480	Jonathan Bower	EDF Energy Plc
10015481	John Pitchford	Suffolk County Council
10015484	Alan Gibson	Marine Management Organisation
10015485	Andrew Hunter	Environment Agency
10015488	Dale Rodmell	National Federation of Fishermen's Organisations
GALL-0006	Rob Gully	Galloper Wind Farm
GALL-AP001	Mr Bob Chamberlain	Suffolk Coastal District Council
GALL-AP002	Mr and Mrs G Goddard	
GALL-AP003	Mrs I Penny	
GALL-AP005	Mr D H Maltby	
GALL-AP006	Mr B and Mrs O Gentle	
GALL-AP007	Mrs A Reynolds	
GALL-AP008	Mr and Mrs W Johnson	
GALL-AP009	Miss M Everest	
GALL-AP010	Mr H Bamford	
GALL-AP011	Mr J Rayner	
GALL-AP012	Mr J R Higgins	
GALL-AP013	Mr R Jones	
GALL-AP014		Glencairn Stuart Ogilvie
GALL-AP015		Greater Gabbard Offshore Winds Ltd
GALL-AP017		British Energy Generation Ltd
GALL-AP018		AW Mortier Farms Ltd Cedar Farms
GALL-AP019		Essex and Suffolk Water Limited
GALL-AP020	Mr David Pratt	
GALL-AP021		National Grid Electricity Transmission plc
GALL-AP022	Patricia Dorothy Jones	
GALL-AP023	Ronald Ernest Jones	
GALL-AP024	Geoffrey Frank Wooler	
GALL-AP025	Glynis Wooler	
GALL-AP026	Paul Alexander Chandler	
GALL-AP028	Brian Baker	
GALL-AP029	Mr Matthew Horne	
GALL-AP030	Mrs Jane Horne	
GALL-SC039	Capt N J Dodson	Trinity House
GALL-SC001	Ian Sharrock	Health & Safety Executive
GALL-SC003	Sam Stewart	Natural England
GALL-SC042	Stuart Curry	Crown Estate



## **APPENDIX E – ABBREVIATIONS**

<b>AEZ</b>	Archaeological Exclusion Zone
<b>ALARP</b>	As Low as Reasonably Practicable
<b>AONB</b>	Area of Outstanding Natural Beauty
<b>AP</b>	Affected Person
<b>CA</b>	Compulsory Acquisition
<b>CAA</b>	Civil Aviation Authority
<b>CCoP</b>	Construction Code of Practice
<b>Cefas</b>	Centre for Environment, Fisheries and Aquaculture Science
<b>CoS</b>	The Chamber of Shipping
<b>The Councils</b>	Term used when describing Suffolk Coastal District Council and Suffolk County Council joint working
<b>CRM</b>	Collision Risk Model
<b>CRPMEM</b>	VisNed and Nord-Pas de Calais/Picardie Regional Fisheries
<b>cSAC</b>	candidate Special Area of Conservation
<b>CWS</b>	County Wildlife Site
<b>dB</b>	Decibel
<b>DCLG</b>	Department for Communities and Local Government
<b>DCO</b>	Development Consent Order
<b>DECC</b>	Department of Energy and Climate Change
<b>DEFRA</b>	Department for Environment, Food and Rural Affairs
<b>DIO</b>	Defence Infrastructure Organisation
<b>DML</b>	Deemed Marine License
<b>DPD</b>	Development Plan Documents
<b>EA</b>	Environment Agency
<b>EC</b>	European Commission
<b>EEA</b>	European Economic Area
<b>EEC</b>	European Economic Community
<b>EMF</b>	Electromagnetic Field
<b>EMMP</b>	Environmental Management and Mitigation Plan
<b>EPR</b>	Examination Procedure Rules
<b>ERCOP</b>	Emergency Response Cooperation Plan
<b>ES</b>	Environmental Statement
<b>EIA</b>	Environmental Impact Assessment
<b>EIFCA</b>	Eastern Inshore Fisheries and Conservation Authority
<b>EPS</b>	European Protected Species

<b>ES</b>	Environmental Statement
<b>ExA</b>	Examining authority
<b>FCS</b>	Favourable Conservation Status
<b>FIR</b>	Fisheries Industry Representative
<b>FLO</b>	Fisheries Liaison Officer
<b>FLOWW</b>	Fishing Liaison with Offshore Wind and Wet Renewables Group
<b>GGOWF</b>	Greater Gabbard Offshore Wind Farm
<b>GWF</b>	Galloper Wind Farm
<b>GWFL</b>	Galloper Wind Farm Ltd
<b>ha</b>	Hectare
<b>HHA</b>	Harwich Haven Authority
<b>HRA</b>	Habitats Regulations Assessment
<b>ICNIRP</b>	International Commission on Non-Ionizing Radiation Protection
<b>IMO</b>	International Maritime Organisation
<b>IP</b>	Interested Party
<b>IPC</b>	Infrastructure Planning Commission
<b>IS</b>	Issue Specific
<b>JNCC</b>	Joint Nature Conservation Committee
<b>LDF</b>	Local Development Framework
<b>LIR</b>	Local Impact Report
<b>LOA</b>	Length Overall
<b>LPA</b>	Local Planning Authority
<b>LVIA</b>	Landscape and Visual Impact Assessment
<b>MCA</b>	Maritime and Coastguard Agency
<b>MHWS</b>	Mean High Water Springs
<b>ML</b>	Marine License
<b>MMMP</b>	Marine Mammal Mitigation Protocol
<b>MMO</b>	Marine Management Organisation
<b>MoD</b>	Ministry of Defence
<b>MPS</b>	UK Marine Policy
<b>MW</b>	Megawatts
<b>NE</b>	Natural England
<b>NG</b>	National Grid Electricity plc
<b>NFFO</b>	National Federation of Fishermen's Organisations

<b>Nm</b>	Nautical Mile
<b>NPPF</b>	National Planning Policy Framework
<b>NPS</b>	National Policy Statement
<b>NRA</b>	Navigational Risk Assessment
<b>NSIP</b>	Nationally Significant Infrastructure Project
<b>NT</b>	National Trust
<b>NUTFA</b>	New Under Tens Fisherman’s Association
<b>ODIFA</b>	Orford and District Inshore Fisherman’s Association
<b>OF</b>	Open Floor
<b>OFTO</b>	Offshore Transmission Owner
<b>ONR</b>	Office for Nuclear Regulation
<b>PA 2008</b>	Planning Act 2008
<b>PAD</b>	Protocol for Archaeological Discoveries
<b>PBR</b>	Potential Biological Removal
<b>PER</b>	Preliminary Environmental Report
<b>PINS</b>	Planning Inspectorate
<b>PPG</b>	Planning Policy Guidance
<b>PPS</b>	Planning Policy Statement
<b>PRoW</b>	Public Right of Way
<b>PVA</b>	Population Viability Analysis
<b>Ramsar</b>	The Ramsar Convention on Wetlands
<b>REZ</b>	Renewable Energy Zone
<b>RIES</b>	Report on the Implications for European Sites
<b>RR</b>	Relevant Representation
<b>RSPB</b>	The Royal Society for the Protection of Birds
<b>RYA</b>	Royal Yachting Association
<b>SAC</b>	Special Area of Conservation
<b>SCC</b>	Suffolk County Council
<b>SCCAS</b>	Suffolk County Council Archaeological Services
<b>SCDC</b>	Suffolk Coastal District Council
<b>SNH</b>	Scottish Natural Heritage
<b>SNCB</b>	Statutory Nature Conservation Body
<b>SoCG</b>	Statement of Common Ground
<b>SofS</b>	Secretary of State
<b>SPA</b>	Special Protection Area
<b>SSSI</b>	Site of Special Scientific Interest

<b>SVIA</b>	Seascape and Visual Impact Assessment
<b>SWT</b>	Suffolk Wildlife Trust
<b>THLS</b>	Trinity House Lighthouse Service
<b>TKOWF</b>	Triton Knoll Offshore Wind Farm
<b>TSS</b>	Traffic Separation Scheme
<b>UKSON</b>	UK Safety of Navigation
<b>VTS</b>	Vessel Traffic Services
<b>WSI</b>	Written Scheme of Investigation
<b>WTG</b>	Wind Turbine Generator
<b>WWT</b>	Wildfowl and Wetlands Trust
<b>ZTV</b>	Zone of Theoretical Visibility

## **APPENDIX F – RECOMMENDED DRAFT DCO**

**201X No.**

**INFRASTRUCTURE PLANNING**

**The Galloper Wind Farm Order 201X**

<i>Made</i> - - - -	<i>[***] 201X</i>
<i>Laid before Parliament</i>	<i>[***] 201X</i>
<i>Coming into force</i> - -	<i>[***] 201X</i>

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~~Whereas a~~An application has been made to the ~~former~~ Infrastructure Planning Commission in accordance with the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 made under sections 37, 42, 48, 51, 56, 58, 59 and 232 of the Planning Act 2008 ("the 2008 Act")<sup>(a)</sup> 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 ~~E~~examining authority appointed by the ~~Chair of the former~~ Infrastructure Planning Commission pursuant to Chapter 4 of the 2008 Act;

~~And whereas~~†The ~~E~~examining authority, having considered the national policy 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 ~~E~~examining authority, having considered the objections made and not withdrawn and the application with the documents that accompanied the application, has recommended the decision-maker 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 in the proposals;

~~And whereas~~†The notice of the decision-maker's determination was published [●];

~~Now, therefore, a~~As the decision-maker 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:

**Citation and commencement**

1. This Order may be cited as the Galloper Wind Farm Order and ~~shall~~ comes into force on [●] 201X.

**Interpretation**

2.—(1) In this Order—

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(a) 2008 c.29.

“the 1961 Act” means the Land Compensation Act 1961<sup>(a)</sup>;  
 “the 1965 Act” means the Compulsory Purchase Act 1965<sup>(b)</sup>;  
 “the 1980 Act” means the Highways Act 1980<sup>(c)</sup>;  
 “the 1990 Act” means the Town and Country Planning Act 1990<sup>(d)</sup>;  
 “the 1991 Act” means the New Roads and Street Works Act 1991<sup>(e)</sup>;  
 “the 2004 Act” means the Energy Act 2004<sup>(f)</sup>;  
 “the 2008 Act” means the Planning Act 2008<sup>(g)</sup>;  
 “the 2009 Act” means the Marine and Coastal Access Act 2009<sup>h</sup>;  
 “the 2011 Act” means the Localism Act 2011.

“accommodation platform” means a platform housing or incorporating temporary accommodation including mess facilities, landing points for vessels and helicopters, standby electricity generation equipment, marking and lighting and other equipment and facilities to assist in the coordination of emergency marine activities related to the authorised development;

“ancillary works” means the ancillary works described in Part 2 of Schedule A (authorised project) and which are not development within the meaning of section 32 of the 2008 Act;

“authorised development” means the development and associated development described in Part 1 of Schedule 1 (authorised project) 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 decision-maker as the book of reference for the purposes of this Order;

- 
- (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 1961 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). Subsection (1) of section 11 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), 1(3) and 1(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, 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 (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.
- (d) 1990 c.8. Section 206(1) was amended by section 192(8) of, and paragraphs 7 and 11 of Schedule 8 to, the Planning Act 2008 (c.29) (date in force to be appointed see section 241(3), (4)(a), (c) of the 2008 Act). There are other amendments to the 1990 Act which are not relevant to this Order.
- (e) 1991 c.22. Section 48(3A) was inserted by section 124 of the Local Transport Act 2008 (c.26). Sections 79(4), 80(4), and 83(4) were amended by section 40 of, and Schedule 1 to, the Traffic Management Act 2004 (c.18).
- (f) 2004 c.20.
- (g) 2008 c.29. Amended by the Marine and Coastal Access Act 2009 (c.23) and the Localism Act 2011 (c.20)
- (h) 2009 c.23.



“building” includes any structure or erection or any part of a building, structure or erection;

“carriageway” has the same meaning as in the 1980 Act;

“collection platform” means a platform housing or incorporating electrical switchgear and/or electrical transformers, J-tubes, marking and lighting and other equipment and facilities to enable the electrical connection of electrical cables from multiple WTGs to be collected at, and exported from, the platform in one or more cables;

“commencement of construction work(s)” means beginning to carry out any activity to construct the authorised project including onshore and offshore connection, transmission and power generation infrastructure save that this shall not include beginning to carry out any works constituting a material operation (as defined in section 56(4) of the 1990 Act)”

“commencement of development” means beginning to carry out any material operation (as defined in Section 56(4) of the 1990 Act) forming part of the authorised project, landward of mean low water spring tides, other than operations consisting of site clearance (save where expressly provided otherwise), demolition work, archaeological investigations, investigations for the purpose of assessing ground conditions, remedial work in respect of any contamination or other adverse ground conditions, diversion and laying of services, erection of any temporary means of enclosure and the temporary display of site notices or advertisements and "commencement" shall be construed accordingly;

~~“the Commission” means the Infrastructure Planning Commission~~

“compulsory acquisition notice” means a notice served in accordance with section 134 of the 2008 Act;

“the decision-maker” has the same meaning as in section 103 of the 2008 Act;

“EDF Energy” means EDF Energy (UK) Limited (company number 02622406) and any group company of EDF Energy (UK) Limited which holds property and is a licenced holder for any of the purposes under section 6 of the Electricity Act 1989 at Sizewell, and for the purposes of this definition “group company” means any company which is a company within the meaning of section 42 of the Landlord and Tenant Act 1954 including EDF Energy Nuclear Generation Limited (company number 03076445) and NNB Generation Company Limited (company number 06937084);

“electric line” has the same meaning as in section 235 of the 2008 Act;

“electrical substation compound” means a compound containing electrical equipment including switchgear, transformers, reactive compensation equipment, harmonic filters, cables, control buildings, communications masts, back-up generators, access, fencing and other associated equipment or structures;

“environmental statement” means the document certified as the environmental statement by the decision-maker for the purposes of this Order and submitted with the application on 21 November 2011 and the environmental information contained in the clarifications, corrections and omissions document accepted by the Examining authority as part of the examination as a late submission for the 8 June 2012 deadline and~~which shall include~~ the table of environmental mitigation measures in relation to protected species dated 16<sup>th</sup> July 2012 and the two tables of offshore and onshore environmental mitigation measures dated 16~~th~~ July 2012 submitted to the Examining ~~a~~Authority as part of the examination of the application for this Order;

“examination” means the examination under the 2008 Act into the application for this Order;

“Examining ~~a~~Authority” means the ~~E~~examining authority appointed under the 2004~~8~~ Act to examine the application for this Order;

“gravity base foundation” means a structure principally of concrete which rests on the seabed due to its own weight and that of added ballast, with or without additional drilled pins or other additional fixings, which may include an integrated transition piece, and associated equipment including J-tube and access platform(s) and equipment;

“highway” and “highway authority” have the same meaning as in the 1980 Act;

“the land plan” means the plan certified as the land plan by the decision-maker for the purposes of this Order;

“maintain” includes maintain, upkeep, inspect, repair, adjust, alter, relay and; ~~remove, reconstruct and replace~~ and any derivative of “maintain” is to be construed accordingly;

“MCA” means the Maritime and Coastguard Agency;

“mean high water springs” or "MHWS" means the highest level which spring tides reach on average over a period of time;

“mean low water spring tides” or “MLWST” means the average of the low water heights occurring at the time of spring tides which is also the outermost extent of the local planning authority jurisdiction;

“meteorological mast” means a mast housing or incorporating equipment to measure wind speed and other wind characteristics, including a topside housing electrical switchgear and communication equipment and associated equipment, and marking and lighting;

“MMO” means the Marine Management Organisation;

“monopile foundation” means a metal pile, typically cylindrical, driven and/or drilled into the seabed and associated equipment including J-tube and access-related equipment;

“offshore substation platform” means a platform with one or more decks, whether open or fully clad, accommodating medium to high voltage electrical power transformers, medium and/or high voltage switch gear, helicopter landing facilities, re-fuelling facilities, potable water storage, black water separation equipment, instrumentation, metering equipment, control systems, standby electrical generation equipment, auxiliary and uninterruptible power supply systems, emergency accommodation including mess facilities, craneage, control hub, drainage facilities, access equipment, marking and lighting and other associated equipment and facilities;

“Order land” means the land shown on the land plan which is within the limits of land to be acquired and described in the book of reference;

“the Order limits” means the limits shown on the Order limits plan within which the authorised project may be carried out, whose grid coordinates seaward of MHWS are set out in paragraph 3 of Part 1 of Schedule 1 (authorised development) of this Order;

“Order limits plan” means the plan certified as the Order limits plan by the decision-maker for the purposes of this Order;

“owner”, in relation to land, has the same meaning as in section 7 of the Acquisition of Land Act 1981<sup>(a)</sup>;

“relevant planning authority” means Suffolk Coastal District Council;

“Renewable Energy Zone” means the areas of the sea designated under The Renewable Energy Zone (Designation of Area) Order 2004<sup>(b)</sup>

“requirements” means those matters set out in Part 3 Schedule 1 (requirements) to this Order;

“scheduled works” means the numbered works specified in Schedule 1 to this Order;

“space frame foundation” means a metal jacket/lattice-type structure, including between three to six legs, which is fixed to the seabed with driven piles and/or drilled pins and/or weights and/or suction cans or additional fixings, which may include an integrated transition piece, and associated equipment including J-tube and access platform(s) and equipment;

“statutory undertaker” means any person falling within section 127(8), 128(5) or 129(2) of the 2008 Act;

“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;

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(a) 1981 c.67. Section 7 was amended by section 70 of, and paragraph 9 of Schedule 15 to, the Planning and Compensation Act 1991 (c.34). There are other amendments to the 1981 Act which are not relevant to this Order.

(b) S.I. 2668/2004.

“street authority”, in relation to a street, has the same meaning as in Part 3 of the 1991 Act;

“suction can” means a steel open-based cylinder, which is fixed to the base of the foundation and is installed until the lid is flush with the seabed;

“suction monopod” means a tubular metal structure founded on a steel open based cylinder akin to an up-turned bucket which partially penetrates the seabed, which may include an integrated transition piece, and associated equipment, including J-tube and access platform(s) and equipment;

“territorial waters” means the territorial waters within the jurisdiction of the United Kingdom under the United Nations Convention on the Law of the Sea of 10 December 1982;

“the tribunal” means the Lands Chamber of the Upper Tribunal;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“undertaker” means Galloper Wind Farm Limited;

“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;

“wind turbine generator” or “WTG” means a structure comprising a tower, rotor with three blades, nacelle and ancillary electrical and other equipment which may include J-tube(s), transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation; and

“the works plan” means the plans certified as the works plan by the decision-maker for the purposes of this Order;

(2) References in this Order to rights over land include references to rights to do or to place and maintain, anything in, on or under land or in the air-space above its surface.

(3) In its application to the compulsory acquisition of land under this Order, by virtue of section 125 of the 2008 Act, Part 1 of the 1965 Act shall apply as if 'land' has the meaning given by section 159 of the 2008 Act.

(4) All distances, directions and lengths referred to in this Order are approximate and distances between points on a work comprised in the authorised project shall be taken to be measured along that work.

(5) Any reference in this Order to a work identified by the number of the work is to be construed as a reference to the work of that number authorised by this Order.

(6) References in this Order to reference points identified by letters are to be construed as references to the points so lettered on the works plans.

### **Development consent etc. granted by the Order**

3.—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,

to be carried out within the Order limits.

### **Maintenance of authorised project**

4.—(1) The undertaker may at any time maintain, and maintain from time to time, the authorised project, except to the extent that this Order or an agreement made under this Order, provides otherwise. No works of decommissioning shall be carried out pursuant to this Article 4.

(2) For the avoidance of doubt, the power to maintain under this Article includes the power to repair and ~~replace~~ faulty cables in need of ~~replacement or repair~~ within the scope of the

works assessed in the environmental statement and falling within the Order limits. If the relaying of faulty cables or cables in need of repair involves works that are outside the terms of the environmental statement then advance consultation should take place with the MMO to confirm if these works require any additional assessment and consent. No such works shall take place until the need or otherwise for additional assessment and consent has been confirmed in writing by the MMO. If assessment and consent is required then no relaying or repair works shall take place until the assessment has been undertaken and identified consent secured.

### **Operation of an offshore electricity generating station and keeping of overhead lines**

5.—(1) The undertaker is hereby authorised to operate the offshore electricity generating station comprised in the authorised development.

(2) The undertaker is hereby authorised to keep the overhead lines above ground which are comprised in the authorised development.

(3) This article does not relieve the undertaker of any requirement to obtain any permit or licence under any other legislation that may be required from time to time to authorise the operation of an offshore electricity generating station or the keeping of an electric line above ground.

### **Requirements, Appeals, etc**

6.—(1) Where an application is made to the local planning authority for any consent, agreement or approval required by requirements 18-37 (inclusive) (requirements that relate to land above mean low water spring tides), 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 a consent, agreement or approval of a local planning authority required by a condition imposed on the grant of planning permission.

(2) For the purposes of paragraph (1), a provision relates to a consent, agreement or approval of a local planning authority required by a condition imposed on a grant of planning permission in so far as it makes provision in relation to an application for such a consent, agreement or approval or the grant or refusal of such an application, or a failure to give notice on such an application.

### **Benefit of the Order**

7.—(1) Subject to paragraph (2), this Order shall have effect solely for the benefit of Galloper Wind Farm Limited.

(2) The undertaker may, with the written consent of the Secretary of State—

- (a) transfer to another person (the "transferee") any or all of the benefit of the provisions of this Order (~~including Schedule 6~~) 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 Schedule 6~~) and such related statutory rights as may be so agreed;
- (c) transfer only as a whole all of the benefit of Schedule 6.

except where paragraph (5) applies in which case no such consent shall be required.

(3) Where an agreement has been made in accordance with paragraph (2) references in this Order to the undertaker, except in paragraph (4), shall include references to the transferee or lessee.

(4) The exercise by a person of any benefits or rights conferred in accordance with any transfer or grant under paragraph (2) shall be subject to the same restrictions, liabilities and obligations as would apply under this Order if those benefits or rights were exercised by the undertaker.

(5) This paragraph applies where the proposed transferee or lessee under paragraph (2) is the holder of a licence under section 6 of the Electricity Act 1989<sup>(a)</sup>.

### **Public rights of navigation**

**8.**—(1) Subject to paragraph (2), the rights of navigation over the places in the sea where any of the wind turbine generators, meteorological masts, offshore substation platforms, accommodation platforms and collection platforms, including their foundations, are located within territorial waters shall be extinguished.

(2) The extinguishment of the rights of navigation over the places identified in paragraph (1) shall take effect 14 days after the undertaker has submitted a plan to the Secretary of State showing the precise locations of the foundations of each of any relevant wind turbine generators, meteorological masts, offshore substation platforms, accommodation platforms and collection platforms to be constructed as part of the authorised development within territorial waters.

(3) The plan submitted in accordance with paragraph (2) shall be published by the undertaker as required by the Secretary of State.

### **Abatement of works abandoned or decayed**

**9.** Where Work No.1 or any part of it is abandoned or allowed to fall into decay the Secretary of State may, following consultation with the undertaker, issue a written notice requiring the undertaker at its own expense to repair and restore or remove Work No. 1 or any relevant part of it, 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(s) of Work No.1 to a safe and proper condition within an area and to such an extent as may be specified in the notice.

### **Deemed licence under the Marine and Coastal Access Act 2009**

**10.** The undertaker is granted a deemed licence under Part 4 Chapter 1 of the 2009 Act to carry out the works and make the deposits specified in Part 1 of Schedule 6, subject to the conditions set out in Part 2 of that Schedule.

### **Saving for Trinity House**

**11.** Nothing in this Order prejudices or derogates from any of the rights, duties or privileges of Trinity House.

### **Crown Rights**

**12.**—(1) Nothing in this Order shall:

- (a) prejudicially affect any estate, right, power, privilege, authority or exemption of the Crown; or

---

(a) 1989 c.29.

- (b) authorise the undertaker to take, use, enter upon or in any manner interfere with any land, hereditaments or rights of whatever description (including any part of the shore or bed of the sea or any river, channel, creek, bay or estuary) belonging to —
  - (i) Her Majesty in right of the Crown and under the management of the Crown Estate Commissioners without the consent in writing of those Commissioners; or
  - (ii) 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.

(2) A consent under paragraph (1)(b) may be given unconditionally or may be subject to such conditions or upon such terms as may be considered necessary or appropriate.

### **Street works**

**13.—**(1) The undertaker may, for the purposes of the authorised project, enter on so much of any of the streets specified in Schedule 2 (streets subject to street works) as is within the Order limits and may—

- (a) tunnel or bore under the street;
- (b) place apparatus under the street;
- (c) maintain apparatus under the street or change its position; and
- (d) execute any works required for or incidental to any works referred to in sub-paragraphs (a), (b) and (c).

(2) The authority given by paragraph (1) is a statutory right for the purposes of sections 48(3) (streets, street works and undertakers) and 51(1) (prohibition of unauthorised street works) of the 1991 Act.

(3) The provisions of sections 54 to 106 of the 1991 Act apply to any street works carried out under paragraph (1).

(4) In this article “apparatus” has the same meaning as in Part 3 of the 1991 Act.

### **Agreements with street authorities**

**14.—**(1) A street authority and the undertaker may enter into agreements with respect to the carrying out in the street of any of the works referred to in article 13(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.

### **Authority to survey and investigate the land**

**15.—**(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 prejudice to 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 prejudice to 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 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) shall, if so required entering the land, produce written evidence of their authority to do so; and
- (b) may take with them such vehicles and equipment as are necessary to carry out the survey or investigation or to make the trial holes.

(4) No trial holes shall 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 shall not be unreasonably withheld.

(5) The undertaker shall 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, Part 1 (determination of questions of disputed compensation) of the 1961 Act.

### **Compulsory acquisition of land**

16.—(1) The undertaker may acquire compulsorily so much of the Order land as is required for the authorised project or to facilitate, or is incidental, to it.

(2) This article is subject to article 18 (compulsory acquisition of rights) and article 23 (temporary use of land for carrying out the authorised project).

### **Time limit for exercise of authority to acquire land compulsorily**

17.—(1) After the end of the period of 5 years beginning on the day on which this Order is made—

- (a) no notice to treat shall be served under Part 1 of the 1965 Act; and
- (b) no declaration shall be executed under section 4 of the Compulsory Purchase (Vesting Declarations) Act 1981 as applied by article 20 (application of the Compulsory Purchase (Vesting Declarations) Act 1981)<sup>(a)</sup>.

(2) The authority conferred by article 23 (temporary use of land for carrying out the authorised project) shall cease at the end of the period referred to in paragraph (1), save that nothing in this paragraph shall prevent the undertaker remaining in possession of land after the end of that period, if the land was entered and possession was taken before the end of that period.

### **Compulsory acquisition of rights**

18.—(1) Subject to paragraph (2) the undertaker may acquire compulsorily such rights over the Order land as may be required for any purpose for which that land may be acquired under article 16 (compulsory acquisition of land), by creating them as well as by acquiring rights already in existence.

(2) In the case of the Order land specified in column (1) of Schedule 3 (land in which only new rights etc, may be acquired) the undertaker's powers of compulsory acquisition are limited to the

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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.

acquisition of such new rights as may be required for the purpose specified in relation to that land in column (2) of that Schedule.

(3) Subject to section 8 of the 1965 Act where the undertaker acquires a right over land under paragraph (1) or (2) the undertaker shall not be required to acquire a greater interest in that land.

(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) shall be subject to the same restrictions, liabilities and obligations as would apply under this Order if that power were exercised by the undertaker.

### **Private rights**

**19.**—(1) Subject to the provisions of this article, all private rights over land subject to compulsory acquisition under this Order shall be 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 earlier.

(2) Subject to the provisions of this article, all private rights over land subject to the compulsory acquisition of rights under this Order 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 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 in pursuance of the right,

whichever is the earlier.

(3) Subject to the provisions of this article, all private rights over land owned by the undertaker which, being within the limits of land which may be acquired shown on the land plan, are required for the purposes of this Order shall be extinguished on the appropriation of the land by the undertaker for any of those purposes

(4) Subject to the provisions of this article, all private rights over land of which the undertaker takes temporary possession under this Order shall be suspended and unenforceable for as long as the undertaker remains in lawful possession of the land.

(5) Any person who suffers loss by the extinguishment or suspension of any private right under this article shall be entitled to compensation in accordance with the terms of section 152 of the 2008 Act to be determined, in case of dispute, under Part 1 of the 1961 Act.

(6) 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 26 (statutory undertakers) applies.

(7) Paragraphs (1) to (3) shall have effect subject to—

- (a) any notice given by the undertaker before—
  - (i) the completion of the acquisition of the land or the acquisition of rights or the imposition of restrictive covenants over or affecting the land,
  - (ii) the undertaker's appropriation of it,
  - (iii) the undertaker's entry onto it, or
  - (iv) the undertaker's taking temporary possession of it,

that any or all of those paragraphs shall 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.
- (8) If any such agreement as is referred to in paragraph (7)(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 shall be effective in respect of the persons so deriving title, whether the title was derived before or after the making of the agreement.

(9) References 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**

**20.**—(1) The Compulsory Purchase (Vesting Declarations) Act 1981<sup>(a)</sup> shall apply as if this Order were a compulsory purchase order.

(2) The Compulsory Purchase (Vesting Declarations) Act 1981, as so applied, shall have effect with the following modifications.

(3) In section 3 (preliminary notices), for subsection (1) there shall be 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 shall 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 shall be substituted “(1)” and after “given” there shall be inserted “and published”.

(5) In that section, for subsections (5) and (6) there shall be 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 shall be inserted “in a local newspaper circulating in the area in which the land is situated”; and
- (b) subsection (2) shall be 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)” shall be omitted.

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(a) 1981 c. 66. Sections 2(3), 6(2) and 11(6) were amended by section 4 of, and paragraph 52 of Schedule 2 to, the Planning (Consequential Provisions) Act 1990 (c. 11). Section 15 was amended by sections 56 and 321(1) of, and Schedules 8 and 16 to, the Housing and Regeneration Act 2008 (c. 17). Paragraph 1 of Schedule 2 was amended by section 76 of, and Part 2 of Schedule 9 to, the Housing Act 1988 (c. 50); section 161(4) of, and Schedule 19 to, the Leasehold Reform, Housing and Urban Development Act 1993 (c. 28); and sections 56 and 321(1) of, and Schedule 8 to, the Housing and Regeneration Act 2008. Paragraph 3 of Schedule 2 was amended by section 76 of, and Schedule 9 to, the Housing Act 1988 and section 56 of, and Schedule 8 to, the Housing and Regeneration Act 2008. Paragraph 2 of Schedule 3 was repealed by section 277 of, and Schedule 9 to, the Inheritance Tax Act 1984 (c. 51). There are other amendments to the 1981 Act which are not relevant to this Order.

(8) References to the 1965 Act in the Compulsory Purchase (Vesting Declarations) Act 1981 shall be 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 only**

**21.**—(1) The undertaker may acquire compulsorily so much of, or such rights in, the subsoil of the land referred to in paragraph (1) of article 16 (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 under paragraph (1), the undertaker shall not be required to acquire an interest in any other part of the land.

### **Rights under or over streets**

**22.**—(1) The undertaker may enter on and appropriate so much of the subsoil of any street within the Order ~~limits~~ and as may be required for the purposes of the authorised project and may use the subsoil 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) shall 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, shall be entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

(5) Compensation shall 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**

**23.**—(1) The undertaker may, in connection with the carrying out of the authorised project—

- (a) enter on and take temporary possession of the land specified in columns (1) and (2) of Schedule 5 (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;
- (b) remove any buildings and vegetation from that land; and
- (c) construct temporary works (including the provision of means of access) and buildings on that land.

(2) In the case of the land numbered 141, 142, 143, 161, 163, 165, 167, 170 and 171 in column (2) of Schedule 5, the power conferred by paragraph (1) shall be limited to entering in and taking temporary possession of the airspace over the land for the purpose specified in relation to that land in column (3) of that schedule.

(3) Not less than 14 days before entering on and taking temporary possession of land under this article the undertaker shall 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 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 Schedule 5.

(5) Before giving up possession of land of which temporary possession has been taken under this article, the undertaker shall remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land; but the undertaker shall not be required to replace a building removed under this article.

(6) The undertaker shall 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, shall be determined under Part 1 of the 1961 Act.

(8) Nothing in this article shall affect 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) except that the undertaker shall not be 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 21 (acquisition of subsoil only).

(10) In relation to the land specified in paragraph (2), the powers conferred by paragraph (9), shall be limited to the airspace over the land and that paragraph shall not authorise the undertaker to acquire any part of the subsoil or rights in the subsoil of that land.

(11) Where the undertaker takes possession of land under this article, the undertaker shall not be required to acquire the land or any interest in it.

(12) Section 13 of the 1965 Act (refusal to give possession to acquiring authority) shall apply 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).

### **Temporary use of land for maintaining authorised project**

**24.—**(1) Subject to paragraph (2), at any time during the maintenance period relating to any part of the authorised project, the undertaker may—

- (a) enter on and take temporary possession of any land within the Order ~~limits~~ and 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 Order land as may be reasonably necessary for that purpose.

(2) Paragraph (1) shall 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 shall 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 shall remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land.

(6) The undertaker shall 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, shall be determined under Part 1 of the 1961 Act.

(8) Nothing in this article shall affect 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 shall not be required to acquire the land or any interest in it.

(10) Section 13 of the 1965 Act (refusal to give possession to acquiring authority) shall apply 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 5 years beginning with the date on which that part of the authorised project is first opened for use.

#### **For the protection of specified undertakers**

25. Schedule 4 to this Order has effect.

#### **Statutory undertakers**

26. Subject to the provisions of Schedule 4 (for the protection of specified undertakers), the undertaker may—

- (a) acquire compulsorily or acquire new rights over the land belonging to statutory undertakers shown on the land plan within the limits of the land to be acquired and described in the book of reference;
- (b) extinguish the rights of, remove or reposition the apparatus belonging to statutory undertakers over or within the Order land.

#### **Recovery of costs of new connections**

27.—(1) Where any apparatus of a public utility undertaker or of a public communications provider is removed under article 26 (statutory undertakers) any person who is the owner or occupier of premises to which a supply was given from that apparatus shall be 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) shall not apply in the case of the removal of a public sewer but where such a sewer is removed under article 26, 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,

shall be 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 paragraph—

“public communications provider” has the same meaning as in section 151(1) of the Communications Act 2003<sup>(a)</sup>; and

“public utility undertaker” has the same meaning as in the 1980 Act.

### **Application of landlord and tenant law**

**28.**—(1) This article applies to—

- (a) any agreement for leasing to any person the whole or any part of the authorised project or the right to operate the same; and
- (b) any agreement entered into by the undertaker with any person for the construction, maintenance, use or operation of the authorised project, or any part of it,

so far as any such agreement relates to the terms on which any land which is the subject of a lease granted by or under that agreement is to be provided for that person’s use.

(2) No enactment or rule of law regulating the rights and obligations of landlords and tenants shall prejudice the operation of any agreement to which this article applies.

(3) Accordingly, no such enactment or rule of law shall apply in relation to the rights and obligations of the parties to any lease granted by or under any such agreement so as to—

- (a) exclude or in any respect modify any of the rights and obligations of those parties under the terms of the lease, whether with respect to the termination of the tenancy or any other matter;
- (b) confer or impose on any such party any right or obligation arising out of or connected with anything done or omitted on or in relation to land which is the subject of the lease, in addition to any such right or obligation provided for by the terms of the lease; or
- (c) restrict the enforcement (whether by action for damages or otherwise) by any party to the lease of any obligation of any other party under the lease.

### **Operational land for purposes of the 1990 Act**

**29.** Development consent granted by this Order shall 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).

### **Certification of plans etc**

**30.**—(1) The undertaker shall, as soon as practicable after the making of this Order, submit to the decision-maker copies of—

- (a) the Order limits plans Number 2.1 Rev 3 (1 of 2) as submitted in the application for this Order and 2.2 A Rev 4 (2 of 2) submitted to the Examining authority in connection with the examination of the application for this Order ~~as submitted in the application for this Order~~;
- (b) the consolidated book of reference dated 22 October 2012 and submitted to the Examining ~~A~~ authority in connection with the examination of the application for this Order;
- (c) the land plans-  
Number 2.5 Rev 20 (1 of 2) dated 7 June 2012 submitted to the Examining ~~a~~ Authority in connection with the examination of the application for this Order;  
and

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(a) 2003 c.21. There are amendments to this Act which are not relevant to this Order.

- Number 2.6 Rev 6 (2 of 2) as submitted in the application for this Order;
- (d) the onshore works plan Number 2.3 Rev 1 dated 6 November 2012 submitted to the Examining Authority in connection with the examination of the application for this Order; and
- (e) the offshore works plans Number-

C2.4\_A Rev1

C2.4-1 Rev4;

C2.4-2 Rev3;

C2.4-3 Rev2;

C2.4-4 Rev2;

C2.4-5 Rev2;

C2.4-6 Rev2;

C2.4-7 Rev2;

C2.4-8 Rev2;

C2.4-9 Rev2;

C2.4-10 Rev2;

C2.4-11 Rev1;

C2.4-12 Rev2;

C2.4-13 Rev2;

C2.4-14 Rev2;

C2.4-15 Rev2;

C2.4-16 Rev2;

C2.4-17 Rev2;

C2.4-18 Rev2;

C2.4-19 Rev2;

C2.4-20 Rev1;

C2.4-21 Rev2;

C2.4-22 Rev2;

C2.4-23 Rev2;

C2.4-24 Rev2;

C2.4-25 Rev2;

C2.4-26 Rev2;

C2.4-27 Rev2;  
C2.4-28 Rev2;  
C2.4-29 Rev2;  
C2.4-30 Rev2;  
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C2.4-72 Rev1;  
C2.4-73 Rev1;  
C2.4-74 Rev1;  
C2.4-75 Rev1;  
C2.4-76 Rev1;  
C2.4-77 Rev1;  
C2.4-78 Rev1;  
C2.4-79 Rev1;

(f) other plans referred to in this Order-

Number 2.7 Rev 40 (Onshore General Arrangement) dated 13 November 2012 submitted to the Examining aAuthority in connection with the Examination of the application for this Order;

Number 2.8 Rev 6 (Height Restrictions Plan) as submitted with the application for this Order;

Number 2.9 Rev 1 (Onshore Connection and Transmission Works- General Arrangement) dated 10 November 2012 submitted to the Examining aAuthority in connection with the examination of the application for this Order;



Number 2.10 Rev 2 (Transmission Compound- General Arrangement and Elevations) dated 16 July 2012 submitted to the Examining aAuthority in connection with the examination of the application for this Order;

Number 2.21 Rev 4 (Extinguishment of Rights of Navigation Plan) as submitted in the application for this Order;

Number GWF 888 R3 Rev 3 (BEEMS-MS0345 (Sizewell C Protective Provisions Plan)) dated 29 October 2012 submitted to the Examining aAuthority in connection with the examination of the application for this Order;

Number GWF 890 R3 Rev 3 (BEEMS- MS0357A (Sizewell B Quality of Cooling Water Intake Plan)) dated 29 October 2012 submitted to the Examining aAuthority in connection with the examination of the application for this Order; and

Number GWF 887 R3 Rev 3 (BEEMS- MS0359A (Sizewell B Buffer Zone Plan)) dated 29 October 2012 submitted to the Examining aAuthority in connection with the examination of the application for this Order;

(g) other documents referred to in this Order-

The draft Construction Code of Practice dated 29 October 2012 submitted to the Examining aAuthority in connection with the examination of the application for this Order;

The environmental statement as submitted in the application for this Order and the environmental information contained in the clarifications, corrections and omissions document accepted by the Examining authority as part of the examination as a late submission for the 8 June 2012 deadline and the table of environmental mitigation measures in relation to protected species dated 16 July 2012 and the two tables of offshore and onshore environmental mitigation measures dated 16 July 2012 submitted to the Examining authority as part of the examination of the application for this Order;

The design and access statement as submitted in the application for this Order; and

The landscape strategy as submitted in the application for this Order.

for certification that they are true copies of the documents referred to in this Order.

(2) A plan or document so certified shall be admissible in any proceedings as evidence of the contents of the document of which it is a copy.

### **Arbitration**

**31.** Any difference under any provision of this Order, unless otherwise provided for, shall be referred to and settled by a single arbitrator to be agreed between the parties or, failing agreement, to be appointed on the application of either party (after giving notice in writing to the other) by the decision-maker.

Signed by authority of the Secretary of State for Energy and Climate Change

[Address]  
[Date] 201[X]

[Name]  
Head of [Unit]  
Department for Energy and Climate Change

# SCHEDULES

## SCHEDULE 1

Article 3

### Authorised Project

#### PART 1

#### Authorised Development

1. A nationally significant infrastructure project as defined in sections 14 and 15 of the 2008 Act on the bed of the North Sea approximately 27km off the coast of Suffolk and partly within the Renewable Energy Zone, comprising:

*Work No. 1*

- (a) an offshore wind turbine generating station with a gross electrical output capacity of up to 504MW comprising up to 140 wind turbine generators each fixed to the seabed by one of four foundation types (namely, monopile foundation, space frame foundation, suction monopod foundation or gravity base foundation), fitted with rotating blades and situated within one or more of array areas A to C whose coordinates are specified below, and further comprising (b) to (e) below;

#### Coordinates for the array areas

##### Area A

<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51° 59' 59.611" N	1° 59' 30.896" E	2	51° 59' 30.066" N	2° 05' 35.129" E
3	51° 59' 28.672" N	2° 05' 37.951" E	4	51° 59' 25.641" N	2° 05' 44.985" E
5	51° 59' 22.901" N	2° 05' 52.323" E	6	51° 59' 20.463" N	2° 05' 59.937" E
7	51° 59' 18.338" N	2° 06' 07.792" E	8	51° 59' 16.534" N	2° 06' 15.855" E
9	51° 59' 15.059" N	2° 06' 24.092" E	10	51° 59' 13.920" N	2° 06' 32.467" E
11	51° 59' 13.122" N	2° 06' 40.945" E	12	51° 59' 12.682" N	2° 06' 49.050" E
13	51° 59' 12.329" N	2° 06' 59.141" E	14	51° 58' 56.293" N	2° 07' 50.888" E
15	51° 58' 33.766" N	2° 08' 44.666" E	16	51° 57' 13.719" N	2° 08' 44. 383" E
17	51° 55' 37.835" N	2° 08' 14.508" E	18	51° 53' 42.962" N	2° 01' 36.868" E
19	51° 53' 27.719" N	2° 00' 44.242" E	20	51° 53' 15.002" N	2° 00' 00.138" E
21	51° 58' 42.600" N	2° 00' 00.138" E	22	51° 58' 42.600" N	1° 56' 02.667" E

##### Area B

<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51° 49' 01.731" N	2° 01' 29.385" E	2	51° 50' 17.180" N	2° 06' 34.867" E

3	51 <sup>0</sup> 45' 40.117" N	2 <sup>0</sup> 05' 09.101" E	4	51 <sup>0</sup> 43' 22.529" N	1 <sup>0</sup> 57' 54.170" E
5	51 <sup>0</sup> 43' 58.800" N	1 <sup>0</sup> 56' 18.600" E	6	51 <sup>0</sup> 45' 14.400" N	2 <sup>0</sup> 00' 00.000" E
7	51 <sup>0</sup> 46' 28.672" N	2 <sup>0</sup> 00' 00.000" E	8	51 <sup>0</sup> 48' 39.346" N	2 <sup>0</sup> 00' 00.000" E
9	51 <sup>0</sup> 48' 48.664" N	2 <sup>0</sup> 00' 36.597" E			

### Area C

<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51 <sup>0</sup> 47' 45.600" N	1 <sup>0</sup> 56' 02.400" E	2	51 <sup>0</sup> 45' 58.800" N	1 <sup>0</sup> 54' 59.040" E
3	51 <sup>0</sup> 43' 58.800" N	1 <sup>0</sup> 56' 18.600" E	4	51 <sup>0</sup> 45' 31.800" N	1 <sup>0</sup> 52' 27.415" E
5	51 <sup>0</sup> 46' 51.579" N	1 <sup>0</sup> 52' 55.728" E			

- (b) up to one accommodation platform fixed to the seabed by a monopile or space frame foundation within the array areas;
- (c) up to one collection platform fixed to the seabed by a monopile or space frame foundation within the array areas;
- (d) up to three meteorology masts fixed to the seabed by a monopile, space frame, gravity base or suction monopod foundation within the array areas;
- (e) a network of cables laid within the array areas between the WTGs, the meteorology masts, any collection platform, any accommodation platform and Work No. 2, for the transmission of electricity and electronic communications between these different structures, including one or more cable crossings;

and associated development within the meaning of section 115(2) of the 2008 Act comprising:

*Work No. 2* – Up to three offshore substation platforms fixed to the seabed by monopile or space frame foundations within the array areas;

*Work No. 3A* – A grid connection or connections between the different offshore substation platforms comprising Work No. 2 and between Work No. 2 and Work No. 3B consisting of up to three cables laid along routes within the Order limits seaward of mean low water spring tides, including one or more cable crossings;

### In the county of Suffolk, district of Suffolk Coastal

*Work No. 3B* – A grid connection consisting of up to three cables laid underground from mean low water spring tides to the south of Sizewell at reference point A to Work No. 4;

*Work No. 4* – Up to three transition cable jointing bays, with cables, to the south of Sizewell Gap connecting Work No. 3B to Work No. 5;

*Work No. 5* – A grid connection consisting of up to nine cables laid underground from Work No. 4 to Work No. 6 running in a westerly then northerly direction and going under the unnamed road at reference point B and under Sizewell Gap at reference point C;

*Work No. 6* – An electrical substation compound at Sizewell Wents approximately 10 metres west of Work No.10 with an underground electrical connection to Work No. 10;

*Work No. 7* – A screening landform adjacent to all or part of the northern, western and southern boundaries of Work No. 6;

and in connection with such Work Nos. 1 to 3A and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project and which fall within the scope of the work assessed by the environmental statement;

and in connection with such Work Nos. 3B to 7 and to the extent that they do not otherwise form part of any such work, further associated development shown on the plans referred to in the requirements, or approved pursuant to the requirements, including:

- (a) relocation of a communications mast serving the Greater Gabbard substation to reference point H, which is currently located within the footprint of Work No.6, and associated cabling;
- (b) ramps, means of access and footpaths;
- (c) bunds, embankments, swales, landscaping, fencing and boundary treatments;
- (d) habitat creation;
- (e) jointing bays, cable ducts, manholes and other works associated with cable laying;
- (f) works for the provision of apparatus including cabling, water supply works, surface water management systems and culverting;
- (g) construction lay down areas and compounds and their restoration; and
- (h) such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project and which fall within the scope of the works assessed by the environmental statement.

2. A nationally significant infrastructure project as defined in sections 14 and 16 of the 2008 Act comprising:

**In the county of Suffolk, district of Suffolk Coastal**

*Work No. 8A* – Overhead 400 kV electric lines connecting a new sealing end compound to the extended arms of the existing pylon at reference point D;

*Work No. 8B* – Overhead 400 kV electric lines connecting a new sealing end compound to the extended arms of the existing pylon at reference point E;

and associated development within the meaning of section 115(2) of the 2008 Act comprising:

*Work No. 9A* – A grid connection consisting of one or more cables laid underground from Work No. 8A in an approximately northerly then westerly direction to Work No. 10;

*Work No. 9B* – A grid connection consisting of one or more cables laid underground from Work No. 8B in a north westerly direction to Work No. 10;

*Work No.10* – An electrical substation compound at Sizewell Wents to the west of the existing Greater Gabbard substation;

*Work No. 11* – A grid connection consisting of one or more cables laid underground from Work No. 10 in a south then easterly direction, connecting to the existing underground cable at reference point F, and a grid connection laid underground from Work No. 10 to the existing Greater Gabbard substation at reference point G;

and in connection with such Work Nos. 8A to 11 and to the extent that they do not otherwise form part of any such work, further associated development shown on the plans referred to in the requirements, or approved pursuant to the requirements, including:

- (a) ramps, means of access and footpaths;
- (b) bunds, embankments, swales, landscaping, fencing and boundary treatments;
- (c) habitat creation;
- (d) jointing bays, cable ducts, manholes and other works associated with cable laying;
- (e) works for the provision of apparatus including cabling, water supply works, surface water management systems and culverting;
- (f) construction lay down areas and compounds and their restoration; and
- (g) such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project and which fall within the scope of the works assessed by the environmental statement.

3. The grid coordinates for that part of the authorised development which is seaward of MHWS are specified below:

**Coordinates for the Order limits seaward of MHWS**

<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	52° 12' 21.695" N	1° 37' 21.969" E	2	52° 12' 21.770" N	1° 37' 22.834" E
3	52° 12' 38.547" N	1° 37' 31.559" E	4	52° 13' 06.787" N	1° 39' 31.266" E
5	52° 12' 41.875" N	1° 41' 19.072" E	6	52° 08' 53.641" N	1° 43' 50.558" E
7	52° 07' 19.811" N	1° 46' 13.310" E	8	52° 06' 47.705" N	1° 46' 22.155" E
9	52° 05' 45.119" N	1° 47' 48.934" E	10	52° 04' 21.240" N	1° 47' 50.697" E
11	52° 03' 00.375" N	1° 49' 47.154" E	12	52° 02' 59.277" N	1° 50' 58.902" E
13	52° 02' 32.852" N	1° 51' 36.901" E	14	52° 01' 50.815" N	1° 52' 18.710" E
15	52° 01' 30.601" N	1° 54' 02.808" E	16	52° 01' 22.163" N	1° 54' 18.345" E
17	52° 01' 09.327" N	1° 54' 17.298" E	18	52° 01' 05.147" N	1° 54' 18.294" E
19	52° 00' 59.527" N	1° 54' 22.958" E	20	52° 00' 55.981" N	1° 54' 29.281" E
21	52° 00' 54.528" N	1° 54' 33.851" E	22	52° 00' 53.496" N	1° 54' 40.490" E
23	52° 00' 52.133" N	1° 55' 24.154" E	24	51° 59' 40.210" N	1° 58' 21.019" E
25	51° 59' 34.074" N	1° 58' 21.796" E	26	51° 59' 59.611" N	1° 59' 30.896" E
27	51° 59' 30.066" N	2° 05' 35.129" E	28	51° 59' 28.672" N	2° 05' 37.951" E
29	51° 59' 25.641" N	2° 05' 44.985" E	30	51° 59' 22.901" N	2° 05' 52.323" E
31	51° 59' 20.463" N	2° 05' 59.937" E	32	51° 59' 18.338" N	2° 06' 07.792" E
33	51° 59' 2° 06' 15.855"		34	51° 59' 2° 06' 24.092"	

35	16.534" N	E	36	15.059" N	E
	51 <sup>0</sup> 59'	2 <sup>0</sup> 06' 32.467"		51 <sup>0</sup> 59'	2 <sup>0</sup> 06' 40.945"
	13.920" N	E		13.122" N	E
37	51 <sup>0</sup> 59'	2 <sup>0</sup> 06' 49.050"	38	51 <sup>0</sup> 59'	2 <sup>0</sup> 06' 59.141"
	12.682" N	E		12.329" N	E
39	51 <sup>0</sup> 58'	2 <sup>0</sup> 07' 50.888"	40	51 <sup>0</sup> 58'	2 <sup>0</sup> 08' 44.666"
	56.293" N	E		33.766" N	E
41	51 <sup>0</sup> 57'	2 <sup>0</sup> 08' 44.383"	42	51 <sup>0</sup> 55'	2 <sup>0</sup> 08' 14.508"
	13.719" N	E		37.835" N	E
43	51 <sup>0</sup> 53'	2 <sup>0</sup> 01' 36.868"	44	51 <sup>0</sup> 49'	2 <sup>0</sup> 01' 29.385"
	42.962" N	E		01.731" N	E
45	51 <sup>0</sup> 50'	2 <sup>0</sup> 06' 34.867"	46	51 <sup>0</sup> 45'	2 <sup>0</sup> 05' 09.101"
	17.180" N	E		40.117" N	E
47	51 <sup>0</sup> 43'	1 <sup>0</sup> 57' 54.170"	48	51 <sup>0</sup> 43'	1 <sup>0</sup> 56' 18.600"
	22.529" N	E		58.800" N	E
49	51 <sup>0</sup> 45'	1 <sup>0</sup> 52' 27.415"	50	51 <sup>0</sup> 46'	1 <sup>0</sup> 52' 55.728"
	31.800" N	E		51.579" N	E
51	51 <sup>0</sup> 47'	1 <sup>0</sup> 56' 02.400"	52	51 <sup>0</sup> 45'	1 <sup>0</sup> 54' 59.040"
	45.600" N	E		57.600" N	E
53	51 <sup>0</sup> 44'	1 <sup>0</sup> 56' 09.764"	54	51 <sup>0</sup> 44'	1 <sup>0</sup> 56' 31.748"
	12.004" N	E		03.295" N	E
55	51 <sup>0</sup> 45'	2 <sup>0</sup> 00' 00.000"	56	51 <sup>0</sup> 46'	2 <sup>0</sup> 00' 00.000"
	14.400" N	E		28.672" N	E
57	51 <sup>0</sup> 48'	2 <sup>0</sup> 00' 00.000"	58	51 <sup>0</sup> 48'	2 <sup>0</sup> 00' 36.597"
	39.346" N	E		48.664" N	E
59	51 <sup>0</sup> 53'	2 <sup>0</sup> 00' 44.242"	60	51 <sup>0</sup> 53'	2 <sup>0</sup> 00' 00.138"
	27.719" N	E		15.002" N	E
61	51 <sup>0</sup> 58'	2 <sup>0</sup> 00' 00.138"	62	51 <sup>0</sup> 58'	1 <sup>0</sup> 58' 28.302"
	42.600" N	E		42.616" N	E
63	51 <sup>0</sup> 58'	1 <sup>0</sup> 57' 34.138"	64	51 <sup>0</sup> 58'	1 <sup>0</sup> 56' 02.667"
	42.616" N	E		42.600" N	E
65	51 <sup>0</sup> 59'	1 <sup>0</sup> 57' 30.906"	66	51 <sup>0</sup> 59'	1 <sup>0</sup> 57' 30.170"
	15.255" N	E		22.686" N	E
67	52 <sup>0</sup> 01'	1 <sup>0</sup> 53' 39.506"	68	52 <sup>0</sup> 01'	1 <sup>0</sup> 51' 16.683"
	01.179" N	E		28.919" N	E
69	52 <sup>0</sup> 01'	1 <sup>0</sup> 50' 37.798"	70	52 <sup>0</sup> 02'	1 <sup>0</sup> 49' 59.472"
	36.462" N	E		03.097" N	E
71	52 <sup>0</sup> 04'	1 <sup>0</sup> 46' 58.300"	72	52 <sup>0</sup> 05'	1 <sup>0</sup> 46' 56.527"
	08.838" N	E		32.520" N	E
73	52 <sup>0</sup> 06'	1 <sup>0</sup> 45' 32.604"	74	52 <sup>0</sup> 07'	1 <sup>0</sup> 45' 24.158"
	33.520" N	E		04.673" N	E
75	52 <sup>0</sup> 08'	1 <sup>0</sup> 43' 05.562"	76	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 45.328"
	35.786" N	E		06.924" N	E
77	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 38.374"	78	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 34.668"
	08.338" N	E		09.091" N	E
79	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 29.362"	80	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 28.945"
	10.453" N	E		10.658" N	E
81	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 27.617"	82	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 24.014"
	10.947" N	E		11.334" N	E
83	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 24.163"	84	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 20.735"
	11.585" N	E		12.420" N	E
85	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 19.698"	86	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 19.092"
	12.713" N	E		12.978" N	E
87	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 14.764"	88	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 11.316"
	13.722" N	E		14.592" N	E
89	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 09.601"	90	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 00.995"
	14.726" N	E		16.655" N	E

91	52 <sup>0</sup> 12' 18.548" N	1 <sup>0</sup> 39' 52.398" E	92	52 <sup>0</sup> 12' 19.617" N	1 <sup>0</sup> 39' 47.867" E
93	52 <sup>0</sup> 12' 20.133" N	1 <sup>0</sup> 39' 44.145" E	94	52 <sup>0</sup> 12' 21.264" N	1 <sup>0</sup> 39' 40.715" E
95	52 <sup>0</sup> 12' 22.455" N	1 <sup>0</sup> 39' 35.162" E	96	52 <sup>0</sup> 12' 22.647" N	1 <sup>0</sup> 39' 34.805" E
97	52 <sup>0</sup> 12' 23.511" N	1 <sup>0</sup> 39' 30.442" E	98	52 <sup>0</sup> 12' 24.413" N	1 <sup>0</sup> 39' 27.238" E
99	52 <sup>0</sup> 12' 24.629" N	1 <sup>0</sup> 39' 25.209" E	100	52 <sup>0</sup> 12' 25.271" N	1 <sup>0</sup> 39' 21.684" E
101	52 <sup>0</sup> 12' 25.717" N	1 <sup>0</sup> 39' 20.525" E	102	52 <sup>0</sup> 12' 26.377" N	1 <sup>0</sup> 39' 15.364" E
103	52 <sup>0</sup> 12' 26.479" N	1 <sup>0</sup> 39' 14.852" E	104	52 <sup>0</sup> 12' 26.591" N	1 <sup>0</sup> 39' 13.000" E
105	52 <sup>0</sup> 12' 26.726" N	1 <sup>0</sup> 39' 09.534" E	106	52 <sup>0</sup> 12' 27.156" N	1 <sup>0</sup> 39' 04.787" E
107	52 <sup>0</sup> 12' 27.336" N	1 <sup>0</sup> 39' 03.952" E	108	52 <sup>0</sup> 12' 27.378" N	1 <sup>0</sup> 39' 02.849" E
109	52 <sup>0</sup> 12' 27.503" N	1 <sup>0</sup> 39' 01.729" E	110	52 <sup>0</sup> 12' 27.672" N	1 <sup>0</sup> 38' 59.184" E
111	52 <sup>0</sup> 12' 27.936" N	1 <sup>0</sup> 38' 56.895" E	112	52 <sup>0</sup> 12' 27.980" N	1 <sup>0</sup> 38' 54.459" E
113	52 <sup>0</sup> 12' 28.226" N	1 <sup>0</sup> 38' 52.855" E	114	52 <sup>0</sup> 12' 28.252" N	1 <sup>0</sup> 38' 51.642" E
115	52 <sup>0</sup> 12' 28.372" N	1 <sup>0</sup> 38' 51.228" E	116	52 <sup>0</sup> 12' 28.438" N	1 <sup>0</sup> 38' 49.416" E
117	52 <sup>0</sup> 12' 28.801" N	1 <sup>0</sup> 38' 46.905" E	118	52 <sup>0</sup> 12' 28.941" N	1 <sup>0</sup> 38' 44.288" E
119	52 <sup>0</sup> 12' 28.845" N	1 <sup>0</sup> 38' 39.122" E	120	52 <sup>0</sup> 12' 28.858" N	1 <sup>0</sup> 38' 38.526" E
121	52 <sup>0</sup> 12' 28.608" N	1 <sup>0</sup> 38' 35.768" E	122	52 <sup>0</sup> 12' 28.426" N	1 <sup>0</sup> 38' 34.235" E
123	52 <sup>0</sup> 12' 28.155" N	1 <sup>0</sup> 38' 33.195" E	124	52 <sup>0</sup> 12' 27.765" N	1 <sup>0</sup> 38' 28.902" E
125	52 <sup>0</sup> 12' 27.466" N	1 <sup>0</sup> 38' 27.740" E	126	52 <sup>0</sup> 12' 26.843" N	1 <sup>0</sup> 38' 23.551" E
127	52 <sup>0</sup> 12' 26.282" N	1 <sup>0</sup> 38' 18.752" E	128	52 <sup>0</sup> 12' 25.310" N	1 <sup>0</sup> 38' 13.007" E
129	52 <sup>0</sup> 12' 25.249" N	1 <sup>0</sup> 38' 11.139" E	130	52 <sup>0</sup> 12' 24.835" N	1 <sup>0</sup> 38' 08.881" E
131	52 <sup>0</sup> 12' 24.783" N	1 <sup>0</sup> 38' 08.123" E	132	52 <sup>0</sup> 12' 24.514" N	1 <sup>0</sup> 38' 06.910" E
133	52 <sup>0</sup> 12' 24.191" N	1 <sup>0</sup> 38' 03.616" E	134	52 <sup>0</sup> 12' 23.841" N	1 <sup>0</sup> 38' 01.335" E
135	52 <sup>0</sup> 12' 23.181" N	1 <sup>0</sup> 37' 57.957" E	136	52 <sup>0</sup> 12' 22.595" N	1 <sup>0</sup> 37' 54.034" E
137	52 <sup>0</sup> 12' 22.177" N	1 <sup>0</sup> 37' 52.624" E	138	52 <sup>0</sup> 12' 21.193" N	1 <sup>0</sup> 37' 47.365" E
139	52 <sup>0</sup> 12' 20.325" N	1 <sup>0</sup> 37' 42.850" E	140	52 <sup>0</sup> 12' 19.615" N	1 <sup>0</sup> 37' 37.741" E
141	52 <sup>0</sup> 12' 19.710" N	1 <sup>0</sup> 37' 32.227" E	142	52 <sup>0</sup> 12' 19.863" N	1 <sup>0</sup> 37' 28.535" E
143	52 <sup>0</sup> 12' 20.547" N	1 <sup>0</sup> 37' 22.637" E	144	52 <sup>0</sup> 12' 20.572" N	1 <sup>0</sup> 37' 21.805" E

## PART 2

### Ancillary Works

Seaward of mean low water spring tides, works comprising:

- (a) temporary moorings or other means of accommodating vessels in the construction and/or maintenance of the authorised development;
- (b) buoys, beacons, fenders and other navigational warning or ship impact protection works; and
- (c) temporary works for the benefit or protection of land or structures affected by the authorised development.

## PART 3

### Requirements

#### Interpretation

1. In this Part of this Schedule—

“AIS” means automatic identification system;

“AOD” means above ordnance datum;

“the CAA” means the Civil Aviation Authority constituted by the Civil Aviation Act 1982;

“CNIS” means Channel Navigation Information Service;

“connection works” means Work Nos. 3B to 7 and any further associated development in connection with those works;

“EDF Energy” means EDF Energy (UK) Limited (company number 02622406) and any group company of EDF Energy (UK) Limited which holds property and is a licenced holder for any of the purposes under section 6 of the Electricity Act 1989 at Sizewell, and for the purposes of this definition “group company” means any company which is a company within the meaning of section 42 of the Landlord and Tenant Act 1954 including EDF Energy Nuclear Generation Limited (company number 03076445) and NNB Generation Company Limited (company number 06937084);

“the environmental statement” means the document certified as the environmental statement by the decision-maker for the purposes of this Order and submitted with the application on 21 November 2011 and the environmental information contained in the clarifications, corrections and omissions document accepted by the Examining authority as part of the examination as a late submission for the 8 June 2012 deadline and which shall include the table of environmental mitigation measures in relation to protected species dated 16<sup>th</sup> July 2012 and the two tables of offshore and onshore environmental mitigation measures dated 16<sup>th</sup> July 2012- submitted to the Examining ~~a~~ Authority as part of the examination of the application for this Order ;

“highway” and “highway authority” means the local highway authority for the relevant area have the same meaning as in the 1980 Act;

“LAT” means lowest astronomical tide;

“mean high water springs level” or “MHWS” means the highest level which spring tides reach on average over a period of time;



“mean low water spring tides” or “MLWST” means the average of the low water heights occurring at the time of spring tides which is also the outermost extent of the local planning authority jurisdiction;

“notice to mariners” includes any notice to mariners which may be issued by the Admiralty, Trinity House, Queen's harbourmasters, government departments and harbour and pilotage authorities;

“onshore works” means the connection works and the transmission works together;

“Radar” means radio detection and ranging;

“relevant works” means the connection works or the transmission works as the case may be, to the intent that the approval of details, commencement and/or completion of the works, and/or the commencement of commercial operation of the works, in relation to the connection works is not dependent on any such matter in relation to the transmission works and vice versa;

“transmission works” means Work Nos. 8A to 11 and any further associated development in connection with those works;

“TSS” means traffic separation scheme;

“UK Hydrographic Office” means the UK Hydrographic Office of Admiralty Way, Taunton, Somerset TA1 2DN.

### **Time limits**

2. 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 offshore design parameters**

3.—(1) Subject to paragraph (2), no wind turbine generator forming part of the authorised development shall:

- (a) exceed a height of 195 metres when measured from LAT to the tip of the vertical blade;
- (b) exceed a height of 120 metres to the height of the centreline of the generator shaft forming part of the hub when measured from LAT;
- (c) exceed a rotor diameter of 164 metres, or have a rotor diameter of less than 107 metres;
- (d) be less than 642 metres from the nearest WTG in either direction perpendicular to the approximate prevailing wind direction or be less than 856 metres from the nearest WTG in either direction which is in line with the approximate prevailing wind direction;
- (e) have a distance of less than 22 metres between the lowest point of the rotating blade of the wind turbine and MHWS.

(2) ~~(2)~~References to the location of a wind turbine generator are references to the centre point of that turbine.

(3) The total number of wind turbine generators forming part of the authorised development shall not exceed the Maximum WTG Number;

(4) Each wind turbine generator forming part of the authorised development shall conform to the manufacturer and model specified in the Approved WTG Specification;

(5) Each wind turbine generator constructed as part of the authorised development shall comply with the Minimum Clearance Level, which shall mean a specified minimum distance, measured in metres, between the lowest point of the rotating blade of the wind turbine generator and MHWS specified in an Approval Notice issued by the Secretary of State;

(6) The "Percentage Reduction" shall be 7.6% being the percentage reduction in predicted mortality of lesser black-backed gulls specified in the Secretary of State's decision letter granting development consent for the authorised development as being required, in the Secretary of State's opinion, to restrict the absolute number of predicted mortalities to be no more than 110 and so in combination with the other mitigation measures avoid a conclusion of adverse effect on the integrity of the Alde-Ore Estuary Special Protection Area (classified on 4 October 1996; SPA EU Code UK9009112) in accordance with Regulation 61 of The Conservation of Habitats and Species Regulations 2010 and Regulation 25 of The Offshore Marine Conservation (Natural Habitats, & c.) Regulations 2007:

(7) The Maximum WTG Number, the WTG Specification and the Minimum Clearance Level shall be as specified in an approval notice issued (including any variation) by the Secretary of State, after consultation with Natural England (including consultation on any variation application), issued after an application by the undertaker for approval of the same, unless such notice has been withdrawn by the Secretary of State pursuant to an application for such withdrawal by the undertaker:

(8) Any application made (including any application to vary an approval notice which has already been issued) by the undertaker for approval of the Maximum WTG Number, the WTG Specification and the Minimum Clearance Level shall explain how the proposed Maximum WTG Number, the WTG Specification and the Minimum Clearance Level will together satisfy the Percentage Reduction set at 3(6):

(9) Any application by the undertaker made to vary an approval notice to make it less onerous in terms of the percentage reduction secured (as distinct from a variation application to secure a different means of achieving the Percentage Reduction) or to withdraw the notice altogether shall be accompanied by evidence to justify such a variation or withdrawal in the light of the growth and expected further growth of the breeding population of the lesser black-backed gull at the Alde-Ore Estuary Special Protection Area in relation to its target favourable conservation status as specified in its conservation objectives. The evidence must relate to the performance of the other mitigation measures required under the DCO/DML or secured by s106 undertaking and show that these and the operation of the full development have been shown to be effective in fully offsetting the level of additional mortality that is predicted and assessed to have occurred as a result of the authorised development.

4. —(1) Subject to paragraph (2), ~~No~~ wind turbine generator, offshore substation platform, collection platform, accommodation platform or meteorological mast forming part of the authorised development shall be erected within the area hatched black on the Order limits plan, whose coordinates are specified below:

#### Coordinates for restricted build area

<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51° 59' 16.526" N	2° 02' 34.375" E	2	51° 59' 06.310" N	2° 03' 24.837" E
3	51° 55' 13.411" N	2° 02' 25.515" E	4	51° 55' 27.574" N	2° 01' 36.127" E

#### Area A

<u>Point</u>	<u>Latitude (DMS)</u>	<u>Longitude (DMS)</u>
1	51° 59' 16.526" N	002° 02' 34.375" E
2	51° 59' 06.310" N	002° 03' 24.837" E
3	51° 55' 13.411" N	002° 02' 25.515" E
4	51° 55' 27.574" N	002° 01' 36.127" E

## Area B

<u>Point</u>	<u>Latitude (DMS)</u>	<u>Longitude (DMS)</u>
1	51° 50' 03.792" N	002° 05' 40.51" E
2	51° 50' 17.18" N	002° 06' 34.867" E
3	51° 45' 40.294" N	002° 05' 09.342" E
4	51° 45' 13.651" N	002° 03' 45.378" E
5	51° 45' 57.73" N	002° 03' 55.722" E
6	51° 46' 42.244" N	002° 04' 03.915" E
7	51° 47' 18.17" N	002° 03' 58.203" E
8	51° 48' 07.957" N	002° 04' 10.27" E
9	51° 49' 03.993" N	002° 04' 46.013" E

(2) The restriction in relation to the restricted build Area B shall no longer apply if the Secretary of State, issues a notice to that effect, after an application from the undertaker accompanied by evidence to justify the discontinuance of the restrictions demonstrates that:

- (a) the performance of the other mitigation measures required under the DCO/DML shows that these and the operation of the whole authorised development have been shown to be effective in fully offsetting the level of additional lesser black –backed gull mortality that is predicted and assessed to have occurred as a result of the authorised development;
- (b) the removal of the restriction will not have any significant adverse impact on the fishing activity of both the trawling and inshore fishing interests identified in the Environmental Statement.

**5.—(1)** The total number of offshore substation platforms, accommodation platforms and collection platforms forming part of the authorised development shall not exceed four.

(2) The dimensions of any offshore substation platform, accommodation platform or collection platform forming part of the authorised development (excluding any masts) shall not exceed 75 metres in height when measured from LAT, 65 metres in length and 50 metres in width. Any such platform shall have no more than one supporting foundation.

(3) No meteorological mast shall exceed a height of 120 metres when measured from LAT, nor shall it have more than one supporting foundation.

**6.—(1)** The number of cables forming part of the authorised development laid in each of the corridors forming part of the Order limits between reference point AA and reference point BB and reference point CC and reference point DD and the area marked by reference point EE on the works plan shall not exceed three.

(2) The total length of the cables comprising Work No. 3A shall not exceed 190 kilometres.

(3) The total length of the cables comprising Work No. 1(e) shall not exceed 300 kilometres.

**7.—(1)** Each monopile foundation forming part of the authorised development shall not have a diameter greater than 7 metres.

(2) Each monopile foundation forming part of the authorised development shall not be constructed in water with a depth greater than 45 metres between LAT and the seabed.

(3) Each gravity base foundation forming part of the authorised development shall not have:

- (a) a diameter at the level of the seabed which is greater than 45 metres;
- (b) a base height, where there is a flat base, which is greater than 7.5 metres above the level of the seabed;
- (c) a column diameter, where there is a flat or conical base, of greater than 10 metres;
- (d) a cone/column intersect which is higher than 20 metres above the top of the base;
- (e) a cone diameter at its base which is greater than 35 metres.

(4) In the event that any WTG uses a gravity base foundation of more than 35 metres diameter at the level of the seabed, the authorised development shall not comprise more than 101 WTG in total;

(5) Each space frame foundation forming part of the authorised development shall not have:

- (a) for use with any WTG or meteorology mast, a spacing between each leg at the level of the seabed which is greater than 40 metres and at the level of LAT which is greater than 25 metres;
- (b) for use with any offshore substation platform, accommodation platform or collection platform, a spacing between each leg at the level of the seabed which is greater than 55 metres in one direction and 40 metres in a perpendicular direction, and at the level of LAT which is greater than 40 metres in one direction and 30 metres in a perpendicular direction;
- (c) more than two piles per leg or more than one suction can per leg;
- (d) a pile diameter which is more than 3 metres each;
- (e) for use with any WTG or meteorology mast, a suction can diameter greater than 11.5m each, where the total number of suction cans per structure is 3 or fewer;
- (f) for use with any WTG or meteorology mast, a suction can diameter of greater than 10m each, where the total number of suction cans is more than 3;
- (g) for use with any offshore substation platform, accommodation platform or collection platform, a suction can diameter of greater than 17 metres each, where the total number of suction cans is 4 or fewer;
- (h) for use with any offshore substation platform, accommodation platform or collection platform, a suction can diameter of greater than 10 metres each, where the total number of suction cans is more than 4;
- (i) more than 4 legs for a WTG or meteorology mast, or more than 6 legs for an offshore substation platform, accommodation platform or collection platform.

(6) Each suction monopod foundation forming part of the authorised development shall not have:

- (a) a diameter at the level of the seabed which is greater than 25 metres;
- (b) a base height, where there is a flat base, which is greater than 7.5 metres above the level of the seabed;
- (c) a column diameter which is greater than 9 metres.

### **Offshore safety management**

8.—(1) No authorised development seaward of MHWS shall commence until the Secretary of State, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and adequately addressed all MCA recommendations contained within MGN371, "Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues" and its annexes including full details of the Emergency Co-operation Plans (ERCOP) for the construction, operation and decommissioning phases as appropriate to the authorised development.

(2) The undertaker will prepare and implement a project specific Active Safety Management System, taking account of safety and mitigation measures as identified within the Navigation Risk Assessment.

(3) The undertaker shall at its cost, provide and deliver to the MCA Hydrographic data (to IHO order 1a standard) of the extended SUNK East Traffic Separation Scheme.

(4) The undertaker shall at its cost, as early as technically feasible following the commencement of construction works seaward of MHWS, remotely gather and provide to the MCA: Radar, AIS and VHF radio telephony information in relation to the SUNK East Traffic Separation Scheme as

extended to assist in managing shipping movements as a result of the authorised development. The information must be:

- (i) gathered to adequately extend VTS range to effectively cover the Eastern extremity of the SUNK East Traffic Separation Scheme extension unless otherwise agreed by the MCA;
- (ii) delivered, in a format and within a timescale agreed by the MCA, so that it may be incorporated into the MCA's systems for seamless display at CNIS; and
- (iii) provided by the undertaker to the MCA until the authorised development has been fully decommissioned in accordance with an approved programme under the 2004 Act.

### **Aids to navigation**

**9.** The undertaker shall at or near the authorised development during the whole period of the construction, operation, alteration, replacement or decommissioning of the authorised development exhibit such lights, marks, sounds, signals and other aids to navigation as Trinity House may from time to time direct in writing.

**10.** The undertaker shall ensure that timely and efficient notices to mariners and other navigational warnings of the position and nature of the authorised development seaward of MHWS, are issued during and after the period of construction, alteration, replacement or decommissioning of the authorised development, such information to be promulgated to mariners in the shipping and fishing industry as well as to recreational mariners.

**11.** The undertaker shall notify Trinity House, in writing, as soon as reasonably practicable of both the progress and completion of the authorised development seaward of MHWS and any aids for navigation established from time to time.

**12.** The undertaker shall provide reports on the availability of aids to navigation periodically as requested by Trinity House in writing.

**13.** The undertaker shall notify the UK Hydrographic Office, in writing, of the progress and completion of the authorised development seaward of MHWS.

**14.—(1)** The undertaker shall colour all structures yellow from at least highest astronomical tide to a height directed by Trinity House, in writing, or shall colour the structure as directed by Trinity House from time to time.

(2) Subject to paragraph (1) above, unless the Secretary of State otherwise directs, in writing, the undertaker shall ensure that the wind turbine generators shall be painted submarine grey (colour code RAL 7035).

**15.—(1)** The undertaker shall exhibit such lights, with such shape, colour and character as are required in writing by Air Navigation Order 2009 and determined necessary for aviation safety in consultation with the Ministry of Defence (Defence Infrastructure Organisation) and~~as~~ as directed by the CAA.

(2) The undertaker will notify the Ministry of Defence (Defence Infrastructure Organisation), at least 14 days in advance of the date offshore construction works commence, of the following information:

- (a) the date offshore works construction starts and ends;
- (b) the date any wind turbine generators are brought into use;
- (c) the maximum height of construction equipment;
- (d) the maximum heights of any wind turbine generator, mast and platform to be constructed;
- (e) the latitude and longitude of each wind turbine generator, mast and platform to be constructed;
- (f) any subsequent alterations to this notified information.

### **Provision against danger to navigation**

16. In case of injury to, or destruction or decay of, the authorised development seaward of MWHS or any part thereof the undertaker shall as soon as reasonably practicable notify Trinity House, in writing, and shall lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as Trinity House may from time to time direct in writing.

### **Offshore decommissioning**

17. No authorised development seaward of mean low water spring tides shall commence until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State/the notice dated [●] pursuant to section 105(2) of the 2004 Act has been submitted to the Secretary of State for approval.

### **Stages of authorised development onshore**

18. Neither the connection works nor the transmission works shall be commenced until a written scheme setting out all the stages of the relevant works has been submitted to and approved by the relevant planning authority.

### **Detailed design approval onshore**

19.—(1) Except where the connection works or the transmission works as the case may be are carried out in accordance with the plans (or relevant parts of the plans) listed in requirement 20, no part of the relevant works shall commence until details of the layout, scale, levels and external appearance of the same, so far as they do not accord with the authorised plans, have been submitted to and approved by the relevant planning authority. The relevant works must be carried out in accordance with the approved details, unless agreed otherwise by the relevant planning authority.

(2) Any works approved by the relevant planning authority under paragraph (1) shall accord with the principles of the design and access statement submitted with the application for this Order and be within the Order limits.

(3) No building forming part of Work Nos. 6, 8A, 8B or 10, shall exceed the relevant height limit for its proposed location specified on the height restriction plan above the approved floor level for that location.

(4) The floor level of Work Nos. 6 and 10 shall not be higher than 9 metres AOD.

(5) Work No. 6 shall not be brought into commercial operation (excluding commissioning) until Work No. 7 has been constructed.

(6) The height of the relocated communications mast shall not exceed 15 metres AOD, and its supporting pole shall not exceed 16 metres AOD.

(7) The width of the corridor occupied by the grid connection comprising Works No. 3B and 5, and any related associated development, once constructed, shall not exceed 23 metres, save for any part of the works where drilling is proposed, which part(s) shall not exceed 33 metres.

(8) No works shall be carried out in relation to the laying of cables or other works under Sizewell Gap until the detail of those works and their proposed methodology has been approved by the relevant planning authority, after consultation with the highway authority and EDF Energy (which shall not unreasonably delay its response to that consultation). The relevant works shall be carried out in accordance with the approved details, unless agreed otherwise by the planning authority, after consultation with the highway authority and EDF Energy (which shall not unreasonably delay its response to that consultation).

**20.**—(1) The connection works and the transmission works shall be carried out in accordance with the approved plans submitted with the application, or subsequently in connection with the examination of the application of this Order, save in respect of any part of such plans which expressly states that they do not show details for express approval (unless otherwise agreed by the relevant planning authority and the altered development accords with the principles of the design and access statement submitted with the application for this Order, is within the scope of the works assessed in the environmental statement and falls within the Order limits):

- Order limits plan (onshore) (application document reference 2.1)
- Works plan (onshore) (document reference 2.3 Rev 1, which superseded application documents reference 2.3a/2.3b)
- General arrangement (onshore) (document reference 2.7 Rev 40, which superseded application document reference 2.7 Rev 39)
- Height restriction plan (application document reference 2.8)
- Onshore Connection and Transmission Works (document reference 2.9 Rev 1, which superseded application documents reference 2.9a/2.9b)
- Transmission compound – general arrangement and elevations (document reference 2.10 Rev 2 which superseded application document reference 2.10 Rev 1).

(2) Where any alternative details are approved pursuant to this requirement and requirement 19 or 37, those details are deemed to be substituted for the corresponding approved details set out in this requirement.

### **Provision of landscaping**

**21.** Neither the connection works nor the transmission works shall commence until a written landscaping scheme and associated work programme (which accords with the landscape strategy comprising Appendix 4 of application document 5.4.5, unless otherwise agreed by the relevant planning authority) in relation to the relevant works has been submitted to and approved by the relevant planning authority, in consultation with Suffolk County Council and Natural England (and in the case of sub-paragraph (k) below with the owner of the water main). Each landscaping scheme must include details of all proposed hard and soft landscaping works, including:

- (a) location, number, species, size and planning density of any proposed planting, including any trees;
- (b) cultivation, importing of materials and other operations to ensure plant establishment;
- (c) proposed finished ground levels;
- (d) hard surfacing materials;
- (e) vehicular and pedestrian access, parking and circulation areas;
- (f) minor structures, such as furniture, refuse or other storage units, signs and lighting;
- (g) proposed and existing functional services above and below, ground, including drainage, power and communications cables and pipelines, manholes and supports;
- (h) details of existing trees to be retained, with measures for their protection during the construction period;
- (i) retained historic landscape features and proposals for restoration, where relevant;
- (j) implementation timetables for all landscaping works; and
- (k) proposals to prevent adverse impact from root spread on the water main to the east of Sandy Lane beneath Pillbox Field.

### **Implementation and maintenance of landscaping**

**22.**—(1) All landscaping works must be carried out in accordance with a landscaping scheme approved under requirement 21, unless otherwise agreed by the relevant planning authority, in consultation with Natural England, and to a good standard in accordance with the relevant recommendations of appropriate British Standards or other recognised codes of good practice.

(2) Any tree or shrub planted as part of an approved landscaping scheme that, within a period of five years after planting, is removed, dies or becomes, in the opinion of the relevant 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 otherwise agreed by the relevant planning authority.

### **Fencing and other means of enclosure**

**23.**—(1) No part of the connection works or the transmission works shall commence until written details of all proposed permanent and temporary fences, walls or other means of enclosure for the relevant part of the relevant works have been submitted to and approved by the relevant planning authority.

(2) All permanent and temporary fences, walls or other means of enclosure must be constructed in accordance with the approved details, unless otherwise agreed by the relevant planning authority.

(3) All construction sites must remain securely fenced at all times during construction of the relevant works.

(4) Any temporary fencing must be removed on completion of the relevant works.

(5) Any approved permanent fencing in relation to Work No.6 or Work No.10 or the sealing end compound must be completed before the relevant work or compound is brought into use.

### **Surface and foul water drainage**

**24.**—(1) Neither the connection works nor the transmission works shall commence until in relation to the relevant works written details of the surface and (if any) foul water drainage system (including means of pollution control) have, after consultation with the relevant sewerage and drainage authorities, been submitted to and approved by the relevant planning authority.

(2) The surface and foul water drainage system must be constructed in accordance with the approved details unless agreed otherwise by the relevant planning authority.

### **Archaeology**

**25.**—(1) Neither the connection works nor the transmission works (including in each case site clearance and preliminary earthworks) shall commence until in relation to the relevant works a written scheme of archaeological investigation has been submitted to and approved by the relevant planning authority, in consultation with Suffolk County Council.

(2) The scheme shall include an assessment of significance and research questions and:

- (a) the programme and methodology of site investigation and recording;
- (b) the programme for post investigation assessment;
- (c) provision to be made for analysis of the site investigation and recording;
- (d) provision to be made for publication and dissemination of the analysis and records of the site investigation;
- (f) nomination of a competent person or organisation to undertake the works set out within the written scheme of investigation.

(3) Neither the connection works nor the transmission works shall commence until in relation to the relevant works the relevant site investigation has been completed in accordance with the programme and methodology included in the approved scheme, and such completion has been approved by the relevant planning authority.

(4) Neither the connection works nor the transmission works shall be brought into commercial operation (excluding commissioning) until in relation to the relevant works the site investigation and post investigation assessment have been completed in accordance with the programme in the



approved scheme and the provision made for analysis, publication and dissemination of results and archive deposition has been secured.

(5) The written scheme in relation to the relevant works shall be carried out as approved, unless otherwise agreed with the relevant planning authority.

### **Ecological management plan**

**26.**—(1) Neither the connection works nor the transmission works (including in each case site clearance and preliminary earthworks) shall commence until a written ecological management plan (which shall include landscape management and include proposals for management throughout the operational life of Work Nos. 3B, 4, 5, 6, 7, 9A, 9B, 10 and 11) for the relevant works reflecting the survey results and ecological mitigation and enhancement measures included in the environmental statement has been submitted to and approved by the relevant planning authority, in consultation with Natural England.

(2) The ecological management plan shall include an implementation timetable and must be carried out as approved, unless otherwise agreed by the relevant planning authority.

### **Construction code of practice**

**27.** No part of the connection works nor the transmission works shall be commenced until a construction code of practice relating to the relevant part of the relevant works has been submitted to and, after consultation with the highway authority and Natural England, approved by the relevant planning authority in relation to the relevant part of the relevant works. The code shall cover all the subject areas set out in the final draft code submitted as part of the examination and as certified by the decision-maker and any other matters the relevant planning authority reasonably requires. The code approved in relation to the relevant part of the relevant works shall be followed in relation to those works, unless otherwise agreed by the relevant planning authority.

### **Construction hours**

**28.**—(1) Construction work for the connection works and the transmission works and any construction-related traffic movements to or from the site of the relevant works shall not take place other than between 0700 hours and 1900 hours Monday to Saturday, with no activity on Sundays or bank holidays, save:

- (a) where continuous periods of operation are required, such as concrete pouring and drilling;
- (b) for the delivery of abnormal loads to the relevant works, which may cause congestion on the local road network;
- (c) where works are being carried out on the foreshore;
- (d) where connection works to the overhead power lines are being carried out;
- (e) as otherwise agreed in writing with the relevant planning authority.

(2) All construction operations which are to be undertaken outside the hours specified in paragraph (1) shall be agreed with the relevant planning authority in advance, and shall be carried out within the agreed times, unless otherwise agreed with the relevant planning authority.

### **Control of noise during operational phase**

**29.**—(1) Considered distinctly from each other, the noise emanating from the operation of Work No. 6 and Work No. 10 (including transformers, cooling fans, switch gear and power lines) shall each not exceed the following levels by reference to the specified points marked on the works plan:

- (a) 40 dB(A) when measured at Point X (Rosery Cottage);
- (b) 33 dB(A) when measured at Point Y (Home Farm);
- (c) 33 dB(A) at Point Z (Halfway Cottages).

(2) Noise measurements shall be expressed as 5 minute L(A)eq values.

(3) Considered distinctly from each other, in the event that the noise emanating from Work No. 6 or 10 has a distinguishable tone, is impulsive or is otherwise irregular in character so as to attract attention, then the 5 minute L(A)eq value from the relevant Work at the points marked on the works plan shall not exceed:

- (a) 35 dB(A) when measured at Point X (Rosery Cottage);
- (b) 28 dB(A) when measured at Point Y (Home Farm);
- (c) 28 dB(A) at Point Z (Halfway Cottages).

(4) All standby generator testing in relation to the connection works or the transmission works shall be undertaken during the hours of 0900 to 1700 on Mondays to Saturdays, and not at all on Sundays or bank holidays, unless otherwise agreed with the relevant planning authority.

### **Control of artificial light emissions**

**30.**—(1) Neither the connection nor the transmission works shall commence commercial operation (including commissioning) until a written scheme for the management and mitigation of artificial light emissions during the operation of the relevant works has been submitted to and approved by the relevant planning authority, in consultation with Natural England.

(2) The approved scheme for the management and mitigation of artificial light emissions must be implemented before and maintained during the operation of the relevant works, unless otherwise agreed by the relevant planning authority.

### **Detailed Emergency Response Plan**

**31.**—(1) No part of the connection works or the transmission works shall commence until an emergency response plan relating to the construction and operation of that part of the relevant works has been submitted for approval by the relevant planning authority after consultation with the Emergency Planning Consultative Committee (of which the relevant planning authority is a member) for the nuclear site licences at Sizewell A and B;

(2) The emergency plan shall be carried out as approved in relation to the relevant part of the relevant works, unless otherwise agreed by the relevant planning authority after consultation with the Emergency Planning Consultative Committee.

### **European protected species**

**32.**—(1) Neither the connection works nor the transmission works shall commence until final pre-construction survey work has been carried out to establish whether a European protected species is present on any of the land affected, or likely to be affected, by any part of the relevant works or in any of the trees and shrubs to be lopped or felled as part of the relevant works.

(2) Where a European protected species is shown to be present, the relevant part(s) of the relevant works shall not begin until, after consultation with Natural England and the Secretary of State for the Environment, Food and Rural Affairs, a scheme of protection and mitigation measures has been submitted to and approved by the relevant planning authority. The relevant works shall be carried out in accordance with the approved scheme, unless otherwise agreed by the relevant planning authority, after consultation with Natural England.

(3) "European protected species" has the same meaning as in regulations 40 and 44 of the Conservation of Habitats and Species Regulations 2010 (as amended)<sup>(a)</sup>.

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(a) S.I. 2010/490.

### **Restoration of land used temporarily for construction**

33. Any land landward of mean low water spring tides within the Order limits which is used temporarily for construction of the connection works or the transmission works, and not ultimately forming part of connection works or the transmission works or approved landscaping, must be reinstated to its former condition, or such condition as the relevant planning authority may approve, within six months of completion of the onshore works, or such other period as the relevant planning authority may approve.

### **Interference with telecommunications**

34. In the event that the operation of the connection works or the transmission works gives rise to interference with telecommunications or television equipment at nearby residential properties, a scheme to rectify the situation in relation to the relevant works shall be submitted to the relevant planning authority for approval. The scheme shall be carried out in accordance with the approved details, unless otherwise agreed by the relevant planning authority.

### **Onshore decommissioning**

35. Upon the cessation of commercial operation of the connection works or the transmission works, a scheme for the demolition and removal of the relevant works (in whole or in part), and the final proposed condition of the relevant land, including a proposed timetable, shall be submitted to and approved by the relevant planning authority, in consultation with Natural England. The proposed scheme shall be based on the onshore decommissioning statement submitted with the application. The scheme shall be carried out in accordance with the approved details, unless otherwise agreed by the relevant planning authority.

### **Requirement for written approval**

36. Where under any of the above requirements the approval or agreement of the Secretary of State, the relevant planning authority or another person is required, that approval or agreement must be given in writing.

### **Amendments to approved details**

37. With respect to any requirement which requires the authorised development to be carried out in accordance with the details approved by the relevant planning authority or another person, the approved details shall be taken to include any amendments that may subsequently be approved in writing by the relevant planning authority or that other person.

## **SCHEDULE 2**

Article 134

### **Streets Subject to Street Works**

<i>(1)</i>	<i>(2)</i>
<i>Area</i>	<i>Street subject to street works</i>
District of Suffolk Coastal	Sizewell Gap at reference point C
District of Suffolk Coastal	Unnamed street at reference point B

### SCHEDULE 3

Article 189

#### 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>
26	Right of access for vehicles and pedestrians at all times.
119	Right to oversail with vehicles.
123, 144	Right of access for vehicles and pedestrians at all times.

### SCHEDULE 4

Articles 25 and 26

#### PART 1

#### For the Protection of Specified Undertakers

1. For the protection of the utility undertakers referred to in this Schedule the following provisions shall, unless otherwise agreed in writing between the undertaker and the utility undertakers concerned, have effect.

2. In this Schedule—

“alternative apparatus” means alternative apparatus adequate to enable the 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<sup>(a)</sup>) 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 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<sup>(b)</sup>;
- (d) in the case of a sewerage undertaker—
  - (i) any drain or works vested in the 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,

(a) 1989 c.29.  
(b) 1991 c.56.

and includes any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus;

“EDF Energy” means EDF Energy (UK) Limited (company number 02622406) and any group company of EDF Energy (UK) Limited which holds property and is a licenced holder for any of the purposes under section 6 of the Electricity Act 1989 at Sizewell, and for the purposes of this definition “group company” means any company which is a company within the meaning of section 42 of the Landlord and Tenant Act 1954 including EDF Energy Nuclear Generation Limited (company number 03076445) and NNB Generation Company Limited (company number 06937084);

“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

“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<sup>(a)</sup>;
- (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.

**3.** 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.

**4.** Regardless of any provision in this Order or anything shown on the land plan the undertaker shall not acquire any apparatus other than by agreement.

**5.—(1)** If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in any land in which any apparatus is placed, that apparatus shall not be removed under this Schedule and any right of a utility undertaker to maintain that apparatus in that land shall 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 shall 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 shall, 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 undertaker in question shall, on receipt of a written notice to that effect from the undertaker, as soon as reasonably possible use its best

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(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).

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 Schedule shall be constructed in such manner and in such line or situation as may be agreed between the undertaker in question and the undertaker or in default of agreement settled by arbitration in accordance with article 31 (arbitration).

(5) The utility undertaker in question shall, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 31, and after the grant to the utility undertaker of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this 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 sub-paragraph applies, that work, instead of being executed by the utility undertaker, shall 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) shall authorise 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.

6.—(1) Where, in accordance with the provisions 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 shall be granted upon such terms and conditions as may be agreed between the undertaker and the undertaker in question or in default of agreement settled by arbitration in accordance with article 31 (arbitration).

(2) In settling those terms and conditions in respect of the alternative apparatus to be constructed in or along any railway, the arbitrator shall—

- (a) give effect to all reasonable requirements of the undertaker for ensuring the safety and efficient operation of the railway 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 or the traffic on the railway; and
- (b) so far as it may be reasonable and practicable to do so in the circumstances of the particular case, give effect to the terms and conditions, if any, applicable to the apparatus constructed in or along the railway 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 shall make such provision for the payment of compensation by the undertaker to that undertaker as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

7.—(1) Not less than 28 days before starting the execution of any works of the type referred to in paragraph 5(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 6(2), the undertaker shall submit to the utility undertaker in question a plan, section and description of the works to be executed.

(2) Those works shall 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 shall be entitled to watch and inspect the execution of those works.

(3) Any requirements made by the undertaker under sub-paragraph (2) shall 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 5 and 6 shall apply as if the removal of the apparatus had been required by the undertaker under paragraph 5(2).

(5) Nothing in this paragraph shall preclude 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 shall apply to and in respect of the new plan, section and description.

(6) The undertaker shall not be required to comply with sub-paragraph (1) in a case of emergency but in that case it shall give to the 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 shall comply with sub-paragraph (2) in so far as is reasonably practicable in the circumstances.

8.—(1) If in consequence of the exercise of the powers conferred by this Order the access to any apparatus is materially obstructed the undertaker shall provide such alternative means of access to such apparatus as will enable the 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 shall 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 5(2).

(3) There shall be deducted from any sum payable under sub-paragraph (2) the value of any apparatus removed under the provisions of this Schedule, that value being calculated after removal.

(4) If in accordance with the provisions 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 31 (arbitration) to be

necessary, then, if such placing involves cost in the construction of works under 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 undertaker in question by virtue of sub-paragraph (2), shall 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 shall 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 shall 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 an undertaker in respect of works by virtue of sub-paragraph (2) shall, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the 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.

**9.—**(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 6(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 shall—

- (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) 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 a utility undertaker, its officers, servants, contractors or agents.

(3) A utility undertaker shall give the undertaker reasonable notice of any such claim or demand and no settlement or compromise shall be made without the consent of the undertaker, which, if it withholds such consent, shall have the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

## **PART 2**

### **For the protection of EDF Energy**

**10.—**The following provisions of Part 2 of this Schedule 4 shall have effect for the protection of EDF Energy in addition to the provisions of Part 1 of this Schedule.

#### *Sizewell C proposed intake infrastructure*

**11. —** (1) Save for urgent reasons of vessel safety and subject to sub-paragraph (3), the undertaker shall not carry out any of the authorised project (including the placement temporary or otherwise of anchors or moorings) within the areas coloured red on Plan number GWF 888 R3 Rev 3 (BEEMS-MS0345) each being a radius of 250 metres from a central point of:



- (a) Intake I3B 650726E 264262N  
DMS 52° 13' 10.045" N 1° 40' 9.404" E; and
- (b) Intake I4B 650526E 263361  
DMS 52° 12' 41.271" N 1° 39' 56.487" E.

(2) Save for urgent reasons of vessel safety the undertaker shall not undertake any of the authorised project within the areas coloured orange on Plan number GWF 888 R3 Rev 3 (BEEMS-MS0345) each being a radius of 250 metres to 500 metres from a central point of:

- (a) Intake I3B 650726E 264262N  
DMS 52° 13' 10.045" N 1° 40' 9.404" E; and
- (b) Intake I4B 650526E 263361  
DMS 52° 12' 41.271" N 1° 39' 56.487" E

without having first submitted to and secured approval from EDF Energy details of the proposed method of working within these areas (such approval not to be unreasonably withheld or delayed) and thereafter the undertaker shall implement the authorised project in full accordance with such approved details.

(3) Nothing in this paragraph 11 shall prevent the passage of vessels within the area specified in sub-paragraph 11(1) prior to the construction of any works within that location by EDF Energy or the passage of vessels within the area specified in paragraph 11(2) at any time.

*Quality of Sizewell B Cooling Water Intake*

**12.**—(1) Save for urgent reasons of vessel safety which mean there is insufficient time to comply with sub-paragraph (a), in which case the undertaker shall use its reasonable endeavours to contact EDF Energy immediately, to inform of non-compliance, by a mechanism previously agreed in writing with EDF Energy:

- (a) All tug operations relating to anchor laying and barge manoeuvring carried out in water of depth less than twice the draft of the tugs being used by the undertaker west of 01° 38' 55.478" E, south of 52° 14' 12.332" N and north of 52° 11' 15.619" N as shown on drawing GWF 890 R3 Rev3 (BEEMS-MS0357A) will be restricted as follows:
  - (i) For the area south of a line starting at the Intersection Point and running to the shore through WGS84 lat/ long 52° 12' 53.086" N, 01° 38' 00.049" E (the "Dividing Line"), operations shall only be undertaken within periods of flood tide and +/- 1 hour adjoining slack high and slack low water periods;
  - (ii) For the area north of the Dividing Line, operations shall only be undertaken within periods of ebb tide and +/- 1 hour adjoining slack high and slack low water periods;
- (b) This restriction in this paragraph 12 applies unless EDF Energy otherwise agrees in writing either a modification of the procedure described above or an alternative protective measure relating to anchor laying and barge manoeuvring within the area west of 01° 38' 55.478" E, south of 52° 14' 12.332" N and north of 52° 11' 15.619" N shown on the plan and that alternative method is shown to be of no greater risk to the Sizewell B intake and its function (such agreement not to be unreasonably withheld or delayed).

- (c) The “Intersection Point” means the point where the line marked B to C on drawing GWF 890 R3 Rev3 (BEEMS-MS0357A) intersects with the northern boundary of the Order limits seaward of MHWS.
- (d) Sub-paragraph 12(1)(a) does not apply to vessels in transit.

*Buffer Zone for Sizewell B offshore infrastructure*

**13.**—(1) No part of the works for the authorised project shall take place using vessels allied with those works within a buffer zone extending 300 metres from the Sizewell B cooling water intake and outfall and associated seabed culverts (as shown on drawing GWF 887 R3 Rev3 (BEEMS-MS0359A)) nor shall any anchor be placed within or chains or cables laid across that buffer zone during the course of such works unless the undertaker obtains the prior approval of EDF Energy (not to be unreasonably withheld or delayed) to the placement of such anchor or chains or cables within the buffer zone:

(2) The relevant centre point positions for the 300m buffer zone are:

- (a) SZB cooling water intake:  
WGS84 lat long: 52° 12' 53.086" N, 01° 38' 00.049" E
- (b) The associated subseabed culvert runs from that position through MHWS at:  
WGS84 lat long: 52° 12' 50.742" N, 01° 37' 24.643" E
- (c) SZB cooling water outfall:  
WGS84 lat long: 52° 12' 54.965" N, 01° 37' 35.792" E
- (d) The associated subseabed culvert runs from that position through MHWS at:  
WGS84 lat long: 52° 12' 53.399" N, 01° 37' 24.647" E

**SCHEDULE 5**

Article 234

**Land of which Temporary Possession may be Taken**

<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>
<i>Area</i>	<i>Number of land shown on land plan</i>	<i>Purpose for which the temporary possession may be taken</i>	<i>Relevant part of the Authorised project</i>
County of Suffolk District of Suffolk Coastal	14	Working site and access	Work No. 4
County of Suffolk District of Suffolk Coastal	29	Working site	Work No. 5
County of Suffolk District of Suffolk Coastal	35, 36, 38, 47, 48, 118	Access	Work Nos. 6, 7, 9A, 9B, 10A, 10B, 11 and 12
County of Suffolk District of Suffolk Coastal	85	Working site and access	Work No. 7
County of Suffolk	42, 43, 46, 50, 51	Working site and	Work No. 7

District of Suffolk Coastal		access	
County of Suffolk District of Suffolk Coastal	161, 163, 165, 167, 170, 171, 175	Crane jib oversail	Work No. 9A
County of Suffolk District of Suffolk Coastal	141, 142, 143	Crane jib oversail	Work No. 9B
County of Suffolk District of Suffolk Coastal	87	Working site and access	Work Nos. 10A and 10B
County of Suffolk District of Suffolk Coastal	106	Working site and access	Work Nos. 6, 11 and 12
County of Suffolk District of Suffolk Coastal	120	Habitat creation	Work Nos. 3B to 12

## SCHEDULE 6

Article 10~~1~~

### Deemed Licence Under The Marine and Coastal Access Act 2009

#### PART 1

#### Licensed Marine Activities

#### Interpretation

1.—(1) In this licence—

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“accommodation platform” means a platform housing or incorporating temporary accommodation including mess facilities, landing points for vessels and helicopters, standby electricity generation equipment, marking and lighting and other equipment and facilities to assist in the coordination of emergency marine activities related to the authorised scheme;

“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);

“authorised scheme” means Work Nos. 1, 2 and 3 described in paragraph 2 of this licence;

“Cefas” means the Centre for Environment, Fisheries and Aquaculture Science;

“collection platform” means a platform housing or incorporating electrical switchgear and/or electrical transformers, J-tubes, marking and lighting and other equipment and facilities to enable the electrical connection of electrical cables from multiple WTGs to be collected at, and exported from, the platform in one or more cables;

“condition” means a condition in Part 2 of this licence;

“commence” means the first carrying out of any part of the licensed activities;

“EDF Energy” means EDF Energy (UK) Limited (company number 02622406) and any group company of EDF Energy (UK) Limited which holds property and is a licenced holder for any of the purposes under section 6 of the Electricity Act 1989 at Sizewell, and for the purposes of this definition “group company” means any company which is a company within the meaning of section 42 of the Landlord and Tenant Act 1954 including EDF Energy Nuclear Generation Limited (company number 03076445) and NNB Generation Company Limited (company number 06937084);

“enforcement officer” means a person authorised to carry out enforcement duties under Chapter 3 of the 2009 Act;

“the environmental statement” means the document certified as the environmental statement by the decision-maker for the purposes of this Order and submitted with the application on 21 November 2011 and the environmental information contained in the clarifications, corrections and omissions document accepted by the Examining authority as part of the examination as a late submission for the 8 June 2012 deadline and which shall include the table of environmental mitigation measures in relation to protected species dated 16<sup>th</sup> July 2012 and the two tables of offshore and onshore environmental mitigation measures dated 16<sup>th</sup> July 2012 submitted to the Examining aAuthority as part of the examination of the application for this Order;

“gravity base foundation” means a structure principally of concrete which rests on the seabed due to its own weight and that of added ballast, with or without additional drilled pins or other additional fixings, which may include an integrated transition piece, and associated equipment including J-tube and access platform(s) and equipment;

“JNCC” means the Joint Nature Conservation Committee;

“the Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“LAT” means lowest astronomical tide;

“licensed activities” means the activities specified in Part 1 of this licence;

“MCA” means the Maritime and Coastguard Agency;

“the Marine Management Organisation” or “MMO” means the body created under the Marine and Coastal Access Act 2009 which is responsible for the monitoring and enforcement of this licence;

“major storm event” means a greater than 1 in 10 year wave event within the Order limits seaward of MHWS in terms of a wave height measured from the Sizewell Waverider buoy (WMO ID: 62294);

“mean high water springs” or “MHWS” means the highest level which spring tides reach on average over a period of time;

“meteorological mast” means a mast housing or incorporating equipment to measure wind speed and other wind characteristics, including a topside housing electrical switchgear and communication equipment and associated equipment, and marking and lighting;

“monopile foundation” means a metal pile, typically cylindrical, driven and/or drilled into the seabed and associated equipment including J-tube and access-related equipment;

“notice to mariners” includes any notice to mariners which may be issued by the Admiralty, Trinity House, Queen's harbourmasters, government departments and harbour and pilotage authorities;

“offshore substation platform” means a platform with one or more decks, whether open or fully clad, accommodating medium to high voltage electrical power transformers, medium and/or high voltage switch gear, helicopter landing facilities, re-fuelling facilities, potable water storage, black

water separation equipment, instrumentation, metering equipment, control systems, standby electrical generation equipment, auxiliary and uninterruptible power supply systems, emergency accommodation including mess facilities, craneage, control hub, drainage facilities, access equipment, marking and lighting and other associated equipment and facilities;

“the Order” means The Galloper Wind Farm Order 201X;

“the offshore Order limits” means the limits shown on the offshore Order limits plan within which the authorised scheme may be carried out, whose grid coordinates are set out in paragraph 2(3) of this licence;

“the offshore Order limits plan” means the plan certified as the Order limits plan by the decision-maker for the purposes of the Order;

“space frame foundation” means a metal jacket/lattice-type structure, including between three and six legs, which is fixed to the seabed with driven piles and/or drilled pins and/or weights and/or suction cans or additional fixings, which may include an integrated transition piece, and associated equipment including J-tube and access platform(s) and equipment;

“suction can” means a steel open-based cylinder, which is fixed to the base of the foundation and is installed until the lid is flush with the seabed;

“suction monopod” means a tubular metal structure founded on a steel open based cylinder akin to an up-turned bucket which partially penetrates the seabed, which may include an integrated transition piece, and associated equipment, including J-tube and access platform(s) and equipment;

“undertaker” means, subject to article 7(2) of the Order, Galloper Wind Farm Limited;

“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

“wind turbine generator” or “WTG” means a structure comprising a tower, rotor with three blades, nacelle and ancillary electrical and other equipment which may include J-tube(s), transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation.

“working day” means any day other than a Saturday, Sunday or public holiday in England and Wales;

(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, in this licence or any approval under it:

- (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 and minutes to two decimal places.

(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: 0191 376 2525;

- (b) Trinity House  
Tower Hill  
London  
EC3N 4DH

Tel: 020 7481 6900;

- (c) The United Kingdom Hydrographic Office  
Admiralty Way  
Taunton  
Somerset  
TA1 2DN

Tel: 01823 337 900;

- (d) Maritime and Coastguard Agency  
Navigation Safety Branch  
Bay 2/04  
Spring Place  
105 Commercial Road  
Southampton  
SO15 1EG

Tel: 023 8032 9191;

- (e) Centre for Environment, Fisheries and Aquaculture Science  
Pakefield Road  
Lowestoft  
Suffolk  
NR33 0HT

Tel: 01502 562 244;

- (f) Natural England  
Foundry House  
3 Millsands  
Riverside Exchange  
Sheffield  
S3 8NH

Tel: 0300 060 2745;

- (g) JNCC  
Inverdee House  
Baxter Street  
Aberdeen  
AB11 9QA

Tel: 01224 266 550;

- (h) English Heritage  
Eastgate Court  
195-205 High Street  
Guildford  
GU1 3EH.

Tel: 01483 252 057.

(5) For information only, the details of the local MMO office to the authorised scheme are:

Marine Management Organisation  
Pakefield Road  
Lowestoft  
Suffolk  
NR33 0HT.

**Details of licensed marine 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 under section 66(1) of the 2009 Act, subject to the conditions:

- (a) the deposit at sea of the substances and articles specified in paragraph (4) below;
- (b) the construction of works in or over the sea and/or on or under the sea bed; and
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation.

(2) Such activities are authorised in relation to the construction, maintenance and operation of:

*Work No. 1*

- (a) an offshore wind turbine generating station with a gross electrical output capacity of up to 504MW comprising up to 140 wind turbine generators each fixed to the seabed by one of four foundation types (namely, monopile foundation, space frame foundation, suction monopod foundation or gravity base foundation), fitted with rotating blades and situated within one or more of array areas A to C, whose coordinates are specified below, and further comprising (b) to (e) below;

**Coordinates for the array areas**

**Area A**

<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51° 59' 59.611" N	1° 59' 30.896" E	2	51° 59' 30.066" N	2° 05' 35.129" E
3	51° 59' 28.672" N	2° 05' 37.951" E	4	51° 59' 25.641" N	2° 05' 44.985" E
5	51° 59' 22.901" N	2° 05' 52.323" E	6	51° 59' 20.463" N	2° 05' 59.937" E
7	51° 59' 18.338" N	2° 06' 07.792" E	8	51° 59' 16.534" N	2° 06' 15.855" E
9	51° 59' 15.059" N	2° 06' 24.092" E	10	51° 59' 13.920" N	2° 06' 32.467" E
11	51° 59' 13.122" N	2° 06' 40.945" E	12	51° 59' 12.682" N	2° 06' 49.050" E
13	51° 59' 12.329" N	2° 06' 59.141" E	14	51° 58' 56.293" N	2° 07' 50.888" E
15	51° 58' 33.766" N	2° 08' 44.666" E	16	51° 57' 13.719" N	2° 08' 44. 383" E
17	51° 55' 37.835" N	2° 08' 14.508" E	18	51° 53' 42.962" N	2° 01' 36.868" E
19	51° 53' 27.719" N	2° 00' 44.242" E	20	51° 53' 15.002" N	2° 00' 00.138" E
21	51° 58' 42.600" N	2° 00' 00.138" E	22	51° 58' 42.600" N	1° 56' 02.667" E

**Area B**

<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51° 49' 01.731" N	2° 01' 29.385" E	2	51° 50' 17.180" N	2° 06' 34.867" E
3	51° 45' 40.117" N	2° 05' 09.101" E	4	51° 43' 22.529" N	1° 57' 54.170" E
5	51° 43' 58.800" N	1° 56' 18.600" E	6	51° 45' 14.400" N	2° 00' 00.000" E
7	51° 46' 28.672" N	2° 00' 00.000" E	8	51° 48' 39.346" N	2° 00' 00.000" E
9	51° 48' 48.664" N	2° 00' 36.597" E			

**Area C**

<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51° 47' 45.600" N	1° 56' 02.400" E	2	51° 45' 58.800" N	1° 54' 59.040" E
3	51° 43' 58.800" N	1° 56' 18.600" E	4	51° 45' 31.800" N	1° 52' 27.415" E
5	51° 46' 51.579" N	1° 52' 55.728" E			

- (b) up to one accommodation platform fixed to the seabed by a monopile or space frame foundation within the array areas;
- (c) up to one collection platform fixed to the seabed by a monopile or space frame foundation within the array areas;
- (d) up to three meteorology masts fixed to the seabed by a monopile, space frame, gravity base or suction monopod foundation within the array areas;
- (e) a network of cables laid within the array areas between the WTGs, the meteorology masts, any collection platform, any accommodation platform and Work No. 2, for the transmission of electricity and electronic communications between these different structures, including one or more cable crossings;

and associated development within the meaning of section 115(2) of the 2008 Act comprising:

*Work No. 2* – Up to three offshore substation platforms fixed to the seabed by monopile or space frame foundations within the array areas;

*Work No. 3* – A connection or connections between Work No. 2 and the line of MHWS south of Sizewell, consisting of up to three cables laid along routes within the offshore Order limits, including one or more cable crossings;

and in connection with such Works No. 1 to 3, works comprising:

- (a) temporary moorings or other means of accommodating vessels in the construction and/or maintenance of the authorised scheme;
- (b) buoys, beacons, fenders and other navigational warning or ship impact protection works;
- (c) temporary works for the benefit or protection of land or structures affected by the authorised scheme.



(3) The grid coordinates for the offshore Order limits are specified below:

**Coordinates for the offshore Order limits**

<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	52 <sup>0</sup> 12' 21.695" N	1 <sup>0</sup> 37' 21.969" E	2	52 <sup>0</sup> 12' 21.770" N	1 <sup>0</sup> 37' 22.834" E
3	52 <sup>0</sup> 12' 38.547" N	1 <sup>0</sup> 37' 31.559" E	4	52 <sup>0</sup> 13' 06.787" N	1 <sup>0</sup> 39' 31.266" E
5	52 <sup>0</sup> 12' 41.875" N	1 <sup>0</sup> 41' 19.072" E	6	52 <sup>0</sup> 08' 53.641" N	1 <sup>0</sup> 43' 50.558" E
7	52 <sup>0</sup> 07' 19.811" N	1 <sup>0</sup> 46' 13.310" E	8	52 <sup>0</sup> 06' 47.705" N	1 <sup>0</sup> 46' 22.155" E
9	52 <sup>0</sup> 05' 45.119" N	1 <sup>0</sup> 47' 48.934" E	10	52 <sup>0</sup> 04' 21.240" N	1 <sup>0</sup> 47' 50.697" E
11	52 <sup>0</sup> 03' 00.375" N	1 <sup>0</sup> 49' 47.154" E	12	52 <sup>0</sup> 02' 59.277" N	1 <sup>0</sup> 50' 58.902" E
13	52 <sup>0</sup> 02' 32.852" N	1 <sup>0</sup> 51' 36.901" E	14	52 <sup>0</sup> 01' 50.815" N	1 <sup>0</sup> 52' 18.710" E
15	52 <sup>0</sup> 01' 30.601" N	1 <sup>0</sup> 54' 02.808" E	16	52 <sup>0</sup> 01' 22.163" N	1 <sup>0</sup> 54' 18.345" E
17	52 <sup>0</sup> 01' 09.327" N	1 <sup>0</sup> 54' 17.298" E	18	52 <sup>0</sup> 01' 05.147" N	1 <sup>0</sup> 54' 18.294" E
19	52 <sup>0</sup> 00' 59.527" N	1 <sup>0</sup> 54' 22.958" E	20	52 <sup>0</sup> 00' 55.981" N	1 <sup>0</sup> 54' 29.281" E
21	52 <sup>0</sup> 00' 54.528" N	1 <sup>0</sup> 54' 33.851" E	22	52 <sup>0</sup> 00' 53.496" N	1 <sup>0</sup> 54' 40.490" E
23	52 <sup>0</sup> 00' 52.133" N	1 <sup>0</sup> 55' 24.154" E	24	51 <sup>0</sup> 59' 40.210" N	1 <sup>0</sup> 58' 21.019" E
25	51 <sup>0</sup> 59' 34.074" N	1 <sup>0</sup> 58' 21.796" E	26	51 <sup>0</sup> 59' 59.611" N	1 <sup>0</sup> 59' 30.896" E
27	51 <sup>0</sup> 59' 30.066" N	2 <sup>0</sup> 05' 35.129" E	28	51 <sup>0</sup> 59' 28.672" N	2 <sup>0</sup> 05' 37.951" E
29	51 <sup>0</sup> 59' 25.641" N	2 <sup>0</sup> 05' 44.985" E	30	51 <sup>0</sup> 59' 22.901" N	2 <sup>0</sup> 05' 52.323" E
31	51 <sup>0</sup> 59' 20.463" N	2 <sup>0</sup> 05' 59.937" E	32	51 <sup>0</sup> 59' 18.338" N	2 <sup>0</sup> 06' 07.792" E
33	51 <sup>0</sup> 59' 16.534" N	2 <sup>0</sup> 06' 15.855" E	34	51 <sup>0</sup> 59' 15.059" N	2 <sup>0</sup> 06' 24.092" E
35	51 <sup>0</sup> 59' 13.920" N	2 <sup>0</sup> 06' 32.467" E	36	51 <sup>0</sup> 59' 13.122" N	2 <sup>0</sup> 06' 40.945" E
37	51 <sup>0</sup> 59' 12.682" N	2 <sup>0</sup> 06' 49.050" E	38	51 <sup>0</sup> 59' 12.329" N	2 <sup>0</sup> 06' 59.141" E
39	51 <sup>0</sup> 58' 56.293" N	2 <sup>0</sup> 07' 50.888" E	40	51 <sup>0</sup> 58' 33.766" N	2 <sup>0</sup> 08' 44.666" E
41	51 <sup>0</sup> 57' 13.719" N	2 <sup>0</sup> 08' 44.383" E	42	51 <sup>0</sup> 55' 37.835" N	2 <sup>0</sup> 08' 14.508" E
43	51 <sup>0</sup> 53' 42.962" N	2 <sup>0</sup> 01' 36.868" E	44	51 <sup>0</sup> 49' 01.731" N	2 <sup>0</sup> 01' 29.385" E
45	51 <sup>0</sup> 50' 17.180" N	2 <sup>0</sup> 06' 34.867" E	46	51 <sup>0</sup> 45' 40.117" N	2 <sup>0</sup> 05' 09.101" E
47	51 <sup>0</sup> 43' 22.529" N	1 <sup>0</sup> 57' 54.170" E	48	51 <sup>0</sup> 43' 58.800" N	1 <sup>0</sup> 56' 18.600" E
49	51 <sup>0</sup> 45' 31.800" N	1 <sup>0</sup> 52' 27.415" E	50	51 <sup>0</sup> 46' 51.579" N	1 <sup>0</sup> 52' 55.728" E
51	51 <sup>0</sup> 47' 1 <sup>0</sup> 56' 02.400"		52	51 <sup>0</sup> 45' 1 <sup>0</sup> 54' 59.040"	

53	45.600" N	E	54	57.600" N	E
	51 <sup>0</sup> 44'	1 <sup>0</sup> 56' 09.764"		51 <sup>0</sup> 44'	1 <sup>0</sup> 56' 31.748"
	12.004" N	E		03.295" N	E
55	51 <sup>0</sup> 45'	2 <sup>0</sup> 00' 00.000"	56	51 <sup>0</sup> 46'	2 <sup>0</sup> 00' 00.000"
	14.400" N	E		28.672" N	E
57	51 <sup>0</sup> 48'	2 <sup>0</sup> 00' 00.000"	58	51 <sup>0</sup> 48'	2 <sup>0</sup> 00' 36.597"
	39.346" N	E		48.664" N	E
59	51 <sup>0</sup> 53'	2 <sup>0</sup> 00' 44.242"	60	51 <sup>0</sup> 53'	2 <sup>0</sup> 00' 00.138"
	27.719" N	E		15.002" N	E
61	51 <sup>0</sup> 58'	2 <sup>0</sup> 00' 00.138"	62	51 <sup>0</sup> 58'	1 <sup>0</sup> 58' 28.302"
	42.600" N	E		42.616" N	E
63	51 <sup>0</sup> 58'	1 <sup>0</sup> 57' 34.138"	64	51 <sup>0</sup> 58'	1 <sup>0</sup> 56' 02.667"
	42.616" N	E		42.600" N	E
65	51 <sup>0</sup> 59'	1 <sup>0</sup> 57' 30.906"	66	51 <sup>0</sup> 59'	1 <sup>0</sup> 57' 30.170"
	15.255" N	E		22.686" N	E
67	52 <sup>0</sup> 01'	1 <sup>0</sup> 53' 39.506"	68	52 <sup>0</sup> 01'	1 <sup>0</sup> 51' 16.683"
	01.179" N	E		28.919" N	E
69	52 <sup>0</sup> 01'	1 <sup>0</sup> 50' 37.798"	70	52 <sup>0</sup> 02'	1 <sup>0</sup> 49' 59.472"
	36.462" N	E		03.097" N	E
71	52 <sup>0</sup> 04'	1 <sup>0</sup> 46' 58.300"	72	52 <sup>0</sup> 05'	1 <sup>0</sup> 46' 56.527"
	08.838" N	E		32.520" N	E
73	52 <sup>0</sup> 06'	1 <sup>0</sup> 45' 32.604"	74	52 <sup>0</sup> 07'	1 <sup>0</sup> 45' 24.158"
	33.520" N	E		04.673" N	E
75	52 <sup>0</sup> 08'	1 <sup>0</sup> 43' 05.562"	76	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 45.328"
	35.786" N	E		06.924" N	E
77	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 38.374"	78	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 34.668"
	08.338" N	E		09.091" N	E
79	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 29.362"	80	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 28.945"
	10.453" N	E		10.658" N	E
81	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 27.617"	82	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 24.014"
	10.947" N	E		11.334" N	E
83	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 24.163"	84	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 20.735"
	11.585" N	E		12.420" N	E
85	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 19.698"	86	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 19.092"
	12.713" N	E		12.978" N	E
87	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 14.764"	88	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 11.316"
	13.722" N	E		14.592" N	E
89	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 09.601"	90	52 <sup>0</sup> 12'	1 <sup>0</sup> 40' 00.995"
	14.726" N	E		16.655" N	E
91	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 52.398"	92	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 47.867"
	18.548" N	E		19.617" N	E
93	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 44.145"	94	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 40.715"
	20.133" N	E		21.264" N	E
95	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 35.162"	96	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 34.805"
	22.455" N	E		22.647" N	E
97	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 30.442"	98	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 27.238"
	23.511" N	E		24.413" N	E
99	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 25.209"	100	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 21.684"
	24.629" N	E		25.271" N	E
101	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 20.525"	102	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 15.364"
	25.717" N	E		26.377" N	E
103	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 14.852"	104	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 13.000"
	26.479" N	E		26.591" N	E
105	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 09.534"	106	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 04.787"
	26.726" N	E		27.156" N	E
107	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 03.952"	108	52 <sup>0</sup> 12'	1 <sup>0</sup> 39' 02.849"
	27.336" N	E		27.378" N	E

109	52 <sup>0</sup> 12' 27.503" N	1 <sup>0</sup> 39' 01.729" E	110	52 <sup>0</sup> 12' 27.672" N	1 <sup>0</sup> 38' 59.184" E
111	52 <sup>0</sup> 12' 27.936" N	1 <sup>0</sup> 38' 56.895" E	112	52 <sup>0</sup> 12' 27.980" N	1 <sup>0</sup> 38' 54.459" E
113	52 <sup>0</sup> 12' 28.226" N	1 <sup>0</sup> 38' 52.855" E	114	52 <sup>0</sup> 12' 28.252" N	1 <sup>0</sup> 38' 51.642" E
115	52 <sup>0</sup> 12' 28.372" N	1 <sup>0</sup> 38' 51.228" E	116	52 <sup>0</sup> 12' 28.438" N	1 <sup>0</sup> 38' 49.416" E
117	52 <sup>0</sup> 12' 28.801" N	1 <sup>0</sup> 38' 46.905" E	118	52 <sup>0</sup> 12' 28.941" N	1 <sup>0</sup> 38' 44.288" E
119	52 <sup>0</sup> 12' 28.845" N	1 <sup>0</sup> 38' 39.122" E	120	52 <sup>0</sup> 12' 28.858" N	1 <sup>0</sup> 38' 38.526" E
121	52 <sup>0</sup> 12' 28.608" N	1 <sup>0</sup> 38' 35.768" E	122	52 <sup>0</sup> 12' 28.426" N	1 <sup>0</sup> 38' 34.235" E
123	52 <sup>0</sup> 12' 28.155" N	1 <sup>0</sup> 38' 33.195" E	124	52 <sup>0</sup> 12' 27.765" N	1 <sup>0</sup> 38' 28.902" E
125	52 <sup>0</sup> 12' 27.466" N	1 <sup>0</sup> 38' 27.740" E	126	52 <sup>0</sup> 12' 26.843" N	1 <sup>0</sup> 38' 23.551" E
127	52 <sup>0</sup> 12' 26.282" N	1 <sup>0</sup> 38' 18.752" E	128	52 <sup>0</sup> 12' 25.310" N	1 <sup>0</sup> 38' 13.007" E
129	52 <sup>0</sup> 12' 25.249" N	1 <sup>0</sup> 38' 11.139" E	130	52 <sup>0</sup> 12' 24.835" N	1 <sup>0</sup> 38' 08.881" E
131	52 <sup>0</sup> 12' 24.783" N	1 <sup>0</sup> 38' 08.123" E	132	52 <sup>0</sup> 12' 24.514" N	1 <sup>0</sup> 38' 06.910" E
133	52 <sup>0</sup> 12' 24.191" N	1 <sup>0</sup> 38' 03.616" E	134	52 <sup>0</sup> 12' 23.841" N	1 <sup>0</sup> 38' 01.335" E
135	52 <sup>0</sup> 12' 23.181" N	1 <sup>0</sup> 37' 57.957" E	136	52 <sup>0</sup> 12' 22.595" N	1 <sup>0</sup> 37' 54.034" E
137	52 <sup>0</sup> 12' 22.177" N	1 <sup>0</sup> 37' 52.624" E	138	52 <sup>0</sup> 12' 21.193" N	1 <sup>0</sup> 37' 47.365" E
139	52 <sup>0</sup> 12' 20.325" N	1 <sup>0</sup> 37' 42.850" E	140	52 <sup>0</sup> 12' 19.615" N	1 <sup>0</sup> 37' 37.741" E
141	52 <sup>0</sup> 12' 19.710" N	1 <sup>0</sup> 37' 32.227" E	142	52 <sup>0</sup> 12' 19.863" N	1 <sup>0</sup> 37' 28.535" E
143	52 <sup>0</sup> 12' 20.547" N	1 <sup>0</sup> 37' 22.637" E	144	52 <sup>0</sup> 12' 20.572" N	1 <sup>0</sup> 37' 21.805" E

(4) The substances or articles authorised for deposit at sea are:

- (a) iron/steel;
- (b) stone and rock;
- (c) concrete;
- (d) sand;
- (e) plastic/synthetic; and
- (f) material extracted from within the offshore Order limits during construction drilling.

**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 2004 Act, including any modification to the programme under section 108, and the completion of such programme has been confirmed by the Secretary of State in writing.

## PART 2

### Conditions

## Design parameters

1.—(1) Subject to paragraph (2), no wind turbine generator forming part of the authorised scheme shall:

- (a) exceed a height of 195 metres when measured from LAT to the tip of the vertical blade;
- (b) exceed a height of 120 metres to the height of the centreline of the generator shaft forming part of the hub when measured from LAT;
- (c) exceed a rotor diameter of 164 metres, or have a rotor diameter of less than 107 metres;
- (d) be less than 642 metres from the nearest WTG in either direction perpendicular to the approximate prevailing wind direction or be less than 856 metres from the nearest WTG in either direction which is in line with the approximate prevailing wind direction;
- (e) have a distance of less than 22 metres between the lowest point of the rotating blade of the wind turbine and MHWS.

(2) References to the location of a wind turbine generator are references to the centre point of that turbine.

2.—(1) Subject to sub-paragraph (2), no wind turbine generator, offshore substation platform, collection platform, accommodation platform or meteorological mast forming part of the authorised scheme shall be erected within the areas hatched black on the Order limits plan, whose coordinates are specified below:

### Coordinates for the restricted build area

<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51 <sup>o</sup> 59' 16.526" N	2 <sup>o</sup> 02' 34.375" E	2	51 <sup>o</sup> 59' 06.310" N	2 <sup>o</sup> 03' 24.837" E
3	51 <sup>o</sup> 55' 13.411" N	2 <sup>o</sup> 02' 25.515" E	4	51 <sup>o</sup> 55' 27.574" N	2 <sup>o</sup> 01' 36.127" E

#### Area A

<u>Point</u>	<u>Latitude (DMS)</u>	<u>Longitude (DMS)</u>
<u>1</u>	<u>51° 59' 16.526" N</u>	<u>002° 02' 34.375" E</u>
<u>2</u>	<u>51° 59' 06.310" N</u>	<u>002° 03' 24.837" E</u>
<u>3</u>	<u>51° 55' 13.411" N</u>	<u>002° 02' 25.515" E</u>
<u>4</u>	<u>51° 55' 27.574" N</u>	<u>002° 01' 36.127" E</u>

#### Area B

<u>Point</u>	<u>Latitude (DMS)</u>	<u>Longitude (DMS)</u>
<u>1</u>	<u>51° 50' 03.792" N</u>	<u>002° 05' 40.51" E</u>
<u>2</u>	<u>51° 50' 17.18" N</u>	<u>002° 06' 34.867" E</u>
<u>3</u>	<u>51° 45' 40.294" N</u>	<u>002° 05' 09.342" E</u>
<u>4</u>	<u>51° 45' 13.651" N</u>	<u>002° 03' 45.378" E</u>
<u>5</u>	<u>51° 45' 57.73" N</u>	<u>002° 03' 55.722" E</u>
<u>6</u>	<u>51° 46' 42.244" N</u>	<u>002° 04' 03.915" E</u>
<u>7</u>	<u>51° 47' 18.17" N</u>	<u>002° 03' 58.203" E</u>
<u>8</u>	<u>51° 48' 07.957" N</u>	<u>002° 04' 10.27" E</u>
<u>9</u>	<u>51° 49' 03.993" N</u>	<u>002° 04' 46.013" E</u>

(2) The restriction in relation to the restricted build Area B shall no longer apply if the Secretary of State, issues a notice to that effect, after an application from the undertaker accompanied by evidence to justify the discontinuance of the restrictions demonstrates that:

- (a) the performance of the other mitigation measures required under the DCO/DML shows that these and the operation of the whole authorised development have been shown to be effective in fully offsetting the level of additional lesser black –backed gull mortality that is predicted and assessed to have occurred as a result of the authorised development;
- (b) the removal of the restriction will not have any significant adverse impact on the fishing activity of both the trawling and inshore fishing interests identified in the Environmental Statement.

**3.—(1)** The total number of offshore substation platforms, accommodation platforms and collection platforms forming part of the authorised scheme shall not exceed four.

(2) The dimensions of any offshore substation platform, accommodation platform or collection platform forming part of the authorised scheme (excluding any masts) shall not exceed 75 metres in height when measured from LAT, 65 metres in length and 50 metres in width. Any such platform shall have no more than one supporting foundation.

(3) No meteorological mast shall exceed a height of 120 metres when measured from LAT, nor shall it have more than one supporting foundation.

**4.—(1)** The number of cables forming part of the authorised scheme laid in each of the corridors forming part of the Order limits between reference point AA and reference point BB and reference point CC and reference point DD and the area marked by reference point EE on shall not exceed three.

(2) The total length of the cables comprising Work No. 3 shall not exceed 190 kilometres.

(3) The total length of the cables comprising Work No. 1(e) shall not exceed 300 kilometres.

**5.—(1)** Each monopile foundation forming part of the authorised scheme shall not have a diameter greater than 7 metres.

(2) Each monopile foundation forming part of the authorised scheme shall not be constructed in water with a depth greater than 45 metres between LAT and the seabed.

(3) Each gravity base foundation forming part of the authorised scheme shall not have:

- (a) a diameter at the level of the seabed which is greater than 45 metres;
- (b) a base height, where there is a flat base, which is greater than 7.5 metres above the level of the seabed;
- (c) a column diameter, where there is a flat or conical base, of greater than 10 metres;
- (d) a cone/column intersect which is higher than 20 metres above the top of the base;
- (e) a cone diameter at its base which is greater than 35 metres.

(4) In the event that any WTG uses a gravity base foundation of more than 35 metres diameter at the level of the seabed, the authorised scheme shall not comprise more than 101 WTG in total;

(5) Each space frame foundation forming part of the authorised scheme shall not have:

- (a) for use with any WTG or meteorology mast, a spacing between each leg at the level of the seabed which is greater than 40 metres and at the level of LAT which is greater than 25 metres;
- (b) for use with any offshore substation platform, accommodation platform or collection platform, a spacing between each leg at the level of the seabed which is greater than 55 metres in one direction and 40 metres in a perpendicular direction and at the level of LAT

which is greater than 40 metres in one direction and 30 metres in a perpendicular direction;

- (c) more than two piles per leg or more than one suction can per leg;
- (d) a pile diameter which is more than 3 metres each;
- (e) for use with any WTG or meteorology mast, a suction can diameter greater than 11.5m each, where the total number of suction cans per structure is 3 or fewer;
- (f) for use with any WTG or meteorology mast, a suction can diameter of greater than 10m each, where the total number of suction cans is more than 3;
- (g) for use with any offshore substation platform, accommodation platform or collection platform, a suction can diameter of greater than 17 metres each, where the total number of suction cans is 4 or fewer;
- (h) for use with any offshore substation platform, accommodation platform or collection platform, a suction can diameter of greater than 10 metres each, where the total number of suction cans is more than 4;
- (i) more than 4 legs for a WTG or meteorology mast, or more than 6 legs for an offshore substation platform, accommodation platform or collection platform.

(6) Each suction monopod foundation forming part of the authorised scheme shall not have:

- (a) a diameter at the level of the seabed which is greater than 25 metres;
- (b) a base height, where there is a flat base, which is greater than 7.5 metres above the level of the seabed;
- (c) a column diameter which is greater than 9 metres.

#### **Notifications and inspections**

6.—(1) The undertaker shall ensure that:

- (a) a copy of this licence and any subsequent amendments or revisions to it is provided to:
  - (i) all agents and contractors notified to the MMO in accordance with condition 13; and
  - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with the condition 13.
- (b) within 28 days of receipt of a copy of this licence those persons referred to at paragraph (a) above shall provide a completed vessel confirmation form to the MMO confirming their understanding of the terms of the conditions of this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 13 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 all reasonable times at the locations set out in paragraph 3(b) above.

(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 or MCA considers necessary to meet any mandatory health and safety requirements or 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) a notice to mariners is issued at least ten days prior to the commencement of the licensed activities advising of the start date of Work Nos. 1 and 2 (wind turbine generation station and offshore platforms) and the expected vessel routes from the local service ports to the turbine locations; and
  - (b) a second notice to mariners is issued advising of the start date of Work No. 3 (subsea export cables) and the route of the subsea export cables.
- (9) The undertaker shall ensure that the notices to mariners are updated and reissued at regular intervals agreed in advance with the MMO and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme approved under condition 9(a). Copies of all notices shall be provided to the MMO.
- (10) The undertaker must promptly notify:
- (a) the Hydrographic Office of both the progress and completion 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.

#### **Chemicals, drilling and debris**

7.—(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 by the MMO.

(2) All protective coatings and paints shall be suitable for use in the marine environment. The use of such coatings shall accord with best environmental practice. Construction of the authorised scheme shall not commence until a document capturing the best environmental practice measures relevant to the GWF project has been submitted to the MMO for approval and approved. The approved best practice measures document must be complied with unless otherwise agreed by the MMO. Any accidental spillages shall be reported to the MMO marine pollution response team.

(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% 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 approval, in consultation with Natural England and JNCC, 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 construction of the authorised scheme.

(6) At least two months 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 that 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 any changes notified immediately to the MMO.

(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 in writing to carry out a side scan sonar survey to plot all obstructions across the relevant area(s) within the offshore Order limits where construction works and related activities have been carried out. 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, as directed by the MMO in writing, at the undertaker's expense.

### **Force majeure**

8. 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 Order limits because the safety of human life and/or of the vessel is threatened, within 48 hours full details of the circumstances of the deposit shall be notified in writing to the MMO.

### **Pre-construction plans and documentation**

9.—The licensed activities shall not commence until the following have been submitted to and approved by the MMO after, in the case of paragraph (a)(iii), (c),(d), (e), (f) and (g) consultation with Natural England and JNCC, and after, in the case of paragraph (h), consultation with English Heritage generally and Suffolk Coastal District Council in relation to the foreshore, and after, in the case of paragraph (b) and (g), consultation with the MCA and THLS, and after, in the case of paragraph g(ii), consultation with the Environment Agency in relation to the foreshore, and after, in the case of paragraph (g), consultation with EDF Energy, in the event that the stated dimensions specified in 9(g)(iv) are exceeded:

- (a) A detailed 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/monitoring, baseline report format and content, construction surveys/monitoring, post-construction surveys/monitoring and related reporting in accordance with conditions 15, 16 and 17.
- (b) A scheme setting out proposed details of the authorised scheme, specifying the number, specification(s) and dimensions of all the proposed WTGs; the proposed foundation type for each WTG; the number, dimensions and foundation type(s) for all proposed offshore platforms and meteorological masts and their expected foundation depth; the grid coordinates of the centre point of the proposed location for each WTG, offshore platform and meteorological mast; and the proposed layout of all cables;
- (c) A construction method statement in accordance with the construction methods assessed in the environmental statement, and including details of how the construction-related mitigation steps proposed in the environmental statement are to be delivered, save where such steps are detailed in another document under this condition 9, and including details of:
  - (i) drilling methods;



- (ii) turbine, meteorological mast and substation installation, including scour protection;
  - (iii) cable installation, including cable landfall;
  - (iv) contractors;
  - (v) vessels and vessel transit corridors; and
  - (vi) associated works.
- (d) 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 assessment 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) a method statement for the taking of sediment samples; and
  - (v) the appointment and responsibilities of a fisheries liaison officer and an environmental liaison officer.
- (e) A scour protection management plan providing details of the need, type, sources, quantity and installation methods for scour protection.
- (f) A marine mammal mitigation programme at least four months prior to commencement of offshore construction, to include:
- (i) a protocol for awareness raising of potential collision risk between vessels and marine mammals;
  - (ii) a protocol for avoiding collision events between vessels and marine mammals;
  - (iii) oOnly where driven or part-driven pile foundations are proposed to be used, a ~~marine mammal mitigation~~ protocol inclusive of a requirement for a soft start procedure to piling events.
- (g) Cable specification and installation plan in accordance with the methodology assessed in the environmental statement, to include:
- (i) technical specification of offshore cables below MHWS, 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 for the offshore Order limits, including geotechnical data and cable laying techniques;
  - (iii) a cable burial risk assessment to inform cable burial depth;
  - (iv) a method of working for cable laying which results in a trench in the Coralline Crag (if the undertaker proposes to install cables into the Coralline Crag) with a width of no more than 1 metre and a depth of no more than 1.75 metres for each cable authorised to be installed across the Coralline Crag; and
  - (v) relocation plan for Waverider Buoy and associated Trinity House Class 2 buoy (WMO ID: 62294) located at 52 12' 28.8" N, 001 41' 04.8" outside the offshore Order limits during cable installation, after consultation by the undertaker with Cefas and Trinity House.

- (h) A written scheme of archaeological investigation in relation to the offshore Order limits seaward of MHWS in accordance with relevant industry guidance and after discussions with English Heritage and Suffolk Coastal District Council, to inform the detailed delivery of the authorised scheme and to include:
- (i) objectives and details of responsibilities of the undertaker, archaeological consultant, contractor and, where relevant, curator;
  - (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, and timetable, which is to be submitted to the MMO within four months of any survey being completed;
  - (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.

**10.**—(1) Any archaeological reports produced in accordance with condition 9(h)(iii) are to be agreed with English Heritage (and, if relevant, Suffolk Coastal District Council).

(2) The undertaker shall ensure that a copy of any agreed archaeological report is deposited with the National Monuments Record, 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 Suffolk County Council that the OASIS report has been submitted to the National Monuments Record.

**11.**—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 9, shall be submitted for approval at least four months prior to the intended start of construction, or survey, unless otherwise agreed by the MMO after, in the case of a proposed variation to the approved surveys under condition 9(a)(iii), consultation with Natural England and JNCC.

(2) The undertaker shall comply with the approved plans, protocols, statements, schemes and details approved under condition 9, unless otherwise agreed by the MMO (and in the case of a proposed variation to an approval under condition 9(g)(iv) which would exceed the stated dimensions in that condition, after consultation with EDF Energy).

#### **Seasonal restrictions**

**12.**—(1) No piling of monopile foundations or other foundation piling in the course of construction of the authorised scheme shall take place in array area C during the relevant peak sole spawning season (the maximum period being 1<sup>st</sup> April to 15<sup>th</sup> May), unless otherwise agreed with the MMO, in consultation with Natural England and JNCC.

(2) No piling of monopile foundations or other foundation piling in the course of construction of the authorised scheme shall take place in array area B during the relevant peak herring spawning season (the maximum period being 1<sup>st</sup> November to 31<sup>st</sup> December), unless otherwise agreed with the MMO, in consultation with Natural England and JNCC.

#### **Reporting of engaged agents, contractors and vessels**

**13.**—(1) The undertaker shall provide the following information to the MMO:

- (a) as soon as reasonably practicable in advance of their engagement in any licensed activities, the name and function of any agent or contractor appointed to engage in the licensed activities; and
  - (b) each week during the construction of the authorised scheme, a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.
- (2) Any changes to the supplied details must be notified to the MMO 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**

**14.**—(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 (7) below.

(2) All motor powered vessels 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 approval of the Secretary of State.

(4) All vessels' names or identification shall be clearly marked on the hull or superstructure.

(5) All vessels shall exhibit signals in accordance with the requirements of the International Regulations for the Prevention of Collisions at Sea.

(6) All communication on VHF working frequencies shall be in English; and

(7) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

#### **Pre-construction monitoring**

**15.**—(1) The undertaker shall, in discharging condition 9(a), submit details for 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. 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. 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 and or economic importance (including Annex I habitats);
- (b) a high resolution acoustic and debris survey of the area(s) within the offshore Order limits in which it is proposed to carry out construction works, including a 500m buffer area;
- (c) an ornithological survey covering the area(s) within the offshore Order limits in which it is proposed to carry out construction works, 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; and

- (d) a fish resource survey covering the area(s) within the offshore Order limits in which it is proposed to carry out construction works, and any wider area(s) where appropriate, which is required to test predictions in the environmental statement concerning key fish resource interests of relevance to the authorised scheme.

(3) The undertaker shall carry out the surveys agreed under paragraph (1) and provide the baseline report to the MMO for approval four months prior to construction in the agreed format, unless otherwise agreed by the MMO, in consultation with Natural England and JNCC.

### **Construction monitoring**

**16.**—(1) The undertaker shall, in discharging condition 9(a), submit details for approval by the MMO of any proposed surveys or monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals shall specify each survey's objectives.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this condition, it is expected that the construction surveys and monitoring will comprise, in outline, the noise monitoring referred to in paragraph (3) and an ornithological survey covering the area(s) within the offshore Order limits in which it is proposed to carry out construction works, 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; and

(3) In any event, such monitoring shall also include measurements of noise generated by the installation of the first four largest diameter monopile foundations (or other piles if monopile foundations are not used), following which the MMO will determine whether further noise monitoring is required.

(4) The undertaker shall carry out the surveys approved under paragraph (1), including any further noise monitoring required in writing by the MMO, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO, in consultation with Natural England and JNCC.

(5) The results of the initial noise measurements provided in accordance with paragraph (4) shall be provided to the MMO within six weeks of the installation of the first relevant monopile foundation piece, or other pile if monopile foundations are not used. The assessment of this report by the MMO shall determine whether any further noise monitoring is required. In the event that the reported noise levels are significantly in excess of those predicted in the environmental statement and this conclusion is notified to the undertaker by the MMO in writing with a clear written instruction to stop pile installation as a consequence, then further pile installation shall only be carried out with the prior written approval of the MMO.

### **Post construction**

**17.**—(1) The undertaker shall, in discharging condition 9(a), submit details for approval by the MMO of proposed post-construction surveys, including methodologies and timings, and 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 the location, extent and composition of any benthic habitats of conservation and or economic importance (including Annex I habitats), to validate predictions made in the environmental statement;

- (b) an ornithological survey covering the area(s) within the offshore Order limits in which construction works were carried out, 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 one~~ high resolution acoustic survey undertaken within the first six months per year for three years following completion of construction and ~~or after the first~~ any major storm event (a greater than 1 in 10 year wave event within the Order limits seaward of MHWS in terms of a wave height measured from the Sizewell Waverider buoy (WMO ID: 62294)) within the order limits in which construction works were carried out to assess any changes to bedform morphology; and
  - (d) a fish resource survey covering the area(s) within the offshore Order limits in which construction works were carried out, and any wider area(s) where appropriate, which is required to test predictions in the environmental statement concerning key fish resource interests of relevance to the authorised scheme.
- (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 with the MMO, in consultation with Natural England and JNCC.

### **Offshore Decommissioning**

18. This licence does not permit the decommissioning of the authorised scheme. No authorised decommissioning activity shall commence until a written decommissioning programme in accordance with an approved programme under Section 105(2) of the 2004 Act, has been submitted to the Secretary of State for approval. Furthermore, at least four months prior to carrying out any such works, the undertaker shall notify the MMO of the proposed decommissioning activity to establish whether a marine licence is required for such works.

### **Requirement for written approval**

19. Where under any of the above conditions the approval or agreement of the Secretary of State, MMO, the relevant planning authority or another person is required, that approval or agreement must be given in writing.

### **EXPLANATORY NOTE**

*(This note is not part of the Order)*

This Order grants development consent for, and authorises Galloper Wind Farm Limited to construct, operate and maintain, an offshore generating station in the sea approximately 30km off the coast of Suffolk and to erect and keep overhead lines near Sizewell Wents, Sizewell in Suffolk, together with all necessary and associated development. For the purposes of the development that it authorises, Galloper Wind Farm Limited is authorised by the Order compulsorily or by agreement to acquire land and rights in land and to use land, as well as to override easements and other rights. The Order imposes requirements in connection with the development for which it grants development consent.

The Order also grants a deemed marine licence for the marine licensable activities, being the deposit of substances and articles and the carrying out of works, involved in the construction of the offshore generating station and associated development. The deemed marine licence imposes conditions in connection with the deposits and works for which it grants consent.

A copy of the plans and book of reference referred to in this Order and certified in accordance with article 30 (certification of plans, etc) of this Order may be inspected free of charge at the offices of Suffolk Coastal District Council at Melton Hill, Woodbridge, Suffolk IP12 1AU.