



# The Planning Inspectorate Yr Arolygiaeth Gynllunio

**The Planning Act 2008**

**Burbo Bank Extension Offshore Wind Farm**

**Examining Authority's Report of Findings and Conclusions**

**and**

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

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**Rynd Smith LLB MA MRTPI FRSA**

**Examining Authority**

**Date: 26 June 2014**

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## **The Examining Authority's findings, conclusions and recommendation in respect of an application by DONG Energy Burbo Extension (UK) Ltd. for an Order Granting Development Consent for the Burbo Bank Extension Offshore Wind Farm.**

### **File Ref EN010026**

The application, dated 22 March 2013, was made under section 37 of the Planning Act 2008 (as amended). The applicant is DONG Energy Burbo Extension (UK) Ltd.

The application was submitted to the Planning Inspectorate on 22 March 2013. It was accepted for examination on 19 April 2013. The examination of the application began on 26 September 2013 and was completed on 26 March 2014.

The application site is located in Liverpool Bay, some 12 km offshore from Point of Ayr (Flintshire / Sir y Fflint, Wales), 7 - 11 km from the north coast of the Wirral peninsula (Wirral, Merseyside) and 8.5 km from Crosby beach (Sefton, Merseyside). The application site adjoins the south-western boundary of the constructed and operational Burbo Bank Offshore Wind Farm.

The development proposed comprises the construction and operation of the Burbo Bank Extension Offshore Wind Farm, with up to 69 wind turbine generators and associated offshore infrastructure with a maximum installed capacity (as amended) of 259 MW in an offshore array over a sea area extending to some 40 km<sup>2</sup>. The associated development comprises an offshore substation and cable to provide part of a grid connection.

On the basis that the development is proposed to be connected to the grid in Wales, the application proposal is limited to works in English territorial waters. Part of the grid connection in Welsh territorial waters is the subject of a separate application for a Welsh marine licence. Part of the grid connection on land in Denbighshire / Sir Ddinbych, Wales is the subject of an extant grant of planning permission, but is subject to an undecided compulsory purchase order.

### **Summary of Recommendation:**

I recommend that the Secretary of State should make the Development Consent Order with minor changes in the form attached in Appendix D to this Report.

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**ERRATA SHEET – Burbo Bank Extension Offshore Wind Farm - Ref.  
EN010026**

**Examining authority's Report of Findings and Conclusions and  
Recommendation to the Secretary of State for the Department of Energy  
and Climate Change, dated 26 June 2014**

**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>
24	2.16	Typo	Line 5 – add the word “the” to the line to read “become a different proposal to the originally applied for application”
46	4.3	Typo	Last line – remove the word “ensures” and add “ensured”
58	4.63	Typo	Line 3 – remove the word “of” from the line to read “... studies had indicated...”
79	4.169	Typo	Line 12 – remove the second instance of “are”
91	4.228	Cross reference	Last line - remove reference to “Part B” and add reference to “Part D”
129	5.111	Typo	Line 5 – remove the word “not” and substitute for the word “note”
131	6.11	Typo	Line 2 – remove the word “include” and add the word “included”
146	7.67	Typo	Line 7 – remove the word “sect” and add the word “set”
149	7.79	Typo	The reference to paragraph 7.72 should reference paragraph 7.74, however the hyperlink is correct
151	7.93	Typo	The reference to paragraph 206 of the NPPF should read paragraph 306
157	7.123	Typo	Line 2 – add the word – “as” to the line to read “as submitted in

Page No.	Paragraph	Error	Correction
			the applicant's..."

## **1 INTRODUCTION**

- 1.1 This is the Examining Authority's report to the Secretary of State for Energy and Climate Change (the Secretary of State), following the examination of an application for a Development Consent Order (DCO) for the Burbo Bank Extension Offshore Wind Farm (the application proposal) by DONG Energy Burbo Extension UK Ltd. (the applicant). It sets out my findings and conclusions and my recommendation to the Secretary of State for Energy and Climate Change (the Secretary of State).

### **APPOINTMENT**

- 1.2 On 1 July 2013, Rynd Smith was appointed under sections 61 and 78 of the Planning Act 2008 (as amended) (PA2008) [PD-018 - Annex G], under delegation from the Secretary of State as a single person Examining Authority, to examine the application.

### **THE APPLICATION**

- 1.3 The proposed development for which development consent is required under section 31 PA 2008 is to construct and operate the proposed Burbo Bank Extension Offshore Wind Farm, which comprises up to 69 wind turbine generators and associated offshore infrastructure [APP-001 – 087].
- 1.4 As applied for, the application sought a maximum installed capacity of 258 MW. During the examination process the applicant sought to increase this to 259 MW and the application has been examined on the basis of that increase (see Chapter 2 below).
- 1.5 The application proposes the development of an offshore array over a sea area extending to some 40 km<sup>2</sup>, located in Liverpool Bay. Moving west to east, the application site is some 12 km offshore from Point of Ayr (Flintshire / Sir y Fflint, Wales), 7 - 11 km from the north coast of the Wirral peninsula (Merseyside) and 8.5 km from Crosby beach (Sefton, Merseyside). The application site adjoins the south-western boundary of the existing Burbo Bank Offshore Wind Farm.
- 1.6 On the basis that the application proposal would be connected to the national electricity transmission system (the grid) in Wales, the application proposal before me was limited to works in English territorial waters. No onshore works or compulsory acquisition were proposed in England (see Chapter 6 below). Elements of offshore grid connection works in Welsh territorial waters and onshore grid connection works in Denbighshire / Sir Ddinbych, Wales were the subject of separate applications and consent processes. A fuller description of these works and the relationship between the application proposal and other related applications is set out in Chapter 2 below.



- 1.7 The application was submitted on 22 March 2013. It was accepted for examination on 19 April 2013 [PD-001].
- 1.8 The applicant advertised the accepted application and 33 relevant representations were received [REPO01 – 033]. To the extent that they remained un-withdrawn, I have given due consideration to the issues raised by these throughout the examination.
- 1.9 The application was for Environmental Impact Assessment (EIA) development as defined by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009. It was accompanied by an environmental statement (ES) [APP-020 - 079], together with non-technical summaries in English [APP-080] and in Welsh [APP-081]. For reasons summarised in paragraph 1.6 above (and further reported on in Chapter 2), the application before me relates to the majority but not the entirety of the proposed development project. In this respect I note that the ES describes and assesses the effects of the project as a whole, inclusive of the application proposal and the additional elements subject to separate approval processes. Without prejudice to the exercise of discretion in respect of another related application that remained to be determined at the point my examination closed, I am satisfied that the ES met the definition provided in Regulation 2(1) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009.
- 1.10 A minor change in physical delivery was proposed to be made to the application during the examination process, to enable an increase in installed capacity by 1 MW (see Chapter 2 below). An audit of this change against the project description and all relevant assessment topics in the ES was undertaken by the applicant and provided to the examination in a document [REP-038] and in responses to my questions. The views of all interested parties were sought on the proposed change. I am satisfied that the proposed change was not a material change to the development as applied for and that no changes to the ES or any other submitted environmental information, or additional notification or consultation were warranted as a consequence of the change.
- 1.11 A minor change to the structure of the submitted draft DCO was also proposed to be made to the application during the examination process (see Chapter 2 below). The views of all interested parties were sought on the proposed change. I am satisfied that the proposed change was not a material change to the application and did not require to be addressed in the ES.
- 1.12 In reaching the recommendation set out in this report, I have considered the environmental information as defined in Regulation 2(1), including information in the ES and all other information on the environmental effects of the proposed development submitted during the examination, in accordance with Regulation 3(2).

## **THE PRELIMINARY MEETING**

- 1.13 The Preliminary Meeting was held at the Floral Pavilion, Marine Promenade, New Brighton, Wirral, Merseyside CH45 2JS on 26 September 2013. The applicant and all other interested parties, statutory parties [PD-018] and other invited persons [PD-019 - 020] were invited and provided with an opportunity to make representations about how the application should be examined.
- 1.14 Noting the potential implications of the application on land in Wales and Welsh territorial waters, I asked for views about the use of the Welsh language in relevant parts of the examination and about the possible location of some hearings in Wales. I received no requests at the meeting to conduct hearings in Wales or in Welsh or to receive documents in Welsh.
- 1.15 On the basis that the application site was in English territorial waters but did not directly affect any land within a local authority area within either England or Wales for the purpose of section 56A of the PA 2008, I indicated that I would invite local authorities to submit Local Impact Reports (LIRs) if they so wished, even though none were formally required to be invited pursuant to section 60 of the PA 2008.
- 1.16 I sought views about the location of sites to be inspected and took these into account. I was requested to familiarise myself with the landscape and seascape viewshed<sup>1</sup> for the application on land and particularly asked to view settlements, beaches, foreshores, public open spaces and recreational facilities in the north Wirral. However, on the basis that I made clear that I am familiar with and have previously visited operational offshore wind farms at sea, I received no requests to visit the application site at sea. I sought views about the need for accompanied site inspections. None were made at the meeting.
- 1.17 Procedural decisions (a Rule 8 Letter) and a timetable<sup>2</sup> for the examination were issued on 07 October 2013 [PD-003 - 007], making provision for the examination process.

## **THE EXAMINATION PROCESS**

- 1.18 The examination process began following closure of the Preliminary Meeting. A record of examination procedures is included at Appendix B.
- 1.19 The examination consisted primarily of a consideration of relevant representations and written representations submitted to the

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<sup>1</sup> A viewshed is an area of land, water, or other environmental element that is visible to the human eye from a fixed vantage point.

<sup>2</sup> Issued pursuant to Rule 8 of The Infrastructure Planning (Examination Procedure) Rules 2010

Examining Authority. I also requested the preparation of statements of common ground.

- 1.20 Further to paragraph 1.14 above, no documents in Welsh were received in during the examination.
- 1.21 Further to paragraph 1.15 above, no LIRs were submitted during the examination and it follows that there are none to be considered by the Secretary of State for the purposes of section 104(2)(b) PA2008. All local authority participation was by way of relevant and written representations and statements of common ground.
- 1.22 The components of my examination process are described below. The examination was conducted through a largely written process. However, three issue-specific hearings and (further to requests to be heard from interested parties) one open-floor hearing were held. With the agreement of the applicant and interested parties I carried out all of my site inspection on an unaccompanied basis.

### **WRITTEN REPRESENTATIONS**

- 1.23 A full opportunity was provided for the applicant, interested parties and invited persons to make written representations, drawing my attention to the issues that they considered arose from the application proposal.
- **Initial written representations** were required to be submitted on 28 October 2013, together with comments on preceding relevant representations.
  - **Comments on initial written representations** were sought by 13 November 2013.
  - **Responses to comments** were sought by 5 December 2013, in time for the commencement of issue-specific hearing 2 and the open-floor hearing.
- 1.24 I have considered all important and relevant matters arising from written representations.

### **WRITTEN QUESTIONS**

- 1.25 I issued three rounds of written questions as follows:
- **Round 1:** issued on 7 October 2013 as Annex D to the Rule 8 Letter [PD-008], with responses to be received on 28 October 2013 and comments on responses to be received by 13 November 2013;
  - **Round 2:** issued further to a timetable amendment on 26 February 2014 [PD-027], with responses to be received on 13 March 2014 and comments on responses to be received by 25 March 2014; and
  - **Round 3:** issued further to a timetable amendment on 7 March 2014 [PD-030], with responses to be received on

March 2014 and comments on responses to be received by 25 March 2014.

- 1.26 I have considered all important and relevant matters arising from my written questions and the answers provided to them.

### **STATEMENTS OF COMMON GROUND**

- 1.27 I requested the preparation of an extensive range of statements of common ground in the Rule 8 Letter [PD-003 - 007] by a deadline of 28 October 2013. The purpose of these was to ensure that negotiations between the applicant, interested parties and invited persons were pursued and to ensure that the hearing process was confined to matters where agreement could not be achieved or I needed to subject submissions or evidence to oral test.

- 1.28 22 statements of common ground were received by 28 October 2013. These were between the applicant and:

- The Civil Aviation Authority (CAA) [REP-113];
- Liverpool John Lennon Airport Ltd. [REP-114];
- UK Chamber of Shipping [REP-115];
- Trinity House [REP-116];
- Maritime and Coastguard Agency (MCA) [REP-117];
- BHP Billiton Petroleum Ltd. [REP-118];
- Royal Yachting Association (RYA) [REP-119];
- National Federation of Fishermen's Organisations (NFFO) [REP-120];
- The Environment Agency (EA) [REP-121];
- The Marine Management Organisation (MMO) [REP-122];
- Clwyd-Powys Archaeological Trust [REP-123];
- Natural England (NE) in respect of ornithology [REP-124];
- NE in respect of general matters [REP-125];
- Natural Resources Wales / Cyfoeth Naturiol Cymru (NRW / CNC) [REP-126];
- Sefton Council [REP-127];
- Wirral Borough Council [REP-128];
- Denbighshire County Council / Cyngor Sir Ddinbych [REP-129];
- English Heritage [REP-130];
- Cadw [REP-131];
- The Royal Society for the Protection of Birds (RSPB) [REP-132];
- Mersey Docks and Harbour Co Ltd. [REP-133]; and
- The Ministry of Defence (MoD) [REP-134].

- 1.29 It should be noted that a statement of common ground was prepared between the applicant and the RSPB [REP-132], but at the point of its submission by the applicant it was still in draft, as it had not been agreed by the RSPB. This was specifically drawn to my attention by the RSPB in correspondence dated 25 March 2014 [REP-255] which stated that "[d]uring their drafting,

[statements of common ground] *represent private and 'without prejudice' discussions between the Applicant and an Interested Party. Drafts do not give a true representation of the official or final position of the Interested Party.*" It requested that the draft statement should be removed from the examination web page on the national infrastructure planning portal.

- 1.30 I have considered the RSPBs request, but note that there is no basis in the law or procedure relevant to the examination of nationally significant infrastructure projects to remove or delete a document from an examination document library once it has been submitted. The effect of the submission of a document is that (in all but a small number of closely defined circumstances) it becomes and then must remain a public document. However, I note the concern expressed by the RSPB. For this reason, I have accorded no weight to any purported opinion or position of the RSPB as set out in the draft statement of common ground [REP-132] in any of my recommendations, on the basis that, in the absence of agreement, the statement represents the opinion or position of the applicant alone. I recommend that the Secretary of State should adopt the same position in his reasoning and decision.
- 1.31 In this respect, I note that the applicant submitted a number of requested statements of common ground to me by 28 October 2013, which at the point of their submission were either still in draft or unsigned by the relevant second party. The relevant statements were those from:
- Liverpool John Lennon Airport Ltd. [REP-114];
  - NFFO [REP120];
  - Cadw [REP-131];
  - Mersey Docks and Harbour Co Ltd. [REP-133]; and
  - The MoD [REP-134].
- 1.32 In all but one of these instances, the applicant and the relevant party then concluded and signed statements of common ground later in the examination as follows:
- Liverpool John Lennon Airport Ltd., where a concluded statement was received on 13 November 2013 [REP-151];
  - NFFO, where a concluded statement was received on 13 November 2013 [REP-150];
  - Mersey Docks and Harbour Co Ltd., where a concluded statement was received on 13 November 2013 [REP-148]; and
  - The MoD, where a concluded statement was received on 13 November 2013 [REP-149] and a further statement made with BAE Systems [REP-156] in respect of Warton aerodrome was received on 5 December 2013.

- 1.33 Where this has occurred, I have taken the concluded later submissions fully into account. It follows that I have accorded no weight to any purported opinion or position of the second party to the draft or unsigned documents listed above in paragraph 1.32 in any of my recommendations as these have been superseded by later documents listed in paragraph 1.32 that are no longer drafts.
- 1.34 In the case of Cadw, no subsequent concluded statement of common ground has been submitted, but neither has that body expressed any concern about the draft statement in any subsequent written representation, despite a number of opportunities to have done so. I have had regard to that statement but accord the purported opinion or position of Cadw within it only the most limited weight, as the position of that body has not been verified.
- 1.35 I note in reporting these matters relevant to draft or unsigned statements of common ground that it is good practice for such statements to be agreed to and signed by the applicant and the relevant second parties before they are submitted.
- 1.36 Whilst not specifically sought in the Rule 8 letter, the applicant also submitted other statements of common ground as part of the process of responding to my written and oral questions or updating on progress in negotiations, demonstrating that matters that had been outstanding between it and various interested parties had been brought to resolution. These are as follows:
- a statement of common ground with English Heritage [REP-157] building on the position in their earlier statement [REP-130];
  - a supplementary statement of common ground with NE in respect of the *Lesser black backed gull* [REP-209];
  - a draft supplementary statement of common ground with NE and NRW / CNC in respect of the *Red throated diver* [REP-213], which in turn was subsequently replaced by an agreed supplementary statement [REP-233];
- 1.37 With the exception of the draft supplementary statement [REP-213] (which I have considered on the same basis as other draft statements of common ground that have been replaced, using the process described in paragraph 1.33 above), I have considered these documents on the same basis as the statements of common ground that I initially requested.

## **AGREEMENTS**

- 1.38 The applicant sought commercial agreements (contracts and/or deeds under seal to ensure the delivery and enforceability of agreed position) to address the following matters outstanding between it and interested parties during the examination:

- **Air traffic services at Warton Aerodrome:** an agreement between the applicant, the MoD and BAE Systems to secure radar mitigation for the operation of Warton Aerodrome;
- **Air traffic services at Liverpool John Lennon Airport:** an agreement between the applicant and Liverpool John Lennon Airport Ltd. to secure radar mitigation for the operation of the airport;
- **Civil aviation air navigation and radar infrastructure:** an agreement between the applicant and NATS En Route Ltd. (NERL) to secure radar mitigation for the operation of NERL assets; and
- **Port of Liverpool** (including Mersey Docks and Harbour and the Manchester Ship Canal): an agreement between the applicant and Mersey Docks and Harbour Company Ltd (MDHC) to secure radar and marine navigation mitigation.

1.39 I asked oral questions about the need for agreements and the development of related DCO provisions at the DCO issue-specific hearing, which identified the need for work on the four agreement topics above. I followed these up with written questions to seek a latest or concluded position before the end of the examination [PD-027: matter 8].

1.40 Answers to my questions provided evidence that the following parties had reached agreements through joint position statements and related written representations by the closure of the examination.

- **Civil aviation air navigation and radar infrastructure:** where an agreement between the applicant and NATS En Route Ltd. (NERL) has been concluded [REP-230 at paragraphs 8.3.1-2] [REP-238] [REP-254]. NERL has separately confirmed that this agreement is sufficient to secure the withdrawal of its objection to the application, subject to the inclusion of appropriate provisions in the draft DCO [REP-253].
- **Port of Liverpool:** where an agreement between the applicant and MDHC to secure radar and marine navigation mitigation has been concluded [REP-230 at paragraphs 8.4.1-2] [REP-239], again subject to the inclusion of appropriate provisions in the draft DCO.

1.41 Answers to my questions provided evidence that the following parties had reached general agreements, but that some aspects of their agreed position were not yet fully secured.

- **Air traffic services at Warton Aerodrome:** where an agreement between the applicant, the MoD and BAE Systems to secure radar mitigation for the operation of Warton Aerodrome was not formally concluded by the end of the examination. A letter was received from the Defence Infrastructure Organisation (DIO) representing the MoD on

the final day of the examination [REP-257]. This confirmed that whilst all matters had been agreed in principle, a formal legal agreement had not yet been concluded and hence that MoD objections to the application could not be withdrawn. The letter expressed the hope "*that the legal agreement will be finalised and signed by all parties in the near future which will then allow the objection to be withdrawn*". It follows that the necessary mitigation is not yet fully secured.

- **Air traffic services at Liverpool John Lennon Airport:** where an agreement between the applicant and Liverpool John Lennon Airport Ltd. has been reached in principle, defining the nature of the radar solution to be delivered [REP-230 at paras 8.2.1-2] and forming a brief for a further contract under which the agreed solution would be delivered [REP-237]. However, by the closure of the examination, the solution contract had not been let. This step was forecast to occur in July 2014. Whilst there was no outstanding disagreement indicating that that contract would not be let and would not deliver appropriate mitigation, again that mitigation is agreed in principle but its delivery is not yet fully secured.

1.42 During most of the examination, it remained possible that a commercial agreement would be required between the applicant and BHP Billiton Petroleum Ltd. (BHP) to protect a radar early warning system (REWS) for the BHP Liverpool Bay oil and gas platforms. A study was carried out to determine the nature of any impacts and the design of mitigation, but concluded that as there were no relevant impacts, no mitigation would be required [REP-230 at paras 8.5.1-2].

1.43 Two documents of the nature of commercial agreements described as 'co-existence agreements' were also received by 28 October 2013. These were between the applicant and:

- Commercial fishermen<sup>3</sup> [REP-135]; and
- Commercial charter boat operators<sup>4</sup> [REP-136].

These have been considered to the extent that they are relevant and important, although it should be noted that the parties to these agreements (other than the applicant) were not necessarily interested parties. Nor did these agreements have any direct bearing on the content of the draft DCO.

1.44 It should be noted that the draft DCO is not expressed as being subject to any planning obligations pursuant to section 106 of the

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<sup>3</sup> An agreement between the applicant and ten individual commercial fishermen from the Wirral and north east Wales. The agreement was provided in a redacted form. Whilst it is clear that principles of co-existence are agreed between the applicant and the signatories, the signatories are not identified.

<sup>4</sup> An agreement between the applicant and seven individual charter boat anglers from Liverpool and north east Wales. The agreement was provided in a redacted form as above.



Town and Country Planning Act 1990 (as amended). Having regard to all relevant National Policy Statement (NPS)<sup>5</sup> policy, I have considered throughout the examination whether there are any matters that I might recommend should be secured through such obligations, but I have concluded that none are required.

## HEARINGS

- 1.45 All hearings were held in close proximity to the application site, at the Jubilee Centre, Hose Side Road, Wallasey, Wirral, Merseyside CH45 0LA. Further to paragraph 1.14 above, no hearings were requested to be held or held in Wales and neither were any arrangements for oral submissions in Welsh requested. There were no oral submissions in Welsh.
- 1.46 Details of the hearings are included in Appendix A, but they are summarised as follows.
- **Issue-specific hearing 1** [PD-009] took place between 19 and 21 November 2013. It examined issues relating to natural environment impacts and Habitats Regulations Assessment (HRA). It focussed particularly on concerns relating to assessment methodology raised by Natural England (NE) and Natural Resources Wales / Cyfoeth Naturiol Cymru (NRW) (collectively described as the statutory nature conservation bodies (SNCBs)), in order to provide a basis for later hearings. A framework for additional analysis requiring input from NE and the applicant was agreed.
  - **Issue-specific hearing 2** [PD-013] took place between 10 and 12 December 2013. It examined issues relating to shipping, boating, port and aviation operations; economic impacts and mitigation; seascape, landscape and visual impact assessment and mitigation; and made progress checks on natural environment matters emerging from issue-specific hearing 1 where additional work was being carried out.
  - **Issue-specific hearing 3** [PD-021] took place between 28 and 30 January 2014. It examined the outcome of further analysis on natural environment and Habitats Regulations Assessment (HRA) matters emerging from issue-specific hearing 1; issues relating to changes to the application; and the draft development consent order.
  - **The open-floor hearing** [PD-013] took place on the evening of 11 December 2013 pursuant to requests to be heard by interested parties. It examined matters raised by interested parties: the effects of the application on local landscape, seascape, townscape and visual amenity and on recreational yachting.

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<sup>5</sup> A National Policy Statement (NPS) is a statutory policy relevant to nationally significant infrastructure development consent applications, prepared under PA2008 Part 2.

## SITE INSPECTIONS

- 1.47 I carried out three unaccompanied site inspections that enabled me to understand the application proposal in its natural and built environment, landscape and seascape contexts. I visited all locations that I had been requested to inspect.
- **Unaccompanied site inspection 1** [HE-05 - 07] took place between 24 and 26 September 2013. I undertook visits to the Wirral (Merseyside) and North Wales (Flintshire / Sir y Fflint, Denbighshire / Sir Ddinbych and Conwy) coasts, extending from Fort Perch Rock, New Brighton to the Great Orme near Llandudno. I also visited inland outlooks in the Clwydian Range AONB and the Vale of Clwyd and all other locations within this area from which visualisations were undertaken in the applicant's seascape, landscape and visual impact assessment. Poor visibility and rain limited the value of some inspections in Wales, on the basis of which I decided to repeat those in respect of which I might have expected to obtain views to the application site.
  - **Unaccompanied site inspection 2** [HE-08 - 10] took place between 19 and 22 November 2013. I undertook visits to coastal settlements, beaches, foreshores, public open space and recreational facilities in the north Wirral (Merseyside), to foreshores and settlements in Sefton (Merseyside), in the county of Lancashire and the Borough of Blackpool, including locations within this area from which visualisations were undertaken in the applicant's seascape, landscape and visual impact assessment.
  - **Unaccompanied site inspection 3** [HE-11 - 13] took place between 10 and 13 December 2013. I undertook visits to the world heritage area and Mersey foreshore (City of Liverpool, Merseyside), Crosby beach (Sefton, Merseyside) and inland outlooks in Lancashire. I returned to parts of North Wales to repeat visits affected by poor visibility and rain in September and was able to conclude all of these to my satisfaction.

1.48 I prepared and published factual notes of my unaccompanied site inspections (referenced above).

1.49 Further to paragraph 1.16 above, I received no requests for site inspections in the company of the applicant and interested parties and the accompanied site inspections that I had provisionally provided for in the examination timetable were not required and hence were cancelled [PD-015].

## REPORT ON IMPLICATIONS FOR EUROPEAN SITES (RIES)

1.50 With support from the Planning Inspectorate Environmental Services Team and to inform the Habitats Regulations Assessment (HRA) process, I prepared a report summarising what appeared to be the main implications of the application proposal for European

Sites. Known as the Report on Implications for European Sites (RIES) [PD-025], this document was issued on 19 February 2014. Comments on the RIES were sought by 13 March 2014 and all those received have been considered.

- 1.51 Chapter 5 of this report below contains a record of my examination of matters relevant to HRA.

### **TRANSBOUNDARY EFFECTS**

- 1.52 The application proposal was screened for transboundary effects on other European Economic Area (EEA) states under Regulation 24 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) (the EIA Regulations) on two occasions. The first screening was undertaken before the submission of the application on 31 May 2012 [TB-001]. The second screening was undertaken on 13 March 2014 [TB-002], on the basis of the information available at that time including the minor changes to the application, close to the end of the examination.
- 1.53 At the first screening, the Secretary of State took the view that the proposed development was not likely to have a significant effect on the environment in another EEA State and hence no steps were taken to notify such states of the application. At the second screening, the Secretary of State considered that nothing new had arisen during the examination process that would lead that conclusion to change.
- 1.54 No additional matters arose during the final days of the examination that could affect the outcome of this screening process.

### **COMPULSORY ACQUISITION AND OTHER PROCEDURES RELEVANT TO PART 7, CHAPTER 1, PA2008**

- 1.55 The application did not include any compulsory acquisition powers. Nor did it give rise to the need for any other special procedures arising under Part 7, Chapter 1, PA2008.
- 1.56 Chapter 6 of this report below contains a record of my examination of remaining technical matters relevant to land, interests in and rights over land.

### **ENGAGEMENT ON THE DRAFT DCO**

- 1.57 The application was accompanied by a draft DCO (the application draft DCO) [APP-011] and an explanatory memorandum [APP-012] to which I have had full regard. Changes to the draft DCO were reflected in submitted iterations recorded as version 2 [APP-088] and version 3 [APP-091] to which I have also had regard, but it should be noted that these were rapidly superseded as the examination progressed.

- 1.58 I provided an issue-specific hearing on the draft DCO (see paragraph 1.46 bullet 3 above) for which the applicant submitted a preferred draft DCO (version 4) together with a comparison with earlier versions and a schedule of proposed changes [APP-094 - 096] to address issues that had arisen in the examination and through the statements of common ground to that point. I accepted their preferred draft DCO [APP-094] as a basis from which to conduct the hearing and orally examined the DCO including their proposed changes. There were no objections to this approach from interested parties.
- 1.59 Following the hearing, the applicant submitted a further draft DCO (version 5) [APP-097] to take account of matters raised orally. It should be noted that this draft responded to the great majority of issues discussed at the hearing, to the extent that there were then few outstanding matters to be resolved.
- 1.60 On 26 February 2014, I issued an Examining Authority's draft DCO [PD-028], in which I suggested changes to address matters that had arisen from my consideration of the draft DCO, during and after the hearing. Responses were sought by 13 March 2014 (which included a final 'preferred draft' DCO submitted by the applicant [APP-099]) and comments on responses were sought by 25 March 2014. All responses and comments received have been considered.
- 1.61 Chapter 7 of this report below contains a detailed record of my examination of the draft DCO.

#### **OTHER CONSENTS**

- 1.62 The application was accompanied by a document [APP-019] listing the consents and licences required under other legislation than PA2008 to enable the application proposal to proceed (the 'other consents' document). Usefully, this document identified whether these were matters where consent had already been granted, matters that needed to be addressed within the timeframes for the examination of or decision on the draft development consent order, or were subsidiary matters to be resolved once a development decision had been taken by the Secretary of State.
- 1.63 The other consents document identified the need for the following consents - correct at the time that the application was submitted. I asked questions about the progress of relevant consents both orally and in writing [PD-008: matter 19] [PD-027: matter 19]. I have updated the list in the other consents document in the light of information provided during the examination. Where additional information and examination documents evidence a change in the status of the consent from that recorded in the other consents document, references to these are provided below.

### **Other consents already obtained**

- Energy generation licence under the Electricity Act 1989, granted by OFGEM on 25 May 2012.
- Planning permission under the Town and Country Planning Act 1990 for onshore export cables, grid connection and substation at Bodelwyddan, granted by Denbighshire County Council / Cyngor Sir Ddinbych on 20 November 2013 (reference 31/2013/0400 PF) [REP-206].

### **Other consent processes on-going at the end of the examination**

- Marine licences under the Marine and Coastal Access Act 2009 for the disposal of spoil associated with foundation installation works. The effects of these works are considered for EIA and HRA purposes in the application documents. They are examined in this report to the extent necessary. However, the decision-making processes remain outside this report. Decisions are required in English territorial waters by the MMO relating to two disposal processes: for up to 173,500 m<sup>3</sup> of inert material produced during the installation of wind turbine generator foundations (the generation assets) at disposal site reference IS135; and for up to 6,800 m<sup>3</sup> of inert material produced during the installation of platform foundations (the transmission assets) at the same disposal site reference. The disposal site reference IS135 relates to the order limits of the proposed development consent order area [PD-027: matter 4] [REP-230].
- Marine licence under the Marine and Coastal Access Act 2009 for export cables in Welsh territorial waters, from NRW / CNC. The effects of these works are considered for EIA and HRA purposes in the application documents. They are examined in this report to the extent necessary. However, the decision-making process remains outside this report as the decision will be taken in Wales. In terms of timing, NRW / CNC have advised that this decision is likely to be taken after the Secretary of State has considered and decided this application, but they have provided a draft marine licence and draft HRA assessment without prejudice to their decision-maker's exercise of discretion.
- The DONG Energy Burbo Extension (UK) Limited (No. 1) Compulsory Purchase Order (CPO) 2013 was made on 17 June 2013 under the Electricity Act 1989 and submitted to the Secretary of State on 26 June 2013. It relates to the acquisition of land, interests in and rights over land in Denbighshire / Sir Ddinbych, necessary to implement the grant of planning permission under the Town and Country Planning Act 1990 for onshore export cables, grid connection and substation at Bodelwyddan [REP-207]. At the closure of my examination there were outstanding objections to this CPO, which was therefore likely to be the subject of a public

inquiry to be held by a PINS Planning Inspector<sup>6</sup> in St Asaph in May 2014 and reported separately to the Secretary of State thereafter.

**Other consents for later decision**

- Coast station radio licence (OFCOM).
- Decommissioning scheme under the Energy Act 2004 (DECC).
- European protected species licence(s) under the Conservation of Habitats and Species Regulations 2010 (MMO). Any licence(s) that are sought will be sought within the framework of the analysis in the ES and the HRA report submitted with the application.
- F10 notification of construction project under the Construction (Design & Management) (CDM) Regulations 2007 (HSE).
- Marine licence for moorings under the Marine and Coastal Access Act 2009 (MMO).
- Safety zones approval under the Energy Act 2004 (DECC).

1.64 I am satisfied that the matters that needed to be managed within the framework of this application have been included within it. Whilst there are substantial matters relating to the consenting of marine development and the compulsory acquisition of land for the grid connection that remain to be decided by other decision-makers, those are an unavoidable consequence of legislative provisions applicable to a project proposed to be delivered in both England and Wales. I am satisfied that the other consents reserved for later decisions do relate to subsidiary matters that are best decided once the outcome of this application process is known. Further, without commenting on the exercise of discretion by decision-makers other than the Secretary of State, I am also satisfied that none of these processes appears likely to prevent the DCO applied for from being implemented, should it be granted.

**EXAMINATION CLOSURE**

1.65 I completed my examination of the application at 11:59pm on 26 March 2014. As required by section 99 PA2008 I wrote to all interested parties to inform them of the closure of the examination on 27 March 2014.

**THE STRUCTURE OF THIS REPORT**

1.66 The principle functions of my report have been outlined in this introduction. However, they can be summarised and are located in the remainder of this report as follows.

- **Chapter 2** records the main features of the application proposals, its site and its physical context.

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<sup>6</sup> A Planning Inspector the Planning Inspectorate (PINS).

- **Chapter 3** records the legal and policy context within which the application has been examined.
- **Chapter 4** sets out my findings and conclusions in relation to policy and factual issues, within an issues-based framework derived from my initial assessment of principal issues.
- **Chapter 5** sets out my findings and conclusions relevant to Habitats Regulations Assessment (HRA).
- **Chapter 6** sets out my findings and conclusions relevant to land, interest in and rights over land.
- **Chapter 7** sets out my findings and conclusions in relation to my examination of the draft development consent order.
- **Chapter 8** summarises my conclusions and recommendation to the Secretary of State.

## 2 THE APPLICATION AND ITS SETTING

2.1 This chapter of the report:

- describes the application proposal and its setting, building on the summary description in paragraphs from 1.3 above;
- records the relationship between the application proposal and the existing Burbo Bank Offshore Wind Farm;
- describes the proposed works;
- describes amendments to the application proposed during the examination process and the action taken in respect of these;
- identifies the relationship of the application proposal to English and Welsh territorial waters and land in Wales, outlining the basis for related applications for grid connection works in Welsh waters and in Wales.

2.2 The application proposal and its context are well described in the applicant's covering letter [APP-001], application form [APP-002], plans [APP 004 – 010] and in the Environmental Statement (ES) [APP-020 – 079]. An overview of the location, extent and environs of the application site and grid connection alignment are shown in the ES Non-technical Summary<sup>7</sup> [APP-080] in Sections 1.3 and 1.4 and Figure 1.2.

2.3 The description of the application provided in these documents, together with the description of minor changes to it (see paragraph 2.11 below) were not a matter of dispute in the examination.

### THE APPLICATION

2.4 The application proposal is to construct and operate the proposed Burbo Bank Extension Offshore Wind Farm. As applied for, the application proposal includes the construction of up to 69 wind turbine generators with a maximum tip height of 223 m and an installed capacity of up to 258 MW, over an array area of approximately 40 km<sup>2</sup> (as defined on the Works Plan [APP-006] by polygon A – H – A). The application proposal also includes a single offshore substation, inter-array cables that collect generated electricity from the wind turbine generators and transport it to the offshore substation, and part of a grid connection alignment of marine export cables, connecting the substation to a location on the seabed boundary between the territorial waters of England and those of Wales<sup>8</sup>. The description of the proposed works has been the subject of a proposed minor change to the installed capacity (see paragraph 2.11 below), but otherwise remains the same as in the submitted application.

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<sup>7</sup> This reference is to the non-technical summary in English. A version was also provided in Welsh [APP-081].

<sup>8</sup> Works associated with the onwards grid connection alignment are the subject of separate applications described further below, as they are located in Welsh territorial waters and on land in Wales, within the county of Denbighshire / Sir Ddinbych.



- 2.5 Both as applied for and as proposed to be varied, the application is for an offshore generating station over 100 MW in installed capacity. It is consistent with and falls to be considered as a nationally significant infrastructure project (NSIP) under s 14(1)(a) PA2008. It exceeds the threshold for a NSIP set in s 15(3) PA2008.
- 2.6 The application site is located on the bed of Liverpool Bay, approximately 7 - 11 km<sup>9</sup> offshore from the north Wirral coast, 8.5 km from Crosby beach (both in Merseyside, England) and 12.2 km off the coast of Point of Ayr (in Flintshire / Sir y Fflint, Wales). It is shown within its regional context and setting on the Location Plan submitted with the application [APP-004].
- 2.7 The application proposal is described as an extension. It originated as an extension proposal, meeting extension criteria set out by the Crown Estate in respect of the grant of an additional lease adjacent to an existing operational offshore wind farm. It is located in a manner which means that in visual terms it could be perceived as a single offshore wind farm development area, when taken together with the existing Burbo Bank Offshore Wind Farm, the location of which can be discerned on the Location Plan [APP-004]. The south-western boundary of the existing wind farm forms the eastern boundary of the draft DCO area in the application proposal. The existing Burbo Bank Offshore Wind Farm is owned and operated by DONG Energy, the parent company for the applicant in this case. Relevant information about that development is provided from paragraph 2.19 below.
- 2.8 Although it is described as an extension, there are some important respects in which the application amounts to a major proposal in its own right and has required independent consideration.
- As made clear in paragraph 2.5 above, the application is for a freestanding NSIP development.
  - In terms of its area, at approximately 40 km<sup>2</sup> compared with 10 km<sup>2</sup>, the application proposal is four times larger than the existing Burbo Bank Offshore Wind Farm.
  - In terms of the number of wind turbine generators, at up to a maximum of 69 compared with 25, the application proposal is significantly larger than the existing Burbo Bank Offshore Wind Farm.
  - The assessed Rochdale envelope<sup>10</sup> for the application proposal envisages wind turbine generators that may be up

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<sup>9</sup> In a typographical error, the application form [APP-002] at question 6 describes the application proposal as being located 77km offshore from the north Wirral coast. However, a wide range of other data submitted with the application, most importantly the Land Plan [APP-005] and the coordinates of the proposed order area in the application draft Development Consent Order [APP-011] leave the intended location of the proposal beyond doubt.

<sup>10</sup> A framework of clearly defined parameters within the development must take place, explained further in Planning Inspectorate Advice Note 9: Using the Rochdale Envelope. <http://infrastructure.planningportal.gov.uk/wp-content/uploads/2013/05/Advice-note-9.-Rochdale-envelope-web.pdf>

to a maximum of 86m taller (at a 223m maximum tip height) than those installed on the existing wind farm (with a 137 m tip height). It follows that, depending on the final choice of turbine, it may be visually distinguishable from although still adjoined to that development.

- In electrical system and grid connection terms, the application proposal does not share components or infrastructure with the existing Burbo Bank Offshore Wind Farm. Specifically, it includes its own offshore substation platform and a separate grid connection alignment, making landfall in Wales. The existing wind farm does not have an offshore substation. It connects directly to an onshore substation in the Wirral.

## RELATED CONSENTS IN WALES

2.9 The application proposal is for a project which straddles the marine border between English and Welsh territorial waters. Part of the proposed grid connection alignment and the landfall between Rhyl and Prestatyn are in Welsh territorial waters. The terrestrial component of the grid connection alignment is on land in Denbighshire / Sir Ddinbych in Wales, connecting from the landfall point to a proposed grid connection and substation at Bodelwyddan. It follows that this application is one of several consents necessary to implement the project overall.

2.10 Paragraph 1.63 above identifies all related applications. The primary Welsh consents are those for project works in Welsh territorial waters:

- a marine licence application under the Marine and Coastal Access Act 2009 for export cables in Welsh territorial waters, from NRW / CNC (the **Welsh marine licence**), which remained undecided at the point of closure of my examination; and

those relating to project works on land in Wales:

- a grant of **planning permission** under the Town and Country Planning Act 1990 for onshore export cables, a grid connection and substation at Bodelwyddan, granted by Denbighshire County Council / Cyngor Sir Ddinbych on 20 November 2013 (reference 31/2013/0400 PF) [REP-206]; and
- the DONG Energy Burbo Extension (UK) Limited (No. 1) Compulsory Purchase Order (CPO) 2013 relates to land and rights over land required for the alignment in Denbighshire / Sir Ddinbych (the **Denbighshire CPO**). It was made on 17 June 2013 under the Electricity Act 1989 and submitted to the Secretary of State on 26 June 2013. It is subject to outstanding objections and a separate decision by the Secretary of State in due course.

## MINOR CHANGES TO THE APPLICATION

- 2.11 As outlined in Chapter 1, the applicant sought minor changes to the application as submitted, which in summary amounted to:
- A content change: an upward variation of the installed capacity to 259 MW, to enable the applicant to consider installing a particular type of wind turbine generator, the effect of which in aggregate would be to increase the installed capacity from that applied for by 1 MW; and
  - A documentation change: in which the structure of the application draft development consent order which contained one deemed marine license for all works would be revised to provide two deemed marine licences - one for proposed generation assets and one for proposed transmission assets the benefit and burden of which in due course would be transferred to an offshore transmission owner (OFTO)<sup>11</sup>.
- 2.12 The applicant initially raised the prospect of these changes in correspondence to the Planning Inspectorate dated 10 September 2013<sup>12</sup>, after the application had been accepted but before the start of the examination. Advice was provided under s51 PA2008 and followed up at the preliminary meeting, to the extent that:
- the applicant should document the proposed changes in a manner that enabled their effects to be appreciated;
  - an audit of the submitted ES and HRA reports should be carried out, to test whether the proposed changes would have any material effect on any of the assessments and conclusions provided in that document and documenting any changes; and
  - all interested parties should be accorded an opportunity to include responses to their proposed changes in their written representations.

This approach was confirmed in my procedural decision following the preliminary meeting (the Rule 8 letter) [PD-003].

- 2.13 Pursuant to my procedural decision, the applicant documented the proposed changes by 28 October 2013 (see [REP-079][REP-038] (an audit of the ES and HRA reports) and [APP-088-090] (a revised draft DCO, a comparison version and a schedule of changes)). The audit documentation set out the applicant's conclusion that the proposed changes did not lead to any material effect to the assessment conclusions documented in the ES. I was

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<sup>11</sup> The OFGEM regulatory framework for offshore transmission anticipates the separation of offshore transmission assets from offshore generation assets and the transfer to and operation of transmission assets by an offshore transmission owner (OFTO). This requires means to be found to transfer the benefit of relevant elements of works under a DCO and deemed marine license to an OFTO, in a manner that is compliant with the Marine and Coastal Access Act 2009 (as amended).

<sup>12</sup> See <http://infrastructure.planningportal.gov.uk/projects/north-west/burbo-bank-extension-offshore-wind-farm/?ipcsection=advice&ipcadvise=2e28c5e638>

also satisfied that they will have no material effect on persons who were not already interested parties.

- 2.14 The changes and the audit documentation were made available for comment by interested parties until 13 November 2013. No comments were received raising concerns about either change. As a consequence, I was satisfied that the changes do not amount to a material change to the application. I accepted the changes for examination purposes on 09 December 2013, although in doing so I made clear that this did not preclude my or the Secretary of State's consideration of representations to the effect that the application should not be changed. That being said, no further representations were made requesting that I should examine the unchanged application. It follows that I have prepared this report on the basis of the changed application and that all EIA and HRA-relevant processes subsequent 09 December 2013 have been undertaken having regard to the application as changed and to the documentation and audit of changes.
- 2.15 It should be noted that both the applicant and I have subsequently proposed other minor changes to the DCO as applied for, to take account of the positions of interested parties, resolve outstanding concerns and ensure good legal drafting. These changes flow through to the recommended DCO.
- 2.16 I am conscious of the need to record whether the changes to the application and my recommended changes to the DCO taken as whole mean that the application had changed to the point where it has become a different proposal to that originally applied for application and whether the Secretary of State has a power under PA2008 s114 to make a DCO.
- 2.17 On 28 November 2011, Bob Neill MP, then Parliamentary Under-Secretary of State for Planning wrote to Sir Mike Pitt, then Chair of the Infrastructure Planning Commission<sup>13</sup> to emphasise the importance in the Government's view of the nationally significant infrastructure development consent examination process enabling changes to applications to be considered in appropriate circumstances. He highlighted that PA2008 s114 (1) entitles the Secretary of State to make a DCO that is different to that which was applied for, but that this power is limited by the application of the principles of natural justice and the principles arising from the *Wheatcroft* decision.
- 2.18 Having considered the letter, the principles of natural justice and the principles arising from the *Wheatcroft* decision, I **find** that the changes sought to the application and to the DCO are so minor as

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<sup>13</sup> The Bob Neill MP correspondence is published on the Planning Portal website at: [http://infrastructure.planningportal.gov.uk/wp-content/uploads/2011/11/111130\\_Ltr-from-Bob-Neill-MP-re-s114.pdf](http://infrastructure.planningportal.gov.uk/wp-content/uploads/2011/11/111130_Ltr-from-Bob-Neill-MP-re-s114.pdf)

to be immaterial and hence the changes sought to the DCO are within the Secretary of State's power to make.

## **PLANNING HISTORY**

- 2.19 The relevant planning history of the site and surrounds includes the approval of the original Burbo Bank Offshore Wind Farm. This wind farm was consented in 2003 and commissioned in 2007. It consists of 25 Siemens 3.6 MW wind turbine generators, with a maximum tip height of 137 m. The wind farm has a total installed capacity of 90 MW and an array area of approximately 10 km<sup>2</sup>.

## **THE APPLICATION SETTING**

- 2.20 The setting of the application includes:
- its immediate marine setting, in English territorial waters;
  - its broader marine setting, including English and Welsh territorial waters and the renewable energy zone (REZ);
  - airspace above and around the application site;
  - its immediate terrestrial viewshed - the Wirral peninsula;
  - its northern coastal viewshed, including land in the City of Liverpool, Sefton and localities in the county of Lancashire;
  - its western coastal viewshed, including land in Wales in Flintshire / Sir y Fflint, Denbighshire / Sir Ddinbych and the County Borough of Conwy / Bwrdeistref Sirol Conwy.

I have carried out extensive unaccompanied site inspections to the application setting (as recorded in 1.47 above) and the description set out here relies on the factual observations recorded in my written site inspection notes [HE-05 - HE-13].

### **The marine area**

- 2.21 The application site is located in a marine area within Liverpool Bay, shared between the territorial waters of England and Wales. The immediate application site is in English territorial waters, in relatively shallow waters, adjacent to the existing Burbo Bank Offshore Wind Farm. It is used by recreational boaters, commercial and recreational anglers.
- 2.22 The Queen's Channel, the main access channel to and anchorage areas for the Mersey Estuary, the Port of Liverpool and Manchester Ship Canal are located to the north and east of the application site and are extensively used by commercial shipping accessing the Peel Ports (Mersey Docks and Harbour Co. Ltd.) dock facilities in Liverpool and Birkenhead, the Manchester Ship Canal and by ferries to Ireland and the Isle of Man. Anchorage areas and some licenced dredging areas are located close by.
- 2.23 To the north and west of the Queen's Channel, BHP Billiton Petroleum Ltd. (BHP) uses the Douglas, Lennox, Hamilton and Hamilton North platforms to produce oil and gas. Oil is transferred

directly to an offshore oil storage vessel. Gas is brought ashore by pipeline to the Point of Ayr Gas Terminal in Wales. It was potentially considered to affect the operation of radar early warning systems (REWS) for the oil and gas industry in Liverpool Bay, but as the examination proceeded it was resolved that it would not materially adversely affect this system.

- 2.24 The Dee Estuary is less used by commercial shipping than the Mersey Estuary. However, shipping movements to port and dock facilities include those at the Port of Mostyn and at Connah's Quay. Recreational sailing and boating, commercial and recreational fishing also make use of the Dee Estuary waters.
- 2.25 North Hoyle, Rhyl Flats and Gwynt y Môr Offshore Wind Farms are found in the southern sector of Liverpool Bay, in Welsh territorial waters to the west of the application site. There are no existing or proposed offshore wind farms in the northern sector of Liverpool Bay, offshore from Southport and the Fylde. North of Fleetwood and Morecambe Bay, a group of proposed and constructed offshore wind farms are found in and immediately adjacent to English territorial waters around Barrow-in-Furness (Barrow, Ormonde, Walney Phase 1, Walney Phase 2, Walney Extension and Duddon Sands).
- 2.26 The large Celtic Array and Rhiannon offshore wind farm proposals (Round 3 proposals) are located further offshore wholly in the Renewable Energy Zone (REZ), between the 12 nm limit and the territorial waters of the Isle of Man.

### **Airspace**

- 2.27 Airspace above the application site and environs is strategically and economically significant. It includes approaches to Warton Aerodrome, Liverpool John Lennon Airport and air traffic control primary radar installations.
- 2.28 Located between Lytham St Anne's and Preston on the north bank of the Ribble estuary, the MoD's Warton Aerodrome is currently used by BAE Systems for military aircraft design and testing. It is also licenced for civil use.
- 2.29 The application proposal affects approaches to Liverpool John Lennon Airport previously known as Speke Airport, located at Speke between Chester and Liverpool on the north bank of the Mersey estuary. This is a significant international airport facility for the North West of England.
- 2.30 The application proposal affects the operation of NATS En Route Ltd. air traffic radar facilities at Lytham St Annes and Great Dun Fell.
- 2.31 There is marine servicing (helicopter) aviation associated with the oil and gas industry in Liverpool Bay, but no concerns have been

raised about the effect of the application proposal on this use of airspace.

### **The Wirral**

- 2.32 Land in the Metropolitan Borough of the Wirral forms the majority of the near onshore setting of the application proposal.
- 2.33 The north Wirral coast is divided between residential development and recreational open space in the form of golf courses and country parks. The main north coast towns of New Brighton, Meols and Hoylake all have extensive promenades overlooking the sea.
- 2.34 There is extensive public access to much of the foreshore between Fort Perch Rock, New Brighton and the Kings Gap, Hoylake, from formal parks and public open spaces. The Wirral County Park includes a large area of open foreshore and hinterland, separating the village of Leasowe from Meols and hosting the listed and historic Leasowe Lighthouse. A short segment of the coast from the Kings Gap to Hilbre Point and the Royal Liverpool Golf Club is not fully publicly accessible, as foreshore land there is included within the private gardens of houses and there is no promenade road or footpath. However, the entire beach is publicly accessible.
- 2.35 The north Wirral coast has extensive beaches. Shallow waters and an extensive tidal range provide feeding grounds for shorebirds and waders. Despite the largely urban setting and recreational use of the beaches, a significant sense of emptiness and solitude can be obtained. It is possible to walk extensively offshore at low tide, reducing the separation between observers and the application proposal. Notable amongst these opportunities is the walk some 2km offshore to Hilbre Island in the entrance to the Dee Estuary.
- 2.36 The towns, promenades, foreshores and public open spaces on the north Wirral coast (New Brighton, Meols and Hoylake and the Wirral Country Park) all lie within the short to medium range visual setting of the existing Burbo Bank Offshore Wind Farm. There are also views towards North Hoyle and Gwynt y Môr (under construction) offshore wind farms. There are views to port and industrial development and to onshore wind turbines at Royal Seaforth Dock in the Port of Liverpool. However, none of these existing facilities are dominant features in the landscape and seascape character of the coast.
- 2.37 There are extensive views to the application site, which would be seen from this coastline as located between the existing Burbo Bank and North Hoyle offshore wind farms. Construction of the application proposal would significantly extend the visual impact of wind energy facilities on the north Wirral coast, particularly as seen from the Wirral Country Park, Meols and Hoylake.

- 2.38 The east coast of the Wirral faces the Mersey Estuary. It is an urban foreshore with port and dock facilities at Wallasey and Birkenhead, accessed via the Mersey. Higher land extending from New Brighton to Seacombe and then from Birkenhead to Ellesmere Port constrains views to the west towards the application site.
- 2.39 The west coast of the Wirral faces the Dee Estuary. Views are typically towards Wales with the far horizon formed by the Clwydian Range of hills. Views towards the sea and the application site are limited from most coastal locations, contained by high land around West Kirby - Caldy Hill and Grange Hill.
- 2.40 Inland, the Wirral divides between a coastal plain to the north with rising land to the south and east. In the north, residential built development largely constrains views, although there are locations from which nacelles and rotors from the existing Burbo Bank Offshore Wind Farm can be seen as part of the townscape. Depending on their orientation and elevation, some streets and open spaces on rising land provide extensive coastal views to the north, which include views to the existing offshore wind farms and to the application site.

#### **The northern coast**

- 2.41 The northern coastal viewshed of the application site includes parts of the City of Liverpool and the Metropolitan Borough of Sefton, together with the coasts of the Ribble Estuary, the districts of West Lancashire, Fylde and Wyre in Lancashire and the unitary Borough of Blackpool.
- 2.42 The Liverpool foreshore is enclosed within the Mersey Estuary and has limited views to the sea and no direct views to the application site. This includes the historic waterfront and Pierhead area, now designated as a World Heritage Site, as well as strategic development areas to the north of the city centre on former docklands. Views to the west and towards the application site from this area are constrained by the Wirral - Wallasey skyline. Whilst it is possible (under some construction scenarios within the Rochdale envelope for the application proposal) that rotor blades will be seen from the historic waterfront across the Wirral skyline, they would form a relatively minor further part of what is already an urban and industrial viewshed.
- 2.43 North of Fort Perch Rock, the south Sefton foreshore includes active waterfront areas, such as the container terminal at Royal Seaforth Dock. This foreshore has an active port and industrial character. Onshore wind turbines are installed along the sea wall at Royal Seaforth Dock. Public access to the foreshore is limited by the operational needs of the port. Whilst there would be substantial views to the application site, these would be partly filtered through the existing Burbo Bank Offshore Wind Farm and would not be out of character with the existing industrial setting of



this area. Typical sea views from rising land inland of Royal Seaforth Dock would be to the application site through the dock infrastructure and the existing Burbo Bank Offshore Wind Farm.

- 2.44 North of the Marine Lake at Waterloo, the coastline makes a rapid transition to the residential suburbs of Brighton-le-Sands and Crosby, where the Sir Antony Gormley sculpture installation can be found at Crosby Beach. Views to the west include the constructed Burbo Bank Offshore Wind Farm, beyond which the application site could also be seen.
- 2.45 North of the River Alt at Hightown, the character of the coast then changes again to one dominated by substantial dunes and pine woodlands extending around the freestanding resort towns of Formby and Southport. Whilst there are views to the existing Burbo Bank Offshore Wind Farm and prospectively to the application site, are at medium to long range and extend over a limited marine horizon.
- 2.46 Inland hills in rural West Lancashire (such as Clieves Hills in the environs of Ormskirk) offer views towards the existing Burbo Bank Offshore Wind Farm and prospectively to the application site, but these are at long range and the facilities would represent a relatively small proportion of the horizon.
- 2.47 The Ribble Estuary is low lying, surrounded by drained and intensively farmed agricultural land to the south, salt marshes and Warton Aerodrome to the north. There is little coastal settlement, foreshore access is limited and the lack of higher land limits views towards the application site. The coast resumes to the north of the river mouth with a transition to the historic urban promenades and parklands of Lytham and St Annes, which, via a short break of dune land around Blackpool airport, merge into continuing urban foreshore for the remainder of the Fylde, through Blackpool town centre to Fleetwood. Whilst there would be views towards the application site from these well visited resorts, these would be at a substantial distance, would extend to a limited sector of the horizon and would be dependent on meteorological conditions.
- 2.48 The cluster of offshore wind farms around Barrow in Furness do not become an apparent feature of coastal views until the north coast of the Fylde is reached at Fleetwood, offering views towards Cumbria and the Lake District mountains across Morecambe Bay. By this point, there would be little if any possibility of views to the application site being obtained from the shore. It follows that there is little likelihood of significant inter-visibility between these facilities from land-based vantage points.

### **The western coast**

- 2.49 The western coastal viewshed of the application site includes the Dee Estuary and the coasts of Flintshire / Sir y Fflint, Denbighshire

/ Sir Ddinbych and the County Borough of Conwy / Bwrdeistref Sirol Conwy.

- 2.50 Constrained views due to orientation and topography and the relative lack of public access to the foreshore would limit the ability of the application proposals to be seen from locations on the south east (Welsh) coast of the Dee Estuary, the visual setting of which also includes a significant number of energy, industrial and port installations, together with significant urban development. The coastal zone includes Connah's Quay power station, industrial areas at Connah's Quay, Flint / Fflint, Greenfield and Mostyn, an onshore gas terminal at Point of Ayr / Talacre and the Connah's Quay to Point of Ayr railway line. These settlements and their associated installations lend an urban and industrial character to much of the estuary coast.
- 2.51 Between Point of Ayr / Talacre and Abergele, the coast is largely low lying and its character is defined by recreational and tourism development. The town centres and promenades of Towyn, Rhyl and Prestatyn cover a substantial extent of this coast. The intervening land is also largely developed for plot-land housing, caravan parks and golf courses, adjacent and between the beaches and the coastal rail alignment.
- 2.52 There are extensive sea views from promenades and beaches, which would include views to the application proposal. However, these views also contain views to other constructed and consented offshore wind farm facilities at closer range than the application proposal: Gwynt y Môr (partly under construction at the time of my site inspections); Rhyl Flats and North Hoyle. Elsewhere, due to the low-lying nature of the coastal plain, the built environment tends to constrain sea and other mid to long range views.
- 2.53 Inland of the coastal plain, the landscape character becomes rural and topography rises. The Clwydian Range and Dee Valley Area of Outstanding Natural Beauty designation applies to much of the inland area, which forms the first outlier of Welsh mountain landscapes further to the west, beyond the intervening Vale of Clwyd. There are a number of prominent outliers of the Clwydian Range which allow extensive sea views to the east, north and west, although again the potential effects of the application proposal on these views are limited by the interposition of Gwynt y Môr, Rhyl Flats and North Hoyle offshore wind farms. Valleys in the Clwydian Range and the more extensive Vale of Clwyd tend to offer shorter range views in which the focus is on upland horizons. The dominant landscape characteristics here are pastoral, upland, native and plantation forestry. Sea views and views towards the application site are relatively limited and increasingly distant from these locations. Upland outlooks in the Clwydian Range do offer sea views, but again, potential views to the application site would entrain views to the existing and consented offshore wind farms.

- 2.54 West of Abergele, the coast becomes more rural in character, although the immediate coastal strip is still dominated in many places by the rail and North Wales Expressway road alignments. Coastal tourism focusses on the centres of Colwyn Bay, Penrhyn Bay and Llandudno, the latter with its striking historic townscape and pier. Sea views again provide extensive views towards Gwynt y Môr, Rhyl Flats and North Hoyle offshore wind farms and medium to long range views towards the application site would largely be mediated by these facilities. Inland landscapes are a complex interplay of hills and valleys offering few long range views towards the sea or to the application site.
- 2.55 West and north of Llandudno, the coastal landscape changes again, rising to form the limestone cliffs of the Great Orme, designated as heritage coast, a country park and a local nature reserve. The east facing cliffs provide extensive sea views across the North Wales coast towards the application site in the distance, but again Gwynt y Môr, Rhyl Flats and North Hoyle offshore wind farms intervene in those views. North and west of the Great Orme, the form of the coast combined with distance to the application site combine to limit onshore views to the application site.

### **3 LEGAL AND POLICY CONTEXT**

3.1 This chapter of the report identifies the legal and policy context for the application. It identifies:

- the application documents in which the applicant has identified and discussed legislation and policy;
- examination documents in which information about legislation and policy has been sought and discussed;
- provisions and policies arising from the Planning Act 2008 (as amended) (PA2008);
- provisions and policies arising from European legislation;
- other relevant international obligations
- provisions and policies arising from the Marine and Coastal Access Act 2009 (MACAA2009);
- other relevant UK legislation and policy applicable in England;
- development plans in England;
- provisions and policies arising from and applicable within Wales, including development plans in Wales; and

In that changes were made to the application, I finally consider the Secretary of State's power to make a DCO in such circumstances.

3.2 I record only limited findings in relation to the applicability of law and policy and the extent of submissions on law and policy in this chapter. All substantive findings arising from the testing of the application proposal or issues arising during the examination in the light of applicable policies take place in subsequent chapters. It should also be noted that the application proposal is broadly compliant with policy from a wide range of sources that I identify in the Chapter. On that basis, I only discuss policy further in the following chapters of this report where it forms the primary foundation for the Secretary of State's decision (in most cases derived from a National Policy Statement (NPS) prepared pursuant to the PA2008), or it is necessary to identify other policy in detail to support the analysis of a particular issue that arose in the examination.

#### **RELEVANT APPLICATION AND EXAMINATION DOCUMENTS**

3.3 The application is accompanied by an environment statement (ES) which includes:

- Volume 1 - Chapter 2: Offshore Wind Energy Policy and Electricity Markets [APP-021]; and
- Volume 1 - Chapter 4: Legislative Context, Consenting and Regulatory Requirements [APP-023].

These documents largely identify and frame the legal and policy context for the application.

- 3.4 The legal and policy context for Habitats Regulations Assessment (HRA), together with relevant factual material are found in the 'Habitat Regulations Assessment Report' [APP-018].
- 3.5 Additional information about the legislative and policy context of the application and its relationship to the need for other consents can also be found in the applicant's 'List of consents and licences required under other legislation' [APP-019].
- 3.6 I also sought responses from the applicant and interested parties to written questions [PD-008], which sought the identification of responses to the application proposal arising from:
- National Policy Statements (NPS) (Matter 14);
  - the National Planning Policy Framework (NPPF) (Matter 15);
  - marine policies and plans, Welsh Government policies and other regional and city based plans and policies (Matter 16); and
  - statutory development plans in England and Wales (Matter 17).
- 3.7 It should be observed in summary at this point that, with the exception of natural environment and HRA matters, where policy compliance rests on an assessment of the impact of the application proposal carried out in detail in Chapters 4 and 5 below, no in-principle lack of consistency with NPS or other relevant policy were raised in relevant representations, written representations or the answers to my written questions.

### **PLANNING ACT 2008 REQUIREMENTS**

- 3.8 The application proposal relates to renewable energy infrastructure for which designated NPSs are in force. PA2008 s104 (2) applies to such applications. When deciding an application in such cases, the Secretary of State must have regard to:
- (a) any national policy statement which has effect in relation to development of the description to which the application relates,
  - (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 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.

PA2008 s 104 (3) then makes clear that the Secretary of State must decide the application in accordance with any relevant NPS, except to the extent that one or more of subsections (4) to (8) applies.

- (4) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations.
- (5) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the Secretary of State being in breach of any duty imposed on the Secretary of State by or under any enactment.
- (6) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment.
- (7) This subsection applies if the Secretary of State is satisfied that the adverse impact of the proposed development would outweigh its benefits.
- (8) This subsection applies if the Secretary of State is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.

### ***National Policy Statements (NPS)***

- 3.9 In relation to PA2008 s104 (a), there are two designated NPSs in force in relation to the application considered in this report:
- NPS EN-1 'Overarching National Policy Statement for Energy' (July 2011); and
  - NPS EN-3 'National Policy Statement for Renewable Energy Infrastructure' (July 2011).
- 3.10 I have had regard to the entirety of both NPSs throughout the examination. Specific relevant NPS policy requirements are identified and discussed throughout the remainder of this report. In this respect I note the concern expressed by the Wirral Society [REP-182] that there is not a sufficiently clear planning framework for offshore wind energy development. These NPSs may not represent the policy which that body considers ought to be adopted. However, it is clear that there is a strong policy framework made under statute and that (further to PA2008 s 104 (3)) the application should be decided in accordance with that

policy, unless there is a reason not to do so that is also described in statute (PA2008 s 104 (4) – (8)).

### ***Marine Policy Statement (MPS)***

- 3.11 In relation to PA2008 s104 (aa), the appropriate marine policy document is 'The UK Marine Policy Statement' (MPS) which was prepared and adopted for the purposes of s44 of the Marine and Coastal Access Act 2009 and was jointly published on 18 March 2011. The MPS is the framework for preparing Marine Plans and taking decisions affecting the marine environment.
- 3.12 I have had regard to the entirety of the MPS throughout the examination.

### ***Local Impact Reports (LIR)***

- 3.13 Attention was drawn to the opportunity to submit Local Impact Report (LIRs) at the Preliminary Meeting. My procedural decision and timetable issued after the Preliminary Meeting included an invitation to submit LIRs [PD-003 - 007]. However, by the end of the examination no LIRs had been submitted. It follows that there are no LIRs to which I have had regard or to which the Secretary of State must have regard pursuant to PA2008 s104 (b).

### ***Other important and relevant matters***

- 3.14 Other important and relevant matters are identified as necessary below (in relation to law and policy) and in Chapters 4 and 5 of this report (in relation to proposals and facts).
- 3.15 Reference should however be made here to my consideration of previous decisions on DCO applications under PA2008. I have paid close regard to the decision of the Secretary of State in the Triton Knoll Offshore Wind Farm (Triton Knoll). Triton Knoll is the only other decision made under PA2008 that relates to development exclusively within the marine area, with no development on land. I have also considered (as relevant) the decisions of the Secretary of State in relation to Galloper Offshore Wind Farm (Galloper) and the Kentish Flats Extension Offshore Wind Farm (KFE).
- 3.16 In relation to mitigation requirements and conditions, my attention was drawn and I have also considered pre PA2008 development consent decisions including those relating to:
- Dudgeon Offshore Wind Farm;
  - Gunfleet Sands Offshore Wind Farm.
  - Gwynt-y-Môr Offshore Wind Farm;
  - Humber Gateway Offshore Wind Farm;
  - Lincs Offshore Wind Farm;
  - Ormonde Offshore Wind Farm;
  - Race Bank Offshore Wind Farm;
  - Sheringham Shoal Offshore Wind Farm; and

- Westernmost Rough Offshore Wind Farm.

## **EUROPEAN REQUIREMENTS**

### ***Environmental Impact Assessment (EIA) Directives (85/337/EEC as amended by 97/11/EC, 2003/35/EC and 2009/31/EC and codified by 2011/92/EU)***

- 3.17 The codified directive sets out the framework for the identification and assessment of the potential environmental effects of qualifying development applications as a means to inform and improve decision-making. It also sets out requirements relating to transboundary impacts. The principle function of the directive is to establish the requirement for developers to compile and submit an Environmental Statement (ES) in support of any qualifying development application, presenting their assessment of the likely significant environmental impacts.
- 3.18 The directives are given domestic effect for the purposes of nationally significant infrastructure project assessment by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (the EIA Regulations). I have considered the effect of the directives and the requirements of the EIA Regulations throughout the examination. I am satisfied that the applicant has submitted an ES that complies with the EIA Regulations.
- 3.19 It should be noted that the EIA directives were further amended following a review process by Directive 2014/52/EU on 15 May 2014 - after the closure of my examination. The applicant and interested parties have not had an opportunity to comment on this change. However, as Member States have until May 2017 to implement this amending measure and amendments to the domestic regulatory framework have yet to be promulgated, I am satisfied that it is sufficient to consider the application proposal in the light of the directives prior to 15 May 2014.

### ***Renewable Energy Sources (RES) Directive (2009/28/EC)***

- 3.20 The Renewable Energy Sources (RES) Directive sets out legally binding targets for Member States with the expectation that by the year 2020, 20% of the European Union's energy mix and 10% of transport energy will be generated from renewable energy sources. The UK's contribution to the 2020 target is that by then 15% of energy will be from renewable sources.
- 3.21 The UK Renewable Energy Strategy 2009 (Renewable Energy Strategy) sets out how the UK proposes to meet the targets.
- 3.22 Both are relevant to this application to the extent that it is a proposal to generate renewable energy (electricity). I have considered both and find that the application proposal broadly



supports the achievement of RES Directive targets and the UK Renewable Energy Strategy objectives.

### ***Habitats Directive (92/43/EEC)***

- 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 (European Sites) and a strict system of species protection. The application proposal affects European Site and protected species under the directive - identified and discussed in Chapters 4 and 5 below.
- 3.24 The Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations) are the principal means by which the Habitats Directive is transposed into domestic law in England and Wales. They apply in the terrestrial environment and in territorial waters out to 12 nautical miles (nm).
- 3.25 The Conservation of Habitats and Species (Amendment) Regulations 2012 came into force on 16 August 2012. These Regulations amend the Habitats Regulations. They place 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.
- 3.26 Together, these regulations provide the UK legal framework for Habitats Regulations Assessment (HRA), a process which is reported on in Chapters 4 and 5 below.
- 3.27 The Offshore Marine Conservation (Natural Habitats, etc.) Regulations 2007 (as amended) (the 2007 Offshore Regulations) and the Offshore Marine Conservation (Natural Habitats etc.) (Amendment) Regulations 2012 provide the equivalent transposition of the Habitats Directive to the UK's offshore marine area which covers waters beyond 12 nm, within British Fishery Limits and the seabed within the UK Continental Shelf Designated Area. However, on the basis that none of the application site lies more than 12 nm offshore, I have not considered these regulations as relevant to this application.

### ***Birds Directive (2009/147/EC)***

- 3.28 The Birds Directive is a comprehensive scheme of protection for all wild bird species naturally occurring in the European Union. The directive recognises that habitat loss and degradation are the most serious threats to the conservation of wild birds. It therefore places great emphasis on the protection of habitats for endangered as well as migratory species. It requires classification

of areas as Special Protection Areas (SPAs) comprising all the most suitable territories for these species. Since 1994 all SPAs form an integral part of the Natura 2000 ecological network.

- 3.29 The Birds Directive bans activities that directly threaten birds, such as the deliberate killing or capture of birds, the destruction of their nests and taking of their eggs, and associated activities such as trading in live or dead birds. It requires Member States to take the requisite measures to maintain the population of species of wild birds at a level which corresponds, in particular, to ecological, scientific, and cultural requirements while taking account of economic and recreational requirements.
- 3.30 The application proposal affects birds subject to the directive, as identified in Chapters 4 and 5 below.

***Marine Strategy Framework Directive (MSFD)  
(2008/56/EC)***

- 3.31 The Marine Strategy Framework Directive<sup>14</sup> (MSFD) aims to achieve the Good Environmental Status (GES) of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend. It is the first EU directive related to the protection of marine biodiversity, and sets an objective that "biodiversity is maintained by 2020", as the cornerstone for achieving GES. It is delivered through four European marine regions of which the North East Atlantic is relevant to the application site. Member States in each marine region cooperate through a Regional Sea Convention.
- 3.32 The Marine Strategy Regulations 2010 transpose the MSFD into domestic law in England and Wales. The system is in the process of establishment and requires:
- an assessment of the current state of UK seas (by July 2012 - and delivered through the UK Marine Strategy Part 1);
  - a set of detailed characteristics of what GES means for UK waters with associated targets and indicators, (by July 2012 and delivered through the UK Marine Strategy Part 1);
  - a monitoring programme to measure progress (by July 2014, the subject of an on-going consultation); and
  - a programme of measures for achieving good environmental status by 2016 (to be the subject of consultation in spring 2015)
- 3.33 The UK Marine Strategy Part 1 is relevant to this application and I have had regard to it alongside the MSFD and the Marine Strategy Regulations. I am satisfied that the application proposal is in broad conformity with the emerging framework.

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<sup>14</sup> Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy

## **OTHER INTERNATIONAL OBLIGATIONS**

### ***UNEP Convention on Biological Diversity (CBD) 1992***

- 3.34 The United Nations Environment Programme (UNEP) Convention on Biological Diversity (CBD) emerged from the Earth Summit in Rio de Janeiro in 1992. It came into force on 29 December 1993. The UK is a contracting party. It has 3 main objectives:
- the conservation of biological diversity;
  - the sustainable use of the components of biological diversity; and
  - the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.
- 3.35 Article 14 requires the use of the EIA process as a means to identify, minimise or eliminate the significant adverse environmental effects of development, including that of the application site.
- 3.36 The Infrastructure Planning (Decisions) Regulations 2010 (regulation 7) provide it with domestic effect for the purposes of nationally significant infrastructure development assessment. I have considered the likely impacts of the proposed development and appropriate objectives and mechanisms for mitigation and compensation.

### ***UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage 1972***

- 3.37 The United Nations Educational, Scientific and Cultural Organisation (UNESCO) Convention Concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention) came into force on 16 November 1972. The UK is a contracting party. It has 3 main objectives:
- the identification and recognition of places (properties) of outstanding universal value to all humanity through inscription onto a World Heritage List;
  - securing effective domestic action to conserve heritage; and
  - taking action including the funding of programmes to deliver conservation outcomes.
- 3.38 Liverpool Maritime Mercantile City was inscribed onto the World Heritage List in 2004. I have considered the obligations arising from the World Heritage Convention, given effect to in Liverpool through the designation of conservation areas and the management principles set out in the Liverpool World Heritage Site Supplementary Planning Document 2009.

## TRANSBOUNDARY EFFECTS

- 3.39 An initial transboundary screening was undertaken under delegation for the Secretary of State on 31 May 2012 [TB-001] and concluded the application was not likely to have significant effects on the environment in another European Economic Area (EEA) State. A second screening was undertaken under delegation on 13 March 2014 [TB-002], shortly before the closure of the examination and in the light of responses to written questions and oral examination processes that were not available at the time of the first screening. It too concluded the application was not likely to have significant effects on the environment in another European Economic Area (EEA) State.
- 3.40 Under Regulation 24 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (EIA Regulations) and on the basis of information available from the applicant and sought in written questions and oral examination, I **find** that the proposed development is not likely to have significant effects on the environment in another European Economic Area (EEA) State.
- 3.41 I further **find** that with regard to Regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010, all transboundary biodiversity matters have been addressed and there are no matters outstanding that would argue against the Order being confirmed.
- 3.42 In reaching these findings I have applied the precautionary approach (explained in Planning Inspectorate Advice Note 12: Transboundary Impacts Consultation).

## MARINE AND COASTAL ACCESS ACT 2009

- 3.43 The Marine and Coastal Access Act 2009 (MACAA2009) provides the legislative basis for:
- The development and application of policy to the UK marine environment; and
  - the management of development in the UK marine environment - through marine licences.

The MACAA2009, provisions and policy stemming from it are relevant to this application where development is proposed in the marine environment.

### *Marine Licenses*

- 3.44 The application contains a draft DCO which included a DML in respect of licensable marine activity (the proposed development) in English waters. By the end of the examination the applicant had revised it to contain two Deemed Marine Licenses (DMLs). The changes to the proposed DML structure can be followed in the

draft DCOs in the examination document library [APP-088 - APP101].

3.45 A marine licence is also required before carrying out any licensable marine activity in Welsh waters. That part of the export cable which is outside the DCO order area because it is located in Welsh waters requires a marine licence from the Welsh Government, a process managed by NRW / CNC. The applicant prepared a draft Welsh marine licence for information, which was included in the application documents [APP-084]. Following discussions with NRW / CNC, it provided a draft Welsh marine licence as an input into the final stages of the examination [REP-228]. I have had regard to this, but note that it was provided without prejudice to the exercise of discretion on the Welsh marine licence.

3.46 As a decision on that application had not been taken by the time my examination closed, whilst it provides some comfort as to the means by which cross boundary issues are proposed to be managed, the Secretary of State cannot conclude that such issues will definitely be managed in the manner shown in that draft.

### ***UK Marine Policy Statement***

3.47 The UK Marine Policy Statement (MPS) was prepared and adopted under MACAA2009 s44. It was published on 18 March 2011 by all of the UK administrations.

3.48 The MPS provides the policy framework for preparing Marine Plans under MACAA2009 and for taking decisions affecting the marine environment - including marine licence decisions. 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.<sup>15</sup>

3.49 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.

3.50 The MPS has provided the overarching policy context for my consideration of the application offshore works, the Deemed

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<sup>15</sup> see Marine and Coastal Access Act 2009 s.42(3) and (4)

Marine Licences (DMLs) and the relationship of these to licensable activities requiring a marine licence in Welsh waters.

### ***Marine Plans***

- 3.51 The MACAA2009 and the MPS envisage marine licence decision making taking place within an area-based spatial policy framework provided in Marine Plans. The application site falls within the North West Marine Plan Area. However, plan-making is proceeding area by area and the North West Marine Plan is not yet under preparation.
- 3.52 A National Marine Plan for Wales (NMPW) is proposed for Welsh waters adjacent to the application site. Plan-making has commenced and a statement of public participation for the NMPW has been prepared, but at the closure of the examination there was no draft plan in the public domain.

## **OTHER UK LEGAL AND POLICY PROVISIONS**

### **Legislation and policy arising from the UK and England**

#### ***The National Planning Policy Framework (NPPF) and Planning Practice Guidance (NPPG)***

- 3.53 The National Planning Policy Framework (NPPF) was published on 27 March 2012. It sets out the Government's planning policies for England and how these are expected to be applied. The introduction to the NPPF<sup>16</sup> makes clear that it '*...does not contain specific policies for nationally significant infrastructure projects for which particular considerations apply. These are determined in accordance with the decision-making framework set out in the Planning Act 2008 and relevant national policy statements for major infrastructure, as well as any other matters that are considered both important and relevant (which may include the National Planning Policy Framework).*'
- 3.54 For reasons that will be explained further below in relation to Development Plans, as this application is for development that is exclusively offshore, there are few matters relevant to the management of development on land and subject to direct policy formulations within the NPPF that give rise to important and relevant considerations, where there is not also directly applicable policy arising from NPS EN-1 or EN-3. In such circumstances, the presumption in favour of NPS policy set out in PA2008 s104 (3) applies, in the absence of any countervailing considerations arising from PA2008 s104 (4) to (8) inclusive.

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<sup>16</sup> NPPF Introduction - Paragraph 3

- 3.55 NPS EN-1 at paragraph 4.1.7 identifies that the Infrastructure Planning Commission (IPC) (and hence the Secretary of State)<sup>17</sup> should have regard to advice in Circular 11/95 'The Use of Conditions in Planning Permissions' or any successor to it when considering the imposition of requirements in DCOs. Paragraph 5.11.11 provides the same advice in respect of requirements to secure mitigation. On 6 March 2014, a wide range of guidance in planning circulars (including the main body of Circular 11/95) was cancelled and on-going guidance was consolidated into the online Planning Practice Guidance prepared under the NPPF (referred to in this report as NPPG). It follows that I have had specific regard to NPPF paragraphs 203 - 206 and to NPPG guidance on the use of planning conditions under ID:21a in order to discharge the policy arising from NPS paragraphs 4.1.7 and 5.11.11.
- 3.56 As I have recorded elsewhere in this report, I have provided the applicant and interested parties with an opportunity to draw any issues arising from the NPPF to my attention in their answers to written questions. I have also provided an opportunity for them to identify new issues arising from the launch of the NPPG to my attention, on the basis that this took place during my examination. No such issues were specifically identified.

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

- 3.57 The Natural Environment and Rural Communities Act (NERCA2006) 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 conservation of biodiversity. In complying with this, regard must be given to the UNEP Convention on Biological Diversity of 1992.
- 3.58 This duty is of relevance to biodiversity, biological environment and ecology and landscape matters in the proposed development. It's consideration has been integrated into the consideration of the issues arising from the application in Chapter 4 below and into the consideration of matters relevant to Habit Regulations Assessment (HRA) in Chapter 5.

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<sup>17</sup> The Infrastructure Planning Commission (IPC) was established under PA2008 as a body that would examine NSIP applications for development consent and, where a relevant NPS had been designated, consider and decide those applications. Chapter 6 of the Localism Act 2011 abolished the former IPC and amended PA2008 to provide that the relevant Secretary of State would exercise the decision-making powers of the IPC. The examination of NSIP applications for development consent would be undertaken by an Examining Authority within the Planning Inspectorate. References to the IPC in designated NPSs have not been amended, but further to this statutory change can be taken as referring to the Secretary of State in respect of a decision and to an Examining Authority in respects of all elements of an examination.

***The Town & Country Planning Act 1990 (as amended) and Development Plans***

3.59 On the basis that the application site is offshore, in English territorial waters, no English development plan is directly applicable to it. I am also conscious of paragraph 4.1.5 of NPS EN-1 which provides that NPS policy over-rides development plan policy in any instance of conflict. I have nevertheless had regard to the following local plans (together with relevant NPPF content) for localities subject to indirect effects and within the viewshed of the application site:

- The Wirral Unitary Development Plan (adopted February 2000)<sup>18</sup>;
- Sefton Council Unitary Development Plan (adopted June 2006)<sup>19</sup>; and
- The City of Liverpool Unitary Development Plan (adopted November 2002)<sup>20</sup>.

***Other UK and English policy sources***

3.60 I have also had regard to the following relevant UK or English policy sources:

- The Energy White Paper: Meeting the Challenge (May 2007) ;
- The UK Low Carbon Transition Plan, National Strategy for Climate and Energy (July 2009);
- The UK Renewable Energy Strategy (July 2009); and
- Planning Our Electric Future: a White Paper for secure, affordable and low carbon electricity (July 2011).

***Policy arising from Wales***

3.61 The application site is not in Wales so no Welsh policy or local development plan is directly applicable to it. The applicability of Welsh local development plan policy is also qualified by NPS EN-1 paragraph 4.1.5.

3.62 However, the project of which the application is the major part includes elements that would be delivered in Welsh territorial waters and on land in Wales. Most notably, generated renewable energy would come to shore in Wales and not in England. Land in Wales is also subject to the indirect effects of the application

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<sup>18</sup> The Wirral Unitary Development Plan (2000) is a 'saved' plan (with the exception of policies which have not been saved and which I have not considered).

<sup>19</sup> The Sefton Council Unitary Development Plan (2006) is a 'saved' plan (with the exception of policies which have not been saved and which I have not considered).

<sup>20</sup> Liverpool City Council has resolved not to progress the Local Development Framework Core Strategy, which had been under preparation. It is now preparing a comprehensive Local Plan that is built upon the Core Strategy, but that is at an early stage of preparation. The City of Liverpool Unitary Development Plan (2002) is a 'saved' plan (with the exception of policies which have not been saved and which I have not considered).



proposals and is within its viewshed. For these reasons, I have had regard to:

- Planning Policy Wales (PPW) Edition 5 (November 2012) which provides guidance on the preparation and content of development plans and advice on development decisions and appeals;
- PPW is supplemented by Technical Advice Notes (TANs) of which TAN 5: Nature Conservation and Planning (2009); TAN 8: Planning for Renewable Energy (2005) and TAN 14: Coastal Planning (1998) are relevant;
- Denbighshire Local Development Plan 2006-2021 (adopted 4th June 2013); and
- Flintshire County Council Unitary Development Plan 2000-2015 (adopted 28th September 2011).

3.63 I have also had regard to the following Welsh Government policies:

- Low Carbon Revolution – Welsh Government Energy Policy Statement (2010);
- Energy Wales: A Low Carbon Transition (2012);
- Marine Renewable Strategic Framework, Approach to Sustainable Development (2011); and
- Ministerial Policy Statement on Marine Energy in Wales (2009).

## **4 FINDINGS AND CONCLUSIONS IN RELATION TO POLICY AND FACTUAL ISSUES**

4.1 This chapter of the report identifies the key issues arising from the application and the action taken during the examination to address these.

### **INITIAL ASSESSMENT OF PRINCIPAL ISSUES**

4.2 At the outset of the examination process, I made an initial assessment of the principal issues arising from my consideration of the application documents and relevant representations. These issues are recorded below in summary form and in the (alphabetic) order in which they were included in correspondence with the applicant, interested parties and invited persons.

- Biodiversity, Ecology and Natural Environment;
- Construction;
- Draft Development Consent Order (DCO);
- Debris, Waste and Contamination;
- Electric and Magnetic Fields (EMFs);
- Historic Environment;
- Marine and Coastal Physical Processes;
- Navigation – Air and Marine;
- Noise;
- Other Projects and Proposals;
- Socio-Economic Effects;
- Townscape, Landscape and Visual; and
- Transportation and Traffic.

4.3 Not all of these issues remained of equal relevance and importance as the examination progressed. Some maintained their significance and are therefore addressed in detail in this report. Evidence, statements of common ground and agreements between the applicant and other interested parties and invited persons also led to issues that had appeared prospectively relevant and important at the outset of the examination ceasing to be so on the basis that they were either not a source of significant effects, or that mitigation measures secured in the draft DCO had ensured their satisfactory management.

### **THE ISSUES FRAMEWORK IN THIS REPORT**

4.4 Of the issues described in paragraph 4.2 above or nested within them, matters relating to the Habitat Regulations Assessment (HRA) consequences of the application proposal for biodiversity, ecology and the natural environment are considered in Chapter 5, matters relating to land, interests in and rights over land are considered in Chapter 6 and matters relating to the draft DCO are considered in Chapter 7.

4.5 All other important and relevant issues that emerged during the examination are analysed within the issues framework contained

in this chapter. However, I have changed the order in which I address them from the alphabetic order above, to an order more closely related to factors including their timing in the project delivery process and their significance to the decision as a whole. This chapter addresses these groups of issues in the following order:

- (a) the need for and approach taken to the development;
- (b) whether the proposal represents good design;
- (c) effects on and effects of other strategic projects and proposals, including in-combination and cumulative effects;
- (d) effects on biodiversity, ecology and the natural environment;
- (e) effects on defence and transportation infrastructure;
- (f) seascape, townscape, landscape and visual effects;
- (g) historic environment effects;
- (h) socio-economic effects;
- (i) construction effects, including the management and disposal of waste;
- (j) the grid connection;
- (k) EMFs and cable heating;
- (l) other matters; and
- (m) equalities and human rights considerations.

#### **PART A: DEVELOPMENT NEED AND APPROACH**

4.6 This part of the report undertakes two tasks:

- it responds to representations that the development is not needed, or that the harm done by it would outweigh its benefits; and
- it also considers the applicant's justification for the selection of the specific site, including the consideration of alternatives.

#### **Need and the balance of benefit**

4.7 A number of relevant representations were made, premised on the proposition that there was no need for the application proposal and that it was fundamentally unsound. Entrained with these positions were views that the benefits of the application proposal were outweighed by its adverse effects.

4.8 Mr JR Hall [REP-009] and Mrs Jean Hall [REP-012] in their similar relevant representations summarised these positions when they both objected strongly to the application proposal. Part of this objection proceeded from an in principle concern about the appropriateness, physical and economic efficiency of wind turbine technology in principle. I consider these submissions in Part K of this report below. However, part proceeded from a concern that

the application proposal was not needed, was not needed here and that its individual benefits were outweighed by its adverse effects.

4.9 They both said<sup>21</sup>:

*'Liverpool Bay has already been defaced by 3 existing offshore wind farms, totaling [sic] 80 turbines, with a fourth under construction with 160 turbines. On completion the total number of turbines in Liverpool Bay will be a massive 240. If the proposed extension of 69 turbines goes ahead, the number of turbines within the bay would increase to 309 plus three huge offshore sub-stations. The cumulative effect of so many turbines would be to virtually enclose our mainly residential bay and turn it into a massive ugly industrial site. The proposed extension would quadruple the size of the existing Burbo Bank wind farm by 40 square Km, stretching across the bay, totally destroying what is left of the once wonderful open space of our bay and the magnificent sea and coastal views, which are the reasons why people choose to live and visit here.'* [RR-012]

4.10 Equivalent positions were put by Mr Mark Bradshaw [REP-007], Mr Peter Smart [REP-010], Mr Robert Winterson [REP-020] and Mr Christopher Edwards [REP-021].

4.11 Mr & Mrs Hall also submitted a shared written representation, which concluded a similar argument with the following:

*'Enough is Enough. Four wind farms in the same area is Four too many [sic]. A fourth wind farm in our bay would amount to the victimization of the same people and their communities yet again.'* [REP-035]

4.12 The relevant representation of the Wirral Society [REP-027], a local amenity society raised similar concerns as did that of Hoylake Village Life [REP-015], a not-for profit Community Interest Company which aims to encourage the economic and social regeneration of Hoylake. Both were concerned that the level of visual change (a matter to which I return in Part F of this chapter below) would be so substantial that the application proposal as currently formulated should not be granted.

4.13 National Policy Statements (NPS) EN-1 and EN-3 provide a strong policy basis for the need for renewable energy development and for the proposition that offshore wind farms are a primary means of meeting that need.

4.14 NPS EN-1 at section 2.2 makes clear that the UK is committed to meeting its legally binding target to cut greenhouse gas emissions

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<sup>21</sup> The quote reproduced here is from Mrs Jean Hall's relevant representation. There are minor drafting differences between Mr and Mrs Hall's representations but the content expresses the same intention.

by at least 80% by 2050, compared to 1990 levels, a process which is underpinned in law through carbon budgets prepared under the Climate Change Act 2008. The UK is committed to sourcing 15% of its total energy (across the combined sectors of transport, electricity and heat) from renewable sources by 2020 - a commitment set out in the 'UK Renewable Energy Strategy'<sup>22</sup>.

- 4.15 Whilst NPS EN-1 acknowledges the contribution towards our low carbon future to be made by energy efficiency, it also highlights that decarbonisation will require a significant electrification of a wide range of currently carbon consuming energy requirements, for example in transport, heat and manufacturing. Even with efficiency measures in place, our underlying demand for electricity is predicted to double over the next 40 years as a consequence of this electrification process. The NPS concludes that *'[t]o meet emissions targets, the electricity being consumed will need to be almost exclusively from low carbon sources.'*<sup>23</sup>
- 4.16 In this context, NPS EN-1 continues to make clear that the UK Government plans to meet emissions targets by pursuing a balanced energy strategy in which renewables have a strong role to play; *'improving energy efficiency and pursuing its objectives for renewables, nuclear power and carbon capture and storage.'*<sup>24</sup> The NPS then identifies (at paragraph 3.4.3) that *'offshore wind is expected to provide the largest single contribution towards the 2020 renewable energy generation targets'*. A generic need for offshore wind farm development is established. Paragraph 3.4.5 makes clear that the need for new renewable generation capacity is urgent.
- 4.17 In this respect, I **find** that there is nothing that Mr & Mrs Hall, Mr Bradshaw, Mr Smart, Mr Winterson, Mr Edwards, the Wirral Society or Hoylake Village Life have raised which provide an evidenced basis for a decision to be taken that this proposed wind farm is not needed. I address siting matters with a bearing on these submissions further from paragraph 4.23 below, and matters relating to good design in Part B and then throughout the remainder of this chapter.
- 4.18 It is important to acknowledge the sincere care, concern and love for the qualities of their local environment and the opportunities that it provides that are expressed in the representations of Mr & Mrs Hall, Mr Bradshaw, Mr Smart, Mr Winterson and Mr Edwards together with the Wirral Society and Hoylake Village Life. The opportunities provided by the Wirral foreshore to walk along a beach, to watch shore birds and waders, to take to the sea in a small boat is rare in the heart of what is one of England's major urban areas. It must also be acknowledged that these

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<sup>22</sup> DECC 2009 at pg 30

<sup>23</sup> NPS EN-1 at paragraph 2.2.22

<sup>24</sup> NPS EN-1 at paragraph 2.2.23

experiences will be significantly changed by the applicant's proposal. However, just because these opportunities will be changed by the development does not equate to a finding that the change will occasion unacceptable harm.

- 4.19 In this case, ES impact assessments across a wide range of relevant criteria suggest levels of adverse impact that are sufficiently low and appropriately mitigated, so as to suggest that the application proposals benefits (needed renewable energy) outweigh its harms. I note that a number of these interested parties disputed the conclusions reached in the ES, especially in relation to seascape, landscape and visual impacts. However, they did not bring a significant body of evidence to rebut the applicant's assessments which I was able to test and weigh in the balance.
- 4.20 It should also be noted that the views of these interested parties are not a matter of consensus amongst local communities. Affected local authorities, particularly Wirral Council, had an opportunity to object to the application proposal in fundamental terms but did not do so and did not submit local impact reports (LIRs) identifying and evidencing particular instances of harm that were insufficiently mitigated. The written representation of Hoylake Village Life [REP-107] has viewed the harms occasioned by the application proposal as significant but essentially mitigable through some form of community benefit fund to deliver visual and environmental enhancements.
- 4.21 That is not to say that the level of harm occasioned by an offshore wind farm can never outweigh the need for low carbon energy and the benefits of delivering such energy in substantial volume. However, for me to find that there was such an outweighing harm caused by this application, I would have to have been presented with clear and specific evidence of that harm, and further would have to have found that significant elements of it were immitigable through the imposition of requirements in the Development Consent Order (DCO) or conditions in the deemed marine licences (DMLs) attached as Schedules 2 and 3 to the DCO. For reasons that are set out in detail in successive components of this chapter below, I have not made such findings.
- 4.22 I **find** that the material provided to me by these interested parties does not pass the tests set out in PA2008 s 104 (4) - (8). Most particularly it has not evidenced that the test in PA2008 s 104 (7) has been met, that:

*'the adverse impact of the proposed development would outweigh its benefits'.*

This in turn means that the policy in support of such development is entitled to be favourably considered in the Secretary of State's decision.

## Site selection and the consideration of alternatives

- 4.23 Whilst Mr & Mrs Hall, Mr Bradshaw, Mr Smart, Mr Winterson, Mr Edwards and Wirral Society did not take specific issue with the detail of the applicant's site selection and refinement process, it is clear from their submissions that they considered the application proposal to be wrongly sited on the basis that, taken cumulatively with other offshore wind farms, its effects would be unacceptable, for reasons that have been recorded above and which will be returned to in respect of seascape, landscape and visual impact assessment below.
- 4.24 As is made clear in NPS EN-1 at paragraph 4.4.2, applicants are obliged to include a consideration of the main alternatives that they have considered, which in turn supports their justification for selecting the application site. The HRA process (considered further below) requires a consideration of alternatives, as do the specific requirements of NPS EN-1 sections 5.3 (biodiversity) and 5.9 (landscape and visual) to both of which I return below. Paragraph 4.4.2 does make clear that the consideration of alternatives must be a proportionate exercise. Relating this consideration to the analysis of need, it also makes clear that the Secretary of State:
- 'should not reject an application for development on one site simply because fewer adverse impacts would result from developing similar infrastructure on another suitable site, and it should have regard as appropriate to the possibility that all suitable sites for energy infrastructure of the type proposed may be needed for future proposals'.*
- 4.25 The ES includes a full consideration of site selection and alternatives in Volume 1 Chapter 5: 'Site Selection and Alternatives' [APP-024] which I find sufficiently addresses the requirements of NPS EN-1. Section 5.3 of that volume makes clear that a consideration of alternatives commenced with a review utilising the Crown Estate criteria for consideration of leases for offshore wind farm extensions and reviewed sites adjacent to six other offshore wind farms operated or under development by the applicant, in addition to the original Burbo Bank offshore wind farm. A range of other technical and commercial interests were also consulted at this stage.
- 4.26 I **find** that, in the context of need, where a substantial number of offshore wind energy development sites are required, the applicant has engaged in an objective consideration of locations at which this type of development might be delivered. I accept the applicant's proposition that this exercise led to the identification of the Burbo Bank Extension as a deliverable development in principle.

- 4.27 This initial review led to the identification of a 90 km<sup>2</sup> potential development area in October 2009. A second stage of evaluation illustrated at Figures 5.1 and 5.2 [APP-024] then took account of constraints and mitigating factors relevant to safeguarding shipping routes and navigation in the north, increased the separation from the Welsh and Wirral coasts for seascape, landscape and visual reasons, avoided recreational cruising areas in the south and higher concentrations of *Red-throated divers* near the Dee Estuary and then avoided dredging routes and anchorages to the west. The combined effect of these changes reduced the potential development area to 40 km<sup>2</sup>.
- 4.28 I **find** that this has significantly refined the choice of site in a manner that has significantly minimised and mitigated harms - including those harms which concern the interested parties.
- 4.29 It should also be noted that - in terms of the effects on the Wirral of concern to the interested parties based there - a further mitigation has occurred through the consideration of grid connection route options. The applicant did not pursue a Wirral-based grid connection, instead opting to develop a grid connection in North Wales. I make no observation on matters that have been considered by Denbighshire County Council / Cyngor Sir Ddynbych or on matters that remain to be decided in respect of compulsory acquisition of land in Denbighshire / Sir Ddinbych. However, for interested parties based in the Wirral, this siting decision has also reduced the impacts to be experienced by them.
- 4.30 On balance, with reference to I **find** that the applicant has undertaken a robust consideration of alternatives and has demonstrated how the proposed Burbo Bank Extension meets the need for renewable energy, whilst avoiding, minimising and mitigating harms [APP-024]. Further, it appears that it would not be possible to materially reduce the harms of concern to interested parties based in the Wirral by further reducing the scale of the proposed development or changing its location within the application site, without in turn leading to a development too small to provide a material contribution to the meeting of need, or even to warrant development from a commercial perspective [APP-024] [REP-039].

### **Conclusions**

- 4.31 Taking the matters and policies outlined above into account, none of the interested parties have demonstrated that there is no need for the application proposal, that the harm done by it outweighs its benefits, that it has been wrongly sited or that other alternatives should have been considered. I have found that the application proposal is for a form of development that is strongly supported by NPS policy and that (pursuant to PA2008 s104(3)) can be decided in accordance with relevant NPS policy because none of



the statutory qualifications (pursuant to PA2008 s 104 (4) - (8)) that would allow another outcome apply.

**PART B:  
GOOD DESIGN**

- 4.32 PA2008 s 10(3)(b) requires the Secretary of State to have regard, in designating an NPS, to the desirability of good design. Section 4.5 of EN-1 sets out the principles of good design that should be applied to all energy infrastructure. It makes clear that whilst good design must take account of aesthetic considerations, it extends more broadly to considerations of sustainability and the effective siting and delivery to mitigate avoidable adverse effects. Paragraph 4.5.1 says:

*'[a]pplying "good design" to energy projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible. It is acknowledged, however 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'.*

- 4.33 NPS EN-3 at paragraph 2.4.2 states that:

*'Proposals for renewable energy infrastructure should demonstrate good design in respect of landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology.'*

**Conclusions**

- 4.34 These are matters that I take into account in greater detail in Part D and the subsequent parts of this report. However, it is important to record here that I have considered and **find** that the applicant has used the ES to demonstrate a well-considered, consultative and iterative design process. In doing so it has met the policy expectations of NPS EN-1 and EN-3 relating to good design.

**PART C:  
OTHER PROJECTS AND PROPOSALS**

- 4.35 The EIA Directives as implemented in the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) establishes an assessment principle that EIA should consider the effects of an application proposal in combination with other projects and proposals. Delivery of this in energy infrastructure projects is provided for in NPS EN-1 at paragraph 4.2.5, which also refers to the 'Guidelines for Cumulative Effects Assessment prepared for the EC' (Hyder, 1999), in which cumulative effects are defined as:

*'impacts that result from incremental changes caused by other past, present, or reasonably foreseeable actions together with the project'.*

- 4.36 ES Volume 4 Chapter 36 considers 'In-combination and Cumulative Impacts' [APP-055]. Table 36.2 of that chapter itemises the locations within the subject specific chapters of the ES in which in-combination and cumulative impact assessment has been carried out and the policies that have been had regard to in that process.
- 4.37 Detailed cumulative impact assessments have been carried out with reference to 12 onshore wind farms, 13 offshore wind farms, 14 recommended Marine Conservation Areas (rMCZs)<sup>25</sup>, 2 active dredging areas, 8 active disposal areas and 6 marine oil and gas installations at stages of development ranging from initial proposal to operation. Table 36.6 provides a matrix summarising the impact subjects against which detailed cumulative impact assessment was undertaken for each of these projects. This process has included assessment in-combination with the other Liverpool Bay offshore wind farms and oil and gas industry assets.
- 4.38 Relevant and written representations that have arisen in respect of matters that include a dimension of cumulative impact assessment, including SNCB representations on ornithological impact and HRA [REP-028] [REP-031] and BHP representations on oil and gas industry assets [REP-022] are addressed further below, in individual subject matter sections D (biodiversity, ecology and the natural environment) and H (socio-economic effects). I have noted representations from the Wirral-based interested parties discussed in section A (development need and approach) above to the extent that the cumulative impact of the application proposal when taken with other offshore wind farms would be excessive. I deal with this issue in subject matter section F (seascape, landscape and visual impacts) below.

## **Conclusions**

- 4.39 However, subject to the individual findings I record in respect of those issues above and below, I **find** generally that the cumulative impact assessment process in the ES has been robust and has met the legal and policy requirements to which it is subject. The harm done is not sufficient to approach any relevant natural environmental threshold or capacity limit in terms of sustainability. Nor is it sufficient to more than be additive to what has become the character of the seascape and landscape for the site and its surroundings.

## **PART D:**

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<sup>25</sup> At the time of assessment these were rMCZs. Fylde and Cumbrian Coast were designated by the SoS Environment Food & Rural Affairs on 21 November 2013.

## **BIODIVERSITY, ECOLOGY AND THE NATURAL ENVIRONMENT**

- 4.40 The application proposals raises two broad sets of issues bearing on biodiversity, ecology and the natural environment:
- matters relevant to European Sites and their values, protected under the Habitats Directive and the Habitats Regulations - Habitats Regulations Assessment (HRA); and
  - matters relevant to other aspects of biodiversity, ecology and the natural environment and the requirements of other legislation and policy.

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

- 4.41 It should be recorded from the outset that I have undertaken an holistic and integrated review of all matters bearing on biodiversity, ecology and the natural environment throughout the examination. However, given the specific needs of the HRA process, I have decided to report HRA matters in a self-contained way, providing a separate audit trail of my examination and reasoning processes.
- 4.42 For these reasons, I have set out all HRA relevant reporting in a separate Chapter 5 below. Chapter 5 identifies matters relevant to European Sites and their values, protected under the Habitats Directive and the Habitats Regulations.

### **Other biodiversity and natural environment considerations**

- 4.43 The relevant policy framework for these considerations arises from NPS EN-1 section 5.3 addresses biodiversity. Within an English context, the Government's biodiversity strategy (referenced in paragraph 5.3.5 calls for:
- *'a halting, and if possible a reversal, of declines in priority habitats and species, with wild species and habitats as part of healthy, functioning ecosystems; and*
  - *'the general acceptance of biodiversity's essential role in enhancing the quality of life, with its conservation becoming a natural consideration in all relevant public, private and non-governmental decisions and policies.'*
- 4.44 Paragraph 5.3.6 makes clear that the beneficial effects of renewable energy development in terms of reducing carbon emissions and the management of climate change effects should be taken into account when considering effects on natural environment assets.
- 4.45 EN-1 makes generally clear that, in circumstances where levels of impact below those warranted to avoid a site or refuse consent are present, it is important to ensure that requirements and legal agreements provide for the achievement of biodiversity objectives

in relation to relevant interests, including the conservation of SSSIs, marine conservation zones, habitats and species generally.

- 4.46 EN-1 at paragraph 5.3.18 makes clear that the applicant should include mitigation for any adverse impacts within their projection
- 4.47 NPS EN-3 paragraphs 2.6.58 to 2.6.71 set out relevant natural environment policies. These identify the particular relevance of effects on fish, inter-tidal and sub-tidal seabed habitats, marine mammals and birds. Paragraph 2.6.70 encourages applicants to ensure that mitigation for any adverse effects is designed into their proposals. Paragraph 2.6.71 highlights the value of monitoring and raises the expectation that monitoring will be provided for and secured in the DCO.
- 4.48 NPS EN-3 paragraphs 2.6.75 – 77 identify that development should take account of and minimise its effects on fish species, including fish spawning and migration processes, through site selection, controlling construction works and through the reduction of EMF exposures.
- 4.49 The consideration of inter-tidal habitats in NPS EN-3 is largely confined to the direct effects of cable works and land-falls. Nevertheless, it is also important to consider the effects of met-ocean processes and possible changes upon them on the inter-tidal zone and the applicant has ensured that that has taken place in this case.
- 4.50 In terms of sub-tidal habitats, NPS EN-3 paragraphs 2.6.115 – 120 identify the importance of identifying and minimising construction harm to habitats and species. Cable armouring and burial are identified as key means of controlling heat related effects. Mitigation measures which Secretary of State should expect the applicants to have considered may include:
- *'surveying and micrositing of the export cable route to avoid adverse effects on sensitive habitat and biogenic reefs;*
  - *'burying cables at a sufficient depth, taking into account other constraints, to allow the seabed to recover to its natural state; and*
  - *'the use of anti-fouling paint might be minimised on subtidal surfaces, to encourage species colonisation on the structures.'*
- 4.51 NPS EN-3 paragraphs 2.6.94 – 99 identify that effects on marine mammals should be minimised and mitigated and that regard should be had to SNCB advice in this regard. Construction methods that recognise the sensitivity of marine mammals to piling noise should be considered, including 'soft start' and time limited piling. Monitoring should be carried out to determine the real time effects of construction and operation.

4.52 Effects on birds are considered through the HRA analysis in Chapter 5 of this report because it was in that context in which those effects arose.

4.53 The remainder of this section relates to:

- effects on fish;
- effects on inter-tidal and sub-tidal habitats; and
- effects on marine mammals.

Regard has been had throughout to effects on protected and designated sites.

4.54 A initial explanation is provided of the way in which concerns in respect of methodological and data deficiencies were considered and resolved during the examination, as this provides an important preface to level of brevity with my substantive findings are then reported.

4.55 Natural England (NE) [REP-028], Natural Resources Wales / Cyfoeth Naturiol Cymru (NRW / CNC) [REP-031] and the RSPB [REP-032] all raised initial concerns that there were gaps in the applicant's scientific data and that its survey methodology was not adequate, largely in respect of ornithology, but also raising concerns in respect of fish (including *Atlantic salmon* migration, *Lamprey* species migration) and marine mammals. These concerns were shared by local authorities (Sefton and Wirral Metropolitan Borough Councils) and by a number of local resident interested parties.

4.56 The Environment Agency (EA) [REP-030] [REP-106] raised concerns that matters relating to water quality for shellfish, bathing water quality and compliance with the Water Framework Directive (WFD) had not been fully complied with.

4.57 I sought to identify key issues arising from these concerns through my round one questions [PD-008] and through the statement of common ground process [PD-003]. I also held an early issue-specific hearing to test these concerns orally.

4.58 As a result of these processes, the applicant submitted a considerable number of clarifying notes at Deadlines I and II [REP-041 – 073][REP-137 – 139][REP-142-144], seeking to demonstrate how all relevant concerns had been addressed and that any necessary mitigation could be provided for within the draft DCO. I have considered all of this material with great care. The effect of this material was significantly to reduce the range and weight of issues in contention, as is made clear in statements of common ground with the SNCBs [REP-124] [REP-125] and [REP-126] and the EA [REP-121].

4.59 At the first issue-specific hearing on natural environment issues, it was acknowledged between the SNCBs (as statutory nature

conservation advisers) and the applicant, that the majority of the expressed concerns had been resolved through the explanations provided in these clarification papers. The RSBP did not attend this hearing. An agenda for outstanding work was agreed at that hearing, progress on it was monitored at the second issue-specific hearing and a detailed examination of its outcomes undertaken at the third issue-specific hearing.

- 4.60 The position that emerged from the first issue specific hearing from the SNCBs can essentially be summarised as follows:
- There were outstanding ornithological concerns relating to HRA – European Sites and their features. These are addressed in Chapter 5 below.
  - All other matters had been or were capable of being addressed, with mitigation provided for in requirements that were provided in the applicant's preferred draft DCO, as discussed in Chapter 7 below.
- 4.61 Agreed work was conducted. The third issue-specific hearing confirmed that agreement had been reached on all issues with the exception of ornithological matters reported in Chapter 5 below with reference to HRA. It followed that the preparation of and consultation on my draft DCO provided a means to test the adequacy of mitigating provisions provided in the DCO. No significant concerns were raised.
- 4.62 The EA expressed concerns about the effect of the project in terms of the quality of the water environment and compliance with the Water Framework Directive. On the basis of these concerns, the applicant prepared and submitted a Water Framework Directive (WFD) Assessment [REP-054]. This undertook a detailed analysis of the effects of the project on the Mersey Mouth and the North Wales offshore water bodies. It concluded (at pg 34) that the project would have no likely permanent effects on the Mersey Mouth water body and no likely effects on the North Wales water body. In neither case was the project predicted to have any material effect on the achievement of water quality objectives under the WFD.
- 4.63 Concerns were also expressed by the EA about the maintenance of bathing water quality at Wirral beaches – Moreton, Meols and New Brighton. However, it was agreed that studies of had indicated that relevant values would not be harmed.
- 4.64 Again, these were all agreed to be matters that could be managed within requirements, which were tested through my consultation draft DCO. The EA did not raise any outstanding concerns in relation to its matters of interest provided for in requirements. It follows that these were taken forward into what became the applicant's preferred draft DCO, discussed in Chapter 7 below.

4.65 It follows that I **find** that, by the end of the examination, the statutory nature conservation bodies (SNCBs), the local authorities and the EA had accepted that the applicant's data collection and methodology was appropriate. The RSPB concerns were not expressly resolved. However, without them having participated directly in the examination of evidence and development of common ground between the applicant and the SNCBs which took place through the hearing process, I place greater weight on the satisfaction of the SNCBs, due to their roles as statutory advisors and due to their participation in hearings at which their evidence could be tested alongside that of the applicant. Beyond expressing initial concerns, individual local interested parties provided no detailed submissions or evidence on natural environment related material.

### **Conclusions**

4.66 I have considered with great care the mitigations set out in applicants preferred draft DCO, which in turn have translated into the recommendation draft DCO. A large volume of work was carried out by the applicant and the relevant interested parties, to ensure that appropriate mitigation was provided for. Relevant measures reducing the exposures of fish and marine mammals to piling noise, burying cables to reduce cable heating and EMF exposures, pre construction, construction and post construction monitoring are all proposed to be taken. Noting the lack of outstanding concerns at the end of the examination, I too can record that I am satisfied that all relevant policy in NPS EN-1 and EN-3 has been addressed and that the mitigation provided for in the recommended draft DCO.

4.67 The policy objectives emerging from England's biodiversity strategy will be met in terms of the project not contributing to the decline in relevant habitats or species. The project will provide renewable energy material to the achievement of climate change objectives, relevant to the conservation of the natural environment.

4.68 I **find** that there are no remaining matters relating to the natural environment that remain in dispute and that drive changes to the DCO.

### **PART E: DEFENCE AND TRANSPORTATION INFRASTRUCTURE**

4.69 The application proposal raises the following issues in relation to defence and transportation infrastructure.

- air navigation for Warton aerodrome (a MoD / BAE Systems facility) and military air traffic systems;
- air navigation for Liverpool John Lennon Airport;
- effects on NATS en Route Ltd (NERL) civil air traffic systems; and

- marine navigation;

### **Warton Aerodrome and military air traffic systems**

- 4.70 Warton Aerodrome is located on the north bank of the Ribble Estuary, between Preston and Lytham St Anne's in Lancashire. The Defence Infrastructure Organisation (for the Ministry of Defence) (DIO) and BAE Systems operate Warton Aerodrome as a military aviation test facility. It is also licenced for civil aviation.
- 4.71 The Ministry of Defence did not initially make a relevant representation or attend the preliminary meeting. BAE Systems attended the preliminary meeting and asked to speak on the basis of its concern to ensure that operating conditions at Warton were adequately safeguarded. The applicant indicated its contentment that the Ministry of Defence should be fully involved in the examination. On the basis of the importance and relevance of ensuring that the application proposal did not prejudice the operation of defence assets, I made a procedural decision [PD-006] to invite the DIO to participate in the examination as the representative of the Ministry of Defence as though it had made a relevant representation.
- 4.72 Submissions from the DIO [REP-095] [REP-110] identified that the application proposal has the capacity to interfere with the operation of Warton's radar and air traffic systems, requiring the design and implementation of a radar 'patch'. This would enable air traffic controllers at Warton to see beyond the radar interference caused by the development of the application proposal. Oral submissions from DIO, BAE Systems and the applicant at the DCO issue-specific hearing made clear that there was a reasonable prospect of an agreement to deliver the appropriate mitigation. This was not proposed to be a planning obligation. A commercial agreement (a private law contract) was viewed as sufficient by the applicant, the DIO and BAE Systems.
- 4.73 The necessary commercial agreement has now been reached in principle [REP-199] [REP-236]. However, whilst a form of words for a requirement to secure the delivery of the necessary mitigation has been agreed and is discussed in Chapter 7, as has a technical basis for that mitigation, a legal agreement to provide for the design, funding and construction of the mitigation was not complete by the end of the examination period [REP-251] [REP-257].
- 4.74 NPS EN-1 paragraph 5.4.9 provides that '*it is important that new energy infrastructure does not significantly impede or compromise the safe and effective use of any defence assets.*' Paragraph 5.4.14 provides that the Secretary of State '*should be satisfied that the effects on civil and military aerodromes, aviation technical sites and other defence assets have been addressed by the applicant and that any necessary assessment of the proposal on*



*aviation or defence interests has been carried out.'* Where mitigation is required, the Secretary of State '*can consider the use of "Grampian", or other forms of condition which relate to the use of future technological solutions, to mitigate impacts.'* (paragraph 5.4.18).

- 4.75 NPS EN-3 makes reference to the mitigation of marine navigation systems but does not contain any further site specific provision for aviation of any kind.
- 4.76 I **find** that a Grampian<sup>26</sup> requirement to provide for the delivery of adequate mitigation, using techniques that are understood, has been accepted by both the applicant and the DIO. On this basis, if the legal agreement to secure funding and delivery of the mitigation is not completed, the development will not be able to proceed. This will ensure that the interests of the MoD in maintaining Warton as an operational facility are fully responded to. However, on the basis of the written representations provided to the examination, there is every expectation that the legal agreement will be concluded and that the application proposal will be able to proceed.

#### **Liverpool John Lennon Airport**

- 4.77 Liverpool John Lennon Airport is the international airport for Merseyside and surrounding areas. It is located on the north bank of the Mersey at Speke, between Liverpool and Chester.
- 4.78 As with Warton Aerodrome, representations [APP-101], [REP-230] [REP-237] identified that the application proposal has the capacity to interfere with the operation of the airport's radar and air traffic systems, requiring the design and implementation of a radar solution. This would enable air traffic controllers to see beyond the radar interference caused by the development of the application proposal. The recommended requirement is set out in the form proposed in a joint position statement signed by both parties [REP-237].
- 4.79 As with Warton Aerodrome, a legal agreement providing for the design, funding and delivery of the solution was not completed between the applicant and Liverpool John Lennon Airport by the end of the examination period [REP-254].
- 4.80 The NPS policy identified in paragraphs 4.57 and 4.58 above as applying to Warton Aerodrome applies to Liverpool John Lennon Airport.

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<sup>26</sup> After the decision in Grampian Regional Council v City of Aberdeen District Council (1984) 47 P&CR 633, a 'Grampian' condition or requirement is one that prevents the start of a development until off-site works have been completed on land not controlled by the applicant.

- 4.81 As in Warton Aerodrome, I **find** that a Grampian requirement to provide for the delivery of adequate mitigation, using techniques that are understood, has been accepted by both the applicant and the airport. On this basis, if the legal agreement to secure funding and delivery of the mitigation is not completed, the development will not be able to proceed. This will ensure that the interests of the airport in remaining operational are fully responded to. However, on the basis of the written representations provided to the examination, there is every expectation that the legal agreement will be concluded and that the application proposal will be able to proceed.

### **NERL civil air traffic systems**

- 4.82 NATS En Route Ltd (NERL) provides UK civil air traffic control systems. The application proposal will adversely affect the operation of two NERL primary radar facilities, at Lytham St. Anne's and Great Dun Fell.
- 4.83 The applicant and NERL have agreed a requirement to provide for primary radar mitigation [REP-238]. They also signed a legal agreement ('the Mitigation and Services Contract') for the design, funding and delivery of the necessary mitigation works on 12 March 2014 and the agreement was completed on 24 March 2014 [REP-253][REP-254].
- 4.84 The NPS policy identified in paragraphs 4.57 and 4.58 above as applying to Warton Aerodrome also applies to NERL civil air traffic systems.
- 4.85 I **find** that the proposed requirement to address this mitigation complies with NPS policy, and with a signed agreement in place, I have full confidence that the mitigation will be able to proceed.

### **Marine navigation**

- 4.86 I deal here with the effects of the application proposal on commercial marine navigation particularly related to the Port of Liverpool and Manchester Ship Canal and on public rights of navigation. I also consider safety zones. Related effects in respect of recreational marine navigation and fisheries are considered in parts D (biodiversity) and H (socio-economic effects) of this chapter.
- 4.87 Peel Ports is the holding company for the Mersey Docks and Harbour Company Ltd. The Mersey Docks and Harbour Company Limited (MDHC) is the Statutory Harbour Authority for the Port of Liverpool and Birkenhead Docks, and responsible for the management of navigational safety and protection of the marine environment on the River Mersey between Warrington Bridge and the outer port limits. MDHC is also a Competent Harbour Authority for the Port of Liverpool and the docks at Garston within the provisions of the Pilotage Act 1987.

- 4.88 MDHC provides Conservancy, Pilotage and Vessel Traffic Services for ships and craft using the Port of Liverpool. Its responsibilities also include the maintenance of navigational channels, moorings, lights and buoys and the provision of hydrographic, tidal and other information.
- 4.89 Peel Ports is also the holding company for the Manchester Ship Canal Company Limited (MSCC). The MSCC is the Statutory Harbour Authority for the Manchester Ship Canal with comparable roles and responsibilities to those of the MDHC. Shipping movements along the Manchester Ship Canal are managed from a control room at Eastham with access via the Eastham Lock.
- 4.90 The Port of Liverpool and Manchester Ship Canal provide a comprehensive range of port facilities, handling more than 40 million tonnes of cargo and 16,500 ship movements a year. The River Mersey is Britain's third busiest estuary. All vessel movements to and from MDHC and MSCC facilities are dependent upon safe and navigable access via the Queen's channel and its approaches.
- 4.91 The ability of commercial shipping to navigate safely in the region of the application proposal is of critical importance to the future operations of both Peel Ports companies.
- 4.92 The ES at Volume 1 - Chapter 5: 'Site Selection and Alternatives' [APP-024] outlines how strategic impacts on the Ports were identified and mitigated at pre-application design stage. The northern extent of the application site was moved southwards to provide a buffer between commercial shipping accessing the Mersey via the Queen's channel. The western extent of the application site was moved eastwards to reduce the effect of the application proposal on anchorage areas.
- 4.93 The MHDC/Peel Ports relevant representation [REP-004] identified four concerns with the application proposal:
- Noting that the Ports' radar navigation systems were adversely affected by the original Burbo Bank Offshore Wind Farm and that these affects were still being mitigated by way of a temporary solution, a permanent scheme of radar mitigation for the combined wind farms was now sought to be submitted and approved in writing prior to commencement of development.
  - Vessel anchorages which were moved to facilitate the wind farm extension should be covered by the new radar mitigation measures.
  - The new radar mitigation measures should be put in place and maintained for the lifetime of the original and the extended wind farm at no cost to the MHDC.
  - Cable burial depths in the ports should be agreed between the applicant and the port authorities.

4.94 Progress on negotiations between the applicant and MHDC/Peel Ports was not as swift as the progress made in a number of other negotiations undertaken during the examination period. On that basis, it came about that MHDC/Peel Ports also made a substantive written representation annexing evidence to substantiate what it considered to be its still unresolved concerns at examination Deadline I [REP-080 - 083]. The concerns outlined above were also amplified in MHDC/Peel Ports answers to my first round of written questions [REP-108].

4.95 By examination Deadline II MHDC/Peel Ports had used the statement of common ground process with the applicant to secure a greater measure of agreement [REP-148]. Further resolution was then achieved in a signed agreement [REP-166] providing for:

- an agreed DCO requirement, providing for a permanent radar mitigation scheme;
- negotiation of a legal agreement to secure the design, funding and delivery of the radar mitigation scheme;
- an agreed DML condition providing a technical specification for cables and a cable burial plan; and
- a cable burial risk assessment undertaken by the applicant for the anchorage area, to assist in specifying the approach to cable burial, mitigating the risk to anchored vessels and cables due to anchor dragging.

4.96 By examination Deadline VI, the applicant and MHDC/Peel Ports were able to issue a joint statement [REP-239], agreeing that:

- a legal agreement to secure the design, funding and delivery of the radar mitigation scheme had been finalised, was close to signature and that the statement should be taken as evidence of full agreement; and
- the cable burial risk assessment was complete and both parties had only limited remaining concerns about cable risks to the anchorage area, which would be resolved through the discharge of the relevant DML condition.

It followed that all outstanding issues between the applicant and MHDC/Peel Ports had been drawn into agreed DCO provisions.

4.97 Trinity House made a relevant representation to secure its position as general lighthouse authority [REP-025]. It had no objection to the development in principle but wished to ensure that a DCO article was included as a saving provision and that appropriate reference was made to it in requirements and DML conditions with a bearing on navigation. It used the statement of common ground process [REP-116] with the applicant to move towards agreement on the forms of words necessary to ensure that its concerns were met. It sought requirements to ensure:

- the exhibition of such lights, marks, sounds, signals and aids to navigation or take such other steps for the prevention of danger to navigation as Trinity House may direct; and
- reporting on the availability of aids to navigation periodically as requested by Trinity House.

There were no outstanding matters of disagreement.

- 4.98 Whilst Trinity House requested that these issues were addressed in requirements, as the DCO developed, the applicant adopted them verbatim into parallel DML conditions 7<sup>27</sup>. Trinity House was consulted on this approach as part of my draft DCO and raised no objection to the relocation of their requested provisions from the requirements to the DMLs.
- 4.99 The Maritime and Coastguard Agency (MCA) made a relevant representation [REP-011] to secure its remit to protect safe navigation. It agreed the appropriateness of the navigational risk assessment (NRA) undertaken as part of the ES [APP-066]. It noted that the project falls entirely within the authority of the Port of Liverpool (MHDC) and whilst advising that reference should be made to dredging operators to confirm the acceptability of imposed deviations, it deferred to the port as the body with local jurisdiction. No objections have been received from any dredging operators.
- 4.100 The MCA also raised the Emergency Response and Co-operation Plan (ERCOP) and flagged prospective content for it. Parallel draft DML conditions 6 include provision for the preparation of an ERCOP, with details to be approved by the Secretary of State in consultation with the MCA. That is the process by which the MCA's ERCOP comments can be given effect to. There were no other outstanding matters of disagreement.
- 4.101 Draft DCO article 7 and the 'Plan showing extinguishment of public rights of navigation - 5(2)(k)' [APP-007] provide for the extinguishment of public rights of navigation within the DCO area. There have been no objections in principle to the extinguishment of these rights arising from port or commercial shipping interests.
- 4.102 Safety zones are formal limits on navigation at sea, made in the interests of navigational safety and the operational safety of the marine installation to which they relate. Regulation 6 (1) (b) (ii) of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (the APFP) requires the applicant to identify its safety zone proposals, a process which it undertakes in

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<sup>27</sup> As is made clear in Chapter 7 below, the recommended draft DCO contains two deemed marine licences (DMLs). Both are structured so that conditions that perform the same function have the same number. It is possible therefore to refer to 'conditions 7' and to give equal consideration to a shared issue, addressed in both DMLs.

its Safety Zone Statement [APP-087]. This document makes clear that:

- a formal safety zone application will not be made until the final selection of turbine type has been made and the detailed configuration of turbine layout has been agreed;
- such an application is likely to propose a 500m safety zone for active construction areas, the location of which would move through the DCO area as construction progressed, together with a 50m safety zone for each constructed but un-commissioned structure;
- whilst a 50m safety zone is good practice for operational wind turbine generators, this is considered likely to be managed as an informal and advisory process only; and
- no safety zone proposals will be made for decommissioning until a decommissioning programme is agreed.

4.103 There are no outstanding concerns about safety zones as proposed in the Safety Zone Statement, but detailed proposals will in any case be the subject of a separate application or applications in due course.

4.104 NPS EN-3 paragraphs 2.6.147 -175 set out policies relevant to marine navigation. In respect to these policies I **find** as follows:

- The MMO, MCA, Trinity House and the RYA have been consulted, alongside representatives of port and harbour interests and a navigation risk assessment has been undertaken. There are no unresolved issues remaining from these processes (NPS EN-3 paragraphs 2.6.154 – 157).
- The effects of the application proposal on sea lanes has been identified and acceptably mitigated. No concerns relevant to article 60(7) of the United Nations Convention on the Law of the Sea 1982 remain (NPS EN-3 paragraphs 2.6.161).
- The siting and design of the application proposal has avoided disruption and economic loss to the shipping and navigation industries and access to the Mersey and to the Dee will remain unaffected (NPS EN-3 paragraphs 2.6.162). The application proposal is sited outside seas utilised by strategic navigation routes and does not present a significant hazard or obstruction to shipping entering any port (NPS EN-3 paragraphs 2.6.163 & 167).
- No concerns have been raised with respect to ferry routes to Ireland or the Isle of Man and no adverse impacts are likely (NPS EN-3 paragraphs 2.6.162).
- Risks to navigational safety have been appropriately identified and mitigated (NPS EN-3 paragraphs 2.6.165).
- The DCO proposes to extinguish public rights of navigation in the offshore wind farm area, but there are no remaining concerns in respect of this proposal (NPS EN-3 paragraphs 2.6.170-173).

## **Conclusions**

- 4.105 The application un-mitigated would have the potential to lead to adverse and unacceptable impacts on military and civil aviation and marine navigation. However, careful and iterative project development and the formulation of impact mitigation proposals in consultation with interested parties has led to the resolution of all of these issues, subject to my further consideration of securing provisions in the draft DCO, which I address further in Chapter 7 below. I note specifically my satisfaction with the draft DCO's use of 'Grampian' requirements to address circumstances where the need for military and civil aviation radar mitigation solutions have been agreed between the applicant, MoD and Liverpool John Lennon Airport, but the commercial agreements to secure its delivery have not yet been completed.

### **PART F: SEASCAPE, TOWNSCAPE, LANDSCAPE AND VISUAL EFFECTS**

- 4.106 The following visual effects of the application proposal have been considered:

- seascape, townscape and landscape; and
- wind turbine generator lighting at night.

#### **Seascape, townscape and landscape**

- 4.107 I have examined seascape, townscape and landscape considerations together because, having regard to its location in Liverpool Bay, the seascapes relevant to the application proposal significantly influence and are influenced by enclosing landscapes. Further, the representations of a number of interested parties either do not distinguish between seascapes or landscapes, or have taken them as contributing to a single broad set of visual impacts. I consider that it is appropriate to respond to them in the spirit in which they were made and not to artificially subdivide landscape and seascape impacts. I also refer expressly to townscape, as a number of the locations closest to the application site and from which impacts will be most acutely perceived are urban and offer an attractive built environment, which is valued as such.

- 4.108 The following local authorities included seascape, landscape and visual impact assessment (SLVIA) concerns in their relevant representations:

- Wirral Metropolitan Borough Council [REP-023];
- Denbighshire County Council / Cyngor Sir Ddinbych [REP-013]; and
- Lancashire County Council [REP-017].

- 4.109 Wirral Metropolitan Borough Council [REP-023] raised concerns about the Rochdale envelope assessment method used in the ES

(which it referred to as the 'parameter-based assessment' method). The adoption of a worst-case scenario from a range of potential development outcomes in its view made it more difficult to appreciate and assess seascape and landscape impacts.

- 4.110 Denbighshire County Council / Cyngor Sir Ddinbych [REP-013] expressed some concern in its relevant representation '*on the basis that there will be some visual impact from the proposed development from the County's shoreline and hills*'. However, it did not use its relevant representation to characterise that concern or indicate in detailed terms whether it took the view that it had any unacceptably adverse effects. In a statement of common ground with the applicant [REP-129] however, the following agreement was recorded.

*'It is agreed that, given the distance of the Project from the Denbighshire coastline and considering the assessment set out in Chapter 20 of the ES, that although the Project may be visible at certain locations within Denbighshire, there will be no significant impacts on the landscape in Denbighshire nor any significant impacts on visual receptors at the coast or at other locations'*.

- 4.111 Lancashire County Council [REP-017] had undertaken its own review of the application proposal and the ES SLVIA conclusions. That review concluded that '*[t]he proposed Burbo Bank Extension Offshore Wind Farm in any of the three development scenarios presented by the applicant would not, in the opinion of Lancashire County Council's Senior Landscape Architect, have any significant impacts on Lancashire's landscape character, amenity, value, fabric or visual amenity.*' This conclusion was reached largely on the basis that the great majority of locations in Lancashire were too remote from the application site to experience significant impacts.

- 4.112 Whilst Sefton Metropolitan Borough Council [REP-019] raised similar concerns to those raised by Wirral Metropolitan Borough Council about the uncertainties emerging from parameter-based assessment, it indicated in its relevant representation that '*[w]e have not made any comment on visual impacts and seascape as this is not within our technical remit to do so*'.

- 4.113 Despite the potential for such effects in their areas, there were no relevant representations from Liverpool City Council, from any Lancashire district councils or the unitary Blackpool Borough Council. Similarly, there were no relevant representations from Flintshire County Council / Cyngor Sir y Fflint or Conwy County Borough Council / Cyngor Bwrdeistref Sirol Conwy.

- 4.114 The Wirral Society [REP-027] (a local amenity society) raised seascape, landscape and visual impact concerns as did Hoylake Village Life [REP-015]. Local resident and sailing interests including Mr JR Hall [REP-009] and Mrs Jean Hall [REP-012], Mr



Mark Bradshaw [REP-007], Mr Peter Smart [REP-010], Mr Robert Winterson [REP-020] and Mr Christopher Edwards [REP-021] were similarly concerned.

- 4.115 The ES SLVIA (Chapter 20) [APP-069] summarised seascape impacts for 8 regional seascape units (RSUs), extending from Great Orme in the West, past the application site, to the Fylde, north of the Ribble Estuary in Lancashire. This work engages with the seascape viewshed for the project's operational worst case scenario 3 – 36 turbines at 7.5 MW with a hub height of 123 m, 223 m to blade tip and a steel jacket foundation type and one offshore substation with a steel jacket foundation type. It concluded that significance of impacts in all RSUs would be Moderate or lower, with the exception of the Dee Estuary RSU, which the applicant suggested would experience Major-Moderate impact.
- 4.116 Despite the acknowledgement of the highest impact significance level on the Dee Estuary RSU (which was not disputed but also was not expressed as a major concern), interested parties concerns related most closely to Wirral seascapes.
- 4.117 Mr Mark Bradshaw [REP-007] represented other local residents and sailing interests when he said that '*[t]he visual aspects of the local seascape is highly valued by myself and I would assume the other local residents of Wirral*'.
- 4.118 Referring to seascapes, Mr Winterson [REP-020] said '*[t]he scale and scope of the installation has been played down at all the public consultation and a series of misleading visuals have been presented to give the public the impression that the visual impact of the site will be minimal. The Turbines will be closer to the Wirral coastline than represented, 7km, and due to the local geography, with the existence of the Hoyle sandbank, it is possible for pedestrians to walk at least 3 km out from the coastline. As the height and density of Turbines is not defined in this application it gives members of the public no clear idea of what this collection of Turbines will look like from the shore line or from the nearest points to the site at low water; which could be as little as 2.5 Km. If the height of the turbines is to be 290m then there will be a very significant visual impact in an area noted for its wide open space and uncluttered views.*'
- 4.119 Wirral Council [REP-023] also questioned the assignment of a Moderate significance assessment for the application proposal on the North Wirral Seascape Unit.
- 4.120 The relevant representation from Hoylake Village Life [REP-015] raised concerns that visual harm would be done to the townscape of Hoylake, and that there was a justification for funding from the application for onshore visual environment enhancements to offset that harm.

- 4.121 I sought clarification of that concern in my first round of written questions [PD-008 at matter 6.1]. Hoylake Village Life responded that their in-principle concern was to offset *'a "fencing-in" of the horizon when cumulative impact is taken into consideration'*. They considered that this effect could be mitigated. *'[A]esthetically pleasing physical improvements to the Promenade will reduce this "fence effect" by drawing the attention of the visitor towards the immediate coastal environment, and [away] from the further horizon'* [REP-107]. They sought an agreement with the applicant to fund such works.
- 4.122 Mr Mark Bradshaw [REP-007] observed in relation to seascapes that *'[t]he further development of the Burbo Bank wind farm will further devalue this asset and yet there is no apparent balancing benefit to the local residents. We will not enjoy any reduced electricity costs to compensate for our lost asset value, while DONG shareholders gain from the UK's generous feed-in tariffs. DONG needs to make a significant contribution to the impacted Wirral community in recognition of the detrimental visual impact of this proposed development'*. His concern in this respect was similar to that of Hoylake Village Life.
- 4.123 I invited Hoylake Village Life to attend an issue-specific hearing on townscape and landscape, tourism and broader social and economic effects between 10-12 December 2013 and/or to attend an open-floor hearing on 10 December 2013 [PD-013]. Whilst the Wirral Society attended the open-floor hearing and made submissions on community benefit and enhancement [REP-027], Hoylake Village Life did not attend either session.
- 4.124 I again provided an opportunity for issues relating to a community benefit fund to be raised orally at the issue-specific hearing on 29 January 2014 [PD-021]. However, neither Hoylake Village Life, the Wirral Society nor any other interested party with concerns on this topic attended. Nor did they make any further written representations.
- 4.125 I asked the applicant orally at the issue-specific hearing on 29 January 2014 [HE-32 at 01:17:55] whether any agreements were under preparation providing for any visual or townscape environmental enhancements or other community benefits designed to mitigate visual impacts to which I or the Secretary of State should have regard. The applicant clarified that whilst they were involved in some discussions, these would progress *'in their own time [and] at their own pace and we are not suggesting that any of these discussions should be taken into account by you'* as none were intended to give rise to a planning obligation.
- 4.126 NPS EN-1 section 5.9 sets out policy in respect of landscape and visual impacts, which paragraph 5.9.1 indicates is intended also to be relevant to seascapes. Paragraph 5.9.8 makes clear that:

*'Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.'*

4.127 Paragraphs 5.9.9 – 13 consider the approach to be taken to nationally designated landscapes. The application site is not within any such landscapes. It is closely approached by the Clwydian Range and Dee Estuary Area of Outstanding Natural Beauty (AONB) in Wales, which extends from the hinterland of Prestatyn in the north and closest to the application site, to the Berwyn Mountains between Corwen and Llangollen in the south. Paragraph 5.9.12 makes clear that the aim should be *'to avoid compromising the purposes of designation'*. The effects of projects in England on National Scenic Areas in Scotland are expressly required to be considered and hence by analogy the effects of the application proposal on an AONB in Wales ought to be considered in similar terms. The designated Liverpool Maritime World Heritage Site and its setting are considered in Chapter 4 Part G below.

4.128 However, NPS EN-1 paragraph 5.9.13 makes clear that *'[t]he fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent'*.

4.129 Turning to locally designated and valued landscapes and seascapes, NPS EN-1 paragraph 5.9.14 indicates that these should be taken into account. However, *'local landscape designations should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.'*

4.130 NPS EN-1 paragraph 5.9.18 states in relation to non-landscape visual impacts that:

*'[a]ll proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The IPC will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project. Coastal areas are particularly vulnerable to visual intrusion because of the potential high visibility of development on the foreshore, on the skyline and affecting views along stretches of undeveloped coast.'*

4.131 NPS EN-3 develops these principles for renewables and specifically for offshore wind energy. Paragraph 2.6.208 makes clear as follows:

*'Where a proposed offshore wind farm is within sight of the coast, there may be adverse effects. The IPC should not refuse to grant consent for a development solely on the ground of an adverse effect on the seascape or visual amenity unless:*

- *it considers that an alternative layout within the identified site could be reasonably proposed which would minimise any harm, taking into account other constraints that the applicant has faced such as ecological effects, while maintaining safety or economic viability of the application; or*
- *taking account of the sensitivity of the receptor(s) as set out in EN-1 paragraph 5.9.18, the harmful effects are considered to outweigh the benefits of the proposed scheme.'*

4.132 Paragraph 2.6.210 considers mitigation. It makes clear that '*[n]either the design nor scale of individual wind turbines can be changed without significantly affecting the electricity generating output of the wind turbines. Therefore, the IPC should expect it to be unlikely that mitigation in the form of reduction in scale will be feasible. However, the layout of the turbines should be designed appropriately to minimise harm, taking into account other constraints such as ecological effects, safety reasons or engineering and design parameters.'*

4.133 It is important to observe that the broader setting of the application proposal in Liverpool Bay and the north coast of Wales between Point of Ayr and the Great Orme is one that contains one nationally designated landscape in its viewshed (the Clwydian Range and Dee Estuary AONB), but is otherwise not nationally designated. Specific instances of harm to the values of the AONB were not raised in representations or evidence. My extensive site inspection programme led me to be satisfied that the application proposal would be viewed from the northernmost extent of the AONB inland from Prestatyn and from upland outlooks in the Clwydian Range. However, these locations also provide views to other offshore wind farm development and to substantial industrial and port development in Merseyside, Deeside and Cheshire. Large areas of the AONB are affected by the application proposal to only the most minimal extent or not at all. In this context, I **find** that the purposes of the AONB designation would not be compromised by the application proposal.

4.134 Considering regional landscape and seascape values, I **find** that the effects of the application proposal will be limited. The assessment of effects as perceived from coasts in Conwy and Denbighshire / Sir Ddinbych will be limited. The same can be said in respect of views from the City of Liverpool, Sefton (including views from the Sir Antony Gormley sculpture, 'Another Place' in Crosby) and from the coast north to the Ribble estuary and Lancashire.

4.135 Turning to local landscape and seascape values, and particularly to the effects of the application proposal on the North Wirral coast, it is important to observe that this coast already plays host to a substantial volume of offshore and onshore wind farm development. There are views to and from urban shorelines and to other infrastructures such as the container handling facilities at

Royal Seaforth Dock, north of the Mersey. To the extent that concerns are raised about the application proposal leading to a change in seascape and landscape character, that is a change that has already occurred as a result of a number of already constructed and operational schemes. The remaining question therefore is whether the addition of the application proposal would lead to an unacceptable dominance of the seascape and landscapes by the application proposal and other offshore wind farms.

- 4.136 Turning to NPS EN-3 paragraph 2.6.208 bullet point two, I **find** that whilst the application proposal will have harmful seascape, landscape and visual effects and these will be clearly apparent from the North Wirral coast, these do not outweigh the weighty renewable energy benefits that it would deliver.
- 4.137 In terms of bullet point one, I am also conscious that the applicant's site design and layout have already been adapted substantially to reduce the developable area of the application proposal, to deliver a combination of landscape, seascape and visual mitigation, whilst also mitigating effects on shipping and the natural environment. It would not be appropriate to relocate wind turbine generators further offshore, as to do so would unacceptably impinge on the approaches to the Port of Liverpool. To this extent, the application site is already set as far back from the North Wirral coastline as it can be, without adversely affecting shipping and port operations. I **find** that the existing application siting and design adequately mitigates seascape, landscape and visual harms and that further changes to it would not be reasonable.
- 4.138 I have also considered whether the visual impacts of the application proposals on any of the Wirral coastal communities and particularly on the Meols and Hoylake foreshores warrant any particular local environmental enhancement to be provided, without which the DCO should not be granted. I **find** that whilst the level of seascape, landscape and visual change and its effects on townscapes on the north Wirral coast will be significant, no clearly articulated mitigation strategy has been proposed or requested that would offset the effects of the proposed development and that could be provided for in a planning obligation.
- 4.139 Further, the order of visual change is no different to that which has already been permitted in a number of other developments, without a requirement for onshore mitigation measures that require to be funded. It follows that I **find** that it is not necessary for me to recommend the preparation of any agreement on this topic to which Secretary of State should have regard.

## Lighting at night

- 4.140 I open my consideration of lighting at night by reporting that the DCO as both applied for and as recommended contains requirement 6. The report of the Examining Authority appointed to consider the Triton Knoll DCO addressed the need to place a maximum limit on the luminous intensity of lighting installed on wind turbine generators to ensure that any lighting remains within an assessed Rochdale envelope. The Secretary of State supported that approach. Condition 6 in this DCO provides that the lighting should have a maximum luminous intensity of 2000 candela. I **find** that this accords with safety provisions and constrains lighting to the maximum impact assessed in this case. I further **find** that no adverse effects on any relevant receptor would flow from this level of lighting.
- 4.141 During the issue-specific hearing held between 10-12 December 2013, I asked questions of the applicant and the Maritime and Coastguard Agency (MCA) about the nature and effect of the lighting required to be installed on the offshore wind farm to assure safe marine and air navigation at night.
- 4.142 In response to an oral question, the MCA indicated that it was possible that the lighting provided for in the application and assessed in the ES might need to change in order to meet emerging policy and regulatory requirements from the Civil Aviation Authority (CAA). The suggestion was that there was an emerging requirement that the nacelle level red night lighting might need to be installed to display synchronised flashes broadcasting the Morse Code character 'W' (●— —).
- 4.143 I then asked further questions that were responded to in post-hearing written submissions, seeking to understand:
- the nature of the emerging requirement;
  - the likelihood of it coming into effect in a way that would affect the application proposal;
  - the visual (and broader environmental) effects of such a change to the lighting, enabling me to consider whether it fell within the Rochdale envelope for the application proposal or could be provided for in the draft DCO;
  - the knowledge and intention of the applicant: whether it considered it necessary to provide for such an arrangement in the draft DCO; and
  - the understanding of other interested parties: whether such a proposal gave rise to any new concerns.
- 4.144 The reason for my investigation of this issue during the hearing was that the scope of such a change was not made clear in the MCA oral submission. An offshore wind farm in which every nacelle carried red lights continuously broadcasting synchronised flashes might reasonably be said to give rise to a visual impact at

night that had not been assessed in the ES. Such effects might be relevant for human receptors, but might also be relevant for natural environment receptors too. The intended change might not be responded to in the draft DCO. However, if a wind farm exhibited synchronised flashing lights on only a small number of nacelles or for only limited periods of time to meet particular purposes, then it may well be that the change in lighting conditions was beneath the order likely to give rise to any significant un-assessed environmental effects, or even so limited as not to warrant any change to the relevant draft DCO requirement.

- 4.145 It was clarified by the applicant that the regulatory intention of the CAA was to enable nacelle level lighting in all offshore wind farms to be capable of being switched to a synchronised flashing mode. However, whilst this proposal is still under development and its scope is not described in regulation or policy (or in any draft), it was understood that synchronised flashing would only be turned on in specified emergency scenarios [REP-165].
- 4.146 For example, if an air-sea rescue required the deployment of rescue boats or helicopters to the wind farm area, synchronised flashing would be enabled to ensure that rescuers were able to locate wind turbine generator structures with ease and to distinguish their red nacelle lights from the red port navigation lights displayed by surface shipping, or lights displayed by persons in distress. The display of flashing lights would be limited to the time required to meet the needs of a specific emergency incident. They would not become a regular feature of the wind farm at night.
- 4.147 Further to my request, the applicant reviewed the visual impact assessment undertaken for the application, which had concluded that the effect of such a lighting change - should it turn out to be required - would not be significant. English Heritage and NE were provided with the opportunity to make observations in respect of its historic environment and natural environment effects but raised no concerns. Nor were concerns raised by any other interested parties.
- 4.148 On the basis that the CAA proposal is of the limited nature described to me by the applicant, **I find** that it would not give rise to any significant un-assessed environmental effects, in visual or indeed in any other relevant terms. Further, I find that such a variation to the proposed lighting could be accommodated within the relevant draft DCO provision as discussed below in Chapter 7.
- 4.149 In making these findings however, I would note that they are made with reference to a proposal at only its earliest stage and with reference to limited information, which may change if or when the proposal is progressed. I am conscious that there could come a threshold at which, due to the intensity, frequency or

duration of a display of synchronised flashing nacelle lights, a regulatory or policy change might move beyond the Rochdale envelope for this wind farm (or indeed for other previously consented wind farms) and trigger a need for further assessment before it could be implemented.

### **Conclusions**

- 4.150 I have examined the potential effects of the application proposal on seascape, landscape and the visual environment. I am satisfied that its effects on the nationally designated Clwydian Hills and Dee Estuary AONB will be limited and acceptable.
- 4.151 I consider that its effects on regional seascapes, landscapes and townscapes, extending from Conwy in North Wales to Lancashire north of the Ribble estuary will be limited.
- 4.152 I consider that its effects on nearby seascapes, landscapes and townscapes in the North Wirral will be substantial, but that these effects are not significant enough to offset the renewable energy benefits that the application would provide.
- 4.153 In reaching these findings, I have taken account of the potential effects of lighting at night, including effects that might arise from suggested changes to policy applicable to night lighting for aviation safety.
- 4.154 I have found no reason to seek any additional mitigation or change to the DCO.

### **PART G: HISTORIC ENVIRONMENT**

- 4.155 The historic environment effects of the application proposal relate to:
- the marine historic environment; and
  - onshore historic environment.

#### **The marine historic environment**

- 4.156 The marine historic environment assets relevant to the application proposal divide into two types:
- direct effects on individual marine historic assets; and
  - effects on historic seascape.

#### ***Individual marine historic assets***

- 4.157 ES Chapter 19: Marine Archaeology and Cultural Heritage [APP-038] identifies the effects of the construction, operation and decommissioning of the application proposal on marine historic assets, including marine archaeological receptors (mainly



shipwrecks) and paleo-landscapes. The main effects on these are due to construction and decommissioning disturbance, with some limited operational effects due to local changes to scouring.

- 4.158 English Heritage requested changes to the DCO provisions relevant to the development and implementation of a written scheme of archaeological investigation (WSI) and monitoring of significant sites with side scan sonar. The applicant agreed to implement the changes sought by English Heritage [REP-130] which were carried forward to the applicant's preferred draft DCO.

### ***Historic seascape characterisation and effects***

- 4.159 A particular issue arose from the representations of English Heritage, which expressed concerns that the applicant may not have appropriately characterised historic seascape assets. Flowing from such a concern was the potential that the ES might have 'missed' and hence that the development design process might not have fully responded to elements of historic seascape. The issues led to a number of rounds of discussion between the applicant and English Heritage through the statement of common ground process and, usefully, the applicant prepared a summary document in which all of the background references are extracted [REP-188]. English Heritage have not objected to this summary document which can be taken as an accurate statement of the evolving position between the parties.
- 4.160 ES Chapter 19: Marine Archaeology and Cultural Heritage [APP-038] stated (at section 19.5) that it had (amongst other approaches) adopted Historic Seascape Characterisation (HSC), a methodology developed by English Heritage to inform its conclusions. In its relevant representation [REP-033], English Heritage expressed concern that its method had not been applied to the determination of cumulative impacts to the historic environment as suggested in the ES text, with regard to the capacity of the historic environment to accommodate change. The applicant's early response in essence was that this did not matter, as even it had applied HSC in the manner recommended by English Heritage, the overarching conclusions of this Chapter of the ES would not have changed as a consequence.
- 4.161 ES Chapter 20: Seascape, Landscape and Visual Impact Assessment [APP-069] was also the subject of English Heritage methodological concerns. Their relevant representation stated:

*'no consideration was given to the inclusion of English Heritage's HSC methodology to support determination of how seascape character might accommodate further change attributable to the expansion of an existing offshore wind farm.'* [REP-033]

Again, the thrust of the applicant's early response was that such consideration would not have changed the outcome of its assessment.

- 4.162 In respect of both issues, I considered that it was important to understand the degree to which there was a methodological concern which might undermine the conclusions of these two chapters of the ES. I pursued this issue. As a consequence, a second statement of common ground was prepared [REP-157] in which the applicant specifically acknowledged the contribution of HSC to marine cultural heritage assessment and seascape assessment. This statement of common ground resolved concerns across a broad range of matters and left English Heritage and the applicant with no outstanding areas of disagreement.
- 4.163 That being said, it remained unclear whether the acknowledgement made by the applicant in respect of HSC resulted in a need for any particular change to the DCO or indeed whether it was English Heritage's view that anything else needed to be done. I continued to pursue this issue at oral hearing and sought a clear explanation from English Heritage in terms of the action (if any) that the applicant might need to take. Various emails between the applicant and English Heritage clarified that English Heritage was satisfied with the position as set out in the second statement of common ground [REP-157] and that, as a consequence, no further action was required by the applicant [REP-204].
- 4.164 I have reviewed the approach taken by the applicant to historic seascape characterisation in the light of the agreement reached in the second statement of common ground and the agreement by English Heritage that no further action is required by it. There is no directly relevant policy in NPS EN-1 or NPS EN-3. I **find** that whilst the application proposal will change the seascape character of its location and setting, it will do so in a context in which existing offshore wind energy, oil and gas related development has already introduced similar elements into the seascape and hence the sensitivity to such change is reduced. I **find** that the application proposal will not cause substantial harm to historic seascape character and that no further mitigation is required.

### **Onshore historic environment assets**

- 4.165 The onshore historic environment considerations relevant to the application proposal divide into two types.
- effects on the settings of individual heritage assets; and
  - effects on the setting and values of the designated Liverpool - maritime mercantile city designated World Heritage Site.

### ***Individual heritage assets***

- 4.166 ES Volume 3 - Chapter 29: Onshore Archaeology and Cultural Heritage [APP-048] assesses the effect of the application proposal on onshore cultural heritage assets. On the basis that the application proposal does not involve onshore development in England, the purpose of this volume is to inform the application for

planning permission for the grid connection route on land in Denbighshire / Sir Ddinbych, which is only relevant in relation to in combination assessment with the development sought in this case. Appendices to the seascape, landscape and visual impact assessment volume (Annex 20) [APP-076] record the design and outcomes of a survey of representative onshore historic assets within the viewshed of the application site, where the proposal has the potential to affect settings.

- 4.167 NPS EN-1 requires the Secretary of State to: *'take into account the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution they can make to sustainable communities and economic vitality'* (para 5.8.13). NPS EN-3 contains no policy specific to impacts on the settings of offshore historic assets.
- 4.168 On this basis, I have undertaken site visits to each of the historic buildings identified for the purposes of the visual impact assessment process. With the exception of Liverpool World Heritage Site (to which I return below) these visits led me to **find** that the selection of assets for assessment had been a conservative process, including a significant number of assets at long range from the application site and where impacts would be limited (such as St Tudno's Church on the Great Orme Peninsula or the Tower Ballroom in Blackpool, both at over 35km from the site). My site inspections led me to the opinion that even those assets located close to the application site such as Leasowe Lighthouse (7.3km), Leasowe Castle (7.5km) and Fort Perch Rock in New Brighton (9.7km) would experience acceptable levels of individual impact with no further requirement for mitigation, to the extent that whilst their settings will change, the ability of a viewer to appreciate their significance will not change.
- 4.169 I have referred to relevant and written representations, to development plans and to my site inspections to consider whether there are any heritage assets (including conservation areas, listed buildings and scheduled ancient monuments) that are materially adversely affected by the application proposals in a way that is not fully assessed. I have found no instances of impact that amount to a breach of NPS policy. I have considered regulation 3 of The Infrastructure Planning (Decisions) Regulations 2010 and applied its tests in respect of listed buildings, conservation areas and scheduled ancient monuments. In all cases I have considered effects on settings (as there are no direct effects) and find there are no further changes necessary. On that basis, I **find** no reason to depart from the ES impact assessment of these assets or to propose the assessment of any different assets. Similarly, I **find** no reason to recommend any additional mitigation or change to the DCO.

### ***Liverpool Maritime Mercantile City World Heritage Site***

4.170 In responding to the possible effects of the application proposal on the setting and outstanding universal value of the designated Liverpool World Heritage Site I was conscious of the following factors.

- The designated area is at some 12km from the application site.
- The skyline of the Wirral peninsula would intervene in views between it, the Liverpool waterfront and the Mersey.
- However, views from and to the Liverpool waterfront and from watercraft on the Mersey (including the Mersey ferries) form an important element of the setting of the designated area.
- Whilst visual impact assessment information submitted with the application and in the ES [APP-047] indicated the absence of any significant adverse effect, this was not accompanied with spatial analysis prepared at sufficient detail to enable that opinion to be fully evaluated.
- In the absence of a detailed evaluation, it remained unclear whether wind turbine generators with nacelles and rotor diameters towards the upper and larger end of the range provided for in the Rochdale envelope would be seen from and within the setting of the World Heritage Site and what (if any) effect such visual influence might have on the site.

4.171 NPS EN-1 at paragraph 5.18.4 makes clear that *'there is a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be'*. It continues to make clear that the prospect of substantial harm being caused to a designated asset of the highest significance such as a World Heritage Site *'should be wholly exceptional'*.

4.172 The World Heritage Site is managed by Liverpool City Council (the local planning authority) through the designation of conservation areas and the consideration of applications for planning permission and listed building consent in the context of development plan policy and guidance in the Liverpool World Heritage Site Supplementary Planning Document (2009). There was no relevant representation from Liverpool City Council. In this context, and conscious of the nature of World Heritage Site status as an international obligation on the UK and of advice in NPS EN-1 paragraph 5.8.11, I took the following steps:

- I undertook unaccompanied site inspections of the World Heritage Site and its identified buffer area, identifying locations on and adjacent to the waterfront and the Pierhead where it was possible that views to structures constructed on the application site could be obtained [HE-11 - 13], enabling me to consider the nature of any possible impacts;

- I sought additional clarifying visual impact analysis from the applicant [REP-165]; and
  - I sought expert advice from English Heritage as the government's statutory advisor in response to the applicant's clarifying analysis [REP-187] [REP-229].
- 4.173 I requested the applicant to provide a zone of theoretical visibility (ZTV) analysis for the World Heritage Site and its buffer area, mapped at a level of resolution sufficient to enable judgements of visual impact to be taken at the level of individual streets and buildings.
- 4.174 LDA Design produced the analysis to meet my request (described as 'Paper A') [REP-165]. Paper A presents ZTVs at a Rochdale minimum level - mapping the extent of theoretical visibility for blade tips in a scheme using 3.6MW turbines with a zenith of 153m. It also presents a Rochdale maximum level - mapping the extent of theoretical visibility for blade tips in a scheme using 7.5MW turbines with a zenith of 223m and a nacelle hub height of 123m.
- 4.175 The document demonstrates that in a Rochdale minimum scenario, blade tips would only be seen from a small section of the waterfront in the World Heritage Site, on the southern end of Albert Dock, adjacent to the Liverpool Echo Arena. Blade tips would also be seen in the buffer area from the waterfront and locations on the Mersey north of Stanley Dock and south of the Liverpool Echo Arena.
- 4.176 In a Rochdale maximum scenario, blade tips would be seen from some locations on the waterfront at the Pierhead. They would be seen consistently from the Albert Dock waterfront. They would be seen in the buffer area to the north of Stanley Dock and extensively in the Mersey and from the waterfront in the buffer area south of Albert Dock and the Liverpool Echo Arena. Nacelles would be visible from the buffer area only, from the waterfront and locations on the Mersey south of the Liverpool Echo Arena.
- 4.177 In respect of both the Rochdale minimum and maximum scenarios, it is important to note that the majority of the (relatively limited) perceptible effect from within the World Heritage Area would be confined to the movement of blade tips across an already busy urban horizon formed by development in Wallasey, Seacombe and Birkenhead on the Wirral.
- 4.178 It is important to note the absence of nacelle visibility under either scenario. Mr William Wheeler, the applicant's visual impact expert appearing at issue-specific hearing 3 on 29 January 2014 [HE-32 at 01.12:20] confirmed that no nacelles and hence no nacelle level lighting would be visible across the Wirral skyline from any locations within World Heritage Area. Where blades only are visible, the visual effect of wind turbines beyond a horizon will

change substantially with wind direction, light and meteorological conditions. The visual effects are both dynamic and limited in impact. Where nacelles and towers are also visible, wind turbine generators become grounded and achieve a greater permanence in the townscape or landscape. They can be read as more substantial components of built form. Nacelle level lighting can also be visible at night. These are effects from which questions about material impacts on the World Heritage Area which would then require to be evaluated and weighed in the balance of benefit and harm might then arise.

- 4.179 However, the outcome of this work was such that on 7 January 2014, Mr Christopher Pater of English Heritage was able to conclude in the light of advice he had received from local English Heritage staff:

*'[t]herefore in reference to the Outstanding Universal Value (OUV) of this [World Heritage Site], we consider it highly unlikely that the OUV will be negatively affected by the proposed Burbo Bank Extension Offshore Wind Farm project.'* [REP-187 - Appendix 1]

- 4.180 On the above basis, I **find** that the development of the application proposal would not have a material adverse impact on the outstanding universal value, integrity, authenticity and significance of the Liverpool Maritime Mercantile City World Heritage Site or its setting. I reach this position in the light of my own extensive site inspections, the additional expert analysis provided orally for the applicant [HE-32] and in writing [REP-165]. I place considerable weight on the response of English Heritage as statutory advisor on this point [REP-187 – Appendix 1].

### **Conclusions**

- 4.181 I have examined the potential effects of the application proposal on offshore and onshore heritage assets, paying particular attention to matters where my initial reading of the ES left me insufficiently clear about the nature or conclusions of the assessments carried out. I have clarified the assessments in respect of historic seascapes and the Liverpool Maritime Mercantile City World Heritage Site and its setting. I have reviewed the approach taken to the assessment of impacts on the settings of onshore historic assets.
- 4.182 I have found no reason to disagree with the assessments in respect of heritage asset impacts in the ES or to seek any additional mitigation or change to the DCO.

### **PART H: SOCIO-ECONOMIC EFFECTS**

- 4.183 The following relevant issues arose in relation to the socio-economic effects of the application proposal:

- effects on the offshore oil and gas industry;
- effects on commercial and recreational fishing;
- effects on recreational sailing and boating;
- coastal tourism effects;
- onshore effects of construction; and
- effects in terms of local skills and employment.

### **The offshore oil and gas industry**

- 4.184 BHP Billiton Petroleum Ltd. (BHP) has a substantial offshore oil and gas extraction operation in Liverpool Bay [REP-022], which it manages on its own behalf and acting for other resource owners. The main production assets associated with this operation are the Douglas, Lennox, Hamilton and Hamilton North platforms which produce oil and gas to the north of the application site. Oil is stored in an offshore oil storage vessel. Gas is brought ashore at the Point of Ayr gas terminal in Wales.
- 4.185 BHP initially expressed concerns [REP-022] about the possible effects of the application proposal in terms of:
- changes to marine traffic activity causing shipping movements to pose new risks to its assets;
  - effects on helicopter operations servicing its assets;
  - effects on its Radar Early Warning System (REWS) protecting its assets;
  - the need for pipeline crossings; and
  - implications for oil spill and gas release management.
- 4.186 As the examination progressed, negotiations between the applicant and BHP proceeded through the statement of common ground process [REP-118]. These resulted in all concerns falling away, on the basis that there would either be no significant effect, or (as in the case of pipeline crossings) effects could be managed through normal commercial agreements, which could remain outside the DCO process on the basis that they were not matters of public or regulatory concern and that they posed minimal risk to project delivery. Only the possibility of the development affecting the operations of the REWS remained as a matter that required substantial investigation.
- 4.187 For much of the examination, submissions from (BHP) [REP-022], answers to written questions [REP-102], the statement of common ground process [REP-118] and subsequent negotiations with the applicant had led to the assumption that a provision would be needed to mitigate the effects of the application proposal on the operation of and access to BHP assets in Liverpool Bay. Whilst early submissions raised a broad range of issues, by the DCO issue-specific hearing, discussions had focussed onto the possible need for changes to the radar early warning system (REWS) based at St Elmo, near Prestatyn. The purpose of the REWS system is to track marine traffic and reduce the risk of vessel collision with BHP

production platforms, and there was a possible need for changes to it to ensure its effective operation following the construction of the proposed wind farm.

- 4.188 For this reason, the applicant included a provision in the Version 4 draft DCO [APP-094], which was the basis for oral examination at the DCO issue-specific hearing. Ultra Electronics Command and Control Systems Ltd. and the Microwave and Communications Systems Group of the University of Manchester had been commissioned to carry out a study to identify what (if any) mitigation works were required. Dr Laith Rashid Danoon of the University of Manchester gave evidence, from which it was clear that the study was not yet sufficiently complete to inform DCO drafting. On that basis, my draft DCO retained a protective provision as requirement 12, but I also sought further assurances about study progress in my second round of written questions [PD-027 at matter [2]8.5].
- 4.189 By Deadline VI (13 March 2014), the study had been completed and negotiations had progressed. The applicant and BHP had agreed that the effect of the development on the REWS was insignificant and that no mitigation or protective provision would be required [REP-230]. Former requirement 12 was removed from the draft DCO in the applicants draft Version 6 [App-099] and a joint statement between the applicant and BHP was provided in support of that action [REP-240]. It follows that the outstanding concern between BHP and the applicant was fully resolved by the end of the examination.
- 4.190 NPS EN-3 sets a policy framework for the consideration of interaction between offshore wind farm proposals and the offshore oil and gas industry in paragraphs 2.6.166 - 178.
- 4.191 Further to NPS EN-3 paragraph 2.6.184, I **find** that the site selection and site design of the proposed offshore wind farm has been made with a view to minimising disruption or economic loss or any adverse effect on safety to oil and gas industries. This finding is evidenced by the outcome of negotiations between the applicant and BHP, to the extent that no significant adverse effects on offshore oil and gas interests were identified and therefore no mitigation measures remain to be secured in the draft DCO.
- 4.192 I do not recommend any changes to the draft DCO to accommodate the effects of the application proposal on the offshore oil and gas industry.

### **Commercial and recreational fishing**

- 4.193 Liverpool Bay is a location in which commercial and recreational fishing (from charter boats) both take place. The National Federation of Fishermens' Organisations made a relevant representation [REP-029] in which they said:



*'We have an interest to see that coexistence is achieved between our industry and the offshore renewable industry. To that extent we seek to ensure that appropriate arrangements are established to this end prior to the establishment of any Development Consent Order.'* [REP-029]

Their further involvement in the examination process was through the statement of common ground process [REP-150].

- 4.194 The ES summarises the anticipated effects of the application proposal on commercial fishing as being negligible at all phases of construction, operation and decommissioning [APP-067 at pg 64]. This notwithstanding, the applicant has taken positive steps to ensure that the ecological sustainability and hence economic viability of fish stocks is maintained, through natural environment mitigation measures. It has also taken positive steps to foster good relationships and to make co-operation agreements with individual fishermen [REP-135] and charter boat operations [REP-136].
- 4.195 The statement of common ground with the National Federation of Fishermen's Organisations [REP-029] identifies a range of measures agreed as necessary to safeguard the interests of the fishing industry and only one un-agreed matter. I have reviewed the DCO and am satisfied that the provisions of the agreement reached have been provided for within it to the extent that it is necessary to do so. I note that the suggested need for post installation trawl surveys remains un-agreed, but note also that the DMLs (at conditions 17) make an open provision for post construction surveys to which the MMO could add such a requirement, should it prove necessary, for example in circumstances where there were concerns that cable burial had not been fully effective, or additional rock armouring was used.
- 4.196 NPS EN-3 sets a policy framework for the consideration of interaction between offshore wind farm proposals and the commercial fishing industry in paragraphs 2.6.121 - 136. It links these to consideration of the ecological effects of proposals on fish stocks in paragraphs 2.6.58 to 2.6.77.
- 4.197 Further to NPS EN-3 paragraph 2.6.132, I **find** that the applicant has sited the application proposal so as to reasonably minimise adverse effects on fish stocks. Reference to Part D of this chapter above records the mitigation measures proposed to safeguard migrating and spawning fish and these measures are of some relevance to fishing interests, as they aim to maintain the viability of population stocks.
- 4.198 Further to NPS EN-3 paragraph 2.6.133 I **find** that the applicant has undertaken appropriate consultation with the commercial and recreational fishing industry. It has sought to minimise the loss of fishing opportunities. Co-existence agreements have been

entered into with a range of fishing and charter boat operators and, to the extent that these did not leave outstanding concerns that anyone considered should be addressed in relevant representations, it is reasonable to conclude that these agreements have delivered satisfactory outcomes for these industries.

- 4.199 I do not recommend any changes to the draft DCO to accommodate the effects of the application proposal on fishing.

### **Recreational sailing and boating**

- 4.200 The ability to sail and boat recreationally is one of the significant lifestyle benefits that the Wirral offers to residents and the effect of the application proposal on opportunities to participate in this sport is an important and relevant consideration.
- 4.201 Input in respect of the effects of the proposal came from two sources. Nationally, a relevant representation was made by the Royal Yachting Association (RYA) [REP-002], which also responded to my first written questions [REP-100], made written representations [REP-181] and a statement of common ground [REP-119]. The RYA was concerned to ensure that the siting and design of the application proposal had taken adequate account of the needs of its members. By the end of the examination it was generally satisfied that this had been the case.
- 4.202 Locally, relevant and written representations were received from individual yachts people including Mr Peter Smart [REP-010], Mr Robert Winterson [REP-020] and Mr Christopher Edwards [REP-021]. They did not agree with the RYA's position. Their views are best summarised in words from Mr Edwards relevant representation where he said:

*'The proposed site is not on Burbo Bank where the previous turbines have been installed but extends westwards from that installation and screens off a very popular sailing area. This area has depths ranging from 10m to 20m and therefore does not dry out at any state of the tide. It will impede access from the Clear Water mark of the Queen Elizabeth Channel to the Hilbre Swash. Sailing vessels do not travel in straight lines but do use wind and tide to determine their course to be steered. By tripling or quadrupling the size of the existing wind farm it will severely impede access between these two very popular channels. It will result in much longer courses needed to be plotted and will increase voyage times significantly. Any increase in voyage times can significantly impact the number of tides required to complete a particular trip which can result in a 6 to 12 hour delay'. [REP-021]*

- 4.203 Mr Edwards was also concerned that changes to bathymetry consequent on cable installation could pose hazards to shipping of all kinds and that the location of the offshore wind farm would inevitably drive recreational vessels into the more hazardous and

well used approach channel to the Mersey and hence increase conflict between commercial and recreational vessels.

- 4.204 The three interested parties further highlighted their concerns about the adverse seascape visual effect of the application proposal (a matter addressed in Part E of this chapter above).
- 4.205 Given the disparity between the apparent satisfaction of the RYA and these local views, I investigated these issues further in my issue-specific hearing on local social and economic effects, attended by Mr Edwards. Mr Edwards also attended the open-floor hearing. At these hearings, he explained his concern that the construction of the application proposal as applied for would lead to an unacceptable reduction to yachting routes - particularly between the Queen Elizabeth Channel and Hilbre Swash which he showed on the Admiralty Chart, extensions to journey times and lead to conflict between yachts and commercial shipping.
- 4.206 The applicant responded to these concerns, making clear that the pre-application design stage of project development had involved an analysis of recreational boat traffic in the Liverpool Bay area including a radar tracking survey and consideration of RYA data on cruising routes. It had considerably reduced the extent of the DCO area in the application from its initial extent, in part to ensure that opportunities for recreational boating were not unduly harmed and to minimise the potential for conflict between recreational and commercial vessels. It noted Mr Edwards' concerns about the loss of a cruising route between the Queen Elizabeth Channel and Hilbre Swash. However, this route had not been highlighted to it by the RYA and its own survey data suggested that, whilst it was no doubt enjoyed by those who did use it, usage levels were very low (although it should be noted that Mr Edwards did not accept the applicant's survey as providing a full picture of route usage). On this basis, the applicant did not consider that there were any further design steps that it should take to further mitigate the effects of the application proposal on recreational boating.
- 4.207 NPS EN-3 paragraph 2.6.166 establishes as policy the need to ensure that the siting and design of offshore wind farms takes into account the need to minimise the effects on recreational craft, to the extent that this can be achieved, balancing the needs of such craft against the need for renewable energy and the benefits of the individual scheme.
- 4.208 On this basis, I **find** that the scheme has been designed to minimise the effects on recreational craft and that appropriate mitigation, reducing its extent and effect on cruising routes were applied during the pre-application process. Whilst it is clear that the application proposal will affect the recreational boating and particularly the sailing experience in Liverpool Bay, I am satisfied that that proposal as applied for will not drive recreational use into conflict with the significant commercial shipping routes entering

the Mersey. If the application proposal is constructed, there will be sufficient recreational boating opportunities remaining to enable local resident yachts people and boat owners to enjoy their marine environment without needing to sail in close proximity to commercial shipping, which will remain to the north and east of the wind farm site.

- 4.209 I have taken into account Mr Edward's doubts about the applicant's boat traffic survey, but note that he did not provide any evidence as to why that survey might have been inaccurate, beyond his own anecdotal observation that the route between the Queen Elizabeth Channel and Hilbre Swash through the proposed wind farm site was well-used. On balance, I am satisfied by the applicant's evidence that recreational boat traffic levels directly across the proposed wind farm site are likely to be light. I consider that, having regard to both the need for and benefits of the scheme, disruption to such traffic does not provide a reason why the DCO should not be granted or why the extent of the proposed wind farm should be further reduced or its layout further changed.
- 4.210 It follows that I do not recommend any changes to the draft DCO to accommodate the effects of the application proposal on recreational sailing and boating.

#### **Coastal tourism effects**

- 4.211 Local interested parties made relevant representations expressing concern about the adverse effect of the application proposal on local, largely coastal tourism, when taken in combination with other offshore wind farms in Liverpool Bay.
- 4.212 Mr J R Hall said in his relevant representation that:

*The proposed extension would quadruple the size of the existing Burbo Bank wind farm by 40 square Km, stretching across the bay, totally destroying what is left of the once wonderful open space of our bay and the magnificent sea and coastal views, which are the very reasons why people choose to live and visit here. Visitors to these areas are vital for the local economy, but will cease to come here if all we have to offer from any viewpoint, is a bay full of massive turbines. [REP-009]*

His views were echoed by Mrs Jean Hall [REP-012].

- 4.213 I consider the principle thrust of this submission (relating to landscape, seascape and visual considerations) in Part E of this chapter above. In relation to coastal tourism and related economic effects, the substantial scale of the application proposal must be acknowledged. That being said, no evidence was put before me to refute the analysis in Chapter 33 of the ES (at paragraph 33.9.35) [APP-052] that the construction and operation of the application proposal would have uncertain but likely to be

neutral effects on coastal tourism. The ES identified that studies suggest that the introduction of an offshore wind farm into seascape might deter between 2% and 9% of existing visitors to a coastal area, but that it might also attract additional visitors (between 1% and 11%). There was no conclusive evidence of an adverse socio-economic effect.

- 4.214 Importantly, having regard to policy set out in NPS EN-1 at paragraph 5.12.7, this was not a matter raised as a concern by any of the local authorities for the application proposal viewshed or evidenced in any detail other than by the applicant. In view of the established need for the renewable energy that the application proposal would generate, I **find** that the Secretary of State is entitled to conclude that limited weight is to be given to assertions of socio-economic impacts that are not supported by evidence.
- 4.215 It follows that I do not recommend any changes to the draft DCO to accommodate the effects of the application proposal on recreational sailing and boating.

#### **Local skills and employment**

- 4.216 The degree to which an infrastructure project makes use of local skills and provides employment can be a source of benefit that weighs positively in the balance of considerations relevant to the Secretary of State's decision to grant a DCO. It can also give rise to considerations around the undertaker's need to engage with the local employment market for example by providing training opportunities.
- 4.217 However, in common with a number of offshore wind farm applications, the applicant in this case has not yet determined which ports might be used as a construction or operations and maintenance base for the application proposal. The socio-economic impact assessment undertaken as part of the ES [APP-052] analyses possible employment benefits arising from the project within world, whole of UK, north west region and Wales frameworks.
- 4.218 This is a substantial project that is estimated to give to construction costs of £940m. Although a substantial number of development components are anticipated to be sourced from outside the UK<sup>28</sup>, construction of the project is estimated to provide up to 1,545 additional person years of full time employment in the UK<sup>29</sup>. Operation and maintenance is estimated to provide up to 155 additional person years of full time employment in the UK<sup>30</sup>. Assumptions have been made about the proportion of spend and employment generation that would arise

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<sup>28</sup> APP-052 at table 33.14.

<sup>29</sup> APP-052 at table 33.15. This figure includes direct, indirect and induced employment.

<sup>30</sup> APP-052 at table 33.18. This figure includes direct, indirect and induced employment.

in the north west of England and North Wales, on the basis of the use of the ports of Barrow, Liverpool or Mostyn as potential construction, operations and maintenance bases. However, the precise identity of the construction or operation and maintenance port(s) is not yet known.

- 4.219 The ES predicts a slight beneficial economic effect flowing from both construction, operation and maintenance, which it identifies is not significant in EIA terms [APP-052 at pg 36 and pg 51].
- 4.220 It follows that, in the absence of greater certainty about the selection of construction, operation and maintenance port(s), **no certain findings** can be made about the spatial distribution of economic benefits flowing from the project, or the need for any particular skills in any particular locations. This in turn means that no particular credit can be accorded to the application proposal in terms of the economic benefits that it might bring to the local or regional economies. Nor can provision be made in the DCO or by way of legal agreements to address matters such as training provision.
- 4.221 I have considered whether this situation gives rise to any particular concern for the Secretary of State and **find** that it should not, on the basis that (as is recorded elsewhere in this report) the need case for the proposed infrastructure development is strongly made out, the development is proposed in a manner that is well managed, impacts have been well identified and mitigated. Were there to be other relevant and important matters indicating against the grant of the DCO, then the economic benefits of the proposal may need to be drawn into the balance. However, in this case, it is unnecessary to do so.

### **Conclusions**

- 4.222 The social and economic effects of the application proposal on the offshore oil and gas and fishing sectors have been adequately identified. The relative lack of adverse impacts is indicative that the application site is well selected in these terms. To the extent that mitigation and co-operation is required, it has been provided for.
- 4.223 The application proposal will inevitably have some negative effects on those who participate in recreational sailing and boating and currently use the application site and its environs. I accept that the applicant has done all that is reasonably possible to mitigate these effects in the pre-application stage, by reducing the extent and managing the location of the proposed wind farm. Further reductions in extent or layout changes do not appear warranted, having regard to the broader need for the renewable energy provided by the scheme and its benefits.
- 4.224 Whilst the strong concerns of local residents who would prefer not to look at wind turbines must be acknowledged, the evidence

about local coastal tourism effects is inconclusive, but it suggests a likely neutral outcome, neither adverse nor beneficial.

- 4.225 The absence of a final choice of port(s) for construction, operation and maintenance purposes means that no particular credit can be given for the local or regional economic benefits that might flow from the project. However, in the context of a project that offers a strong and beneficial performance against NPS policy, this does not give rise to a relevant and important concern.

## **PART I: CONSTRUCTION**

- 4.226 Matters relating to construction that arose during the examination were as follows:
- matters relating to the effects of construction noise on human receptors;
  - onshore effects of construction;
  - potential contaminants, debris and wastes arising at sea; and
  - The management of accidents, emergencies and the loss of materials at sea.
- 4.227 The first of these matters (noise) arose from written and oral submissions made by interested parties. The remaining matters were ones where I sought to assure myself through consideration of submitted documentation that the proposal would be appropriately managed and that appropriate management systems were secured in the DCO.

### **Noise and human receptors**

- 4.228 The effect of construction noise on human receptors is identified in ES section 11 [APP-061]. This acknowledges that under certain conditions (typically at night and in more rural areas near the coast), airborne noise due to construction could be perceived at the coast. Operational noise is not identified as a significant issue for human receptors and was not raised as such at any point in the examination. Noise for non-human receptors is considered in Part B (biodiversity) of this chapter above.
- 4.229 The relevant representation of Wirral Council [REP-023] expressed concern about the possible effects of night-time piling noise on onshore residents close to the construction zone. This concern was also raised in oral submissions during the open-floor hearing on 11 December 2013 by Mrs Edwards (assisting Mr Chris Edwards) [REP-178], who suggested that piling during the construction of the existing Burbo Bank Offshore Wind Farm had been disturbing for Hoylake residents [HE-26].
- 4.230 It was also raised in the written representation of Mr JR Hall and Mrs Jean Hall [REP-035] who said:

*'We suffered massive noise impact, due to piling during construction of the existing Burbo Bank wind farm. Residents around the bay, and for many miles inland, were kept awake at night for weeks on end. After a huge number of complaints were received by the police and environment agencies, piling was only allowed to take place during daylight hours, and it could still be heard then. The noise impact we would suffer from the proposed quadrupling of Burbo Bank would be vastly worse, as Dong estimate that construction will take between 12 to 18 months, and "piling" would take approximately half of this time. The thought of enduring between 6 and 9 months of "piling", does not bear thinking about.'*

However, Mr and Mrs Hall were unable to attend relevant hearings and these assertions remained untested.

- 4.231 I sought the applicant's response to this issue in my first written questions [PD-008 at matter 9.1] prior to any hearings. It having been raised orally during the open-floor hearing by Mrs Edwards, I also asked whether they had anything further to add to their written submission.
- 4.232 The applicant had responded in writing that the magnitude of impact from airborne construction noise on humans at the coast was considered to be minor [REP104]. To place that view in context, the applicant observed at the open-floor hearing that there had been no noise complaints made to Wirral Council during the construction phase for the existing Burbo Bank Offshore Wind Farm [REP-177]. It did not consider that there was likely to be a significant problem during the proposed construction. Nevertheless, it made clear that it would be happy to work closely with local communities and Wirral Council, to ensure that any future impact from airborne construction noise was mitigated.
- 4.233 I have considered whether there is a need for mitigation, what such mitigation might amount to and whether there is any basis for a change to the draft DCO to secure it.
- 4.234 Having conducted several unaccompanied site inspections to the north Wirral foreshore including at night, it is clear that existing conditions in open spaces and residential roads fronting the sea can be tranquil. Such locations are likely to experience a lower than typical ambient noise environment in some circumstances. In calm weather, construction-related noise might be discerned. As an unfamiliar element of the soundscape, some residents might perceive it as annoying on some occasions.
- 4.235 However, the action necessary to respond to such circumstances must be tempered, having regard to the lack of probative evidence that such noise would be a significant concern combined with the distance of potential receptors from the noise source (over 7km), the temporary nature of the works and the fact that any noise



experienced is likely to vary considerably depending on the combination of weather conditions, time of day, work programme and work location. The times when a change to work processes might be proposed to manage airborne noise issues for onshore receptors are likely to be limited. Any possible changes would also need to be carefully considered, to ensure that they did not result in disruption to piling work protocols designed to meet draft DML conditions relating to pre-construction plans and documentation, construction monitoring or piling restrictions, with the effect of protecting marine species from the materially adverse effects of construction noise at a much closer range.

- 4.236 In practice, a useful mitigation response to such circumstances would be the establishment of a noise reporting protocol for the construction period, enabling members of the public to inform the Wirral Council pollution control team of concerns in real time, which would then have an agreed process with the piling contractor for the assessment and management of complaints. 'Considerate contractor' schemes run by many local authorities provide a model for this, although some adaptation to recognise that communication was with an offshore contractor would be required.
- 4.237 In this respect, **I find** that the applicant's willingness to work with local communities and Wirral Council to mitigate impacts appears to offer the best and most pragmatic way forward and suggest the establishment of a process modelled on existing local considerate contractor schemes. In the interests of ensuring that the effect of provisions designed to safeguard the natural environment from materially adverse noise effects is not inadvertently diluted however, this issue is best addressed without any formal change to the draft DCO.

### **Onshore effects of construction**

- 4.238 A matter arising in a number of offshore wind farm development proposals has been the degree to which the onshore effects of construction are properly accounted for and managed - to the extent that it is necessary to do so.
- 4.239 On the basis that this application does not include onshore works, and that these are proposed to be delivered in Wales, there are no direct onshore construction effects that need to be considered or managed in the DCO. However, the construction of an offshore wind farm is a major project and a wide range of onshore considerations can arise from questions around (for example) the location of the port(s) for construction and servicing, road and rail linkages to the port, the transport, storage and laydown of large construction elements and the training, accommodation of and journeys to work of the construction workforce.

- 4.240 That being said, I note that, in common with other nationally significant infrastructure application processes, the applicant has not yet selected the port(s) for construction and servicing and does not wish to do so yet. This is because port and related services are procured in a competitive market and to determine which port(s) were to be used before development consent was obtained could affect the pricing in subsequent procurement processes. There may be cases in which the dis-benefits flowing from the later selection of a port would be substantial and require to be managed. However, in this case the benefits flowing from late port selection (construction cost control flowing through to more cost effective development) appear to outweigh the dis-benefit in terms of not being able to manage (relatively limited) social and economic effects specific to the port area.
- 4.241 I take into account the Secretary of State's decision in the Triton Knoll case, where the absence of detail about the selection of a port or means of access to it and social and economic effects upon it were not considered to provide a basis for the withholding of development consent. I also take into account the fact that no interested parties in this case have identified specific onshore needs that flow from the effects of the development and should be met.
- 4.242 Given that the made Triton Knoll DCO included a requirement providing for a traffic management plan for onshore port-related traffic, it is important to explain why such an approach is not warranted here.
- 4.243 Requirement 19 in the Triton DCO was included to ensure that:
- '[n]o authorised development or part of the authorised development shall commence until a traffic management plan for the onshore port-related traffic to and from the selected port or ports for construction and/or operation of the authorised development, and relating to the authorised development, has been submitted to and approved in writing by the relevant planning authority in consultation with the relevant highway authority.'*
- The applicant did not proffer and I do not recommend an equivalent requirement in this case.
- 4.244 My reasons arise from my consideration of the following factors.
- Scale: noting that the Triton Knoll development consent is for a development 4.6 times larger (up to 1200 MW in installed capacity) than this application (which is for an installed capacity of 259 MW), it could reasonably be anticipated in that case that onshore port related traffic volumes might be of an order where site specific mitigation and enhancement might be required. In this case, the application proposal is for what in contemporary terms is a relatively small offshore

wind farm. Traffic volumes will be significantly smaller than those generated by a development such as Triton Knoll and, on balance I consider there is no clearly demonstrated need for such a requirement here.

- Location: noting that the Triton Knoll development is located in a region lacking the established road, rail and port infrastructure that serves Merseyside, the wider north west of England and North Wales. It was foreseeable there that the selection of some potential ports there would result in traffic and transportation impacts relating to the carriage of large components not accommodated by the existing access arrangements for those ports. In this case, the likely service ports appear to be well served with access infrastructure for large loads.
- Demand: no interested parties have sought highways or transportation enhancements in this case.

It follows that I **find** that the approach of not selecting a port at this stage is on balance justified and I do not consider it necessary to include provisions in the DCO to manage any effects on an as yet unknown port.

### **Potential contaminants and wastes arising at sea**

- 4.245 It is important that any chemicals used in construction including coatings, treatments, fuels and lubricants must be benign in a marine setting or managed in a manner that minimises their risk of leakage to the marine environment. Similarly, debris arising from construction at sea including mud and drill arisings must be appropriately managed and disposed of. Both processes must operate within the Rochdale envelope assessed within the ES.
- 4.246 Both DMLs contain provisions relating to chemicals, drilling and debris (Schedule 1 and Schedule 2 conditions 9 in both cases). These require all chemicals to 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 a change from this list is agreed to by the MMO in writing. Containment mechanisms must include the provision of bunding to contain 110% of the volume of any liquid materials in case of leakage. Drilling using any system other than water-based requires the MMO's written approval and may require a separate marine licence. All construction debris must be removed on completion of construction unless alternative measures are authorised in writing by the MMO.
- 4.247 An audit process is proposed under which the MMO will be able to track all working schedules, components and materials used during construction. If any materials are unaccounted for, the MMO may require a side scan sonar survey and local fishing interests may be represented. Any located obstructions must be removed at the undertaker's expense. Only inert materials of

natural origin may be disposed of at sea, and pursuant to discussion in oral examinations, the disposal site reference for this (IS135) has been confirmed.

- 4.248 I **find** that the approach taken in DML conditions 9 will ensure the appropriate management of potential contaminants, debris and wastes at sea during the construction process.

### **Safety, accidents and force majeure**

- 4.249 As with all construction projects in a potentially hostile marine environment, this project includes the scope for accidents and for the loss of materials and wastes at sea. I have assured myself that these matters are properly provided for.
- 4.250 Both DMLs contain provisions (Schedule 1 and Schedule 2 conditions 6 in both cases) requiring the Secretary of State in consultation with the MCA to be satisfied that the undertaker has adequately addressed the recommendations in MGN 371 'Offshore Renewable Energy Installations - Guidance on UK Navigational Practice, Safety and Emergency Response Issues', including the provision of full details of Emergency Co-operation Plans (ERCOP).
- 4.251 Both DMLs contain 'force majeure' provisions (Schedule 1 and Schedule 2 conditions 10 in both cases) requiring unplanned deposits at sea (due to weather or other causes threatening the safety of human life or a vessel) to be notified to the MMO within 48 hours and then to be removed at the undertakers expense, unless written approval is obtained from the MMO for the deposits to be left in situ.
- 4.252 I **find** that the DCO recommended in this report provides mechanisms that enable risks and emergencies to be planned for and appropriately mitigated and for unplanned deposits at sea to be managed.

### **Conclusions**

- 4.253 Matters relating to noise and human receptors are not considered to warrant a formal change to the DCO, but would benefit from the implementation of the applicant's offer to work with local communities and Wirral Council to establish the equivalent of a 'considerate contractor' process for the piling contractor. The potential impacts on an unknown construction and service port or ports do not appear to be of sufficient scale to warrant specific provision for mitigation in the DCO. Matters relating to potential contaminants, 'force majeure' and wastes arising at sea are well managed in the DCO and no change is required.

**PART J:  
THE GRID CONNECTION**

- 4.254 This part of this chapter gives brief consideration to issues arising from the grid connection for the application proposal.
- 4.255 Paragraphs 1.63 and 2.10 of this report above identify the separate applications for a marine licence for part of the proposed grid connection in Welsh territorial waters (the Welsh marine licence application to NRW / CNC) and for planning permission for a grid connection on land in Wales (to Denbighshire County Council / Cyngor Sir Ddinbych). The Welsh marine licence application remained undetermined at the closure of my examination. The application for planning permission on land had been granted by Denbighshire County Council / Cyngor Sir Ddinbych [REP-206]. There is also a compulsory purchase order in relation to the land grid alignment in Wales that requires to be decided by the Secretary of State separately to the decision on the DCO [REP-207].
- 4.256 Through this examination, I have sought a means to ensure that, without compromising the independence and discretion of the Welsh decision-maker, NRW / CNC and the Examining Authority for this application could identify and share issues likely to bear jointly on the DCO and the Welsh marine licence. Whilst NRW / CNC initially expressed concerns about making a draft Welsh marine licence available, agreement was reached to do so [REP-228] and information relevant to the consideration of HRA across the Welsh border was also provided [REP-249]. I wish to record my appreciation to NRW / CNC for their agreement to provide this information to my examination.
- 4.257 The publication of documents associated with this application and its participation in the DCO issue-specific hearing has enabled NRW / CNC to remain apprised of all matters emerging from my examination that is potentially relevant to the consideration of the application before it and to take them into account as it saw fit. In turn, I have taken its representations on the draft content of the Welsh marine licence [REP-228] into account, whilst noting and respecting its advice that this material is a draft and has been provided without prejudice to the exercise of discretion by the Welsh decision-maker.
- 4.258 Denbighshire County Council / Cyngor Sir Ddinbych made a written representation [REP-013] in which it did not object to the application proposal, but made clear that its main interest was in awareness of the examination process, in the light of the planning application that had been made to it. It also entered into a statement of common ground with the applicant [REP-129]. This raised no outstanding areas of disagreement in respect of the grid connection for the application proposal or of its implications for the

application for planning permission under consideration by the Council.

- 4.259 The publication of documents associated with this application has enabled Denbighshire County Council / Cyngor Sir Ddinbych to remain apprised of all matters emerging from it potentially material to its decision and to take them into account as it saw fit. In turn, I have taken its decision to grant planning permission [REP-206] into account.
- 4.260 The ES [APP-020 - 081] records an integrated process in which the effects of the project as a whole have been assessed, notwithstanding that separate applications are necessary to implement the project in English and Welsh territorial waters and on land in Wales. The HRA Report submitted with the application [APP-018] also assesses the project inclusive of all components in English and Welsh territorial waters.
- 4.261 NPS EN-1 at paragraph 4.9.2 makes clear that '*[t]he Government therefore envisages that wherever possible, applications for new generating stations and related infrastructure should be contained in a single application [...] or in separate applications submitted in tandem which have been prepared in an integrated way.*' As is necessitated by the distinct legal provisions applicable in Welsh territorial waters and on land in Wales, the grid connection for the application proposal has been dealt with in separate applications submitted in tandem which have been prepared in an integrated way.
- 4.262 I **find** that the approach taken to the management of the separate applications necessitated by the location of the application proposal has proceeded in the manner anticipated by NPS EN-1 paragraph 4.9.2.
- 4.263 To the extent that it has been possible to do so without limiting the discretion of the Welsh decision-maker, I have sought to ensure that the Welsh marine licence and the recommended DCO are aligned. Detail relating to natural environment impacts is set out in part B of this chapter above and in Chapter 5 (HRA) below. The Secretary of State will require advice from NRW / CNC on the current position of the Welsh marine licence application prior to taking a decision on the DCO.
- 4.264 The grant of planning permission for the grid alignment on land in Wales raises no concerns or constraints for the Secretary of State's decision on the DCO. However, he should be aware of the need for his separate decision on the compulsory purchase order in Denbighshire.
- 4.265 No changes to the DCO are required to respond to issues arising from these separate application and decision-making processes.

## Conclusions

4.266 Separate applications and decisions are required for the implementation of the grid connection for the application proposal. Planning permission has been granted for that element of the grid alignment on land in Wales but a compulsory purchase order decision remains outstanding. At the time of the closure of my examination, a decision had not been taken on the grant of a Welsh marine licence for the grid alignment in Welsh territorial waters.

### **PART K: EMFS AND CABLE HEATING**

4.267 The effects of electric and magnetic field and heat emissions from cables associated with the application proposal are identified in ES chapters relevant to benthic ecology [APP-031], fish and shellfish ecology [APP-032], marine mammals [APP-033], offshore ornithology [APP-034], nature conservation [APP-035], commercial fisheries [APP-037] and the socio-economic impact assessment [APP-052]. The conclusions of these assessments in broad terms are that EMF effects are minor or less, have been mitigated by design (though cable burial to 2m depth (+/-1m) and rock armouring where that cannot be achieved) to the extent feasible, and their effects will be acceptable.

4.268 The relevant representation from Public Health England [REP-018] set out that body's view that *'the predicted magnetic and electric field exposures are not expected to have a measurable impact on human health and that no mitigation is required. The approach adopted appears to be compliant with the recommendations contained in the Health Protection Agency wind farm position statement.'* I used my first round of written questions [PD-008 at matter 5.1] to seek the views of other interested parties on that position, making clear that any party wishing to assert a different position should do so with reference to appropriate evidence. No such evidence was provided.

4.269 Concerns about the natural environment effects of EMFs on marine species were raised briefly in other relevant representations by both NE [REP-028] and NRW / CNC [REP-031]. However, both entities considered that a precautionary approach to cable burial would provide sufficient mitigation. Whilst both bodies were represented at issue-specific hearings to address the natural environment effects of the application proposal, neither sought any particular revision to project design or mitigation methods to further limit EMF exposures.

4.270 It follows that **I find** that the application proposal and the recommended DCO in Chapter 7 are capable of managing EMF and cable heating issues appropriately and in compliance with policy and that no changes are required.

## Conclusions

- 4.271 EMF and cable heating issues are appropriately managed and no change to the DCO is required.

### **PART L: OTHER MATTERS**

- 4.272 In addition to matters raised in my initial assessment, the following matters also arose that require to be noted:
- concerns about the efficiency of offshore wind turbines;
  - procedural concerns about the adequacy of community engagement and consultation;
  - representations from the Clwyd-Powys Archaeological Trust;

### **The technical and financial viability of wind turbines**

- 4.273 In relation to matters discussed in Part A of this chapter above, the relevant representations of Mr JR Hall [REP-009] and Mrs Jean Hall [REP-012] both suggested that wind turbines were, in principle, insufficiently efficient and uneconomic and should not be installed.
- 4.274 Paragraph 4.1.9 of NPS EN-1 makes clear that, in general, the technical and financial viability of a particular proposal are matters for the applicant's risk, subject to the Secretary of State's view that these have been properly assessed by the applicant. I **find** that the application accords with established approaches to technical and financial viability and that there are no reasons for the Secretary of State to doubt the viability of this particular proposal.
- 4.275 Paragraphs 3.4.1 to 3.4.5 of NPS EN-1 also make clear that there is an urgent need for renewable energy installations and that offshore wind turbines are expected to provide the largest single contribution towards the achievement of the UK's 2020 renewable energy generation targets. I **find** that aspects of Mr & Mrs Hall's submissions suggesting that wind turbines should not be installed amount to submissions on the merits of the NPS. Further to PA2008 s106(1)(b), these are submissions that the Secretary of State may disregard.

### **Procedural concerns**

- 4.276 The relevant representations of Mr JR Hall [REP-009] and Mrs Jean Hall [REP-012] and their written representation [REP-035] were concerned that community engagement and public consultation by the applicant had not been fully effective. They suggested that the applicant had not been as assiduous as it should have in providing notice of its proposals and that consultation events had clashed with long-planned major public events in Liverpool. Mr and Mrs Hall requested to be heard and were invited to attend



hearings on this point but, as matters turned out, were unable to attend.

- 4.277 That being said, having reviewed the acceptance process for this application<sup>31</sup>, I am satisfied that the applicant has provided adequate notice of its proposals and that its public consultation has also been adequate. I **find** that no issues of non-compliance with the relevant requirements of PA2008 arise and that these procedural concerns do not provide a basis from which to suggest that the DCO application should not be granted.

### **Clwyd-Powys Archaeological Trust**

- 4.278 It should be noted that there was a relevant representation from the Clwyd-Powys Archaeological Trust [REP-006]. This raised no concerns in respect of marine archaeology or cultural heritage. Its detailed concerns related to the ES assessment of onshore archaeological effects. These effects arise in Wales and, to the extent that the Trust raised concerns, they were relevant to the Welsh decision-makers. I **find** that this aspect of their representation is not directly relevant to my examination.

### **Conclusions**

- 4.279 There are no matters arising from submissions about the technical and financial viability of wind turbines or the scheme, or relating to procedural matters, that indicate that the DCO should not be granted in the form recommended in this report.

### **PART M: EQUALITIES AND HUMAN RIGHTS**

- 4.280 In reaching all of the findings set out above, I have considered relevant equalities and human rights provisions. I conclude on them as follows.

#### **Equalities**

- 4.281 The protected characteristics under the equalities legislation are age, disability, sex, gender reassignment, race, religion or belief (including lack of belief), pregnancy and maternity and sexual orientation. No representations were made explicitly by or on behalf of any group of people sharing a protected characteristic in relation to this proposed development.
- 4.282 I have considered these equalities issues and complied with my duties under the Equalities Act 2012. In doing so, I have considered whether the proposals would adversely impact or

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<sup>31</sup> The PA2008 s55 Acceptance Checklist is available at:  
[http://infrastructure.planningportal.gov.uk/wp-content/ipc/uploads/projects/EN010026/2.%20Post-Submission/Procedural%20Decisions/130419\\_EN010026\\_BurboBank\\_EXT\\_Offshore\\_WF\\_Master\\_s55\\_checklist\\_Final.pdf](http://infrastructure.planningportal.gov.uk/wp-content/ipc/uploads/projects/EN010026/2.%20Post-Submission/Procedural%20Decisions/130419_EN010026_BurboBank_EXT_Offshore_WF_Master_s55_checklist_Final.pdf)

discriminate against any group of people who share a protected characteristic. I find that there is no evidence of any harm, lack of respect for equalities, or disregard to equality issues.

### **Human rights**

- 4.283 The applicant consulted on their proposals during the pre-application stage, in a manner that complied with PA2008. Some concerns were expressed the notification, consultation and community engagement, were perhaps not as extensive as they could have been. However I do not consider that the pre-application process has disregarded anyone's human rights.
- 4.284 In terms of the examination, I am satisfied that all persons with a prospective interest in the application proposals have been provided with a fair and reasonable opportunity to participate. All materials submitted to me during the examination period (including materials relating to minor changes to the application) have being published on the national infrastructure pages of the Planning Portal website and have been accessible to the public throughout the examination. All hearings were held in public. Everyone who requested to be heard was accorded a hearing.
- 4.285 The application proposal does not include compulsory acquisition and does not affect the land of any person other than the Crown Estate (see Chapter 6, paragraph 6.21), human rights considerations relating to the taking of land or property are not engaged.

## **5 FINDINGS AND CONCLUSIONS IN RELATION TO HABITATS REGULATIONS**

- 5.1 This Chapter of the report sets out analysis and findings relevant to Habitats Regulations Assessment (HRA).
- 5.2 It operates with the context set by paragraphs 4.42 to 4.44 above (Chapter 4 Part D, effects on biodiversity, ecology and the natural environment). It informs the conclusions reached in Chapter 4 Part D. However, it also provides a free standing analysis of matters relevant to the HRA process to inform the Secretary of State.
- 5.3 This chapter is divided into the following parts:
- (a) a summary of the HRA process;
  - (b) a record of the relevant European Sites;
  - (c) a record of the projects and proposals relevant to in-combination assessment;
  - (d) consideration of built-in mitigation;
  - (e) the Report on the Implications for European Sites (RIES) - identification of HRA-relevant information and representations submitted during the examination;
  - (f) draft conclusions emerging from submitted information and the RIES consultation;
  - (g) matters arising from responses to the draft conclusions; and
  - (h) evaluation and findings on matters of disagreement.

It is followed by a part recording HRA conclusions.

### **PART A: THE HRA PROCESS**

- 5.4 The application proposal engages the Habitats Directive, the Birds Directive, the Convention on Wetlands of International Importance and the HRA process on the basis of its potential to adversely affect a significant number of European Sites and their features. This is not a matter of dispute between the applicant and any interested parties.
- 5.5 The European Sites relevant to this process are of the following types:
- Special Protection Areas (SPAs) classified under the Birds Directive;
  - as a matter of policy the same protection is also extended to potential Special Protection Areas (pSPAs) which appear to meet designation criteria but which have not yet been designated;
  - Special Areas of Conservation (SACs) designated pursuant to the Habitats Directive;

- as a matter of law the same protection is also extended to candidate Special Areas of Conservation (cSACs) which appear to meet designation criteria, have undergone formal consultation but which have not yet been designated;
- Sites designated under the Convention on Wetlands of International Importance (the Ramsar Convention) (Ramsar sites);
- as a matter of policy the same protection is also extended to potential Ramsar sites (pRamsars) which appear to meet designation criteria but which have not yet been designated.<sup>32</sup>

5.6 It should be noted that it is normal for more than one designation to apply to the same body of land or water and this is the case in a number of the European Sites discussed below.

5.7 There are four broad stages for HRA (see advice provided in the Planning Inspectorate's Advice Note 10: "Habitat Regulations Assessment relevant to nationally significant infrastructure projects" (AN10), where the process is set out in Figure 1<sup>33</sup>).

- **Screening:**  
Deciding whether a project or proposal either alone or in combination with other plans or projects gives rise to a likely significant effect (LSE) on a European Site (or sites). In determining whether there is a LSE, a precautionary test arising from the *Waddenzee* judgement should be applied<sup>34</sup>.
- **Appropriate Assessment:**  
Assessing whether, in view of the European Site's conservation objectives, a project or proposal either alone or in combination with other plans or projects would risk an adverse effect on the integrity of the site. If it is found that it does not, the project or proposal may proceed<sup>35</sup>.
- **Consideration of Mitigation and Alternatives:**  
Steps that are only taken if a risk of adverse effect on integrity is found, under which mitigation of impacts and alternative solutions are reviewed.
- If these steps do not have the effect of removing the risk of adverse effect, then it becomes necessary to establish that the proposal and its acknowledged harm should proceed due to **imperative reasons of overriding public interest (IROPI)** (including the provision of compensatory measures)

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<sup>32</sup> ODPM Circular 06/2005: Biodiversity and geological conservation – Statutory obligations and their impact within the planning system remains in force. The policy approach to potential and candidate sites described here is summarised in paragraphs 3 - 6.

<sup>33</sup> <http://infrastructure.planningportal.gov.uk/wp-content/uploads/2013/09/Advice-note-10-HRA.pdf>

<sup>34</sup> European Court of Justice Case C-127/02 (the *Waddenzee* Judgment) which found "any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects".

<sup>35</sup> The approach set out in the *Waddenzee* Judgment also applies to appropriate assessment.

or alternatively, if IROPI cannot be established, should not proceed.

- 5.8 When assessing a project, it is appropriate to take in-built mitigation that is provided for in the application proposal and (where necessary) secured in the recommended DCO into account<sup>36</sup>. As paragraph 5.7 above also makes clear, it is an important part of the HRA process to identify LSEs which arise in combination or cumulatively with other projects or proposals. These may range from initial proposals to consented and operational projects.
- 5.9 The Examining Authority does not carry out an appropriate assessment or any subsequent stage of assessment or decision making under HRA. This role is reserved to the Secretary of State as the competent authority. However, I have been mindful throughout the examination process of the need to ensure that the Secretary of State has an adequate basis of information from which to carry out his duties as competent authority, informed by and compliant with the policy set out in NPS EN-1 paragraph 5.3.9 and NPS EN-3 paragraphs 2.6.58 to 2.6.71.
- 5.10 In accordance with the advice provided by AN10, I have adopted a standardised Planning Inspectorate procedure of drawing together all submitted evidence in respect of the HRA process into a Report on the Implications for European Sites (RIES) [PD-024 - 025]. The RIES compiles, documents and signposts information provided within the DCO application, and the information submitted throughout the examination by both the applicant and interested parties, up to the date of its release. The RIES was prepared and released towards the end of the examination and therefore contains a full digest of HRA relevant evidence. An electronic link to the RIES is provided in Appendix E to this report.

## **PART B: THE RELEVANT EUROPEAN SITES**

- 5.11 The effects of the application proposal on the following European Sites, their features and conservation objectives have been considered in the application and throughout the examination period:
- Aberdaron Coast and Bardsey Island SPA;
  - Bowland Fells SPA;
  - Cardigan Bay SAC;
  - Copeland Islands SPA;
  - Dee Estuary SPA;
  - Dee Estuary Ramsar site;
  - Dee Estuary SAC;
  - Duddon Estuary Ramsar site;

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<sup>36</sup> See The Conservation of Habitats and Species Regulations 2010, reg 61 (6).

- Duddon Estuary SPA;
- Eileanan agus Sgeiran Lios Mór SAC;
- Liverpool Bay SPA;
- Lleyn Peninsula & the Sarnau SAC;
- Menai Strait and Conwy Bay SAC;
- Mersey Estuary SPA;
- Mersey Estuary Ramsar site;
- Mersey Narrows and North Wirral Foreshore SPA<sup>37</sup>;
- Mersey Narrows and North Wirral Foreshore Ramsar site<sup>38</sup>;
- Morecambe Bay SPA;
- Morecambe Bay Ramsar site;
- Murlough SAC;
- Pembrokeshire Marine SAC;
- Ribble and Alt Estuaries SPA;
- Ribble and Alt Estuaries Ramsar site;
- River Dee and Bala Lake SAC;
- Roaringwater Bay and Islands SAC;
- Sefton Coast SAC;
- Shell Flat and Lune Deep SAC;
- Skerries and Causeway SAC;
- Skokholm and Skomer SPA;
- South-East Islay Skerries SAC;
- Strangford Lough SAC;
- The Maidens SAC;
- Upper Solway Flats and Marshes SPA; and
- Upper Solway Flats and Marshes Ramsar site.

5.12 Part of the application site falls within the Liverpool Bay SPA designated area. In respect of the other sites, assessments relate to features that are either mobile species (for example birds, fish and marine mammals) or dynamic processes (such as metocean and coastal processes - the movement of sediments and changes to erosion processes under the influence of the weather and wave climate).

5.13 It should be noted that these European Sites are located in England, Wales, Scotland and Northern Ireland and hence reference in this chapter is made as necessary to the relevant statutory nature conservation bodies for each UK nation as the SNCB(s).

5.14 There was no dispute as to the relevance of any of these European Sites to the HRA process. Nor did any interested parties request that any additional European Sites should be included in the HRA process.

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<sup>37</sup> Mersey Narrows and North Wirral Foreshore SPA and

<sup>38</sup> Mersey Narrows and North Wirral Foreshore Ramsar site are both referred to in the applicant's HRA report as potential designations (pSPA and pRamsar). However, by the commencement of my examination, both had been formally designated.

5.15 On 31 January 2014, Natural Resources Wales / Cyfoeth Naturiol Cymru (NRW / CNC) launched a consultation proposing changes to three SPAs at:

- Aberdaron Coast and Bardsey Island SPA,
- Skokholm and Skomer SPA, and
- Grassholm SPA.

The first two of these SPAs were already acknowledged to be relevant to the HRA process for the application proposal. The last SPA (Grassholm) was not, but it was important to test whether the proposed changes were ones that might bring it within scope.

5.16 The proposed changes included:

- updating the lists of bird species which are considered of international importance for all three SPAs;
- updating the numbers of birds on Grassholm SPA; and
- extending the existing boundaries of all three SPAs seawards by between 2km and 9km.

5.17 The consultation closed on 25 April 2014, after the closure of my examination. To that extent, I am unable to take its outcomes into account. However, in my second round of written questions [PD-027 at matter [2]1.1], I asked whether any of the proposed changes led to a need to review the assessments contained in the application documents and requested the submission of an additional assessment paper prepared by the applicant and NRW / CNC (the relevant SNCB) if any changes were required. The SNCB responded [REP-248] that *'none of the proposed changes to Aberdaron Coast and Bardsey Island SPA, Skokholm and Skomer SPA, and Grassholm SPA would require a review of the Habitat Regulations Assessment Report'* submitted with the application. No other concerns were raised about the potential changes affecting these sites which can therefore be discounted for decision-making purposes.

**PART C:  
IN-COMBINATION EFFECTS - THE RELEVANT PROJECTS AND PROPOSALS**

5.18 The main in-combination effects emerging from offshore wind farm projects and proposals relate to the effects of an application proposal in combination with other offshore wind-farm projects and proposals on mobile species and dynamic processes.

5.19 The applicant identified the following offshore wind farm projects and proposals for in-combination assessment purposes.

- Atlantic Array;
- Barrow;
- Codling Park;
- Gwynt y Môr;

- Navitus Bay;
- North Hoyle;
- Oriel;
- Ormonde;
- Rhiannon;
- Rhyl Flats;
- Walney I and II;
- Walney Extension; and
- West of Duddon Sands

5.20 There were no representations that additional projects or proposals should be considered or that any of these projects or proposals were not relevant to in-combination assessment.

5.21 It should however be noted that on 26 November 2013, Channel Energy Ltd. withdrew their application for the Atlantic Array wind farm. The in-combination assessment in the applicant's HRA report takes account of the prospective effects of the Atlantic Array proposals and to remove these effects would have required a re-working of that report. For this reason, I also decided to retain references to the Atlantic Array project in the RIES process. There were no objections to this course of action, which has the effect of including a small margin of assessed cumulative impact over and above the impact which might now be expected.

5.22 Reference should also be made to another relevant permitted action. Safety concerns have been raised over a number of years regarding potential bird strikes to aircraft flying out of the MoD and BAE Systems Warton aerodrome, adjacent to the Ribble & Alt Estuaries SPA. BAE Systems views the risk of airstrike from birds associated with the breeding colony of *Lesser black-backed gull* and *Herring gull* on the Ribble estuary as unacceptable.

- In March 2011 NE consented a cull of 200 pairs of *Lesser black-backed gull* and 25 pairs of *Herring gull* breeding on the Ribble estuary.
- In December 2012, the DEFRA Secretary of State directed NE to consent an application to cull an additional 475 pairs of *Herring gull* and to undertake bird scaring operations for one year.
- In May 2013 the DEFRA Secretary of State directed NE (following consideration of an appeal) to consent a cull of 552 pairs of *Lesser black-backed gull* in combination with the previous consents, and further control measures to maintain the populations of *Lesser black-backed gull* and *Herring gull* at the permitted levels following the culls. This should be conditional on the combination of measures achieving a reduced *Lesser black-backed gull* population on the Ribble estuary no lower than 3,348 pairs [H1-Doc 9].
- On 17th July 2013, NE issued a conditional consent for a cull of 552 pairs of *Lesser black-backed gull* and operations to maintain the population at the reduced level of 3,348 pairs



thereafter. Control measures must be suspended if the population falls below 3,348 pairs and may only be resumed if the population then exceeds 3,348 pairs. A monitoring plan (to be agreed with NE) must be implemented to provide information on the status of the breeding population. The consent is limited to 10 years (to 2024) [H1-Doc 8].

I refer to these decisions collectively as the 'Warton gull cull decisions'.

- 5.23 The applicant produced a written representation, Paper 10: Implications of the BAES Warton Gull Control Measures [REP-051] specifically to address the effects of the Warton gull cull decisions for its in-combination assessment. It has been considered by the SNCBs and their advice to me in written representations takes it into account. I in turn have taken this paper into account.
- 5.24 It should be noted that, at the point my examination concluded, there was an undetermined judicial challenge against aspects of the Warton gull cull decisions. I have nevertheless accepted gull population levels for in-combination assessment purposes that assume the continued implementation of the Warton gull cull decisions, irrespective of the outcome of the judicial challenge. This is a conservative and precautionary assumption and is the least favourable to the applicant. If the Warton gull cull decisions were to be struck down, culling would not proceed and hence the application proposal would have a higher gull population baseline (and would result in a lower potential for LSEs) from which assessment could proceed than it does at present. If however the judicial challenge were to fail, then an appropriate assessment must proceed in the light of the gull population mediated by the Warton gull cull decisions, as provided for in the applicant's paper 10 and subsequent SNCB evidence.

**PART D:  
IN-BUILT MITIGATION**

- 5.25 As recorded in paragraph 5.8 above, it is appropriate for the Secretary of State to take in-built mitigation, provided for in the application proposal and secured as necessary in the draft and recommended DCO into account in an appropriate assessment. The Habitats Regulations (at regulation 61 (6)) provide as follows:

*'In considering whether a plan or project will adversely affect the integrity of the site, the [competent] authority must have regard to the manner 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.'*

- 5.26 Matters raised in principle as giving rise to potential adverse effects on the integrity of European sites, but which were proposed to be managed through site design, delivery and where necessary were secured through the DCO included:

- Siting and design provisions (see DCO Schedule 1 Parts 1 and 2 (description of works), Part 3 – detailed design parameters - requirements 2 – 5 and DMLs Parts 1 (description of works), relevant to delivery within the Rochdale envelope for bird mortality and disturbance, noise and disturbance effects on marine mammals, and EMF mitigation on all marine species.
- Piling restrictions (see DMLs conditions 18), relevant to mitigating noise and disturbance effects on spawning Dover sole and migrating adult and smolt of salmon and sea trout.

5.27 By the time at which the RIES was issued, there were no outstanding disputes to the effect that additional built-in mitigation was required and/or that existing built-in mitigation was inadequate or undeliverable. I have considered the in-built mitigation proposals and **find** that these are adequately provided for in the recommended draft DCO.

**PART E:  
HRA INFORMATION**

5.28 The applicant submitted documentation with the application setting out the steps that it had taken to inform the HRA process, consisting of a plan showing statutory and non-statutory designated sites of nature conservation interest [APP-008] and a Habitats Regulations Report [APP-018]. This documentation has been augmented by a substantial volume of relevant material, including written representations from the applicant and interested parties, statements of common ground and answers to my questions.

5.29 Those documents that are relevant to the positions recorded in the RIES (essentially all HRA-relevant material submitted to me before the issue of the RIES on 19 February 2014) are recorded in paragraph 1.6 (from pages 2 - 8) of the RIES, using the citation system from the examination document library in Appendix A to this report. I have taken all of the documents cited in the RIES into account. I cite subsequently submitted documentation individually in the following paragraphs as required.

5.30 The RIES was the subject of consultation with interested parties during the examination process. The consultation was undertaken late in the examination (between 19 February and 13 March 2014), to ensure that interested parties participating in the examination were conscious of the full range of evidence summarised within it and were able to take account of the substantial progress that had been made in negotiations and in the preparation of statements of common ground since the start of the examination. Consultation responses indicate acceptance or concern with the conclusions drawn in the RIES. To that extent, consultation responses to the RIES are key documents that 'map' the unresolved HRA matters in respect of which judgement must

be exercised by the Secretary of State. The following bodies submitted responses to the RIES:

- The applicant [REP-231];
- NE [REP-244];
- The RSPB [REP-245];
- MMO [REP-246]
- NRW / CNC [REP-247]; and
- Lancashire County Council [REP-252].

No other concerns were expressed.

- 5.31 The Secretary of State is invited to take the RIES and these responses to it into account when carrying out his duties as competent authority. Drawing together the work conducted throughout the examination, I conclude that there is an adequate body of information to enable the SoS to fulfil his duties.

#### **PART F: THE RIES - DRAFT CONCLUSIONS**

- 5.32 The RIES is based on site impact, in combination impact and integrity matrices completed by the applicant, recording the outcomes of its design stage and HRA analysis. The RIES performs its summarisation of submissions and evidence in two stages:
- European Sites within scope are reviewed in terms of likely significant effects (LSEs) which cannot be excluded and these are recorded in **Stage 1 Matrices**; and
  - If LSEs cannot be excluded, a more detailed review is undertaken to resolve whether there are any adverse effects on site integrity, and if so, these are recorded in **Stage 2 Matrices**. This is a process which includes express consideration of mitigation measures taken to eliminate LSEs.
- 5.33 At Stage 1, the applicant concluded that significant effects cannot be excluded on the following European Sites:
- Bowland Fells SPA (breeding *Lesser black-backed gull* only)
  - Liverpool Bay SPA (over-wintering *Red-throated diver* only)
  - Mersey Narrows and North Wirral Foreshore SPA (*Common tern* only)
  - Morecambe Bay SPA (breeding *Lesser black-backed gull* only)
  - Ribble and Alt Estuaries and Ramsar (breeding *Lesser black-backed gull* only)
  - River Dee and Bala Lake SAC (*Atlantic salmon* only)

In the published RIES, no dissent from this position was recorded. These sites were therefore taken forward to Stage 2 analysis.

- 5.34 At Stage 2, the applicant concluded that there would be no adverse effects on integrity, once account was taken of revised

modelling (in relation to bird populations) and piling and noise mitigation measures (in relation to *Atlantic salmon*).

- 5.35 The applicant's conclusions relating to birds were disputed. On the evidence available at the point when the RIES was published, it appeared that there was still a dispute between the applicant and the SNCBs about whether an adverse effect on integrity could be excluded in respect of Liverpool Bay SPA in respect of the *Red-throated diver*. The published RIES Stage 2 Matrix 4: Liverpool Bay SPA recorded this outstanding concern.
- 5.36 That being said, given the number of European Sites and features analysed and the significant methodological concerns expressed at the outset of the examination by several interested parties (see Chapter 4 Part D), the examination process had led to a substantial clarification and diminution of concerns.

**PART G:  
THE RIES - MATTERS ARISING FROM RESPONSES**

- 5.37 There were four substantive responses to the consultation draft RIES. Those from the applicant [REP-231], NE [REP-244] and NRW / CNC [REP-247] (the SNCBs) were in broad agreement that the only changes necessary to be made to RIES were minor in nature. These would better reflect the precise nature of the agreements reached between the applicant and the SNCBs and clarify the agreed absence of effects on integrity across all but one European Site - Liverpool Bay SPA in respect of the *Red-throated diver*. Neither of the SNCBs disputed the draft conclusions presented, to the effect that any additional European Site or feature of a European Site was suggested to be subject to dispute about an adverse effect on integrity.
- 5.38 The RSPB response [REP-245] asked for recognition that it disputed draft conclusions reached in respect of a further European Site - the Ribble and Alt Estuaries SPA in respect of the *Lesser black-backed gull*.
- 5.39 The MMO [REP-246] and Lancashire County Council [REP-252] both responded that they had no substantive comments to make on the RIES, deferring to the views of NE and / or NRW / CNC as appropriate.
- 5.40 It should also be noted that, although not arising directly from consultation on the RIES, NRW / CNC did make oral and written submissions to flag that there was a potential concern relating to the effects of cable installation works in Welsh territorial waters and subject to the Welsh marine licence and its HRA process on Liverpool Bay SPA and inshore rafting Common scoter and on Common Scoter as part of an assemblage of over 20,000 waterbirds utilising the site. These submissions also raised issues in respect of Lamprey species utilising the Dee Estuary SAC and the Dee Estuary and Bala Lake SAC. These are not matters that

bear on the HRA process for the application before the Secretary of State and will be considered by the Welsh decision-maker in due course. However, to ensure that the cross-border context is clear, information is provided about them in this report in paragraphs 5.92 to 5.100 below.

- 5.41 On the basis of my review of the evidence summarised in the RIES and of the consultation responses to it, I find at this point that there will be no adverse effects on European Sites other than those in respect of which reservations were expressed in the consultation responses, namely Liverpool Bay SPA and Ribble and Alt Estuaries SPA.

## **PART H: EVALUATION**

- 5.42 This part of Chapter 5 sets out a considered evaluation of the representations and evidence, in the light of RIES consultation responses, which indicate that there is or might be an effect on the integrity of European Sites in respect of specific features. It considers:

- Liverpool Bay SPA in respect of the *Red-throated diver* and outstanding concerns from the SNCBs and the RSPB;
- Ribble and Alt Estuaries SPA in respect of the *Lesser black-backed gull* and outstanding concerns from the RSPB;
- other HRA-related effects of the project as a whole; and
- the outcomes of in-combination assessment.

### **RIES Stage 2 Matrix 4: Liverpool Bay SPA The *Red-throated diver***

- 5.43 The application site is partly located in the Liverpool Bay SPA, of which the wintering *Red-throated diver* is a qualifying feature, as the site is considered regularly to support in the region of 5.4% of the Great British population of this bird.
- 5.44 The RIES recorded that, whilst the applicant's assessment proposed that there would be no effect on integrity relating to wintering *Red-throated diver* due to direct displacement during construction, operation and decommissioning and due to in combination collision risk, this assessment was not shared by the SNCBs (NE and NRW / CNC) - meaning that an unresolved potential for effects on integrity remained and required detailed evaluation in this report. The RSPB also supported the SNCB position.
- 5.45 The outstanding concerns are that wintering *Red-throated diver* will be displaced from the wind farm site and that some of the displaced population will be lost as mortality because more birds will be sharing a reduced foraging resource. Further, the applicant has underestimated the proportion of birds that would be lost from the population as a consequence and had also modelled for an

insufficiently broad buffer zone, in which displacement effects would occur. As a consequence of these errors, it was argued that more birds would be lost than the applicant's modelling had initially predicted and the net effect would be a material reduction in population sustainability and numbers.

- 5.46 For these reasons, the RIES notes the applicant's 'no effect on integrity' conclusions on these issues with a question mark, symbolising the lack of agreement.
- 5.47 Note (a) to RIES Stage 2 Matrix 4 relates to **bird displacement scenarios**. The applicant undertook analysis of potential bird displacement using different scenarios. Bird displacement was considered for the Burbo Bank Extension Offshore Wind Farm area plus a 2km buffer. The change in bird population density outside the Burbo Bank Extension Offshore Wind Farm area as a result of birds being displaced was predicted to be less than 1 bird per 1km<sup>2</sup>, which was not predicted to lead to an adverse effect on integrity.
- 5.48 For the purposes of this assessment it was assumed by the applicant that there was no difference in the magnitude of any displacement effect from the construction, operation and decommissioning phases of the Burbo Bank Extension Offshore Wind Farm (see the applicant's HRA Report Section 6.3, paragraphs 6.3.1-6.3.39 [APP-018]). Concerns were raised by interested parties over whether:
- the applicant should have considered displacement beyond 2km;
  - the use of only one year's baseline data;
  - the nature of the scenarios used to analyse displacement; and
  - whether the magnitude of displacement predicted by the applicant actually constitutes an adverse effect on the integrity (see NE's relevant representations, paragraphs 4.2.1-4.2.5 [REP-028]; NRW's relevant representations, paragraphs 1.2.1-1.2.5 [REP-031]; and the RSPB's written representations paragraphs 4.1- 4.11[REP-098]).
- 5.49 The applicant undertook further analysis, following advice from the SNCBs, using JNCC aerial survey data. The displacement scenario used was taken from the HRA of the Kentish Flats Extension wind farm carried out by the Secretary of State, consent for which was granted on 19 February 2013.
- 5.50 The applicant considered that assuming 100% mortality (as has happened with previous wind farm assessment) was unrealistic. The applicant estimated the density dependent mortality for displaced birds on the basis of an *Oystercatcher* study, as no equivalent study exists for *Red-throated diver* (see the applicant's

written response to Deadline I, Appendix 15, Paper 7 [REP-048]). The conclusion of no adverse effect on integrity was maintained.

5.51 **Baseline data:**

Following further discussions with the applicant over their use of historic data the SNCBs confirmed that they were no longer concerned about reliance on one year's baseline data (see the applicant's written response to Deadline I, Appendix 11, Paper 3 [REP-044]; NE's written representations, paragraph 114; and NRW's written representations, Annex A, paragraphs 2.2.1-2.2.2 [REP-097]).

5.52 The RSPB raised a query about an apparent discrepancy in the data presented in the applicant's ES (see RSPB's written representations, paragraphs 4.5-4.6 REP-098]). In response to my oral questions during the issue-specific hearing on 19-21 November 2013, the applicant provided a clarification (see applicant's written response to Deadline III, paragraph 5.17 [REP-152]).

5.53 **Choice of red-throated diver displacement scenarios:**

The SNCBs and the RSPB advised that there is empirical evidence that suggests that a wider buffer zone should be used (see NE's written representations Annex B, paragraph 112 [REP-090]; NRW's written representations Annex E, paragraph 31 [REP-096]; and RSPB's written representations, paragraphs 4.7-4.9 [REP-098]). They also disagreed with the applicant's choice of displacement scenario.

5.54 NE and NRW / CNC advised that the scenario drawn from the Percival study is the most appropriate (see NE's written representations Annex B, paragraph 113 [REP-090]; and NRW's written representations Annex E, paragraphs 31-32 [REP-090]). The applicant stated that the buffer and displacement scenario used are based on the approach accepted by the Secretary of State in the Kentish Flats Extension decision (see applicant's written response to Deadline I, response to question 1.13, paragraphs 1.13.1-1.13.4 [REP-104]; and the applicant's written response to Deadline III, Appendix 1, speaking notes for Dr Tim Norman [REP-152]).

5.55 The applicant was also of the view that NE accepted the Kentish Flats Extension approach (the applicant's written response to Deadline III, paragraphs 5.12-5.13 [REP-152]; and hearing Document 7 Kentish Flats Extension SoCG with NE [REP-225]) although NE contested this (see NE's written summary of submissions provided during the issue-specific hearing from 19-21 November 2013, paragraphs 15-16 [REP-155]).

5.56 The applicant submitted that the executive summary of the Percival study advises caution in applying the results of the report to other wind farm sites (see the applicant's written response to

Deadline III, paragraph 5.12 [REP-152]; and hearing Document 6: Diver surveys 2009-10 [H1-DOC 6]). NE and the applicant maintained their respective positions at the issue-specific hearing from 28-30 January 2014 (see NE's written summary of oral representations [REP-225] paragraph 11 and the applicant's written response to Deadline V, paragraph 6.4 [REP-205]). NRW concurred with NE's position (see NRW's summary of submissions provided at the issue-specific hearing from 28-30 January 2014, paragraph 5.1 [REP-227]).

- 5.57 In response to my oral questions during the issue-specific hearing from 28-30 January 2014, the applicant provided a further analysis of the potential impacts on *Red-throated diver* which applies a displacement figure for the 2-3 km buffer area (see the applicant's 'Further Submissions in Advance of Issue-Specific hearing' dated 24 January 2014, Appendix 11 [REP-194]).
- 5.58 **Use of density-dependent mortality estimates:**  
The applicant's approach estimates how many birds will be displaced and how that changes bird density in the remaining area of the SPA. The SNCBs recognise that this approach has been used in the Outer Thames Estuary SPA but is concerned in Liverpool Bay that the figures for density-dependent mortality have derived from studies of oystercatcher. Similarities between the two species cannot be tested so there is significant uncertainty about applying the results for *Oystercatcher* to *Red-throated diver* (see NE's written representations Annex B, paragraphs 116-119 [REP-090] and NRW's written representations Annex E, paragraphs 35-37 [REP-096]). During the issue-specific hearing from 19-21 November 2013, NE agreed that in the absence of any alternative data the *Oystercatcher* study could be used but it should be approached with caution because the feeding behaviour of this bird is different from that of *Red-throated diver* (see NE's written summary of submissions provided during the issue-specific hearing from 19-21 November 2013, paragraph 17 [REP-155]). NRW concur with the representations made by NE during the ISH 19-21 November 2013 (see NRW's summary of submissions and evidence provided at the issue-specific hearing from 19-21 November 2013, paragraph 7.1[REP-153]).
- 5.59 The applicant is of the view that displaced birds will relocate to other areas of suitable habitat and that it is unrealistic to assume that all displaced birds will die (see the applicant's written response to Deadline I, Appendix 15, Paper 7 [REP-048]).
- 5.60 The applicant provided a further analysis of density-dependence in *Red-throated diver* (see the applicant's 'Further Submissions in Advance of Issue-Specific Hearing' (24 January 2014), Appendix 11 [REP-194]). The applicant calculated an 'interaction' figure to establish the proportion of the SPA population that would be lost, with one of the parameters being 'P', the proportion of birds unable to redistribute within the SPA population. The applicant



argues that the oystercatcher model supports a 'P' value of less than 0.75 (with a 2km buffer) and less than 0.77 with a 3km buffer. NE agreed that it was unrealistic that all birds displaced from the Burbo Bank Extension Offshore Wind Farm site and buffer would die. They agreed that there was no evidence that the density dependence of *Red-throated diver* was less than that of *Oystercatcher* so the using the oystercatcher model was a reasonably precautionary approach. However, they advised that there was no scientific basis for using a 'P' value lower than 0.75 (see NE's written summary of oral representation made at ISH 28-30 January, paragraph 10 REP-225]). NRW concurred with NE's position (see NRW summary of submissions provided at the issue-specific hearing from 28-30 January 2014, paragraph 5.1 [REP-227]). It is this matter which remains outstanding.

5.61 **Mitigation:**

In response to my oral questions during the issue-specific hearing from 19-21 November 2013, NE stated that they had not been able to identify mitigation measures during discussions with the applicant (see NE's written summary of submissions provided during the issue-specific hearing from 19-21 November 2013, paragraph 21 [REP-155]). This was confirmed during the issue-specific hearing from 28-30 January 2014 (see NE's written summary of oral representation made at the issue-specific hearing from 28-30 January 2014, paragraph 11 [REP-225]). The applicant has also stated that they do not feel that there are any viable mitigation options (see applicant's written response to Deadline V, paragraphs 6.5-6.6 [REP-205]).

5.62 Note (b) to RIES Stage 2 Matrix 4 relates **to in combination collision risk assessments**. The applicant undertook an analysis of displacement effects in combination with other wind farms in the area. 9.36% of the SPA population is predicted to be displaced, with 1.73% of that displacement being caused by the Burbo Bank Extension Offshore Wind Farm (see the applicant's HRA Report, paragraphs 7.5.3-7.5.12 [APP-018]). The SNCBs raised concerns about the data set used for the assessment (see NE's relevant representations, paragraph 4.24 [REP-028] and NRW's relevant representations, Annex 1, paragraph 1.2.4 [REP-031]). Following further discussions with the SNCBs the applicant carried out another in combination assessment based on a JNCC aerial dataset (see the applicant's written response to Deadline I, Appendix 15, Paper 7 [REP-104]). The conclusion of no adverse effect on integrity was maintained by the applicant.

5.63 The SNCBs advised that this new analysis underestimated the cumulative effect because of the displacement buffers being set at 2km and the exclusion of the North Hoyle wind farm, which became operational after the JNCC data was collected (see NE's written representations, Annex E, paragraphs 120-122 [REP-090] and NRW's written representations, paragraphs 38-40 [REP-097]). The RSPB advised that the JNCC method produces a population

estimate for the Burbo Bank Extension Offshore Wind Farm site which is lower than the site-specific data and this discrepancy should be explored. The RSPB also noted that the projects other than wind farms (such as oil exploration) generate boat traffic which might lead to disturbance and these projects should be screened for in combination effects (see RSPB's written representations, paragraphs 4.12-4.14 [REP-098]). The applicant disputes that it is possible or within the scope of the HRA for the Burbo Bank Extension Offshore Wind Farm to deal with the effects of existing commercial shipping (see the applicant's written response to Deadline II, paragraph 3.6 [REP-146]).

5.64 The SNCBs agreed with the use of the JNCC data (see the applicant's written response to Deadline I, Appendix 55, paragraphs 5.34-5.36 [REP-124] and Appendix 57, paragraph 5.21 [REP-126]). At the issue-specific hearing from 19-21 November 2013, the SNCBs agreed that North Hoyle wind farm could be excluded from the analysis (see NE's written summary of submissions provided during the hearing paragraph 14 [REP-155] and NRW's written summary of submissions provided during the ISH, paragraph 7.1 [REP-156]).

5.65 **The applicant's position**

In respect of bird displacement scenarios, the applicant is of the view that an adverse effect on integrity can be excluded because the predicted change in the population is not greater than that consented in other similar cases, most notably the decision in respect of the Kentish Flats Extension Offshore Windfarm. Further, a recent estimate of the SPA *Red-throated diver* population indicates that this currently exceeds the conservation objective population (see applicant's Written Response to Deadline V, Appendix 9, paragraph 29 [REP-191 and REP-192]).

5.66 In respect of population effects due to displacement from the Burbo Bank Extension site in combination with displacement and collision on other sites, the applicant remained committed to the position that at an in combination displacement of 9.36% of the SPA population, less harm was proposed to be done to the *Red-throated diver* population of the Liverpool Bay SPA than the level of harm deemed sustainable and permitted to the relevant population as part of the Kentish Flats Extension decision. If an adverse effect on integrity could be excluded beyond reasonable scientific doubt in that case, then, in logic, it must be excluded here too.

5.67 Further, the applicant contended that its modelled population effects would leave the population in sustainable condition and, because the current population was above the designation population level, there was some 'room for manoeuvre', before the population effects of the development began to be adverse in the sense of reducing the population below the designation level.

- 5.68 Drawing all of these factors together, the applicant was clear that an adverse effect on the integrity of the Liverpool Bay SPA could and should be excluded.
- 5.69 **Interested party positions**  
NE and NRW remained of the view that an adverse effect on integrity cannot be excluded beyond reasonable scientific doubt for the reasons described above (see NE's written summary of oral representation made at the ISH 28-30 January 2014, paragraph 10 [REP225] and see NRW's summary of submissions provided at the issue-specific hearing from 28-30 January 2014, paragraph 5.1. [REP-227]).
- 5.70 Having considered these issues with great care, I **find** that the decision of the Secretary of State to grant a DCO in the Kentish Flats Extension Offshore Wind Farm case is strongly persuasive. That case to a substantial degree turned on the effect on *Red-throated diver*, and many pages of that Examining Authority's report to the Secretary of State are devoted to an analysis of evidence about the effects of an extension wind farm on that species.
- 5.71 Taking similar factors into account there, the Secretary of State considered that he was entitled to grant the DCO at Kentish Flats Extension, because he was satisfied that the level of predicted population effect there would not result in an adverse effect on integrity and that this was beyond scientific doubt. When as in this case, we have:
- evidence that the level of population effect on the *Red-throated diver* would be within the 'envelope' established by the Kentish Flats Extension decision and have a lesser effect; together with
  - evidence that the current *Red-throated diver* population in Liverpool Bay SPA is above the designation level and hence that there is scope for some downwards fluctuation that would be within the normal population range and would enable some loss without an adverse effect on integrity;

I **find** that the application proposal would not take the *Red-throated diver* population in Liverpool Bay SPA below the designation level or adversely affect the sustainability of that level. I further find that the Secretary of State would be able to make an appropriate assessment on the basis of no significant effect on the integrity of the *Red-throated diver* qualifying feature of Liverpool Bay SPA.

**RIES Stage 2 Matrix 7A: Ribble and Alt Estuaries SPA**  
**The *Lesser black-backed gull***

- 5.72 The application site is located some 6km south of the Ribble and Alt Estuaries SPA, of which the breeding *Lesser black-backed gull* is a qualifying feature.

- 5.73 The RIES did not record an unresolved concern in respect of effects on the *Lesser black-backed gull*. However, the RSPB response to the RIES consultation indicated that it did not accept this conclusion - meaning that an unresolved potential for effects on integrity remained and required detailed evaluation in this report.
- 5.74 The outstanding RSPB concern [REP-245] in respect of the *Lesser black-backed gull* is that the integrity of the European Site is threatened due to operational collision risk arising from the application proposal and to operational collision risk arising in combination from other existing, consented and proposed offshore wind farms. To this extent, notes (a) and (b) to RIES Stage 2 Matrix 7A remain disputed by the RSPB.
- 5.75 Note (a) to RIES Stage 2 Matrix 7A relates to **operational collision risk arising directly from the application site**. It records that the applicant undertook collision risk modelling using the Band Model (2012) (see the ES at Chapter 15, paragraph 15.10.5 [APP-034]). Collisions were apportioned between the SPAs for which *Lesser black-backed gull* was a designated feature, located within foraging range of the application site. At a 98% avoidance rate, 164 collisions per annum were predicted for the SPA, which equates to 2% of the SPA population. The outcome of the collision risk modelling was then compared with the Potential Biological Removal (PBR) threshold for the Ribble and Alt Estuaries SPA population.
- 5.76 The applicant concluded that there would not be an adverse effect on integrity from the Burbo Bank Extension Offshore Wind Farm (see the applicant's HRA Report Section 6.8, paragraphs 6.4.1 to 6.4.13 and Annex 2 [APP-018]).
- 5.77 NE had initially highlighted potential impacts on the breeding *Lesser black-backed gull* population of the SPA (see NE's relevant representation, paragraph 4.1.1-4.1.2 [REP-028]). The RSPB advised that they felt that there would be an adverse effect from the Burbo Bank Extension Offshore Wind Farm alone on this feature of the SPA (see the RSPB's written representations, paragraph 5.5 [REP-098]).
- 5.78 Further to oral examination and engagement with NE [PD-011], the applicant updated their collision risk modelling using Band Model options 2 and 3, apportionment of collisions to SPAs and also updated their PBR calculations [REP-191, 192 and 193] [REP-208, 209 and 210]. This work led the applicant to a conclusion that there would be no adverse effect on integrity, a position that was recorded in the RIES and which NE (and NRW / CNC) did not dispute.
- 5.79 Note (b) to RIES Stage 2 Matrix 7A relates to **operational collision risk arising in combination**. The applicant's initial

assessment of in combination effects in relation to the *Lesser black-backed gull* population of the Ribble and Alt Estuaries SPA considered the combined effects of West of Duddon Sands, Walney I and II, Walney Extension, Ormonde and Rhiannon wind farms, using the same methods as for assessing the effect of the Burbo Bank Extension Offshore Wind Farm alone (see the applicant's HRA Report Section 7.5, paragraphs 7.5.13-7.5.19 and Annex 2 [APP-018]).

- 5.80 NE and the RSPB initially advised that the effects of several other wind farms should be taken into account (see NE's relevant representation paragraph 4.1.3 [REP-028] and the RSPB's written representation, paragraph 5.6 [REP-028]).
- 5.81 The applicant's assessment was updated in its written response to Deadline I, Appendix 16, Paper 8 [REP-049] and Appendix 17, Paper 9 [REP-050]. The assessment was further updated and amended in a paper submitted in the ISH hearing on 19-21 November 2013 (see applicant's written response to Deadline III, clarification note on *Lesser black-backed gull* and Morecambe Bay SPA, which also includes consideration of lesser black-backed gull at Ribble and Alt Estuaries SPA [H1 - Doc 1]). The updated assessment used updated population data and added refinements for foraging range and definition and colony size. It also adjusted the predicted level of impact to account for the actual 'built out' size of the wind farms rather than the scenarios assessed in the environmental statements for the individual projects, noting that there is a tendency for original EIA and HRA data for schemes to be based on their maximum Rochdale envelope, whereas what is constructed is typically less extensive than the Rochdale maximum which in turn may result in reduced impacts. A tiered approach was used corresponding to the stage individual wind farms had reached (operational, under construction, going through the consenting process or about to enter the consenting process).
- 5.82 NE raised concerns about the wind farms which could have an effect in combination with the Burbo Bank Extension Offshore Wind Farm, but for which the applicant was unable to find data (Gwynt y Môr, the existing Burbo Bank wind farm, Rhyl Flats, North Hoyle and Barrow). In response to my oral question, NE provided a brief outline of the approach they wanted the applicant to take in assessing in combination effects (see NE's written summary of submissions and evidence provided during the ISH on 19-21 November 2013, Annex A [REP-155]). NE also advised that they were giving further consideration to the choice of the F factor (a value that essentially described population recoverability); for Ribble and Alt Estuaries SPA, where the *Lesser black-backed gull* population is largely stable and therefore an F value of 0.3 would be appropriate (see NE written summary of submissions from ISH on 19-21 November 2013 [REP-155]).

- 5.83 The applicant submitted an updated assessment based on the approach recommended by NE (see applicant's Written Response to Deadline V, Appendix 9, amended version [REP-192]). During the issue-specific hearing on 28-30 January 2014, NE confirmed that they agreed with the applicant's approach apart from the adjustment of historic collision risk mortality to account for colony size changes between the time of the baseline surveys and current colony size estimates (see the applicant's response to Deadline V, Appendix 9, amended version, paragraphs 2.44-2.49 [REP-192]). As the *Lesser black-backed gull* population at the SPA has not declined, NE did not agree with the applicant's proposed adjustment. However, even if this adjustment was not applied to the applicant's calculations, the value of the F factor was less than 0.1 and so NE could agree that there would be no adverse effect on integrity [REP-209] [REP-225].
- 5.84 During the ISH on 28-30 January 2014, I asked how 'Tier 5' wind farms (wind farms for which consenting bodies are expecting an application but for which an application has not yet been submitted) should be dealt with in in combination assessment. The applicant advised that there is a great deal of uncertainty about the data used for calculating the effects from Rhiannon (the only relevant 'Tier 5' project) and that it might be sensible to exclude the effects of 'Tier 5' projects from consideration (audio of ISH 28-30 January 2014, session 1 [HE-28]). NE stated that the impact of the Rhiannon scheme would have to be subjected to the same level of scrutiny as had been applied to the present proposal, and therefore that a fresh view would have to be taken as to the impact of a refined Rhiannon scheme on the relevant European Sites at that stage (see NE's written summary of oral representations, given at the ISH on 28-30 January 2014 [REP-225]).
- 5.85 During the ISH on 28-30 January 2014, I returned to the issue of the effect of 'build out' on in combination assessment. I noted that the applicant's in combination assessment was adjusted to take into account the fact that several of the wind farms were smaller than originally consented. I observed that even if wind farms were constructed at less than Rochdale maximum, there may well still be scope within their granted development consent for additional lawful development, returning them to the maximum impact assessed at the time of their own EIA and HRA processes. I asked the applicant to establish what the implications were for their analysis if any constructed wind farms were subsequently built up to the current limits within their existing consent. The applicant submitted an analysis which stated that there was no capacity for additional development within existing wind farms such that they would be able to build out to their consented capacity (see applicant's Post hearing Note, Appendix 7 [REP-210]).

- 5.86 NE's relevant representation initially advised that the effects of the proposed cull of 552 pairs of *Lesser black-backed gull* (and 475 pairs of *Herring gull*) at the Ribble & Alt Estuaries SPA (the Warton gull cull) should be included in an in combination assessment (see NE's relevant representations, paragraph 4.1.4 [REP-028]). Following further discussions, NE and the applicant agreed that the effect of the Warton gull cull would be to hold the population level at the threshold level of 3,348 pairs. Any mortality resulting from the Burbo Bank Extension Offshore Wind Farm would be likely to lead to a reduction in the numbers of birds culled (as the population will be monitored as part of the cull programme) (see Paper 10: Implications of the BAES Warton Gull Control Measures [REP-051]).
- 5.87 The applicant undertook an updated collision assessment to take account of the reduced population size and reduced collision risk (see NE's written representations, Annex B paragraphs 151-154 [REP-090 - 094]; NE's written summary of submissions provided during the ISH on 19-21 November 2013 [REP-155]; and the applicant's written response to Deadline III, Appendix 18, Paper 10 [REP-051]). The applicant concluded that no adverse effect on integrity would occur. Although NE advised the use of a smaller F factor than the applicant had used (0.3 compared with 0.5), NE advised that even if the applicant's figures were accepted then no adverse effect on integrity was likely (see NE's written representations, Annex B, paragraphs 153-154 [REP-090 - 094]).
- 5.88 At my request, NE supplied a copy of the BAES cull licence issued in July 2013 (see NE's copy of the conditional consent for the cull of lesser black-backed gulls at Warton Aerodrome dated 17 July 2013, accepted at the ISH on 20 November 2013 [H1 - Doc 8]).
- 5.89 The RSPB advised that, in addition to the work the applicant has done in Paper 10 [REP-051], the applicant should also consider what would happen if the cull ends in 2023, when the current consent ends and what would happen if the cull is extended beyond 2023. This would require an extended Population Viability Analysis as the PBR does not predict changes in populations.
- 5.90 In the RSPB's view, if the estimated collision risk mortality exceeded the PBR it might lead to further suppression of the population, even if culling is halted, unless immigration occurred. The RSPB agreed that it would be justifiable to re-run the collision risk model for a smaller population size (see RSPB's written representations paragraphs 5.18-5.25). They also advised that the Nmin value used in the PBR should be 7569 individuals (see RSPB's written representations Annex B, response to question 1.19) [REP-028].
- 5.91 **The applicant's position**  
The applicant's response to both of the RSPB's outstanding concerns can be articulated as follows:

- In part as a consequence of the need to address the effects of the application proposal in combination with (amongst other projects and proposals) the consented Warton gull cull, substantial analysis was undertaken for the applicant during the examination, reviewing the conservation status of the gull. This includes the work set out in Paper 10: Implications of the BAES Warton Gull Control Measures [REP-051].
- The conclusion of that work in combination is that, even when the effects of the consented Warton gull cull are taken into account, the Ribble and Alt Estuaries SPA breeding population of *Lesser black-backed gull* is not expected to experience direct or in-combination mortality that would take its population below a sustainable level.
- The conditional nature of the consented Warton gull cull [H1-Doc 8] is such that, should wind farm related mortality exert a pressure on the population to the point that it dipped below the threshold of 3,348 pairs, culling at Warton would cease. As such, there is a direct control in place to prevent unsustainable mortality pressure arising from a combination of the effects of the consented Warton gull cull taken together with the effects of all wind farms.
- NE have given careful consideration to the results of the applicant's *Lesser black-backed gull* analysis. They participated in two natural environment and HRA issue-specific hearings at which this issue was examined orally and where both the applicant and NE brought their expert witnesses to the table. NRW / CNC did not dispute findings that are relevant to Wales from the standpoint of in combination assessment.
- The RSPB's position rests on written representations alone. The RSPB was invited to attend the issue-specific hearings but did not attend. As a consequence, the positions adopted by it and the conclusions of its expert advisors have not been tested to the same degree and should not enjoy the same weight as evidence provided by expert witnesses from the applicant and NE which have been subject to rigorous testing, including through oral questioning at the issue-specific hearings.

5.92 The applicant has not proposed any mitigation or alternatives in respect of effects on the integrity of the Ribble and Alt Estuaries SPA due to raised direct and in combination collision mortality effects on the *Lesser black-backed gull*. Its position is that no such mitigation or alternatives are required.

5.93 I **find** the applicant's position here to be strongly persuasive. The position on the Ribble and Alt Estuaries SPA and on direct and in combination collision mortality effects on the *Lesser black-backed gull* is one that was subject to intense scrutiny including the testing of applicant and SNCB expert evidence through the oral examination process. It became the subject of additional analysis [REP-051] which has been tested orally, the conclusions of which



are accepted by the SNCBs. This work suggests that the application proposal will not lead to an effect on the integrity of the Ribble and Alt Estuaries SPA due to raised direct and in combination collision mortality effects on the *Lesser black-backed gull*. I prefer and accord higher weight to the applicant's and the SNCBs' position and evidence on this point to that of the RSPB, which I also agree has not been sufficiently tested to entitle it to be accorded greater weight, due to that body having no involvement in the oral components of the examination process. I also note and place weight on the SNCBs role as statutory advisors in relation to this subject matter.

- 5.94 I **find** that the Secretary of State would be able to make an appropriate assessment on the basis of no effect on the integrity of the Ribble and Alt Estuaries SPA relating to the *Lesser black-backed gull* feature of that site.

#### **Other HRA-related effects of the project as a whole**

- 5.95 NRW / CNC made oral and written submissions [REP-249] to flag that there was a potential concern relating to the effects of cable installation works in Welsh territorial waters and subject to the Welsh marine licence and its HRA process.
- 5.96 Both the rafting *Common scoter* alone and the *Common Scoter* as part of an assemblage of over 20,000 waterbirds are qualifying features of the Liverpool Bay SPA, an extensive marine area which occupies Welsh as well as English territorial waters. The draft Welsh marine licence HRA report indicates (without prejudice to the outcome of the Welsh application and HRA processes) that '*[s]ignificant effects arising from disturbance caused by vessel movements during cabling works cannot be ruled out*' [REP-249].
- 5.97 From inquiries made in oral examination, I understand that the reason why this issue arises in Welsh but not in English territorial waters is that the habit of scoter 'rafting' in groups on the water surface occurs in inshore waters. It follows that disturbance is only relevant at locations close to the landfall point of the marine grid connection cable. It is not relevant to cabling works associated with inter-array cabling or with grid connection cabling in English territorial waters which are deeper and further offshore.
- 5.98 It should also be noted that, subject to the exercise of discretion in a decision on the Welsh marine licence, NRW / CNC anticipate that a condition to that licence could deliver appropriate mitigation [REP-249 at pg 49]. Export cabling works are suggested as needing to be prohibited between latitude 53 degrees 23 minutes North and mean low water during a period between 16 December and 31 March (inclusive). This would avoid impacts to wintering scoters during that period. It is suggested that the applicant would also produce a vessel routeing plan (to be agreed by NRW / CNC) which would ensure that routeing avoided impacts to

wintering scoter between 1 October and 15 December, and also avoid impacts to moulting scoter from July until September. Works would need to be delivered in accordance with the condition.

- 5.99 The *Sea Lamprey* (*Petromyzon marinus*) and the *River lamprey* (*Lampetra fluviatilis*) are both qualifying features of the Dee Estuary SAC and the Dee Estuary and Bala Lake SAC. The draft Welsh marine licence HRA report indicates (without prejudice to the outcome of the Welsh application and HRA processes) that '[s]ignificant effects arising from EMF interactions with migrating lamprey can not [sic] be ruled out' [REP-249].
- 5.100 From inquiries made in oral examination, I understand that the reason why this issue arises in Welsh but not in English territorial waters is that these features are relevant to designated sites in Welsh waters. That being said, both species are mobile and prospectively present in English waters in which cable works proposed to be permitted under the DCO can take place, prior to or after their movement into Welsh waters.
- 5.101 It should be noted that, subject to the exercise of discretion in a decision on the Welsh marine licence, NRW / CNC anticipate that an appropriate condition to that licence could deliver appropriate mitigation [REP-249 at pg 50] a cable specification and installation plan (to be agreed by NRW). The plan is suggested to include:
- a technical specification of the offshore cables including a desk- based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice; and
  - a detailed cable laying plan, incorporating a burial risk assessment to ascertain suitable burial depths and cable laying techniques.

Works would need to be delivered in accordance with the plan.

- 5.102 It should also be noted that draft DML conditions 11 proposed to apply in English territorial waters enable pre-construction surveys and monitoring and the submission and agreement of details sufficient to secure cross border mitigation, should it be suggested that this is necessary. I do however **recommend** that the MMO should undertake close liaison with both SNCBs (NRW / CNC and NE) to ensure that any possible cross-border survey, monitoring and mitigation is put into effect through the discharge of these conditions.
- 5.103 It should be noted that these are not matters that the Secretary of State can consider directly in his appropriate assessment. It follows that I have not inquired into the specifics of potential mitigations or alternatives to manage these issues, although I am generally satisfied that (in respect of the rafting *Common scoter*

both individually and as part of the seabird assemblage), additional mitigation will not be required in English waters or (in respect of the *Lamprey* species) that mechanisms provided for in the draft DML conditions would enable cross border surveys, monitoring and mitigation through the submission of appropriate details. However, as matters relevant to a SPA which straddles the marine border between England and Wales and/or in respect of qualifying features that range freely between England and Wales, I considered that it was necessary for the Secretary of State to be made aware of them in this report.

### **Outcomes of in-combination assessment**

- 5.104 The matters that I have reported and made findings on in Chapter 5 above take full account of in-combination assessment. Effects arising from the application proposal in combination with other relevant projects and proposals have been fully considered. Effects on species in combination in respect of multiple European Sites both within and beyond England and English territorial waters have been fully considered.
- 5.105 In respect of in-combination effects arising across the border between England and Wales, my findings take full account of the decision by Denbighshire County Council / Cyngor Sir Ddinbych to grant planning permission for the onshore grid connection [REP-206]. In respect of in-combination effects arising across the border between English and Welsh territorial waters, my findings take full account of a draft in-combination assessment submitted by NRW/ CNC [REP-249 from pg 51] but must be noted in all cases as being reached without prejudice to the exercise of discretion by the Welsh decision-maker.

### **HRA CONCLUSIONS**

- 5.106 Taking all of the substantial body of representations provided to me in writing and by way of oral submissions and evidence on HRA matters into account, I conclude as follows.
- 5.107 The applicant has undertaken an extensive, precautionary and rigorous HRA evaluation in its application documentation and has supported this by undertaking the additional work requested of it during the examination. The applicant has also engaged effectively and taken careful account of extensive advice from the SNCBs (NE and NRW / CNC), both of which have substantially assisted the examination process.
- 5.108 The potential for adverse effects on site integrity arising from the application proposal on 34 European Sites has been tested. This work has led to undisputed conclusions that the application proposal will not lead to effects on site integrity on the following 32 European Sites:
- Aberdaron Coast and Bardsey Island SPA;

- Bowland Fells SPA;
- Cardigan Bay SAC;
- Copeland Islands SPA;
- Dee Estuary SPA;
- Dee Estuary Ramsar site;
- Dee Estuary SAC;
- Duddon Estuary Ramsar site;
- Duddon Estuary SPA;
- Eileanan agus Sgeiran Lios Mór SAC;
- Lleyn Peninsula & the Sarnau SAC;
- Menai Strait and Conwy Bay SAC;
- Mersey Estuary SPA;
- Mersey Estuary Ramsar site;
- Mersey Narrows and North Wirral Foreshore SPA<sup>39</sup>;
- Mersey Narrows and North Wirral Foreshore Ramsar site<sup>40</sup>;
- Morecambe Bay SPA;
- Morecambe Bay Ramsar site;
- Murlough SAC;
- Pembrokeshire Marine SAC;
- Ribble and Alt Estuaries Ramsar site;
- River Dee and Bala Lake SAC;
- Roaringwater Bay and Islands SAC;
- Sefton Coast SAC;
- Shell Flat and Lune Deep SAC;
- Skerries and Causeway SAC;
- Skokholm and Skomer SPA;
- South-East Islay Skerries SAC;
- Strangford Lough SAC;
- The Maidens SAC;
- Upper Solway Flats and Marshes SPA; and
- Upper Solway Flats and Marshes Ramsar site.

5.109 Further to a NRW / CNC consultation about proposals to extend European Site areas and amend conservation objectives for 3 sites in Wales, it has been clarified that the application will not lead to effects on site integrity on the following prospectively amended European Sites:

- Aberdaron Coast and Bardsey Island SPA;
- Skokholm and Skomer SPA; and
- Grassholm SPA.

This is a process which, through additional reference to Grassholm SPA has increased the number of evaluated European Sites to 35.

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<sup>39</sup> Mersey Narrows and North Wirral Foreshore SPA and

<sup>40</sup> Mersey Narrows and North Wirral Foreshore Ramsar site are both referred to in the applicant's HRA report as potential designations (pSPA and pRamsar). However, by the commencement of my examination, both had been formally designated.

5.110 By the end of the examination there were two European Sites in respect of which there were outstanding disputed conclusions about effects on site integrity:

- Liverpool Bay SPA, in respect of displacement effects on the wintering *Red-throated diver*; and
- Ribble and Alt Estuaries SPA, in respect of direct and in combination collision mortality effects on the *Lesser black-backed gull*.

However, further to my review of representations and evidence in respect of both sites and their features, I **find** that in neither case will there be any effect on integrity, either individually or in combination.

5.111 In respect of all European Sites, I have given careful consideration to NPS EN-1 paragraph 5.3.9 and to NPS EN-3 paragraphs 2.6.58 to 2.6.71. There are no matters arising from those policies that have not been fully addressed. In respect of Liverpool Bay SPA I take specific note of NPS EN-3 paragraph 2.6.69 which makes clear that the designation of a European Site does not necessarily restrict the construction or operation of an offshore wind farm in or near that site.

5.112 Further, having regard to the draft conclusions of the RIES together with all relevant evidence and consultation responses, I **find** that the integrity of the Natura 2000 network of European Sites will be maintained.

5.113 It follows that I **find** that the Secretary of State is entitled to complete an appropriate assessment on the basis of the available evidence. It is my view that no further steps in the consideration of effects on European Sites were required to be taken during the examination (such as the consideration of additional mitigations, consideration of alternatives or IROPI).

5.114 There is no reason arising from the consideration of effects on European Sites why the DCO should not be granted as recommended in this report.

## **6 EFFECTS ON LAND, INTERESTS IN AND RIGHTS OVER LAND**

- 6.1 This chapter of the report considers the effects of the application proposals in terms of the acquisition of land, interests in and rights over land. It includes consideration of compulsory acquisition, the protection of statutory undertakers and other special procedures under Part 7 Chapter 1 of the PA2008. It considers the position in respect of Crown land. It also sets out conclusions in respect of the engagement of the Human Rights Act 1998.
- 6.2 References to land in this chapter are to land both in its conventional meaning as onshore or dry land and also to land forming the sea bed and to the water column above it.

### **COMPULSORY ACQUISITION**

- 6.3 The submitted application proposes development in the marine area, on and in the water column and airspace above the sea bed. It does not contain any onshore elements within England.
- 6.4 Section 13 of the Application Form [APP-002] indicates that the proposed development consent order does not seek powers for the compulsory acquisition of land or interests in land or rights over land within the proposed development consent order area. I have reviewed the application and the proposed development consent order and agree with this indication. Further, having regard to the nature of the proposal I am also satisfied that no such powers are necessary for its delivery.
- 6.5 It should be noted that on this basis no Book of Reference was submitted with the application. This is a matter to which I return below in considering Crown land.
- 6.6 Related proposals for a grid connection include proposals relating to land and rights over land in Wales which give rise to the need for the acquisition of land, interests in and rights over land [REP-206]. However, these proposals do not form part of the application that I have examined and which is the subject of this report.

### **THE PROTECTION OF STATUTORY UNDERTAKERS AND OTHER SPECIAL PROCEDURES**

- 6.7 PA2008 Part 7 Chapter 1 contains a number of special provisions and procedures to protect the interests of (amongst others), statutory undertakers and local authorities in their operational land, land held by the National Trust, public open spaces and allotments.
- 6.8 I note that on the basis of the circumstances set out in paragraph 6.3 and 6.4 above, the applicant did not pursue any of these procedures. Having examined the application, I **find** that it has no implications for any persons or interests relevant to any of these

procedures. It follows that I am satisfied by the applicant's course of action.

## **CROWN LAND**

- 6.9 The application was accompanied by a Plan Showing Crown Land [APP-010], making clear that (as in normal for offshore wind farm development) all sea bed within the proposed development consent order area is Crown land. This land is comprised within the Crown Estate.
- 6.10 An applicant seeking powers to acquire land or interests in or rights over land compulsorily is not the only trigger for the provision of a Book of Reference. Under Regulation 7(1)(d) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, Part 4 of a Book of Reference is required to specify the owner of any Crown interest in the land which is proposed to be used for the purposes of the order for which application is being made. This requirement applies regardless of whether any compulsory acquisition powers are being sought in relation to that land, an approach which is also made clear in DCLG compulsory acquisition guidance<sup>41</sup>. It is therefore technically correct that the application should have included a Book of Reference.
- 6.11 Although there would have been no other substantive content, a Book of Reference would have include a Part 4 which would have specified the Crown Estate as the owner of a Crown interest in the land proposed to be used for the purposes of the order for which the application was made.
- 6.12 I have considered whether the absence of a Book of Reference in these circumstances should indicate against the approval of the application. I have asked questions to test the effects of the application on Crown land, examining the readiness of the Crown Estate to grant a lease and to consent to all provisions in the development consent order relevant to it, as required by PA2008 s135(2). I have also considered the approach taken by the Secretary of State in deciding to make the development consent order for Triton Knoll Offshore Wind Farm, where an application was made without a Book of Reference in similar circumstances to those which apply here.
- 6.13 In relation to the Crown Estate, my first written questions sought confirmation that it was willing to issue a lease over the draft development consent order area if the order were to be granted by the Secretary of State [PD-008 at question 18.1]. I also asked whether the Crown Estate would be able to give the requisite

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<sup>41</sup> Planning Act 2008: procedures for the compulsory acquisition of land', DCLG, 3 September 2013 at Annex D para 5.

consent under PA2008 s135(2) before the close of the examination.

- 6.14 In responding to my first written questions [REP-086] at Deadline I, the Crown Estate confirmed that a conditional agreement for lease had been entered into with the applicant, subject to the achievement of the relevant consents, key amongst which is the Secretary of State's decision on the proposed DCO. It confirmed the extent of the sea area subject to the conditional agreement for lease as being the materially the same as the proposed development consent order area [REP-087]. Minor concerns relating to the correct form of coordinates for use in defining the order area are addressed in Chapter 7 below. However, at that point there were still other outstanding matters relating to the proposed drafting of the DCO which meant that the Crown Estate was not yet able to provide consent under PA2008 s135(2).
- 6.15 Noting that negotiations between the applicant and the Crown Estate on the relevant drafting were on-going for quite some time and that a still conditional letter of consent under PA2008 s135(2) was submitted on 4 February 2014 [REP-224], I revisited this issue in my second written questions [PD-027 at question [2]18.1], asking whether or not the consent could be made unconditional. A response from the Crown Estate was submitted via the applicant for Deadline VI [REP-235]. This confirmed the Crown Estate's satisfaction with the drafting of the development consent order at that point, indicating that consent under PA2008 s135(2) was now only conditional on draft article 11 (as shown in the Examining Authority's Draft Development Consent Order [PD-028]) and any other provisions of the order affecting the interests of the Crown remaining materially unchanged.
- 6.16 The applicant has not requested any subsequent changes to draft article 11 of the DCO or to any other provision relevant to the interests of the Crown. I do not recommend any changes to draft article 11 or to any other provision relevant to the interests of the Crown either here or in Chapter 7 of this report below. It follows that I **find** that there are no remaining issues relating to the Crown's interests in or rights over land that require to be taken into account in the Secretary of State's decision.
- 6.17 I have also considered the decision of the Secretary of State to make the development consent order for the Triton Knoll Offshore Wind Farm. The draft DCO submitted with that application did not include powers for the compulsory acquisition of land or interests in land or rights over land within the proposed development consent order area, on the basis that the applicant had yet to finalise the location and design detail of the grid connection, which was to be the subject of a subsequent development approval.
- 6.18 As in this case, the proposed development consent order area was exclusively marine. No dry land was included in it and none was



sought to be acquired. The marine area within the order limits was the subject of a conditional agreement for lease from the Crown Estate and there was no other interest in land involved.

- 6.19 Although a Book of Reference should again have been provided, the Triton Knoll application did not include one. The Panel Report recommended and the decision letter and statement of reasons issued on 11 July 2013 accepted that the DCO should be made. The absence of a Book of Reference was not identified as a matter of concern in the recommendation report or the decision and the applicant was not requested to provide one at any stage in the examination, recommendation or decision-making processes.
- 6.20 Taking that process and decision into account, I **find** that, although there is a formal requirement for a Book of Reference in this case, no harm has been done by its absence. In circumstances where the only substantive reference within it would be to the Crown Estate, but where the Crown Estate has separately confirmed its satisfaction with and consent to the application proposal, there is no reason to require a Book of Reference to be produced.

#### **HUMAN RIGHTS CONSIDERATIONS**

- 6.21 I have considered whether any rights provided under the Human Rights Act 1998 and derived from the European Convention on Human Rights are engaged by the application proposal that I have examined. On the basis of the absence of compulsory purchase powers from the draft development consent order and the absence of relevant concerns from all representations made to me, I **find** that none are engaged.

#### **CONCLUSION**

- 6.22 In summary, I note the absence of compulsory acquisition proposals from this application and the absence of any need for special procedures under Part 7 Chapter 1 of PA2008. I have considered the absence of a Book of Reference from the application and find that, although one is technically required to record the interest of the Crown Estate, I have taken steps to assure myself that the application does not harm any Crown interests. No practical need or benefit would now be served by the submission of a Book of Reference. Finally, I am satisfied that the application does not engage any rights provided under the Human Rights Act 1998.
- 6.23 Taking these matters into account I **recommend** that no changes need to be made to any of the submitted application documents to respond to the effects of the application proposal on land, interests in or rights over land.

## **7 DRAFT DEVELOPMENT CONSENT ORDER**

7.1 This chapter of the report addresses the Development Consent Order.

7.2 It contains two main parts:

- **Part A:** 'From the Application to the Applicant's Preferred Revised Draft' summarises changes proposed during the early part of the examination, up to and including the DCO issue-specific hearing.
- **Part B:** 'Towards the Recommended Draft DCO' addresses a second stage, in which I sought written representations from the applicant and interested parties a revised draft DCO that I issued, taking all matters raised up to that point into account. It forms the basis of my Recommended Draft DCO, which is included as Appendix F to this report.

### **PART A: FROM THE APPLICATION TO THE APPLICANT'S PREFERRED REVISED DRAFT**

7.3 The applicant submitted a draft DCO [APP-011] and explanatory memorandum [APP-012] with the application.

7.4 Before the issue-specific hearing on the DCO, written representations, responses to my written questions and the statement of common ground process had led the applicant to propose a range of amendments to this version of the DCO to address issues that had been raised. These changes included:

- Versions 2 [APP-088] and 3 [APP-091], implementing the applicants proposed increase of installed capacity by 1 MW, changes to the structure of the DCO to include a separate generation assets DML and transmissions assets DML and minor drafting revisions.
- Version 4 [APP-094] with revisions to address progress in negotiations with interested parties submitted in preparation for the DCO issue-specific hearing. Interested parties at the hearing were content with using this version for oral examination purposes and hence it became the basis against which my oral questions were put and from which subsequent versions were developed.

7.5 Inputs were made in oral submissions at the DCO issue-specific hearing, in relation to issues raised by NRW / CNC and the MMO. Relevant documents submitted by these bodies after the hearing and summarising their positions are REP-226, REP-227 and REP-228, provided at Deadline V (5 February 2014).

7.6 Following the DCO issue-specific hearing, the applicant issued a further Version 5 consolidated draft DCO [APP-097] at Deadline V, taking the issues raised at the hearing into account. It provided a

tracked changes version [APP-098] and responses to oral submissions, setting out the degree to which they supported particular requested changes or not [REP-205].

- 7.7 A key document provided for Deadline V was a draft marine licence relating to grid connection works in Welsh territorial waters<sup>42</sup> (the draft Welsh Marine License or WML), submitted by NRW / CNC [REP228].
- 7.8 I initially sought the tabling of a draft WML by the DCO issue-specific hearing, as confirmed in my Rule 8 Letter procedural decision [PD-003]. My rationale for seeking the draft WML at this time was to ensure that, to the extent that there were any matters that required to be managed across the marine border between England and Wales, at best 'handshake provisions' were included in a recommended DCO, or at least I was in a position to assure the Secretary of State that, without prejudice to the position of the Welsh decision-maker, a recommended DCO and a draft WML did not contain conflicting provisions.
- 7.9 NRW / CNC had raised concerns with me, that the provision of a draft WML during the tenure of my examination was not appropriate. On 7 January 2014, it wrote to me [REP-180] suggesting that: *'[d]ue to ongoing determination of the [WML] application, we do not have a draft Marine Licence prepared at this stage. As a result of the separate legal requirements for the Development Consent Order (DCO) and Marine License in Wales, NRW will be unable to provide any such draft Marine Licence. This will avoid any issues associated with bias and predetermination.'*
- 7.10 I raised concerns at the DCO issue-specific hearing that, in the absence of the contribution that I had sought in the Rule 8 letter, I might have to make recommendations to the Secretary of State, unsighted on the possible form or content of the draft WML. In contrast, a Welsh decision-maker would be able to see and could take into account the various iterations of the draft DCO and DMLs proposed for English territorial waters. It appeared to be in the public interest that both procedures were as transparent to each other as they were capable of being in law. Further, there appeared to be no reason in law why a draft WML could not be disclosed. As long as any draft was caveated, ensuring that it was issued without prejudice to the exercise of discretion by the final decision maker, it would inform and add value to both processes.
- 7.11 NRW / CNC reconsidered its position and undertook to provide a without prejudice draft WML, but was unable to do so until Deadline V.

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<sup>42</sup> NRW / CNC Welsh Marine Licence Application 13/17 - Burbo Bank Windfarm Extension Electricity Export Cable.

- 7.12 A second key document with a bearing on the draft DCO submitted at Deadline V was the grant of planning permission for onshore grid connection works in Denbighshire / Sir Ddinbych<sup>43</sup> [REP-206].
- 7.13 I took the applicant's Version 5, the draft WML, the grant of planning permission for onshore grid connection works in Denbighshire / Sir Ddinbych and relevant interested party responses into account before issuing an Examining Authority version of the draft DCO (the ExA DCO) [PD-028]. This sought to draw submissions together and seek views on the form of DCO that I might recommend.
- 7.14 On the basis that no further significant issues of principle were raised between the applicant and any interested party at the DCO issue-specific hearing, or by the applicant and any interested party in respect of the ExA DCO, and that the iterations of the draft DCO prior to this point have to a large extent passed into history, I do not analyse those documents in any further detail here.

**PART B:  
TOWARDS THE RECOMMENDED DRAFT DCO**

- 7.15 This part sets out my detailed reasoning on all changes proposed, in response to issues which arose from my version of the DCO [PD-028] and responses to it.
- 7.16 It takes account of representations made for Deadline VI (13 March 2014) by the applicant in a draft DCO Version 6 with commentary [APP-099 - 101] prepared in response to my DCO. It takes account of written representations [REP-230 - 242] from the applicant and from other interested parties (NE [REP-243-244], RSPB [REP-245], MMO [246], NRW / CNC [REP-247 - 249], MoD [REP-250-251] and Lancashire County Council [REP-252]). It also takes account of comments on the Deadline VI documents, submitted for Deadline VII on 25 March 2014.
- 7.17 All references are made to the applicant's draft DCO Version 6. Which is provided as a draft [APP-099], a set of tracked changes [APP-100] and as a commentary on my DCO [APP-101]. Whilst superficially the applicant appears to propose a large number of tracked changes from my draft, the majority of these changes are:
- non-substantive changes, to place the DCO into conformity with the Statutory Instrument template;
  - non-contentious or non-substantive changes to remedy minor technical drafting concerns which do not materially affect the examined proposal; or
  - confirmation of non-contentious changes requested by me in the notes to my draft DCO, for example to confirm the

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<sup>43</sup> Decision Notice of Denbighshire Council / Cyngor Sir Ddinbych dated 20 November 2013 (ref 31/2013/0400PF)

number of a drawing, the correct reference to a document or disposal work site, or the locations where copy plans can be inspected.

- 7.18 Having considered the very limited number and scope of interested party responses to the applicant's draft DCO Version 6 submitted at Deadline VII (25 March 2014) [APP-099 - 101], I am satisfied with and **recommend** all of these minor changes, other than the exceptions that I specifically identify in the following paragraphs.
- 7.19 The remainder of this part addresses the draft DCO components as follows:
- **articles** (articles 1 - 13);
  - **authorised development** (Schedule 1, Part 1);
  - **ancillary works** (Schedule 1, Part 2);
  - **requirements** (Schedule 1, Part 3);
  - **form of the DMLs**;
  - **monitoring fees and charges** in the DMLs;
  - **generation assets DML** (Schedule 2); and
  - **transmission assets DML** (Schedule 3).

### Articles

- 7.20 The principal powers proposed to be granted in the draft DCO articles are as follows:
- to carry out the authorised development (including associated development) and ancillary works relating to the construction of an offshore wind farm and elements of its grid connection in English territorial waters (the authorised project) within the order limits;
  - to maintain the authorised project;
  - to operate proposed Work No 1 (a)<sup>44</sup> as a generating station;
  - to transfer the benefit of the order (subject to the Secretary of State's consent and excluding the benefit of the DMLs);
  - to extinguish public rights of navigation over the physical location of wind turbine generators and the offshore substation; and
  - to deem the grant of separate marine licences (the DMLs) for generation and transmission assets.
- 7.21 These powers are subject to:
- a power in the Secretary of State to serve an abatement notice requiring the undertaker to repair, restore or remove any abandoned or decayed works;
  - saving provisions for Trinity House and the Crown;

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<sup>44</sup> See para 7.49 below for a full description of the proposed works.

- the certification of plans, an ornithological survey document and the ES by the Secretary of State; a provision enabling arbitration (where necessary) by a person appointed between the parties or, failing agreement between the parties, by the Secretary of State; and
  - all relevant provisions in requirements and the DMLs.
- 7.22 It should be noted that these powers are to be exercised only at sea and hence there are no provisions empowering compulsory acquisition or invoking any of the special procedures under Part 7, Chapter 1 PA2008.
- 7.23 I make brief observations below about the definitions in article 2, provisions protecting the positions of Trinity House and the Crown. Detailed observations are necessary in respect of three articles only:
- article 6 - relating to the benefit of the order;
  - article 12 - relating to the certification of plans and other documents; and
  - article 13 - relating to arbitration.

### ***Definitions***

- 7.24 The draft definitions in article 2 were examined orally at the DCO issue-specific hearing and a number of refining amendments emerged in my draft DCO [PD-028], in summary:
- further to MMO oral submissions, simplifying the definition of 'commence' to confine it to operations that are relevant in the marine environment;
  - removing the definition of 'decision-maker' as being superfluous, where the term 'Secretary of State' is also defined and used in the draft; and
  - amending the definition of 'Secretary of State' to include his function of deciding the application under s103 PA2008 within it.
- 7.25 In respect of the definition of 'maintain', this was thoroughly reviewed with reference to the applicant's document auditing the consent status of operation and maintenance activities [REP-186]. This audit led to the conclusion that it was appropriately drafted and that activities beyond the project Rochdale envelope and the scope of normal maintenance would require to be the subject of subsequent marine licence applications in due course.
- 7.26 As an outcome of the oral examination process, interested parties (particularly the MMO) and the applicant were content with the definitions included in the draft DCO Version 6.

***Protective provisions -  
for Trinity House (article 10) and the Crown (article 11)***

- 7.27 Article 10 provides that '[n]othing in this order prejudices or derogates from any of the rights, duties or privileges of Trinity House.' In its relevant representation [REP-025], Trinity House notes and welcomes this saving provision, a position that is confirmed with reference to its statement of common ground [REP-116]. I am satisfied with this provision.
- 7.28 Article 11 protects the rights of the Crown. In my first round of written questions [PD-008, matter 8.1], I asked the Crown Estate to confirm that it would be able to give the requisite consent under s.135(2) of the Planning Act 2008 before this application is determined. In its response to my questions [REP-086], the Crown Estate indicated that its consent would be conditional upon the inclusion of its preferred drafting in article 11. The applicant subsequently amended article 11 to conform to the form of words in the Crown Estate response and draft DCO Version 6 [APP-099] maintains this change.
- 7.29 On 7 March 2014, the Crown Estate wrote to the applicant [REP-235], confirming that on the basis that article 11 remains as set out in draft DCO Version 6 [APP-099] it has no remaining concerns. I have considered this proposed revision and, as no other concerns arise in respect of it, I am satisfied with and recommend this provision.

***Article 6 - Benefit of the order***

- 7.30 This draft article was the one article in respect of which unresolved concerns about powers and drafting persisted to the end of the examination. The remaining concern relates at its root to the different approaches taken to the transfer of benefit in a DCO under PA2008 and in a marine licence under the Marine and Coastal Access Act 2009. Where a DCO includes one or more DMLs (as in this case), the approach taken to the transfer of benefit and consistency between the DCO and DMLs becomes a matter of interest to the MMO.
- 7.31 The applicant (in common with a number of offshore wind farm applicants) has been seeking means of enabling the benefit of provisions relating to the transmission assets proposed to be authorised under the draft DCO to be transferred, because it is intended that whilst the transmission assets may be constructed as part of a common construction process with the offshore wind farm, they would be owned and operated by an OFTO. Because the MMO maintained throughout the examination that the benefit arising under part of a marine licence cannot be transferred, the solution to this technical concern has been agreement between the applicant and the MMO that the draft DCO should contain two DMLs - one for generation assets and one for transmission assets.

This would facilitate the transfer of benefit of transmission assets to an OFTO, without causing the part transfer of a marine licence.

- 7.32 Responses to oral questions at the DCO issue-specific hearing and to the note to draft article 6 in my DCO [PD-028] indicate agreement between the applicant and the MMO that the applicant does not need or propose to transfer part of the benefit of either the generation DML or the transmission DML [APP-101]. It is agreed that the two DML approach is broadly operationally and legally sound [APP-101] [REP-246].
- 7.33 However, although it has endorsed the two DML approach, the MMO has made a number of representations (Deadline III [REP-141], Deadline V [REP-226], Deadline VI [REP-246] and Deadline VII [REP-256]) seeking changes to the transfer of benefit provided for in article 6, which in its view limits its enforcement powers as currently drafted. The MMO's remaining concern rests with the drafting of article 6(4) (b), which it has requested should be deleted.
- 7.34 The MMO's reason for this request is that article 6(4) (b) provides that the transferred benefit would reside exclusively with the transferee (anticipated to be the OFTO operator of the transmission assets) and hence breach would not be enforceable against the undertaker (anticipated to be the developer / operator of the offshore wind farm generation assets), unless the relevant breach occurred before the time of transfer. In the MMO's view (see [REP-226] at pg 3 para 5), because the transmission assets DML would in principle bind and continue to be enforceable against both the OFTO and the developer irrespective of any transfer of benefit, it is necessary and appropriate that drafting in article 6 should not conflict with this position. It seeks what amounts to a joint and several power of enforcement.
- 7.35 The applicant has quite strongly and repeatedly disagreed with this position. It continues to take the view that once assets have been transferred to an OFTO, the developer / generation operator's liability for enforcement following any breach that is relevant to the transmission assets alone should cease, unless the liability arose before the time of transfer. It seeks what amounts to a severable power of enforcement.
- 7.36 The most recent and simplest exposition of the applicant's position is set out in its response to Deadline VII [REP-254], where it says (at page 9):

*'...the purpose of Article 6(4)(b) is to ensure that the parties to the OFTO process have a clear understanding of when their liability under the DMLs starts and finishes. This limits the need and scope for contractual warranties and indemnities between the developer of the Project and the OFTO. Article 6(4)(b) clarifies that once the transfer has taken place, the DML relating to the transmission*



*assets vests in the transferee, i.e. the OFTO, and the provisions of that DML shall not be enforceable against the original licensee, i.e. the developer of the Project. This is beneficial to all parties because it is clear that the OFTO is liable for any breaches of the transmission assets DML, and it is clear as to against whom the MMO could and should take enforcement action in the event of a breach of the conditions of the DMLs. Therefore the deletion of Article 6(4)(b) is not agreed by the Applicant.*

- 7.37 Having considered these two positions, I consider that the approach suggested by the applicant offers the greatest certainty and clarity. Utilising the applicant's approach, all enforcement capability and effect would be apparent on the face of the DCO and DMLs and in the public domain. Enforcement outcomes would not depend on the content of (unseen) contractual warranties and indemnities that would be most likely to have the effect of transferring effective liability to the OFTO in any case. That such private law arrangements would be entered into is the almost inevitable consequence of the applicant's concern to minimise the generation operator's exposure to liabilities and contingent commercial risks that arose outside its responsibility and control.
- 7.38 Under the applicant's proposed drafting, the MMO would lose the potential capability to enforce against both the OFTO and the generation operator for a breach relating to the actions of the OFTO. But, as is clear from the applicant's submissions, the effect of contractual warranties and indemnities between the generation operator and the OFTO would be to transfer effective liability to the OFTO in any case.
- 7.39 Furthermore, having considered the nature of the two undertakings at issue here, there does not seem to be much value in the MMO retaining an ability to proceed against the one to remediate the failings of the other.
- 7.40 Whilst such an approach is not alien to planning and environmental law, it is of most relevance where an element of an operation is contracted out, but the nature of the combined operation and the site are such that it is difficult to disentangle the environmental effects of actions or inactions by the primary operator and the contractor leading to enforceable breaches of planning or environmental control. It is also relevant where a contractor is of limited capability and or financial standing and so might not be able to take the remedial steps that might be specified in enforcement action.
- 7.41 In the circumstances anticipated here however, the generation operation and that of the OFTO are different, will occur on distinct sites and can be genuinely severed. Further, the OFTO will be a free-standing entity. It appears most unlikely that the OFTO would be of such limited financial or technical capacity that it would be necessary or appropriate for the MMO to enforce against

the generation operator to remedy the action or inaction of the OFTO.

- 7.42 It follows that I **do not find** there to be any need in the public interest for the MMO to be able to enforce jointly against the generation operator and the OFTO in respect of the action or inaction of one party. It follows that I **do not recommend** the deletion of article 6(4) (b).

### ***Article 12 - Certification of plans etc***

- 7.43 This draft article provides for the certification of the works plan, the land plan, an outline ornithological survey document and the ES. Whilst at face value and in comparison with other NSIPs, this is a small set of documents, I have considered whether any other documents require to be certified but have found no reason to recommend changes to the applicant's draft DCO Version 6 [APP-099] to include further documents.
- 7.44 As was indicated in my draft DCO, I also considered whether (in conformity with what has become established practice) an abbreviated numbering system was required for the plans and documents to be certified. However, I note the applicant's submission [APP-101] that given the small number of plans and documents, they can easily be identified from their existing titles, reference numbers and dates. I am satisfied with this submission and recommend no changes to the applicant's draft DCO Version 6 [APP-099].

### ***Article 13 - Arbitration***

- 7.45 This draft article provides for the appointment of an arbitrator if a dispute arises in respect of any provision of the DCO. Early draft DCOs excluded NE from the operation of the provision, pursuant to an opinion provided by NE to the Triton Knoll Offshore Wind Farm Examining Authority that the exercise of its statutory powers should not be subject to arbitration and should only be adjudicated upon by the court. However, the Secretary of State in the Triton Knoll decision decided not to exclude NE from the arbitration provision in that DCO, on the basis that all issues and parties should be equally subject to arbitration on the same basis.
- 7.46 I proposed to delete the exclusion of NE from the arbitration provision in my draft DCO. The applicant and NE did not object to this revision which was sustained in the applicant's draft DCO Version 6 [APP-099]. I am content with the current drafting of this article.

### ***Conclusion on articles***

- 7.47 Following on from the reasoning set out above, I note that the articles in draft DCO Version 6 enjoy the support of the applicant and interested parties. I am satisfied that the proposed articles

and the powers that they provide conform with policy set out in NPS EN-1 and EN-3. I am satisfied that they are appropriate to the proposed use and development, proportionate to its needs and appropriately responsive to the needs of other users of the order area. On this basis, I consider that the articles as drafted in the applicant's draft DCO Version 6 [APP-099] require no changes and **recommend** that these be approved by the Secretary of State.

### **Authorised development**

- 7.48 Schedule 1 Part 1 of the draft DCO describes the authorised development, defined as being all those works that fall within the definition of development set out in s32 PA2008. It also provides grid coordinates for the order limits.
- 7.49 The principal development consist of **Work No. 1** in two parts:
- (a) an offshore wind turbine generating station with a gross electrical output capacity of up to 259 MW (varied upwards by 1 MW to take account of the proposed change to the application) comprising up to 69 wind turbine generators each fixed to the seabed by one of three foundation types (steel monopile foundation, gravity base foundation or jacket foundation), fitted with rotating blades, together with;
  - (b) a network of collector cables laid underground within the order limits between the wind turbine generators and the offshore substation, for the transmission of electricity and electronic communications between those structures.
- 7.50 The associated development is described as:
- **Work No. 2:** '*[u]p to one offshore substation fixed to the seabed by one of three foundation types (namely steel monopile foundation, gravity base foundation or jacket foundation), within the Order limits*';
  - **Work No. 3:** '*[a] grid connection from Work No. 2 consisting of up to two cables laid along routes within the Order limits, including one or more cable crossings, [to] Welsh territorial waters at grid coordinates 53° 25.82' / -3° 21.97' and 53° 25.99' / -3° 22.32' [APP-099] (from which a connection would be made to works that are the subject of the Welsh Marine Licence); and*
  - other necessary and expedient associated development assessed in the ES and provided for within the DMLs.
- 7.51 In paragraph 7.50 above, I record the drafting of Work No. 3 as including '*one or more cable crossings, [to] Welsh territorial waters...*' The word '*[to]*' in square parentheses is missing from the applicant's preferred draft DCO. I **find** that it is necessary to proper drafting to add this word. It can be added without affecting the intention of the applicant or the understanding of

interested parties and therefore my **recommended draft DCO includes the word 'to'** in the description of Work No. 3.

- 7.52 At the DCO issue-specific hearing, I questioned the applicant and the MMO on the definition of the substation as associated development. I noted that a substation can be considered as an integral element of the primary development, without which a wind farm cannot become operational. I referred to the decision of the Secretary of State in the Brechfa Forest West Wind Farm Order 2013, where an onsite electricity substation was part of the primary development.
- 7.53 The applicant distinguished the facts in that decision from those applicable to this case. Here, the substation is intended to form part of the transmission assets bundle that would be transferred to the OFTO, as is evidenced by its inclusion in the transmission assets DML at draft Schedule 3. On that basis, it was reasonably described as associated development and describing it as such would have no implications for future decisions relating to substations where a wind farm is located onshore. I am satisfied with this reasoning and see no reason to recommend a change on this point.
- 7.54 The coordinates of the order limits are defined in decimal latitude and longitude to meet MMO requirements.
- 7.55 The authorised development is described in a manner that limits it to the Rochdale envelope assessed in the ES and that otherwise conforms to what is becoming established practice in offshore wind farm DCO drafting.

### ***Conclusion on authorised development***

- 7.56 There were no outstanding concerns about Schedule 1 Part 1 of the DCO at the end of the examination and I **recommend** it without any changes from the applicant's draft DCO Version 6 [APP-099].

### **Ancillary works**

- 7.57 Schedule 1 Part 2 of the draft DCO describes the ancillary works. These are works that have been assessed in the ES but that do not fall within the definition of development set out in s32 PA2008.
- 7.58 These works consist of:
- (a) *temporary offshore landing places or other means of accommodating vessels in the construction and/or maintenance of the authorised development; and*
  - (b) *buoys, beacons, fenders and other navigational warning or ship impact protection works.* [APP-099]

7.59 I orally questioned the applicant during the DCO issue-specific hearing to be clear that the ancillary works did not fall within the definition of development set out in s32 PA2008 and agree that to be the case.

### ***Conclusion on ancillary works***

7.60 There were no outstanding concerns about Schedule 1 Part 1 of the DCO at the end of the examination and I **recommend** it without any changes from the applicant's draft DCO Version 6 [APP-099].

### **Requirements**

7.61 Schedule 1 Part 3 of the draft DCO sets out the requirements that are proposed to apply to the development. They fall into two types:

- **Parametric requirements**, which frame the physical and environmental delivery of the project, ensuring that it is delivered within the Rochdale envelope assessed within the submitted ES; and
- **Infrastructure provisions**, which manage the impact of the project on adjacent transport infrastructure relevant to shipping, military and civil aviation.

I analyse these further below, together with brief remarks about my examination of all of the requirements in the light of guidance applicable to planning conditions. I also examine the discharge and enforcement of requirements at sea, to ensure that these are technically sound.

### ***Parametric requirements***

7.62 Requirements 1 to 7 frame the parameters within which the project is proposed to be delivered in terms of:

- a time limit for commencement;
- detailed design parameters controlling:
  - (i) the maximum hub and zenith height and rotor diameter of wind turbine generators;
  - (ii) the minimum and maximum distance between wind turbine generators;
  - (iii) the minimum dimension between the lowest point of a rotating wind turbine generator blade and mean high water springs (MHWS);
  - (iv) the maximum number of offshore substations (one);
  - (v) the maximum dimensions of an offshore substation;
  - (vi) the maximum length of cables in Work No. 1(b) (the collector cables) and Work No. 3 (the grid connection to Welsh territorial waters);

- (vii) the maximum dimensions and other controlled specifications of the three possible foundation types; and
  - (viii) a maximum limit on the numbers of piles of particular dimensions, designed to ensure that piling is conducted in a manner that mitigates adverse impacts on migrating adult salmon;
- the installation, retention and exhibition of aviation safety lighting; and
  - the need for a decommissioning programme.

- 7.63 I am satisfied that these requirements as set out in the applicant's draft DCO Version 6 [APP-099] limit the development and its effects to the Rochdale envelope assessed in the ES.
- 7.64 Salmon migration was a source of concern from the SNCBs and was closely examined during the Natural Environment issue-specific hearings and Chapters 4 (paragraphs 4.48 and 4.55) and 5 (paragraph 5.26) describe this process. However, having regard to subsequent written submissions and the absence of remaining concerns, I am satisfied that the form of words proposed by the applicant in requirement 5(4) (together with the piling restrictions included at conditions 18 to the generation DML (Schedule 2) and the transmission DML (Schedule 3)) will adequately mitigate the effects of the development on migrating adult salmon.
- 7.65 Marine mammal mitigation is discussed in Chapters 4 (paragraphs 4.51 and 4.55) and 5 (paragraph 5.26) is provided for exclusively within the draft DMLs and was not a subject of any remaining concern relating to requirements.
- 7.66 Concerns were also expressed by the SNCBs and the RSPB about the effects of the proposed development and use on a number of HRA relevant European Sites and on protected bird species. These are discussed in Chapters 4 (paragraphs 4.59 and 4.60) and 5 (paragraphs from 5.37). I raised questions in oral examinations about the degree to which requirements relating to (for example) the number or location of wind turbine generators or to the establishment of replacement foraging habitat could mitigate any of the relevant effects.
- 7.67 The applicant's response in summary was that it considered that the application as proposed would not harm relevant sites or species. It relied on its ornithological evidence to sustain a position that no mitigation was required. Equally, neither the SNCBs nor the RSPB proposed that there was any applicable mitigation that could be delivered by way of a requirement. It follows that, having reached the findings on this topic set out in Chapters 4 and 5 to the effect that there is no harm requiring mitigation, I **do not recommend** the securing of any mitigation here.

### ***Infrastructure provisions***

- 7.68 The remaining requirements (8 to 11) are of the nature of mitigating provisions, managing the effect of the proposed development on the following infrastructure installations:
- navigational radar for the Port of Liverpool (which takes account of the needs of shipping entering the Mersey);
  - military air traffic services at Warton aerodrome (relevant to the MoD and BAE Systems);
  - civil aviation primary surveillance radars at Lytham St Annes and Great Dun Fell (operated by NATS En Route Ltd.); and
  - civil air traffic services at Liverpool John Lennon Airport.
- 7.69 In relation to **requirement 8 (Navigational radar scheme at the Port of Liverpool)**, I am satisfied that there is agreement between the applicant and the Mersey Docks and Harbour Company Ltd. that this requirement provides adequate mitigation of the effects of the project on the port radar system [APP-101] [REP-230] [REP-239]. A commercial agreement is required to secure delivery of the mitigation scheme to the satisfaction of the applicant and the Mersey Docks and Harbour Company Ltd. A joint position statement signed by both parties provides evidence that this has been achieved [REP-239].
- 7.70 I note that requirement 8(3) seeks to secure the undertaker's on-going compliance with mitigation obligations approved by the Secretary of State. As proposed by the applicant and the port, the requirement is worded as follows:
- 'The undertaker shall thereafter comply with all other obligations contained within the approved mitigation for the life of the authorised development.'*
- 7.71 I observe that the word 'other' is superfluous to the intention of this draft requirement. Leaving the word in the drafting also adds a measure of uncertainty as to whether there is a 'principal' form of mitigation as distinct from 'other mitigation' that the draft has omitted to provide for. I am satisfied that is not the case and that it is the applicant and the port's shared intention that the requirement should deliver 'all obligations contained within the approved mitigation'. My **recommended draft DCO deletes the word 'other'** from this requirement.
- 7.72 In relation to **requirement 9 (Air traffic services at Warton Aerodrome)**, I am satisfied that there is agreement between the applicant, the Defence Infrastructure Organisation (for the Ministry of Defence) (DIO) and BAE Systems that this requirement provides adequate mitigation of the effects of the project on the aerodrome's air traffic services systems [APP-101] [REP-230] [REP-236].

- 7.73 A commercial agreement is required to secure delivery of the mitigation scheme to the satisfaction of the applicant, the DIO and BAE Systems. A joint position statement signed by the three parties indicates that whilst there has been agreement in principle as to the specification of the mitigation that needs to be included in the draft requirement (and hence the requirement is agreed and is sound), the commercial agreement to deliver the mitigation work was still on-going [REP-236]. At the end of the examination, submissions from the applicant [REP-254] and the DIO [REP-257] confirmed that whilst there were no major outstanding concerns of principle, the commercial agreement had not been signed and hence the DIO was unable to remove the MoD objection to the application.
- 7.74 My understanding of this position is that it presents no barrier to the Secretary of State's decision on this application, because the requirement is drafted in a Grampian form. If the applicant, the DIO and BAE Systems cannot reach a commercial agreement to deliver the necessary mitigation, then the applicant will be unable to seek the discharge of this requirement from the Secretary of State and hence the construction of wind turbine generators will not be able to commence. NPS EN-1 paragraphs from 5.4.18 provide policy support for this approach. On consideration, I **find** that the use of a Grampian requirement as proposed provides an adequate assurance that, in the unlikely event that negotiations between the applicant, the DIO and BAE Systems were to break down, the project could not proceed in a way that would harm an important defence interest.
- 7.75 In response to the same drafting and for the same reasons as are set out in paragraphs 7.70 and 7.71 above, my **recommended draft DCO deletes the word 'other'** from this requirement.
- 7.76 In relation to **requirement 10 (primary surveillance radars at Lytham St Annes and Great Dun Fell)**, I am satisfied that there is agreement between the applicant and NATS En Route Ltd. and that this requirement provides adequate mitigation of the effects of the project on the civil aviation primary surveillance radar system [APP-101], [REP-230] [REP-238]. The recommended requirement is set out in the form proposed in a joint position statement signed by both parties [REP-238]. A commercial agreement is required to secure delivery of the mitigation scheme to the satisfaction of the applicant and NATS En Route Ltd. The joint position statement was supplemented by a letter from NATS En Route Ltd. dated 24 March 2014 [REP-253] which provides evidence that the agreement has been achieved. Further, it states that NATS En Route Ltd's outstanding objection to the application has been withdrawn as a consequence.
- 7.77 In relation to **requirement 11 (Air traffic services at Liverpool John Lennon Airport)**, I am satisfied that there is agreement between the applicant and Liverpool Airport Ltd. and that this



requirement provides adequate mitigation of the effects of the project on air traffic services at the airport [APP-101], [REP-230] [REP-237]. The recommended requirement is set out in the form proposed in a joint position statement signed by both parties [REP-237].

- 7.78 A commercial agreement is required to secure delivery of the mitigation scheme to the satisfaction of the applicant and Liverpool Airport Ltd, a position that had not been achieved when the joint position statement [REP237] was submitted, although there were no remaining concerns of principle apparent. Whilst there has been agreement in principle as to the specification of the mitigation that needs to be included in the draft requirement (and hence the requirement is agreed and is sound), the applicant's final Deadline VII submission [REP-254] makes clear that the commercial agreement to deliver the mitigation work still awaited presentation to and agreement by the airport company's board [REP-236]. At the end of the examination, it follows that this agreement was not formally in effect.
- 7.79 It would have been preferable for the parties to have concluded the commercial agreement before the end of the examination. However, for the same reasons that I set out in paragraph 7.72 above in relation to an incomplete commercial agreement relevant to military radar mitigation, I am satisfied that the proposed Grampian drafting in requirement 11 would ensure that, if the applicant and the airport fail to agree delivery of the mitigation, they will be unable to secure the Secretary of State's discharge of the condition. On consideration, I **find** that the use of a Grampian requirement as proposed here provides an adequate assurance that, in the unlikely event that negotiations between the applicant and the airport were to break down, the project could not proceed in a way that would harm an important civil aviation interest.
- 7.80 In response to the same drafting and for the same reasons as are set out in paragraphs 7.70 and 7.71 above, my **recommended draft DCO deletes the word 'other'** from this requirement.
- 7.81 For much of the examination, submissions from **BHP Billiton Petroleum Ltd** (BHP) had led to the assumption that a provision would be needed to mitigate the effects of the application proposal on the operation of and access to BHP assets in Liverpool Bay (see paragraphs from 4.155 above). Whilst early submissions raised a broad range of issues, by the DCO issue-specific hearing, discussions had focussed onto the possible need for changes to the radar early warning system (REWS).
- 7.82 For this reason, the applicant included a provision in what was then referred to as requirement 12 to the Version 4 draft DCO [APP-094], which was the basis for oral examination at the DCO issue-specific hearing.

7.83 By the end of the examination however, the study was complete. The applicant and BHP had agreed that the effect of the development on the REWS was insignificant and that no mitigation or protective provision would be required [REP-230]. Former requirement 12 was removed from the draft DCO in the applicants draft Version 6 [App-099] and a joint statement between the applicant and BHP was provided in support of that action [REP-240]. Having reviewed these documents, I **find** that there is no remaining need for any protective provisions for BHP petroleum assets.

***The discharge and enforcement of requirements at sea***

- 7.84 A general technical issue arises around the discharge and enforcement of requirements at sea, where the public bodies which might normally be expected to undertake such obligations have no statutory or territorial basis for action. It is important to ensure that any requirement that requires a formal discharge can be discharged and that it is understood who could enforce in the circumstances of any breach.
- 7.85 I have no concerns in respect of requirement 1 (Time limits) and requirement 7 (Decommissioning), which directly require action by the Secretary of State.
- 7.86 The detailed design parameters set out in requirements 2 to 5 all relate to matters where there is no direct requirement for discharge and little likelihood of any Secretary of State involvement in any enforcement. Relevant discharges are by the MMO pursuant to a relevant condition in Part 2 of each DML. The MMO also holds responsibility for enforcement of the relevant DML conditions. The Secretary of State retains a 'backstop' enforcement capacity (see article 2(5)).
- 7.87 Requirement 6 does not require any discharge. It is enforceable by the CAA pursuant to its powers under the Civil Aviation Act 1982 and Air Navigation Orders made under section 60 and enforceable under section 61 of that legislation. I am satisfied that this is adequately enforceable at sea.
- 7.88 Requirements 8 to 11 (the infrastructure mitigation provisions) do not relate to a public authority owner with an independent power to discharge submissions or undertake enforcement at sea. For this reason, the applicant has proposed that the Secretary of State would discharge these requirements. Each requirement provides that the Secretary of State must be satisfied with a relevant scheme of mitigation before the construction of any wind turbine generator can commence.
- 7.89 If work were to commence before discharge, it would be open to the Secretary of State to take enforcement action against the undertaker. Article 2(5) clarifies that the Secretary of State can enforce a breach of these requirements. Section 120 (5) (c) of

PA2008 empowers the inclusion within a DCO of 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, and hence provides a head of power for this article.

- 7.90 I **find** that the requirements are sufficiently clear in terms of their discharge (where this is required) and in terms of enforcement.

### ***Guidance on planning conditions***

- 7.91 At the start of my examination, Circular 11/95 was relevant to nationally significant energy infrastructure projects because it was identified in paragraph 4.1.7 of National Policy Statement EN-1 as providing practice advice for the drafting of requirements. Circular 11/95 was cancelled on 6 March 2014 (with the exception of Annex A which has been saved). Replacement advice is found in paragraphs 203 and 206 of the National Planning Policy Framework (NPPF) as supported by the new online Planning Practice Guidance at ID:21a<sup>45</sup> and below, to which I have had regard.

- 7.92 On 7 March 2014 I drew the applicant and interested parties' attention to this change [PD-029 - 030 at matter [3]14.2] and provided an opportunity for comment. No concerns were raised about the change or matters affected by it. I have therefore taken the online Planning Practice Guidance fully into account.

- 7.93 In terms of paragraph 203 of the NPPF as supported by the online Planning Practice Guidance, I am satisfied that the development proposal is acceptable and **find** that there are no further requirements that should be added to make it acceptable. In terms of paragraph 306 of the NPPF, I **find** that the requirements that I recommend are necessary; relevant to planning and to the development to be permitted; enforceable; precise and reasonable in all other respects.

### ***Conclusion on requirements***

- 7.94 There were no outstanding concerns about the parametric requirements 1 to 7 at the end of the examination and I **recommend** them without any changes from the applicant's draft DCO Version 6 [APP-099].

- 7.95 Whilst two out of four legal agreements necessary to secure the delivery of infrastructure mitigation under requirements 7 to 11 had not been finalised by the end of the examination, the drafting of the requirements themselves had been agreed between the parties. I am satisfied that these requirements are drafted in a precautionary manner, which means that the Secretary of State could decide to approve the DCO, secure in the knowledge that if

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<sup>45</sup> <http://planningguidance.planningportal.gov.uk/blog/guidance/use-of-planning-conditions/>

relevant negotiations around mitigation delivery were to break down, the requirements could not be discharged and the project would not proceed without adequate mitigation. I **recommend** the drafting of these requirements without any changes from the applicant's draft DCO Version 6 [APP-099].

- 7.96 I **find** that the recommended requirements can be adequately discharged and enforced, should either of these actions be necessary.
- 7.97 I **find** that the requirements that I recommend satisfy the policy tests and practice guidance on planning conditions imported by paragraph 4.1.7 of National Policy Statement EN-1.

### **Deemed Marine Licenses (DMLs)**

- 7.98 Schedules 2 and 3 of the draft DCO set out DMLs relating to:
- Generation assets (Schedule 2); and
  - Transmission assets (intended to be transferred to an OFTO) (Schedule 3).
- 7.99 I have examined:
- The appropriateness of the structuring and drafting of the two DMLs in the manner proposed and the relationship between them;
  - A request by the MMO for provisions enabling them to charge fees and charges for monitoring; and
  - The individual provisions of each draft DML.

### ***DML structure and drafting***

- 7.100 Before turning to the content of the DMLs in Schedules 2 and 3 of the draft DCO, some structural and drafting observations need to be made.
- 7.101 In terms of function, I am conscious that the articles and requirements of this draft DCO set out a high level and enabling framework of powers, with relatively limited implementation detail and control. In this respect, it differs from some other energy generation related DCOs - with the obvious exception of the Triton Knoll Offshore Wind Farm Order 2013. Like this draft Order, that made Order relates to a project which (at the time the order was granted) did not include full grid connection works and hence was confined to the marine environment. In the Triton Knoll decision, that was because all grid connection works, both onshore and offshore, were to be the subject of a later application. Here the majority of the grid connection and all onshore works are the subject of other applications made to other authorities in Wales.
- 7.102 The effect of these particular circumstances is to remove the need for implementation detail in the requirements, as there are no

matters requiring to be implemented on land. Implementation detail at sea does need to be taken up in the DMLs. A key matter for me to test was whether relevant project performance at sea is secured in the DMLs?

- 7.103 I am generally satisfied that, as in the Triton Knoll decision, where an application proposal does not have any onshore elements, it is appropriate that a DML should set out the detailed performance requirements for the development in this way. It is also appropriate and necessary that relevant discharge, monitoring and enforcement provisions should rely on the powers and expertise of the MMO, provided for within a DML.
- 7.104 Turning to the structure and drafting of the DMLs, as a consequence of a change to the application, this draft DCO contains two DMLs, one for generation assets in Schedule 2 and one for transmission assets proposed to be transferred to an OFTO in Schedule 3. The technical reasons underlying this proposed structure are introduced in paragraph 1.11 and from paragraph 2.11 above. The MMO supported this structural change, designed to ensure that their concerns about the transfer of the benefit of a single DML to more than one party were met.
- 7.105 This approach is not included in the decided Galloper Wind Farm Order 2013, Kentish Flats Extension Order 2013 or Triton Knoll Offshore Wind Farm Order 2013, all of which contain a single DML and to this extent is not included in any decided DCO. It is the MMO's position that, where a transfer of benefit is intended, the drafting approach taken here is preferable to that in the decided orders referred to above. The applicant agreed with this position.
- 7.106 I have considered the submissions put to me and have no concerns about the DML structure proposed. It is likely to provide greater certainty and clarity of application and enforceability in circumstances where a transfer of benefit is proposed than would the drafting approaches that have been taken in offshore wind farm DCOs hitherto.
- 7.107 There is one minor structural point that also requires consideration. In developing the two DML structure, the applicant and the MMO agreed that a provision in the Schedule 2 generation assets DML should have the same number, title and structure as a provision in the Schedule 3 transmission assets DML which performs the same function. This means that Schedule 2, Part 2, condition 2 is marked '*[not used]*'. Schedule 3, Part 2, condition 2 contains design parameters relevant to an offshore substation which are not relevant to be repeated in Schedule 2 because there is no substation in the generation assets proposal. Schedule 3, Part 2, condition 1 is also marked '*[not used]*', because it contains design parameters relevant to wind turbine generators, which are not relevant to be repeated in this schedule because there are no turbines in the transmission assets proposal.

- 7.108 I put it to the applicant and the MMO in oral examination that this approach did not conform to established statutory instrument drafting practice and suggested that provisions marked '*[not used]*' should be deleted and the numbering system amended accordingly. Both bodies preferred to retain the submitted drafting, a point confirmed by the applicant in its written submissions [REP-230]. Their reason was that as the bodies responsible for delivering and monitoring the development, they both found it useful for the DMLs to share numbers, titles and structures.
- 7.109 Having considered these submissions, I agree that a shared structure offers practice efficiencies. It follows that I **do not recommend** the deletion of provisions marked '*[not used]*' or the amendment of the numbering system.

### ***Monitoring fees and charges***

- 7.110 The MMO maintained submissions to the end of the examination that it sought provisions enabling it to charge for its services associated with monitoring.
- 7.111 The applicant resisted this request on the grounds that whilst a statutory scheme for such fees is foreshadowed and has been the subject of consultation, it has not yet been put into effect. It took the view that if statutory fees were provided for, it would pay them, but that if the necessary legislation is not passed into law or is not commenced by the time the decision is made, it should not have to pay them. It considered that the proposal to make provision within the DMLs for fees was premature.
- 7.112 I have considered the submissions put to me with great care. Whilst I acknowledge that the public purse and the MMO could be argued to benefit from the MMO's ability to charge fees for work made necessary by the implementation of the DMLs, I am also concerned that a DML within a DCO framework is not an appropriate place in which to anticipate a more general legislative reform that is incomplete. A decision to include a charging power that is specific to this project might be open to legal challenge on the basis that it was not reasonable to impose a project specific fee regime whilst a broader legislative process providing for such a regime is not complete and no decision about its outcome has been made. The inclusion of project specific charging powers could lead to a perverse outcome in which this applicant was charged for services that (pursuant to the legislative process) others were not charged for, or charged more for those services than was provided for in legislation.
- 7.113 A fairer outcome at this juncture appears to be that the MMO awaits the completion of the legislative process and does not seek to introduce project specific charging powers relating to this application alone.

7.114 It follows that **I do not recommend** the introduction of any additional powers for the MMO to charge or levy fees for any work that it might undertake in the implementation of the DMLs.

***The generation assets DML***

7.115 Schedule 2 relates to generation assets. It is structured into two parts:

- Part 1 sets out the licenced marine activities
- Part 2 sets out the conditions to which these activities are subject.

7.116 In relation to Part 1, I have examined:

- the proposed definitions and their relationship and conformity with those in DCO article 2; and
- the details of the proposed marine activities and their relationship with the Rochdale envelope of the application proposal as assessed in the ES.

7.117 In relation to Part 2, I have examined the conditions to assure myself that they:

- secure the design and environmental performance of the application proposal as assessed in the ES and (where relevant) as required for HRA purposes;
- secure the notification of proposals and actions to mariners and to relevant public authorities including the MMO, the Hydrographic Office, the MCA and Trinity House;
- secure navigational practice, safety and emergency response in accordance with MGN 371 and the preparation of an Emergency Cooperation Plan (ERCoP);
- meet all relevant Trinity House requirements in respect to the provision and maintenance of aids to navigation and the colouring of structures;
- take measures to satisfy the MMO that operations involving the use of chemicals or drilling or the production of debris are appropriately managed;
- notify the MMO of any accidental (force majeure) deposit of materials at sea;
- secure the production and provision to the MMO of detailed pre-construction plans and documentation, before the commencement of works, including the provision of:
  - (i) a construction and monitoring programme - requiring approval by the MMO in consultation with Natural England in respect of all pre-construction surveys before the commencement of works and providing for an indicative construction programme;
  - (ii) a construction method statement;
  - (iii) a project environmental management plan - providing for marine pollution contingency management; a chemical risk

assessment; a waste management plan and disposal arrangements and the appointment of fisheries and environmental liaison officers;

- (iv) a scour protection management and cable armouring plan;
- (v) if piling is used - a marine mammal mitigation protocol to be agreed with the MMO in consultation with Natural England;
- (vi) a cable specification plan and a cable laying plan;
- (vii) a written scheme of archaeological investigation (WSI) agreed with the MMO in consultation with English Heritage; and
- (viii) a vessel traffic management plan;

with all necessary details to be submitted to the MMO at least 4 months prior to the intended commencement of construction (unless agreed otherwise in writing), approved in writing and then delivered in accordance with the agreed details;

- require appropriate reporting of engaged agents, contractors and vessels to the MMO;
- require the appropriate equipment specification and identification of all vessels;
- require appropriate pre-construction monitoring surveys to identify:
  - (i) the location and extent of benthic Annex 1 Habitats in the work area;
  - (ii) the location and extent of benthic habitats of conservation, ecological or economic importance in the work area;
  - (iii) a high resolution swath-bathymetric survey and side scan sonar survey of the work area and a 500m buffer; and
  - (iv) an ornithological survey;

with all necessary details to be submitted to the MMO and any variances to be agreed in writing by the MMO in consultation with Natural England;

- require appropriate construction monitoring:
  - (i) within the framework of the construction and monitoring programme, submitted and agreed at the pre-construction stage;
  - (ii) with the provision of written reports at the agreed time(s); and
  - (iii) including background noise monitoring and noise monitoring of any piling events sent to the MMO;
- require appropriate post-construction surveys including but not limited to:



- (i) a high resolution swath-bathymetric survey and side scan sonar survey annually, to test for changes in seabed topography;
  - (ii) a survey of the location and extent of benthic habitats of conservation, ecological or economic importance to validate ES assessments;
  - (iii) an ornithological survey to validate ES assessments;
- to be carried out for three years post construction; and
- set out piling restrictions, adequate to mitigate adverse impacts on dover sole spawning, salmon smolt and sea trout migration.

7.118 At the end of the examination, there were no outstanding concerns in respect of any of the paragraphs or conditions in the generation assets DML. On the basis that I am satisfied that the provisions in the applicant's preferred draft DCO Version 6 [APP-099] comply with all relevant policy in NPS EN-1 and EN-3, **I recommend** that they should be approved without further changes.

#### ***The transmission assets DML***

7.119 The structure and content of Schedule 3 is shared with that of Schedule 2, with specific differences only as necessary to provide for the licensing of transmission as opposed to generation assets. It follows that I do not repeat the summary of functions set out in paragraphs 7.110 to 7.113 above.

7.120 At the end of the examination, there were no outstanding concerns in respect of any of the paragraphs or conditions in the transmission assets DML. On the basis that I am satisfied that the provisions in the applicant's preferred draft DCO Version 6 [APP-099] comply with all relevant policy in NPS EN-1 and EN-3, **I recommend** that they too should be approved without further changes.

#### ***Conclusions on the draft DMLs***

7.121 I **find** that the division of the DMLs into a generation assets schedule and a transmission assets schedules provides a practical means to ensure that transfer of benefit of the provisions relating to transmission assets and the OFTO can be accomplished. I **find** that the structure of the DMLs as submitted in the applicant's preferred draft in the applicant's preferred draft DCO Version 6 [APP-099] is appropriate to purpose.

7.122 I **do not recommend** the variation of either DML to provide for non-statutory monitoring fees or charges to be paid to the MMO.

7.123 I **recommend** that the provisions of the DMLs in Schedule 2 and Schedule 3 should be approved as submitted the applicant's

preferred draft DCO Version 6 [APP-099] without any further changes.

### **Other matters**

- 7.124 I have identified above that commercial agreements are necessary to underpin the delivery of infrastructure mitigation relating to the Port of Liverpool, military aviation at Warton aerodrome, civil aviation at Liverpool John Lennon Airport and NATS En Route Ltd. primary surveillance radar installations. These agreements have been made or are to be made by way of contract or deed under seal. They do not rely on any statutory power to enter into planning, land or infrastructure related agreements (such as planning obligations under the Town & Country Planning Act 1990 (as amended)).
- 7.125 I have considered whether any matters are outstanding and need to be secured by way of statutory agreements such as planning obligations. I **find** that no such agreements are required or necessary.
- 7.126 The Explanatory Notes to the application draft DCO [APP-011] refer to copies of the plans being available for inspection free of charge only at Denbighshire County Council / Cyngor Sir Ddinbych offices (located in Rhyl). Given the close proximity of the application site to land in the north of Wirral Borough Council's area and the relative difficulty of travel and distance between this part of the Wirral and Denbighshire, approximately 70km over land, with the Dee Estuary and Flintshire intervening, I requested the applicant to check whether Wirral Metropolitan Borough Council would be content to host copies of the plans as well. I was assured that they were [APP-101], and hence I **recommend** the change to the applicant's preferred draft DCO Version 6 [APP-099] to refer to the availability of plans at both Denbighshire County Council / Cyngor Sir Ddinbych offices and Wirral Metropolitan Borough Council offices in Wallasey.
- 7.127 Finally, the Explanatory Notes to the applicant's preferred draft DCO Version 6 [APP-099] refer to article 14 as being the article providing for the 'certification of plans etc'. Reference to the DCO submitted with the application [APP-011] and to all intervening versions up to the preferred draft DCO shows that it is and always has been article 12 that carries out this function. The reference to article 14 is a typographical error of form only, with no substantive bearing on the Order. However, it is important that the Explanatory Notes do correctly reflect the actual content of the Order. I therefore **recommend** that the Explanatory Notes should be changed to remove the reference to 'article 14' and to replace it with a reference to the correct 'article 12'.

## DCO CONCLUSION

7.128 I **find** that the DCO as set out in Appendix D to this report and which takes account of issues raised in this chapter is sound and policy compliant. It contains the following minor technical changes from the applicant's preferred draft DCO which are not material changes, but which are necessary to achieve sound legal drafting:

- in Schedule 1, Part 1 (Authorised Development) in the description of Work No. 3, insert the word 'to' after 'one or more cable crossings,' and before 'Welsh territorial waters';
- in Schedule 1, Part 3 (Requirements), in requirements 8(3), 9(3) and 11(3), delete the word 'other' after the words 'comply with all' and before 'obligations'; and
- In the Explanatory Notes, delete the words 'article 14' and replace them with the words 'article 12'.

I **recommend** it to the Secretary of State.

## **8 SUMMARY OF CONCLUSIONS AND RECOMMENDATION**

- 8.1 I have considered the submitted application documents, all relevant and written representations, statements of common ground and evidence provided in oral submissions during my examination. All of the documents that I have referred to are catalogued in Appendix A below, the examination document library and are available electronically via the Planning Portal website.
- 8.2 In Chapters 1 and 2 I identify the application proposal and describe it. In Chapter 1 I identify the examination process that I employed. I describe (amongst other matters) the approach taken to consideration of transboundary effects arising from the application and I conclude that there are none. I set out the EIA approach taken by the applicant. I consider that the environmental information submitted by the applicant and EIA process undertaken by it have been adequate. I agree that the range of potential design and construction options for the proposal provided for within the ES Rochdale envelope was appropriately identified and the proposal was described with sufficient certainty to identify relevant impacts and to support the EIA process. I also describe my consideration of proposed changes to the applicant and my conclusion that these could be examined.
- 8.3 I have considered all relevant legislation and policy applicable to the application, primary sources from which are identified in Chapter 3 of this report above. More detailed citations in relation to individual identified subject matters are set out in Chapter 4, which records my findings and conclusions in relation to the important and relevant considerations arising from the application and from relevant and written representations. The great majority of policy considerations arise from NPS EN-1 and NPS EN-3 and I find no significant issues of non-compliance between the application proposal and these policies.
- 8.4 I have found in Chapter 4 as follows:
- The application proposal is urgently needed to generate renewable energy and this need is strongly recognised in policy.
  - The design approach taken by the application responds positively to policy and represents good design.
  - The effects of the application proposal on other projects and proposals and the effects of those other projects and proposals have been identified and mitigated to the extent that mitigation is required and that the approaches taken are policy compliant.
  - The effects of the application proposal on biodiversity, ecology and the natural environment have been adequately identified and mitigation has been provided for where necessary and secured in the draft DCO in manners that comply with policy.

- The effects of the application proposal on defence and transportation infrastructure have been adequately identified and mitigation has been provided for in the draft DCO where necessary, in manners that comply with policy. Two legal agreements in respect of the precise implementation of radar mitigation relating to Warton aerodrome and Liverpool John Lennon Airport remain outstanding. However, the applicant and relevant interested parties support and I recommend a form of Grampian requirement in both cases, to ensure that this mitigation is implemented to the satisfaction of the Secretary of State before the development can proceed. This approach is policy compliant.
- The effects of the application proposal on seascape, townscape and landscape and its visual effects have been adequately identified and mitigation has been provided for where necessary through the site design process. I note that these effects will be substantial, but I also note that such effects are anticipated in policy and I consider that the harm done is outweighed by the material benefit offered by the development. This is an outcome that complies with policy.
- The effects of the application proposal on the historic environment both at sea and on land have been adequately identified, provided for in mitigation and the residual effects are minor to immaterial and within the scope provided for in policy.
- The socio-economic effects of the application have been identified to the extent feasible and harms have been mitigated in accordance with policy. That being said, I note that in the absence of an identified construction and operation port or ports or precisely quantified employment impacts, it has not been possible to provide the proposal with the full 'credit' for economic benefit that a proposal of this scale might normally receive.
- The construction effects of the application proposal are well managed.
- EMFs and cable heating will have only minor effects and that these have been effectively mitigated.

8.5 I note that the completion of part of the marine grid connection for this project is dependent on the outcome of an undecided application for a marine licence in Welsh territorial waters that will be decided by the Welsh Government. A grant of planning permission by Denbighshire County Council / Cyngor Sir Ddinbych provides for the completion of part of the grid connection on land between the cable landfall point and a substation and physical connection to the existing grid at Bodelwyddan in that county. However, the Secretary of State will separately decide on a compulsory purchase order relating to land and rights over land in Denbighshire / Sir Ddinbych.

8.6 In Chapter 5 I have concluded that the HRA process has been properly carried out by the applicant. The applicant considers that

there will be no adverse effects on the integrity of any European Site and for reasons set out in that chapter I agree. I find that there is no barrier to the Secretary of State carrying out an appropriate assessment.

- 8.7 In Chapter 6 I set out a description of the effects of the application proposal on land, which are limited due to its location wholly within English territorial waters and the absence of compulsory acquisition proposals under PA2008. I note the lack of a Book of Reference, technically required to record the Crown interest in the sea bed, but conclude that the Secretary of State can consider the application without this.
- 8.8 In Chapter 7 I review the DCO and propose only the most minor of changes to ensure sound legal drafting.
- 8.9 I have had regard to the tests for consideration set out in PA2008 s104 (see Chapter 3 paragraph 3.8) and report that a decision to grant the DCO as recommended would be in accordance with relevant policy from NPS EN-1 and EN-3. There were no Local Impact Reports to which the Secretary of State should have regard. Other matters, including the matters that I consider important and relevant are identified in this report and none indicate against the grant of the DCO as recommended.
- 8.10 I **recommend** that the Secretary of State should grant the DCO with minor changes in the form set out in Appendix D to this report.

# APPENDICES

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REP-053	<u>DONG Energy - Clarification Note on matters relating to the Evidence Base re MetOc from MMO S56 repres</u>
REP-054	<u>DONG Energy - Water Framework Directive (WFD) Assessment requested by Environment Agency (England) etc</u>
REP-055	<u>DONG Energy - Clarification note on SLVIA approach to realistic worst case scenario</u>
REP-056	<u>DONG Energy - Clarification Note to NE on Cumulative Assessment for SLVIA</u>
REP-057	<u>DONG Energy - Clarification Note to Natural Resources Wales Queries on Cobble Habitats and Benthic Character</u>
REP-058	<u>DONG Energy - Clarification Note to Natural England on hearing capabilities in Lamprey</u>
REP-059	<u>DONG Energy - Clarification Note to NE and NRW on EMF effects on fish species arising from subsea cabling</u>
REP-060	<u>DONG Energy - Clarification Note to MMO on sandeel spawning</u>
REP-061	<u>DONG Energy - Summary of Geotechnical Investigations for the Burbo Bank Extension Project</u>
REP-062	<u>DONG Energy - Clarification Note to MMO, Natural England, NRW, EA on disposal of dredged material</u>
REP-063	<u>DONG Energy - Clarification Note to NE on Metocean and Coastal cabling rock scour protection designated sites</u>
REP-064	<u>DONG Energy - Clarification Note to the EA on Metocean and Coastal Processes currents &amp; stratification</u>
REP-065	<u>DONG Energy - Clarification Note to the MMO on Metocean and Coastal Processes methodology &amp; ES comments</u>
REP-066	<u>DONG Energy - Clarification Note to NRW on Metocean and Coastal export cable scour SSC &amp; sediment accumulation</u>
REP-067	<u>DONG Energy - Clarification Note to NE on Water &amp; Sediment Quality</u>
REP-068	<u>DONG Energy - Clarification Note to the MMO on Sediment Quality</u>

REP-069	<u>DONG Energy - Clarification Note to MMO NE NRW &amp; EA on cable burial assessment</u>
REP-070	<u>DONG Energy - Clarification Note to MMO on reference to biotope MusB.Sem</u>
REP-071	<u>DONG Energy - Burbo Bank Extension cable route and Irish Sea Metmast N offshore geophysical surveys 2012</u>
REP-072	<u>DONG Energy - Ground Model. Engineering Geological Consultancy Study (2013) draft</u>
REP-073	<u>DONG Energy - Parsons Brinkerhoff HDD and Onshore Cable Route Desk Study (2013) draft</u>
REP-074	<u>DONG Energy - Correspondence with Lancashire County Council on 23 July 2013</u>
REP-075	<u>DONG Energy - Letter to the Ministry of Defence dated 17 Oct 2013</u>
REP-076	<u>DONG Energy - Committee Report dated 8 October 2013</u>
REP-077	<u>DONG Energy - Proposed Amendment to draft DML - Proposal to Install Offshore Substation Foundations April to May</u>
REP-078	<u>DONG Energy - Revised Archaeological Written Scheme of Investigation (September 2012)</u>
REP-079	<u>DONG Energy - Cover Letter to accompany Written Response to Deadline I</u>
REP-080	<u>Mersey Docks and Harbour Company Written Representation</u>
REP-081	<u>Mersey Docks and Harbour Company Appendices 1 - 8</u>
REP-082	<u>Mersey Docks and Harbour Company Appendices 9 - 10</u>
REP-083	<u>Mersey Docks and Harbour Company Appendices 11-12</u>
REP-084	<u>The National Federation of Fishermen's Organisations</u>
REP-085	<u>Environment Agency WR redacted</u>
REP-086	<u>The Crown Estate</u>
REP-087	<u>Written Representation by The Crown Estate- Attachment 1</u>
REP-088	<u>Written Representation by The Crown Estate- Attachment 2</u>
REP-089	<u>Natural England- summary of WRs</u>
REP-090	<u>Natural England Written Representation</u>
REP-091	<u>Natural England - Documents to support Annex A of Natural England WR - 1 of 4</u>
REP-092	<u>Natural England - Documents to support Annex A of Natural England WR - 2 of 4</u>
REP-093	<u>Natural England - Documents to support Annex A of Natural England WR - 3 of 4</u>
REP-094	<u>Natural England - Documents to support Annex A of Natural England WR - 4 of 4</u>
REP-095	<u>Ministry of Defence Written Representation</u>
REP-096	<u>Natural Resources Wales - ANNEX E: Ornithological Expert Report</u>
REP-097	<u>Natural Resources Wales Written Representation (includes Annexes A-D) (Annex D - Responses to ExAs first questions)</u>
REP-098	<u>Royal Society for the Protection of Birds</u>
REP-099	<u>Royal Society for the Protection of Birds Summary of WRs</u>
<b>Responses to Examining Authority's First Written Questions</b>	
REP-100	<u>Royal Yachting Association</u>
REP-101	<u>Maritime and Coastguard Agency</u>



REP-102	<u>BHP Billiton</u>
REP-103	<u>Marine Management Organisation</u>
REP-104	<u>DONG Energy - Written Response to Deadline I dated 28 October 2013 and Appendix List</u>
REP-105	<u>English Heritage</u>
REP-106	<u>Environment Agency</u>
REP-107	<u>Hoylake Village Life</u>
REP-108	<u>The Mersey Docks and Harbour Company Limited</u>
REP-109	<u>Mersey Docks and Harbour Company - Attachment</u>
REP-110	<u>Ministry of Defence</u>
REP-111	<u>Liverpool John Lennon Airport Letter to Planning Inspectorate 05.11.13</u>
REP-112	<u>NATS en route plc</u>
<b>Local Impact Reports and Statements of Common Ground</b>	
REP-113	<u>DONG Energy - Statement of Common Ground with Civil Aviation Authority</u>
REP-114	<u>DONG Energy - Draft Statement of Common Ground with Liverpool Airport Ltd.(unsigned)</u>
REP-115	<u>DONG Energy - Statement of Common Ground with UK Chamber of Shipping</u>
REP-116	<u>DONG Energy - Statement of Common Ground with Trinity House</u>
REP-117	<u>DONG Energy - Statement of Common Ground with the Maritime and Coastguard Agency</u>
REP-118	<u>DONG Energy - Statement of Common Ground with BHP Billiton Petroleum Ltd</u>
REP-119	<u>DONG Energy - Statement of Common Ground with Royal Yachting Association</u>
REP-120	<u>DONG Energy - Draft Statement of Common Ground with the National Federation of Fishermen Organisation</u>
REP-121	<u>DONG Energy - Statement of Common Ground with Environment Agency</u>
REP-122	<u>DONG Energy - Statement of Common Ground with the Marine Management Organisation</u>
REP-123	<u>DONG Energy - Statement of Common Ground with Clwyd-Powys Archaeological Trust</u>
REP-124	<u>DONG Energy - Statement of Common Ground with Natural England (ornithological matters)</u>
REP-125	<u>DONG Energy - Statement of Common Ground with Natural England (general matters)</u>
REP-126	<u>DONG Energy - Statement of Common Ground with Natural Resources Wales</u>
REP-127	<u>DONG Energy - Statement of Common Ground with Sefton Council</u>
REP-128	<u>DONG Energy - Statement of Common Ground with Wirral Borough Council</u>
REP-129	<u>DONG Energy - Statement of Common Ground with Denbighshire County Council</u>
REP-130	<u>DONG Energy - Statement of Common Ground with English Heritage</u>
REP-131	<u>DONG Energy - Draft Statement of Common Ground with Cadw</u>
REP-132	<u>DONG Energy - Draft Statement of Common Ground with the Royal</u>

	<u>Society for the Protection of Birds</u>
REP-133	<u>DONG Energy - Draft Statement of Common Ground with Mersey Docks and Harbour Company Ltd</u>
REP-134	<u>DONG Energy - Draft Statement of Common Ground with Ministry of Defence</u>
REP-135	<u>DONG Energy - Coexistence Agreement with Commercial Fishermen</u>
REP-136	<u>DONG Energy - Coexistence Agreement with Commercial Charter Boat Activities</u>
<b>DOCUMENTS RECEIVED FOR DEADLINE II – 13 November 2013</b>	
<b>Comments on Written Representations</b>	
REP-137	<u>DONG Energy - Appendix 1 - Approach to the assessment of red-throated diver</u>
REP-138	<u>DONG Energy - Appendix 2 - Clarification Note on matters relating to migrating adult salmon and sea trout</u>
REP-139	<u>DONG Energy - Appendix 3 - Clarification Note Common tern feature of Mersey Narrows and North Wirral Foreshore SPA</u>
REP-140	<u>Civil Aviation Authority</u>
REP-141	<u>Marine Management Organisation</u>
REP-142	<u>DONG Energy - Cover letter for Clarification Notes on ornithological matters</u>
REP-143	<u>DONG Energy - Clarification Note - Response to Natural England's Comments on Habitats Regulations Assessment of SPA features in the non-breeding season</u>
REP-144	<u>DONG Energy - Clarification Note - Response to Natural Resources Wales' written representation on Potential Biological Removal Analysis for Kittiwake</u>
<b>Comments on responses to Examining Authority's first written questions</b>	
REP-145	<u>DONG Energy - Cover Letter to accompany Written Response to Deadline II</u>
REP-146	<u>DONG Energy - Applicant's Written Response</u>
REP-147	<u>RSPB</u>
<b>Statements of Common Ground</b>	
REP-148	<u>Statement of Common Ground with Mersey Docks and Harbour Company</u>
REP-149	<u>Draft Statement of Common Ground with Ministry of Defence (updated)</u>
REP-150	<u>Statement of Common Ground with National Federation of Fishermen Organisation</u>
REP-151	<u>Statement of Common Ground with Liverpool Airport Ltd</u>
<b>DOCUMENTS RECEIVED FOR DEADLINE III – 5 December 2013</b>	
<b>Documents accepted at Issue Specific Hearings held on 19, 20, 21 November 2013</b>	
H1-Doc 1	<u>Clarification note – Lesser Black Backed Gull Morecambe Bay SPA</u>
H1-Doc 2	<u>Clarification Note – Herring Gull Foraging Range</u>
H1-Doc 3	<u>Clarification note – Collision Risk Modelling Options and Potential Collision Height data</u>
H1-Doc 4	<u>Matter A (a) High Level Review of Designated Sites - table</u>
H1-Doc 5	<u>Collision Risk Modelling for Common Gull and Greater Black Backed Gull in relation to the proposed Project</u>

H1-Doc 6	<u>Kentish Flats Diver Surveys 2009-10 (Percival Report)</u>
H1-Doc 7	<u>SoCG between NE and Vattenfall in relation to Kentish Flats – final version</u>
H1-Doc 8	<u>Warton Aerodrome Cull licence</u>
H1-Doc 9	<u>Decision Letter from DEFRA in regards to the Warton Aerodrome Gull Cull licence</u>
H1-Doc 10	<u>"Peterson et al" Report. (Figure 88 on pg 81)</u>
H1-Doc 11	<u>Webb, Nedwell, Bellew Speaking Note (22 November)</u>
H1-Doc 12	<u>Dr Norman Speaking Note (20 and 21 November)</u>
H1-Doc 13	<u>Clarification Note - Response to NE Comments on HRA Breeding Birds</u>
H1-Doc 14	<u>Clarification Note - Response to NRW Potential Biological Removal Analysis for Kittiwake</u>
<b>Other Post-hearing documents</b>	
REP-152	<u>Dong Energy - Applicant's Written Response to Deadline III (5 December 2013)</u>
REP-153	<u>Natural Resources Wales - Written summary of submissions and evidence provided during the issue specific hearings on 19 to 21 November 2013 submitted for the deadline of 5 December 2013</u>
REP-154	<u>Marine Management Organisation - Written summary of submissions and evidence provided during the issue specific hearings on 19 to 21 November 2013 submitted for the deadline of 5 December 2013</u>
REP-155	<u>Natural England - Written summary of submissions and evidence provided during the issue specific hearings on 19 to 21 November 2013 submitted for the deadline of 5 December 2013</u>
<b>Statements of Common Ground</b>	
REP-156	<u>DONG Energy - Statement of Common Ground with Ministry of Defence and BAE Systems submitted for the deadline of 5 December 2013</u>
REP-157	<u>DONG Energy - Statement of Common Ground with English Heritage submitted for the deadline of 5 December 2013</u>
<b>DOCUMENTS RECEIVED FOR DEADLINE IV – 7 January 2014</b>	
<b>Documents accepted at Issue Specific Hearings held on 10, 11, 12 December 2013</b>	
H2-Doc1	<u>NATS Safeguarding - Submitted for the deadline of 5 December 2013 (late submission)</u>
<b>Other Post-hearing documents</b>	
APP-091	<u>DONG Energy- Draft DCO version 3</u>
APP-092	<u>DONG Energy- Draft DCO comparison of version 2 with version 3</u>
APP-093	<u>DONG Energy- Draft DCO schedule of changes version 3</u>
REP-158	<u>DONG Energy - Issues raised with Mersey Docks and Harbour Company</u>
REP-159	<u>DONG Energy - Paper B - Clarification note on night time LSVIA</u>
REP-160	<u>DONG Energy - Summary of proposed DCO requirements</u>
REP-161	<u>DONG Energy- Addendum- Update to the in combination assessment (lesser black-backed gulls)</u>
REP-162	<u>DONG Energy- Hearing document 1- Schedule of commercial agreements</u>
REP-163	<u>DONG Energy- Hearing document 2- Correspondence with the RYA</u>

REP-164	<u>DONG Energy- Hearing document 3- Update on matter D Consequential natural environment matters emerging from ISH 1</u>
REP-165	<u>DONG Energy- Paper A - Extract of ZTV for Liverpool Maritime UNESCO Site</u>
REP-166	<u>DONG Energy- Signed agreement between DONG energy and Mersey Docks and Harbour Company</u>
REP-167	<u>DONG Energy- Speaking note for Anatec (Shipping and Navigation)</u>
REP-168	<u>DONG Energy- Speaking note for LDA on seascape, landscape and visual</u>
REP-169	<u>DONG Energy- Speaking note for Osprey on lighting and CAA guidance</u>
REP-170	<u>DONG Energy- Speaking note J Arden agreed with MoD, Liverpool airport and NATS</u>
REP-171	<u>DONG Energy- Speaking note L Rashid Danoon agreed with BHP Billiton</u>
REP-172	<u>DONG Energy- Speaking note S Bellew (Commercial Fisheries)</u>
REP-173	<u>DONG Energy- Summary note on local and community benefits</u>
REP-174	<u>DONG Energy- Summary note on tourism effects</u>
REP-175	<u>DONG Energy- Summary note other economic benefits</u>
REP-176	<u>DONG Energy- The Rock Channel Liverpool yacht club pilot</u>
REP-177	<u>DONG Energy</u>
REP-178	<u>Chris Edwards</u>
REP-179	<u>Natural England</u>
REP-180	<u>Natural Resources Wales</u>
REP-181	<u>Royal Yachting Association</u>
REP-182	<u>The Wirral Society</u>
REP-183	<u>English Heritage (late submission)</u>
REP-184	<u>NATS Safeguarding (late submission)</u>
<b>DOCUMENTS RECEIVED FOR DEADLINE V – 5 February 2014</b>	
<b>Documents accepted at Issue Specific Hearings held on 28, 29, 30 January 2014</b>	
APP-094	<u>DONG Energy – Appendix 1 Draft Development Consent Order (Version 4 – 24 January 2014)</u>
APP-095	<u>DONG Energy – Appendix 2 Draft Development Consent Order – Comparison of Version 2 (October 2013) with Version 4 (24 January 2014)</u>
APP-096	<u>DONG Energy – Appendix 3 Schedule of Changes to the Development Consent Order (Version 3 – 24 January 2014)</u>
REP-185	<u>DONG Energy’s Further Submission in advance of ISH 3</u>
REP-186	<u>DONG Energy – Appendix 4 Burbo Bank Extension DRAFT O&amp;M Licensing Audit (January 2014)</u>
REP-187	<u>DONG Energy – Appendix 5 Position Statement: Status with regards to English Heritage relating to potential visual impact on UNESCO World Heritage Site: Liverpool Maritime City</u>
REP-188	<u>DONG Energy – Appendix 6 Position Statement: Status with regards to English Heritage concerns regarding Historic Seascape Characterisation</u>
REP-189	<u>DONG Energy – Appendix 7 Position Statement: Status with regards to night time flashing aviation lighting requirements on offshore wind turbines</u>

REP-190	<u>DONG Energy – Appendix 8 Applicant's Response to MMO comments at Deadline II (22 January 2014)</u>
REP-191	<u>DONG Energy – Appendix 9 (prior to amendment) Lesser black-backed gull collision risk modelling: An update to the in-combination assessment</u>
REP-192	<u>DONG Energy – Appendix 9 - Lesser black-backed gull collision risk modelling: An update to the in-combination assessment submitted for the deadline of 5 February 2014 (Table 6 of Appendix 6.1 has been amended)</u>
REP-193	<u>DONG Energy – Appendix 10 Position Statement: Status with regards to lesser black-backed gull and in-combination effects</u>
REP-194	<u>DONG Energy – Appendix 11 Red-throated Diver Displacement: Clarification of density dependent effects</u>
REP-195	<u>DONG Energy – Appendix 12 Position Statement: Status with regards to outstanding concerns on red-throated diver displacement</u>
REP-196	<u>DONG Energy – Appendix 13 Position Statement: Status with regards to outstanding concern on adult salmon migration and proposed condition</u>
REP-197	<u>DONG Energy – Appendix 14 Proposed Amendment to draft Deemed Marine Licence Condition 15: Proposal to Install Piled Offshore Substation Foundations in the Period April to May – UPDATED VERSION JANUARY 2014</u>
REP-198	<u>DONG Energy – Appendix 15 Summary of DCO Requirements as at 24 January 2014</u>
REP-199	<u>DONG Energy – Appendix 16 Position Statement on progress on commercial agreement with Ministry of Defence and BAE Systems</u>
REP-200	<u>DONG Energy – Appendix 17 Position Statement on progress on commercial agreement with NATS</u>
REP-201	<u>DONG Energy – Appendix 18 Position Statement on progress on commercial agreement with Liverpool John Lennon Airport</u>
REP-202	<u>DONG Energy – Appendix 19 Agreed Position Statement on progress of discussions with BHP Billiton Ltd</u>
REP-203	<u>DONG Energy – Appendix 20 Position Statement: Status with regards to EMF and cable heating concerns regarding 1MW maximum capacity increase</u>
<b>Other Post-hearing documents</b>	
APP-097	<u>DONG Energy - Post hearing Appendix 1 Draft Development Consent Order (Version 5 – February 2014)</u>
APP-098	<u>DONG Energy - Post hearing Appendix 2 Draft Development Consent Order – Comparison of Version 4 (January 2014) with Version 5 (February 2014)</u>
REP-204	<u>English Heritage – Letter dated 21 January 2014</u>
REP-205	<u>DONG Energy's Written Response to Deadline V</u>
REP-206	<u>DONG Energy - Post hearing Appendix 3 Decision Notice dated 20 November 2013 (ref: 31/2013/0400/PF)</u>
REP-207	<u>DONG Energy - Post hearing Appendix 4 Position Statement regarding the Compulsory Purchase Order</u>
REP-208	<u>DONG Energy - Post hearing Appendix 5 Speaking Note for Dr Tim Norman on lesser black backed gull</u>
REP-209	<u>DONG Energy - Post hearing Appendix 6 AGREED Supplementary</u>

	<u>Statement of Common Ground with Natural England regarding lesser black backed gull</u>
REP-210	<u>DONG Energy - Post hearing Appendix 7 Updated lesser black-backed gull in combination collision risk assessment, following questions related to ISH#3 including apportioning of colony data</u>
REP-211	<u>DONG Energy - Post hearing Appendix 8 Position Statement on the offshore substation piling condition</u>
REP-212	<u>DONG Energy - Post hearing Appendix 9 Speaking Note for Dr Tim Norman on red throated divers</u>
REP-213	<u>DONG Energy - Post hearing Appendix 10 DRAFT Supplementary Statement of Common Ground with Natural England and Natural Resources Wales regarding red throated divers</u>
REP-214	<u>DONG Energy - Post hearing Appendix 11 Red-throated diver displacement: Clarification of density dependent effects v3</u>
REP-215	<u>DONG Energy - Post hearing Appendix 12 Burbo Bank Extension AGREED O&amp;M Licensing Audit with Marine Management Organisation (5 February 2014)</u>
REP-216	<u>DONG Energy - Post hearing Appendix 13 Gwynt-y-Mor Marine Licence dated 19 March 2013 (ref: 11/52/ML/2)</u>
REP-217	<u>DONG Energy - Post hearing Appendix 14 Speaking Note for William Wheeler on night time lighting</u>
REP-218	<u>DONG Energy - Post hearing Appendix 15 Speaking Note on use of negative conditions</u>
REP-219	<u>DONG Energy - Post hearing Appendix 16 Agreed Statement with BHP regarding potential proposed DCO requirement</u>
REP-220	<u>DONG Energy - Post hearing Appendix 17 Agreed Position Statement regarding progress of discussions with BHP Billiton Ltd</u>
REP-221	<u>DONG Energy - Post hearing Appendix 18 Agreed Statement with MOD and BAE Systems regarding final proposed DCO requirement</u>
REP-222	<u>DONG Energy - Post hearing Appendix 19 Position Statement on progress on commercial agreement with Liverpool Airport</u>
REP-223	<u>DONG Energy - Post hearing Appendix 20 Position Statement on progress on commercial agreement with NATS</u>
REP-224	<u>DONG Energy - Post hearing Appendix 21 Letter from The Crown Estate to the Applicant regarding Crown Rights approval and consent under S135(2) of the Planning Act 2008</u>
REP-225	<u>Natural England - Summary of ISH 3 Submissions</u>
REP-226	<u>Marine Management Organisation - Summary of ISH 3 Submissions</u>
REP-227	<u>Natural Resources Wales – Summary of ISH 3 Submissions</u>
REP-228	<u>Natural Resources Wales – DRAFT Marine License</u>
REP-229	<u>English Heritage – Letter regarding aviation lighting (late submission)</u>
<b>DOCUMENTS RECEIVED FOR DEADLINE VI – 13 March 2014</b>	
APP-099	<u>DONG Energy - Appendix 1 Draft Development Consent Order (Version 6 – March 2014)</u>
APP-100	<u>DONG Energy - Appendix 2 Comparison of the Examining Authority's Draft Development Consent Order (February 2014) with Version 6 (March 2014)</u>
APP-101	<u>DONG Energy - Appendix 3 Schedule of comments on the Examining Authority's draft DCO</u>

REP-230	<u>DONG Energy - Written Response to Deadline VI</u>
REP-231	<u>DONG Energy - Appendix 4 Comments on the Examining Authority's Report on the Implications of European Sites (19 February 2014)</u>
REP-232	<u>DONG Energy - Appendix 5 AGREED Outline Ornithological Survey Document - Burbo Bank Extension offshore wind farm (March 2014)</u>
REP-233	<u>DONG Energy - Appendix 6 AGREED Statement of Common Ground with Natural Resources Wales and Natural England on red throated diver</u>
REP-234	<u>DONG Energy - Appendix 7 Red-throated Diver Displacement: Clarification of density dependent effects v4</u>
REP-235	<u>DONG Energy - Appendix 8 Letter from The Crown Estate dated 7 March 2014</u>
REP-236	<u>DONG Energy - Appendix 9 Joint Position Statement agreed between DONG Energy, the Ministry of Defence, and BAE Systems</u>
REP-237	<u>DONG Energy - Appendix 10 Joint Position Statement agreed between DONG Energy and Liverpool Airport</u>
REP-238	<u>DONG Energy - Appendix 11 Joint Position Statement agreed between DONG Energy and NATS</u>
REP-239	<u>DONG Energy - Appendix 12 Joint Position Statement agreed between DONG Energy and Peel Ports Ltd. (Mersey Dock and Harbour Company)</u>
REP-240	<u>DONG Energy - Appendix 13 Joint Position Statement agreed between DONG Energy and BHP Billiton Ltd</u>
REP-241	<u>DONG Energy - Appendix 14 Appendix of Application documents (22 March 2013) and Final Submissions for Examination (October 2013 - March 2014) - as at 13 March 2014</u>
REP-242	<u>DONG Energy - Appendix 15 Note issued by the Applicant to Natural Resources Wales in response to proposed changes to three Welsh SPAs</u>
REP-243	<u>Natural England - Response to Examining Authorities Second Written Questions</u>
REP-244	<u>Natural England - Response to the RIES and Examining Authorities RIES (Annex B)</u>
REP-245	<u>Royal Society for the Protection of Birds - Response to the revised draft DCO and RIES</u>
REP-246	<u>Marine Management Organisation</u>
REP-247	<u>Natural Resources Wales - Response to the Report on the Implications for European Sites</u>
REP-248	<u>Natural Resources Wales - Response to the Examining Authorities Second Written Questions</u>
REP-249	<u>Natural Resources Wales - Draft Marine Licence HRA</u>
REP-250	<u>Ministry of Defence - Response to Examining Authorities revised DCO</u>
REP-251	<u>Ministry of Defence - Response to Examining Authorities second Questions</u>
REP-252	<u>Lancashire County Council</u>
<b>DOCUMENTS RECEIVED FOR DEADLINE VII - 25 March 2014</b>	
REP-253	<u>NATS Safeguarding</u>
REP-254	<u>DONG Energy - Written Response to Deadline VII</u>

REP-255	<a href="#">RSPB</a>
REP-256	<a href="#">Marine Management Organisation</a>
REP-257	<a href="#">Ministry of Defence (late submission)</a>
<b>DOCUMENTS RELATING TO HEARINGS AND SITE VISITS</b>	
<b>Preliminary Meeting</b>	
HE-01	<a href="#">Preliminary Meeting Audio session 1</a>
HE-02	<a href="#">Preliminary Meeting Audio session 2</a>
HE-03	<a href="#">Preliminary Meeting Note</a>
HE-04	<a href="#">DONG Energy – Response to Rule 6</a>
HE-05	<a href="#">Defence Infrastructure Organisation - Response to Rule 6 Letter</a>
<b>Site Visits</b>	
HE-05	<a href="#">Note of Unaccompanied Site Inspection 1</a>
HE-06	<a href="#">Unaccompanied Site Visit Note 1 Appendix 2</a>
HE-07	<a href="#">Unaccompanied Site Visit Note 1 Appendix 3</a>
HE-08	<a href="#">Note of the Unaccompanied Site Inspection 2</a>
HE-09	<a href="#">Unaccompanied Site Visit 2 Appendix 2</a>
HE-10	<a href="#">Unaccompanied Site Visit 2 Appendix 3</a>
HE-11	<a href="#">Note of Unaccompanied Site Inspection 3</a>
HE-12	<a href="#">Unaccompanied Site Visit 3 Appendix 2</a>
HE-13	<a href="#">Unaccompanied Site Visit 3 Appendix 3</a>
<b>Issue Specific Hearings held on 19, 20, 21 November 2013</b>	
HE-14	<a href="#">Issue Specific Hearing Audio 19 November Part 1</a>
HE-15	<a href="#">Issue Specific Hearing Audio 19 November Part 2</a>
HE-16	<a href="#">Issue Specific Hearing Audio 19 November Part 3</a>
HE-17	<a href="#">Issue Specific Hearing Audio 20 November Part 1</a>
HE-18	<a href="#">Issue Specific Hearing Audio 20 November Part 2</a>
HE-19	<a href="#">Issue Specific Hearing Audio 21 November Part 1</a>
HE-20	<a href="#">Issue Specific Hearing Audio 21 November Part 2</a>
HE-21	<a href="#">Issue Specific Hearing Audio 21 November Part 3</a>
<b>Issue Specific Hearings held on 10, 11, 12 December 2013</b>	
HE-22	<a href="#">Issue Specific Hearing Audio 10 December - Session 1</a>
HE-23	<a href="#">Issue Specific Hearing Audio 10 December - Session 2</a>
HE-24	<a href="#">Issue Specific Hearing Audio 10 December - Session 3</a>
HE-25	<a href="#">Issue Specific Hearing Audio 11 December - Session 1</a>
HE-26	<a href="#">Open Floor Hearing Audio 11 December - Session 1</a>
HE-27	<a href="#">Issue Specific Hearing Audio 12 December - Session 1</a>
<b>Issue Specific Hearings held on 28, 29, 30 January 2014</b>	
HE-28	<a href="#">Issue Specific Hearing Audio 28 January – Session 1</a>
HE-29	<a href="#">Issue Specific Hearing Audio 28 January – Session 2</a>
HE-30	<a href="#">Issue Specific Hearing Audio 28 January – Session 3</a>
HE-31	<a href="#">Issue Specific Hearing Audio 28 January – Session 4</a>
HE-32	<a href="#">Issue Specific Hearing Audio 29 January – Session 1</a>
HE-33	<a href="#">Issue Specific Hearing Audio 29 January – Session 2</a>
HE-34	<a href="#">Issue Specific Hearing Audio 29 January – Session 3</a>
HE-35	<a href="#">Issue Specific Hearing Audio 29 January – Session 4</a>
HE-36	<a href="#">Issue Specific Hearing Audio 30 January – Session 1</a>
HE-37	<a href="#">Issue Specific Hearing Audio 30 January – Session 2</a>
HE-38	<a href="#">Issue Specific Hearing Audio 30 January – Session 3</a>
<b>Applicant’s Notification of Hearings</b>	
HE-39	<a href="#">DONG Energy - Rule 13 Notice</a>



**APPENDIX B:  
EVENTS IN THE EXAMINATION**

The table lists the main examination events and procedural decisions taken by the Examining Authority (ExA).

Date	Examination Event
Thursday 26 September 2013	<b>Preliminary Meeting</b>
Monday 7 October 2013	Issue by ExA of: <ul style="list-style-type: none"> <li>• Examination timetable</li> <li>• <b>ExA's first written questions</b></li> </ul>
Wednesday 23 October 2013	Issue by ExA of: <ul style="list-style-type: none"> <li>• Notification of date, time and place for issue-specific hearings and open-floor hearings</li> <li>• Provision of agenda for Issue-specific hearings held on Tuesday 19, Wednesday 20 &amp; Thursday 21 November 2013</li> </ul>
Monday 28 October 2013	<b>DEADLINE I -</b> Deadline for receipt by the ExA of: <ul style="list-style-type: none"> <li>• Comments on relevant representations (RRs)</li> <li>• Summaries of all RR's exceeding 1500 words</li> <li>• All written representations (WRs)</li> <li>• Summaries of all WRs exceeding 1500 words</li> <li>• The Applicant's audit of the Environment Statement (ES) and Habitats' Regulation Assessment Report (HRA), responding to a proposed 1MW increase in the installed capacity of the proposed development (the ES and HRA audit)</li> <li>• The applicants proposed revised draft Development Consent Order (DCO) to incorporate two Deemed Marine Licenses (DMLs)</li> <li>• The applicant's Master Index of Statements of Common Ground, Commercial Side Agreements or Planning Obligations (the Master Index) (see Annex C(i))</li> <li>• Statements of Common Ground (SoCG) requested by ExA (see Annex C(ii))</li> <li>• Any Local Impact Report, if submitted</li> <li>• Responses to ExA's first written questions</li> <li>• Changes to the Applicant's draft matrices summarising effects on European sites (See Annex C(iii))</li> <li>• Notice of wish to be heard at an open-floor</li> </ul>

Date	Examination Event
	hearing <ul style="list-style-type: none"> <li>• Notice of wish to be heard at any issue-specific hearings</li> <li>• Nominations of locations to be inspected during any site visits and the features to be observed there, with reasons for each nomination</li> <li>• Notice of wish to participate in the examination in Welsh</li> <li>• Notice of need for Welsh translation services at a particular nominated event</li> </ul>
Wednesday 13 November 2013	<b>DEADLINE II -</b> Deadline for receipt by the ExA of: <ul style="list-style-type: none"> <li>• Responses to comments on RRs</li> <li>• Comments on WRs</li> <li>• Comments on responses to ExA's written questions</li> <li>• Comments on Applicant's draft matrices summarising effects on European sites</li> <li>• Comments on the applicant's ES and HRA audit</li> <li>• Comments on the applicant's proposed revised draft DCO to incorporate two DMLs</li> <li>• Written summaries of matters to be raised by interested parties in their oral representations at an open-floor hearing</li> </ul>
Wednesday 13 November 2013	Issue by the ExA of notice that no accompanied site inspections will be carried out
Tuesday 19, Wednesday 20 & Thursday 21 November 2013	<b>Issue-specific hearings</b> relating to: <ul style="list-style-type: none"> <li>• Natural environment impacts and Habitats Regulation Assessment</li> </ul>
Thursday 5 December 2013	<b>DEADLINE III -</b> Deadline for receipt by the ExA of: <ul style="list-style-type: none"> <li>• Written summaries of all submissions and evidence provided during the issue-specific held on Tuesday 19, Wednesday 20 &amp; Thursday 21 November 2013</li> <li>• Any additional evidence requested by the ExA during the issue-specific hearing held on 19, 20 and 21 November 2013.</li> <li>• Responses to questions raised by the ExA during the issue-specific hearing at timetable Item 6 that were unable to be answered during the hearing.</li> </ul>

Date	Examination Event
	<ul style="list-style-type: none"> <li>The applicant's changes to the Master Index since 28 October 2013</li> </ul>
<p>Tuesday 10, Wednesday 11 &amp; Thursday 12 December 2013</p>	<p><b>Issue-specific hearings</b> relating to:</p> <ul style="list-style-type: none"> <li>Strategic issues emerging from the draft Development Consent Order (DCO)</li> <li>Seascape, landscape and visual impact assessment and mitigation</li> <li>Shipping, boating, port and aviation operations</li> <li>Economic impacts and mitigation</li> <li>Consequential natural environment matters emerging from the hearings held on 19, 20 and 21 November.</li> </ul>
<p>Evening of Wednesday 11 December 2013</p>	<p><b>Open-floor hearing</b></p>
<p>Tuesday 7 January 2014</p>	<p><b>DEADLINE IV -</b> Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> <li>Written summaries of all submissions and evidence provided during the issue-specific and/or open-floor hearings held on 10,11 and 12 December 2013</li> <li>Any additional evidence requested by the ExA during the issue-specific and/or open-floor hearings held on 10,11 and 12 December 2013</li> <li>Responses to questions raised by the ExA during the issue-specific or open-floor hearings at held on 10,11 and 12 December 2013 that were unable to be answered during the hearing</li> <li>The applicant's report on changes to the applicant's Master Index (if any) since 5 December 2013</li> <li>Statements of progress and cross-border matters (if any) emerging from other consenting bodies' (Natural Resources Wales/Cyfoeth Naturiol Cymru and Denbighshire County Council) work on related applications.</li> </ul>
<p>Tuesday 28, Wednesday 29 and Thursday 30 January 2014</p>	<p><b>Issue-specific hearings</b> relating to:</p> <ul style="list-style-type: none"> <li>Draft Development Consent Order and</li> <li>Natural environment and Habitats Regulation Assessment</li> </ul>

Date	Examination Event
Wednesday 5 February 2014	<p><b>DEADLINE V -</b> Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> <li>• Written summaries of all submissions and evidence provided during any issue-specific hearings at timetable Item 11</li> <li>• Any additional evidence requested by the ExA during any issue-specific hearings held on 28 and 29 January 2014</li> <li>• Responses to questions raised by the ExA during any issue-specific hearings a held on 28 and 29 January 2014 that were unable to be answered during the hearing</li> <li>• Applicant's revised draft DCO taking account of issues raised in all hearings and WRs to date</li> </ul>
Wednesday 19 February 2014	<p>Issue by ExA of:</p> <ul style="list-style-type: none"> <li>• <b>A Report on the Implications for European Sites (RIES)</b> taking issues raised and comments into account</li> </ul>
Wednesday 26 February 2014	<p>Issue by ExA of:</p> <ul style="list-style-type: none"> <li>• <b>Revised draft DCO</b> taking issues raised and comments into account</li> <li>• <b>Second written questions</b></li> </ul>
Thursday 7 March 2014	<p>Issue by ExA of:</p> <ul style="list-style-type: none"> <li>• <b>Third written questions</b></li> </ul>
Thursday 13 March 2014	<p><b>DEADLINE VI -</b> Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> <li>• Responses to ExA's second and third written questions</li> <li>• Comments on ExA's revised draft DCO</li> <li>• Comments on ExA's RIES</li> </ul>
Tuesday 25 March 2014	<p><b>DEADLINE VII -</b> Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> <li>• Comments on responses to ExA's second and third written questions</li> <li>• Responses to comments on ExA's revised draft DCO</li> </ul>

**APPENDIX C:  
LIST OF ABBREVIATIONS**

<b>Abbreviation or usage</b>	<b>Reference</b>
AA	Appropriate Assessment
AONB	Area of Outstanding Natural Beauty
APFP	Applications: Prescribed Forms and Procedures
CA	Compulsory Acquisition
CAA	Civil Aviation Authority
Cadw	The Welsh Government's historic environment service
CDM	Construction (Design and Management)
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CIA	Cumulative Impact Assessment
CPO	Compulsory purchase order, not made under the Planning Act 2008
CRA	Collision Risk Assessment
CRM	Collision Risk Model
cSAC	candidate Special Area of Conservation
DCLG	Department for Communities and Local Government
DCLG compulsory acquisition guidance	'Planning Act 2008: Guidance related to procedures for the compulsory acquisition of land', Department of Communities and Local Government, September 2013
DCO	Development consent order (made or proposed to be made under the Planning Act 2008 (as amended))
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DIO	Ministry of Defence – Defence Infrastructure Organisation
DML	Deemed marine licence
EA	Environment Agency
EEZ	Exclusive Economic Zone
EH	English Heritage
EIA	Environmental Impact Assessment
EMF	Electro Magnetic Field
EPR	Examination Procedure Rules
ERCOP	Emergency Response Co-operation Plan
ES	Environmental Statement
EU	European Union
ExA	Examining Authority
GES	Good Environmental Status
HDD	Horizontal Directional Drilling
HPA	Health Protection Agency
HRA	Habitat Regulations Assessment

<b>Abbreviation or usage</b>	<b>Reference</b>
HSC	Historic Seascape Characterisation
HSE	Health and Safety Executive
ISH	Issue Specific Hearing
JNCC	Joint Nature Conservation Committee
LA	Local Authority
LAT	Lowest Astronomical Tide
LBBG	Lesser Black-backed Gull
LDF	Local Development Framework
LIR	Local Impact Report
LPA	Local Planning Authority
MACAA2009	Marine and Coastal Access Act 2009
MCA	Maritime and Coastguard Agency
MCZ	Marine Conservation Zone
MDHC	Mersey Docks and Harbour Company
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MoD	Ministry of Defence
MPS	Marine Policy Statement
MSCC	Manchester Ship Canal Company Limited
MW	Megawatt
NE	Natural England
NERCA2006	The Natural Environment and Rural Communities Act
NERL	NATs En Route Ltd
NFFO	National Federation of Fishermen's Organisations
nm	Nautical Miles
NMPW	National Marine Plan for Wales
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
NPS	National Policy Statement
NRA	Navigation Risk Assessment
NRW / CNC	Natural Resources Wales / Cyfoeth Naturiol Cymru
OFCOM	The independent regulator and competition authority for UK communications industries
OFGEM	The independent regulator and competition authority for UK gas and electricity markets
OFTO	Offshore transmission owner
PA2008	Planning Act 2008
PPW	Planning Policy Wales
PVA	Population Viability Analysis
Ramsar	The Ramsar Convention on Wetlands
RES	Renewable Energy Sources
REWS	Radar Early Warning System
REZ	Renewable Energy Zone
RIES	Report on the Implications for European Sites

<b>Abbreviation or usage</b>	<b>Reference</b>
RSPB	Royal Society for the Protection of Birds
RYA	Royal Yachting Association
SAC	Special Area of Conservation
SNCB	Statutory Nature Conservation Body
SNCBs	Statutory nature conservation bodies – a collective reference
SOCG	Statement of Common Ground
SoS	Secretary of State
SPA	Special Protection Area
SSSI	Sites of Special Scientific Interest
SLVIA	Seascape, Landscape and Visual Impact Assessment
TB	Transboundary
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VER	Valued Ecological Receptors
ZTV	Zone of theoretical visibility

**APPENDIX D:  
RECOMMENDED DEVELOPMENT CONSENT ORDER AND  
DEEMED MARINE LICENCES**



**2014 No.**

**INFRASTRUCTURE PLANNING**

**Burbo Bank Extension Offshore Wind Farm Order 201X**

<i>Made</i>	201*
<i>Laid before Parliament</i>	201*
<i>Coming into force</i> - -	***

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- 
- SCHEDULE 1 — AUTHORISED PROJECT
- PART 1 — Authorised Development
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- SCHEDULE 3 — DEEMED MARINE LICENCE UNDER THE MARINE AND COASTAL ACCESS ACT 2009 – TRANSMISSION ASSETS
- PART 1 — Licensed Marine Activities
  - PART 2 — Conditions

WHEREAS an application has been made to the Secretary of State in accordance with the Planning Act 2008 and the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009<sup>(a)</sup> made under sections 37, 42, 48, 51, 56, 58, 59, and 232 of the Planning Act 2008 (“the 2008 Act”)<sup>(b)</sup>, for an Order under section 37, 55, 115, 120, 121, 140 and 149A of the 2008 Act;

AND whereas the application was examined by an examining authority appointed by the Secretary of State pursuant to Chapter 4 of the 2008 Act;

AND whereas the examining authority having considered the national planning statements relevant to the application has concluded that the application accords with these statements as set out in section 104(3) of the 2008 Act;

AND whereas the examining authority having considered the objections made and not withdrawn and the application with the documents that accompanied the application has recommended that the Secretary of State make an Order giving effect to the proposals comprised in the application with modifications which in its opinion do not make any substantial change to the proposals;

AND whereas notice of the Secretary of State’s determination was published on [●].

NOW THEREFORE, the Secretary of State, in exercise of the powers conferred by sections 114, 115 and 149A of the 2008 Act, and of all other powers enabling the Secretary of State in that behalf, the Secretary of State makes the following Order—

### **Citation and commencement**

1. This Order may be cited as The Burbo Bank Extension Offshore Wind Farm Order 201[●] and shall come into force on [●] 201[●].

### **Interpretation**

2.—(1) In this Order—

“the 1990 Act” means the Town and Country Planning Act 1990<sup>(c)</sup>;

“the 2004 Act” means the Energy Act 2004<sup>(d)</sup>;

“the 2008 Act” means the Planning Act 2008<sup>(e)</sup>;

“the 2009 Act” means the Marine and Coastal Access Act<sup>(f)</sup>;

“ancillary works” means the ancillary works described in Part 2 of **Schedule 1** (ancillary works) 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), which is development within the meaning of section 32 of the 2008 Act;

“authorised project” means the authorised development and the ancillary works authorised by this Order;

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(a) S.I. 2009/2264 as amended by the Localism Act (Infrastructure Planning) (Consequential Amendments) Regulations 2012

(b) 2008 c.29

(c) 1990 c.8. Section 206(1) was amended by section 192(8) of, and paragraphs 7 and 11 of Schedule 8 to, the Planning Act 2008 (c.29) (date in force in relation to England) 6 April 2012: S.I. 2012/601). There are other amendments to the 1990 Act which are not relevant to this Order

(d) 2004 c.20

(e) 2008 c.29

(f) 2009 c.23

“commence” means beginning to carry out any licensed marine activities referred to in the deemed marine licence at **Schedule 2** (deemed licence under the Marine and Coastal Access Act 2009 – generation assets) and **Schedule 3** (deemed licence under the Marine and Coastal Access Act 2009 – transmission assets) and any material operation (as defined in Section 56(4) of the 1990 Act) forming part of the authorised project other than archaeological investigations, environmental surveys and monitoring, investigations for the purpose of assessing ground conditions and “commencement” shall be construed accordingly;

“deemed generation assets marine licence” means the licence set out in **Schedule 2** (deemed licence under the Marine and Coastal Access Act 2009 – generation assets) and deemed by **article 9** (deemed marine licences under the Marine and Coastal Access Act 2009) to have been granted under Part 4 of the 2009 Act, by virtue of section 149A of the 2008 Act;

“deemed marine licence(s)” means the deemed generation assets marine licence and/or the deemed transmission assets marine licence;

“deemed transmission assets marine licence” means the licence set out in **Schedule 3** (deemed licence under the Marine and Coastal Access Act 2009 – transmission assets) and deemed by **article 9** (deemed marine licences under the Marine and Coastal Access Act 2009) to have been granted under Part 4 of the 2009 Act, by virtue of section 149A of the 2008 Act;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of this Order and submitted with the application on 22 March 2013;

“gravity base foundation” means a structure principally of concrete, steel or steel and concrete which rests on the seabed either due to its own weight with or without added ballast or skirts, including associated sea bed preparation, scour protection, J-tubes, corrosion protection systems, boat landings comprising an access ladder with vertical boat fenders fitted either side and work platforms and equipment;

“jacket foundation” means a jacket/lattice type structure constructed of concrete, steel or steel and concrete which is fixed to the seabed at three or more points with driven or pre-installed piles or suction caissons, including associated scour protection, J-tubes, corrosion protection systems, boat landings comprising an access ladder with vertical boat fenders fitted either side, access and work platforms and equipment;

“land plan” means the plan certified as the land plan by the Secretary of State for the purposes of the Order;

“LAT” means lowest astronomical tide;

“maintain” includes inspect, maintain, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of **Schedule 1** (ancillary works) and any component part of any wind turbine generator or offshore substation described in Part 1 of **Schedule 1** (authorised development) (but not including the alteration removal or replacement of foundations) to the extent assessed in the environmental statement; and “maintenance” shall be construed accordingly;

“MCA” means the Maritime and Coastguard Agency or any successor body to its functions;

“mean high water springs” or “MHWS” means the highest level which spring tides reach on average over a period of time above chart datum;

“MMO” means the Marine Management Organisation or any successor body to its functions;

“the Order limits” means the limits shown on the works plan within which the authorised project may be carried out, whose grid coordinates are set out in paragraph 1 of Part 1 of **Schedule 1** (authorised development) of this Order;

“offshore substation” means an offshore platform constructed of steel or concrete or steel and concrete with single or multiple decks housing major electrical equipment including high voltage transformers, switchgear, control rooms, cabling and busbars, lightning protection masts, communications masts, cable management, back-up generators, fuel storage, emergency accommodation, workshops and stores, helihoist facilities, cranes and other associated electrical and ancillary equipment;

“requirements” means the requirements in Part 3 of **Schedule 1** to this Order;

“scheduled works” means the numbered works specified in Part 1 of **Schedule 1** to this Order, or any part of them;

“scour protection” means measures to prevent loss of seabed sediment around foundation bases by use of protective aprons, mattresses, flow energy dissipation (frond) devices or rock and gravel dumping;

“Secretary of State” means the Secretary of State for Energy and Climate Change and includes the Secretary of State's function of deciding an application for an order granting development consent under section 103 of the 2008 Act as amended;

“steel monopile foundation” means a steel large diameter pile, typically cylindrical, driven and/or drilled into the seabed, including associated scour protection, transition piece, J-tubes, corrosion protection systems, boat landings comprising an access ladder with vertical boat fenders fitted either side, access and work platforms and equipment;

“suction caisson” means a large diameter steel cylinder which is fixed to the base of the foundation and partially penetrates the seabed and remains in place using its own weight and hydrostatic pressure differential;

“Trinity House” means The Corporation of Trinity House of Deptford Strond or any successor body to its functions;

“undertaker” means DONG Energy Burbo Extension (UK) Limited, which is the named undertaker, or any other person who has the benefit of this Order in accordance with section 156 of the 2008 Act for such time as that section applies to that person; subject to article 6(2) of the Order;

“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 horizontal axis blades connected at the hub, nacelle containing mechanical and electrical equipment, ancillary equipment including access ladders and platforms, lifts, cables, corrosion protection systems, maintenance equipment, helihoist facilities and other associated equipment, fixed to a foundation;

“works plan” means the plan certified as the works plan by the Secretary of State for the purposes of the Order;

(2) All distances, directions and lengths referred to in this Order are approximate.

(3) 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.

(4) The expression “includes” shall be construed without limitation.

(5) With the exception of **requirement 6** (lighting), the requirements under Part 2 of **Schedule 1** (requirements) shall be enforceable by the Secretary of State.

### **Development consent etc. granted by the Order**

**3.**—(1) Subject to the provisions of this Order and to 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.

(2) Subject to the requirements, the works comprised in the authorised development may be constructed anywhere within the Order limits.

### **Power to maintain authorised project**

4. The undertaker may, at any time maintain the authorised project, except to the extent that this Order or an agreement made under this Order provides otherwise.

### **Operation of electricity generating station**

5.—(1) The undertaker is hereby authorised to operate the generating station comprised in the authorised development.

(2) This article does not relieve the undertaker of any requirement to obtain any permit or licence under any other legislation that may be required from time to time to authorise the operation of an electricity generating station.

### **Benefit of the Order**

6.—(1) Subject to the provisions of this article, the undertaker may with the consent of the Secretary of State—

- (a) transfer to another person (“the transferee”) any or all of the benefit of the provisions of this Order (excluding the deemed marine licences referred to in (3) below) 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 (excluding the deemed marine licences referred to in (3) below) and such related statutory rights as may be so agreed.

except where paragraph (5) applies in which case no such consent shall be required.

(2) Where an agreement has been made in accordance with paragraph (1) or (3) references in this Order to the undertaker, except in paragraph (6), shall include references to the transferee or lessee.

(3) The undertaker may with the written consent of the MMO—

- (a) where an agreement has been made in accordance with paragraph (1)(a), transfer to the transferee the whole of the deemed generation assets marine licence and/or the whole of the deemed transmission assets marine licence and such related statutory rights as may be agreed between the undertaker and the transferee; or
- (b) where an agreement has been made in accordance with paragraph (1)(b), grant to the lessee, for the duration of the period mentioned in paragraph (1)(b), the whole of the deemed generation assets marine licence and/or the whole of the deemed transmission assets marine licence and such related statutory rights as may be so agreed,

except where paragraph (5) applies, in which case no such consent shall be required.

(4) Where the undertaker has transferred any benefit and/or a deemed marine licence, or for the duration of any period during which the undertaker has granted any benefit and/or a deemed marine licence under paragraph (1) or (3)—

- (a) the benefit and/or a deemed marine licence transferred or granted (“the transferred benefit”) shall include any rights that are conferred, and any obligations that are imposed by virtue of the provisions to which the transferred benefit relates;
- (b) the transferred benefit shall reside exclusively with the transferee or, as the case may be, the lessee and the transferred benefit shall not be enforceable against the undertaker save in the case of a deemed marine licence transferred or granted in respect of any breach of an obligation by the undertaker which occurs prior to such transfer or grant or which occurs as a result of any activity carried out by the undertaker on behalf of the transferee.

(5) This paragraph applies where the transferee or lessee under paragraph (1) or (3) is the holder of a licence under section 6 of the Electricity Act 1989<sup>(a)</sup>

(6) The exercise by a person of any benefits or rights conferred in accordance with any transfer or grant under paragraph (1) or (3) shall be subject to the same restrictions, liabilities, obligations and undertakings as would apply under this Order if those benefits or rights were exercised by the undertaker.

(7) Where paragraph (5) applies—

- (a) the undertaker shall provide written notification to the Secretary of State prior to transferring and/or granting any benefit under paragraph (1); and
- (b) the undertaker shall provide written notification to the MMO prior to transferring and/or granting any deemed marine licence under paragraph (3).

### **Public rights of navigation**

7.—(1) Subject to paragraph (2), the rights of navigation over the places in the sea where any of the wind turbine generators and offshore substation, 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 and offshore substation 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**

8. Where Work No. 1(a) and Work No. 2 or any part of them are 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(a) and Work No. 2 or any relevant part of them, 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(a) and Work No.2 to a safe and proper condition within an area and to such an extent as may be specified in the notice.

### **Deemed marine licences under the Marine and Coastal Access Act 2009**

9. The undertaker is granted the deemed licences under Part 4 Chapter 1 of the 2009 Act to carry out the works and make the deposits and removals specified in Part 1 of **Schedule 2** (deemed licence under the Marine and Coastal Access Act 2009 – generation assets) and Part 1 of **Schedule 3** (deemed licence under the Marine and Coastal Access Act 2009 – transmission assets), both subject to the conditions set out in Part 2 of those Schedules.

### **Saving for Trinity House**

10. Nothing in this Order prejudices or derogates from any of the rights, duties or privileges of Trinity House.

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(a) 1989 c29

## **Crown Rights**

**11.**—(1) Nothing in this Order affects prejudicially any estate, right, power, privilege, authority or exemption of the Crown and in particular, nothing in this Order authorises the undertaker or any licensee—

- (a) to take, use, enter upon or in any manner interfere with any land or rights of any description (including any portion of the shore or bed of the sea or any river, channel, creek, bay or estuary)—
  - (i) belonging to Her Majesty in right of the Crown and forming part of The Crown Estate without the consent in writing of the Crown Estate Commissioners;
  - (ii) belonging to Her Majesty in right of the Crown and not forming part of The Crown Estate without the consent in writing of the government department having the management of that land; or
  - (iii) belonging to a government department or held in trust for Her Majesty for the purposes of a government department without the consent in writing of that government department; or
- (b) to exercise any right under this Order compulsorily to acquire an interest in any land which is Crown land (as defined in the 2008 Act) which is for the time being held otherwise than by or on behalf of the Crown without the consent in writing of the appropriate Crown authority (as defined in the 2008 Act).

(2) A consent under paragraph (1) may be given unconditionally or subject to terms and conditions; and shall be deemed to have been given in writing where it is sent electronically.

## **Certification of plans etc**

**12.**—(1) The undertaker shall, as soon as practicable after the making of this Order, submit to the Secretary of State copies of—

- (a) the works plan (document reference 5(2)(j) dated March 2013);
- (b) the land plan (document reference 5(2)(i) dated March 2013);
- (c) the outline ornithological survey document (dated March 2014); and
- (d) the environmental statement (March 2013),

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**

**13.** 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 Secretary of State.

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

# SCHEDULE 1

## AUTHORISED PROJECT

### PART 1

#### Authorised Development

1. A nationally significant infrastructure project as defined in sections 14 and 15 of the Act approximately 7 km off the north Wirral coast, 8.5 km from Crosby beach and 12.2 km off the coast of Point of Ayr, Wales, being an extension to the existing Burbo Bank offshore wind farm located on the bed of Liverpool Bay, comprising—

*Work No. 1*

- (a) an offshore wind turbine generating station with a gross electrical output capacity of up to 259 MW comprising up to 69 wind turbine generators each fixed to the seabed by one of three foundation types (namely steel monopile foundation, gravity base foundation or jacket foundation), fitted with rotating blades and situated within the Order limits and further comprising (b) below;
- (b) a network of cables laid underground within the Order limits between the WTGs and Work No. 2, for the transmission of electricity and electronic communications between those different structures;

and associated development within the meaning of section 115(2) of the 2008 Act comprising—

*Work No. 2* – Up to one offshore substation fixed to the seabed by one of three foundation types (namely steel monopile foundation, gravity base foundation or jacket foundation), within the Order limits;

*Work No. 3* – A grid connection from Work No. 2 consisting of up to two cables laid along routes within the Order limits, including one or more cable crossings, to Welsh territorial waters at grid coordinates 53° 25.82' / -3° 21.97' and 53° 25.99' / -3° 22.32';

and in connection with such Work Nos. 1 to 3 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 the provisions of the deemed marine licences.

2. The grid coordinates for the Order limits are specified below—

#### Coordinates for the Order limits (WGS 1984)

<i>Point</i>	<i>Latitude (DD)</i>	<i>Longitude (DD)</i>	<i>Point</i>	<i>Latitude (DD)</i>	<i>Longitude (DD)</i>
A	53.502373	-3.376542	F	53.463623	-3.305973
B	53.502832	-3.220001	G	53.465333	-3.309167
C	53.494704	-3.223993	H	53.468333	-3.314667
D	53.470225	-3.179047	I	53.433167	-3.372000
E	53.463884	-3.196287	J	53.430333	-3.366167



## PART 2

### Ancillary Works

Works within the Order limits which have been subject to an environmental impact assessment recorded in the environmental statement comprising—

- (a) temporary offshore landing places or other means of accommodating vessels in the construction and/or maintenance of the authorised development; and
- (b) buoys, beacons, fenders and other navigational warning or ship impact protection works.

## PART 3

### Requirements

#### **Time limits**

1. The authorised development shall commence no later than the expiration of five years beginning with the date this Order comes into force or for such longer period as the Secretary of State may hereafter direct in writing.

#### **Detailed design parameters**

2.—(1) Subject to paragraph (2), no wind turbine generator forming part of the authorised development shall—

- (a) exceed a height of 223 metres when measured from MHWS to the tip of the vertical blade;
- (b) exceed a height of 123 metres when measured from MHWS to the height of the centreline of the generator shaft forming part of the hub;
- (c) exceed a rotor diameter of 200 metres;
- (d) be less than 700 metres from the nearest WTG or be greater than 1,960 metres from the nearest WTG in either 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 WTG are references to the centre point of the tower of that turbine.

3.—(1) The total number of offshore substations forming part of the authorised development shall not exceed one.

(2) The dimensions of any offshore substation forming part of the authorised development (excluding helihoist facilities, towers, masts and cranes) shall not exceed 50 metres in height when measured from LAT, 40 metres in length and 30 metres in width.

(3) The offshore substation shall have no more than one supporting foundation.

4. The total length of the cables comprising Work No. 1(b) shall not exceed 65 kilometres and the total length of the cables comprising Work No.3 shall not exceed 17 kilometres.

5.—(1) Each steel monopile foundation forming part of the authorised development (excluding scour protection) shall not have a diameter which is greater than 8 metres.

(2) Each gravity base foundation forming part of the authorised development (excluding scour protection) shall not have—

- (a) a diameter at the level of the seabed which is greater than 35 metres;
- (b) in the case of the WTGs, a base height which is greater than 6 metres above the level of the seabed;

- (c) in the case of the offshore substation, a base height which is greater than 16 metres above the level of the seabed and less than 1 metre below LAT;
  - (d) in the case of the WTGs, a column diameter of greater than 9 metres.
- (3) Each jacket foundation forming part of the authorised development (excluding scour protection) shall not have—
- (a) a width spacing between each leg at the level of the seabed which is greater than 35 metres;
  - (b) a leg diameter which is greater than 3 metres;
  - (c) a width spacing between each leg at MHWS which is greater than 35 metres;
  - (d) a pile sleeve height which is greater than 18 metres above the level of the seabed;
  - (e) a pile diameter which is more than 3 metres;
  - (f) more than one pile per leg, save in the case of the offshore substation where it shall not have more than four piles per leg;
  - (g) more than four legs;
  - (h) in the case of the offshore substation only, a suction caisson per leg which is greater than 15 metres in diameter.
- (4) To reduce potential impacts on adult salmon migration—
- (a) no more than 69 steel monopile foundations with a pile diameter of 6 metres or less (excluding scour protection) shall be installed as part of the authorised development;
  - (b) no more than 65 steel monopile foundations with a pile diameter between 6 metres and 6.5 metres (excluding scour protection) shall be installed as part of the authorised development;
  - (c) no more than 55 steel monopile foundations with a pile diameter between 6.5 metres and 7.5 metres (excluding scour protection) shall be installed as part of the authorised development;
  - (d) no more than 45 steel monopile foundations with a pile diameter between 7.5 metres and 8 metres (excluding scour protection) shall be installed as part of the authorised development.

### **Lighting**

6. The undertaker shall retain and exhibit such lights for the life of the authorised development with such shape colour and character as are required by the Air Navigation Order 2009 or as directed by the CAA. Such lights shall be of a luminous intensity of a maximum of 2000 candela.

### **Decommissioning**

7. No authorised development 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.

### **Navigational radar scheme at the Port of Liverpool**

8.—(1) No construction of any wind turbine generator forming part of the authorised development shall commence until the Secretary of State having consulted with the Operator is satisfied that appropriate mitigation will be implemented and maintained for the life of the authorised development and that arrangements have been put in place with the Operator to ensure that such appropriate mitigation is implemented.

(2) For the purposes of this requirement—

“appropriate mitigation” means a navigational radar scheme to prevent or remove any adverse impacts which the operation of the authorised development will have on the Operator’s ability

to provide safe navigation within the limits of the Port of Liverpool during the life of the authorised development;

“Operator” means Mersey Docks and Harbour Company Limited incorporated under the Companies Act (7438262) whose registered office is Maritime Centre, Port of Liverpool, Liverpool, Merseyside L21 1LA or such other organisation as is authorised from time to time under Docks and Harbours Act 1972 to provide safe navigation within the limits of the Port of Liverpool.

(3) The undertaker shall thereafter comply with all obligations contained within the approved mitigation for the life of the authorised development.

#### **Air traffic services at Warton Aerodrome**

**9.**—(1) No construction of any wind turbine generator forming part of the authorised development shall commence until the Secretary of State, having consulted with the Ministry of Defence and the Operator, confirms in writing that he is satisfied that appropriate mitigation will be implemented and maintained for the life of the authorised development and that arrangements have been put in place with the Operator to ensure that such appropriate mitigation is implemented.

(2) For the purposes of this requirement—

“appropriate mitigation” means measures to prevent or remove any adverse impacts which the operation of the authorised development will have on the Operator’s ability to provide safe and efficient air traffic services for Warton Aerodrome during the life of the authorised development;

“Ministry of Defence” means as represented by Defence Infrastructure Organisation – Safeguarding, Kingston Road, Sutton Coldfield, B75 7RL or any successor body;

“Operator” means BAE Systems (Operations) Limited incorporated under the Companies Act (Company Number 01996687) whose registered office is Warwick House, PO Box 87, Farnborough Aerospace Centre, Farnborough, Hants, GU14 6YU or such other organisation as is licensed from time to time under sections 5 and 6 of the Transport Act 2000 to provide air traffic services for Warton Aerodrome.

(3) The undertaker shall thereafter comply with all obligations contained within the approved mitigation for the life of the authorised development.

#### **Primary surveillance radars at Lytham St Annes and Great Dun Fell**

**10.**—(1) No construction of any wind turbine generator forming part of the authorised development shall commence until the Secretary of State in consultation with the Operator is satisfied that a primary radar mitigation scheme has been agreed in order to avoid the impact of the development on the primary radar of the Operator located at St Annes and Great Dun Fell and on associated air traffic management operations.

(2) No construction of any wind turbine generator forming part of the authorised development shall commence until the Operator has confirmed to the Secretary of State that an approved primary radar mitigation scheme has been implemented and the development shall thereafter be operated fully in accordance with such approved scheme.

(3) For the purposes of this requirement—

“primary radar mitigation scheme” means a detailed scheme agreed with the Operator which sets out the measures to be taken to avoid at all times the impact of the development on the St Annes and Great Dun Fell primary radars and on air traffic management operations of the Operator;

“Operator” means NATS (En Route) plc, incorporated under the Companies Act (4129273) whose registered office is 4000 Parkway, Whiteley, Fareham, Hants PO15 7FL or such other organisation licensed from time to time under sections 5 and 6 of the Transport Act 2000 to provide air traffic services to the relevant managed area (within the meaning of section 40 of that Act).

## **Air traffic services at Liverpool John Lennon Airport**

**11.**—(1) No construction of any wind turbine generator forming part of the authorised development shall commence until the Secretary of State having consulted with the Operator and the CAA is satisfied that appropriate mitigation will be implemented and maintained for the life of the authorised development and that arrangements have been put in place with the Operator to ensure that such appropriate mitigation is implemented.

(2) For the purposes of this requirement—

“appropriate mitigation” means measures to prevent or remove any adverse impacts which the operation of the authorised development will have on the Operator’s ability to provide safe and efficient air traffic services for Liverpool John Lennon Airport during the life of the authorised development;

“Operator” means Liverpool Airport Limited incorporated under the Companies Act (2116704) whose registered office is Liverpool John Lennon Airport, Liverpool L24 1YD or such other organisation as is licensed from time to time under sections 5 and 6 of the Transport Act 2000 to provide air traffic services for Liverpool John Lennon Airport.

(3) The undertaker shall thereafter comply with all obligations contained within the approved mitigation for the life of the authorised development.

## **SCHEDULE 2**

### **DEEMED MARINE LICENCE UNDER THE MARINE AND COASTAL ACCESS ACT 2009 – GENERATION ASSETS**

#### **PART 1**

##### **Licensed Marine Activities**

**1.**—(1) In this licence—

“the 2004 Act” means the Energy Act 2004;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“Annex 1 Habitat” means such habitat as defined under the EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora;

“authorised deposits” means the substances and articles specified in paragraph 2(3) of this licence;

“authorised scheme” means the works described in paragraph 2 of this licence or any part of those works;

“the CAA” means the Civil Aviation Authority constituted by the Civil Aviation Act 1982 or any successor body to its functions;

“cable armouring” means measures for cable crossings to protect cables and prevent loss of seabed sediment by use of grout bags, protective aprons, mattresses, flow energy dissipation (frond) devices or rock and gravel dumping;

“Cefas” means the Centre for Environment, Fisheries and Aquaculture Science or any successor body to its functions;

“commence” means the first carrying out of any part of the licensed activities save for pre-commencement environmental surveys and monitoring;

“condition” means a condition in Part 2 of this licence;

“enforcement officer” means a person authorised to carry out enforcement duties under Chapter 3 of the 2009 Act;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of this Order and submitted with the application on 22 March 2013;

“generation assets” means Work No. 1, as set out in paragraph 2(2) of this licence;

“gravity base foundation” means a structure principally of concrete, steel or steel and concrete which rests on the seabed either due to its own weight with or without added ballast or skirts, including associated sea bed preparation, scour protection, J-tubes, corrosion protection systems, boat landings comprising an access ladder with vertical boat fenders fitted either side and work platforms and equipment;

“jacket foundation” means a jacket/lattice type structure constructed of concrete, steel or steel and concrete which is fixed to the seabed at three or more points with driven or pre-installed piles or suction caissons, including associated scour protection, J-tubes, corrosion protection systems, boat landings comprising an access ladder with vertical boat fenders fitted either side, access and work platforms and equipment;

“Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“licensed activities” means the activities specified in Part 1 of this licence;

“LAT” means lowest astronomical tide;

“maintain” includes inspect, maintain, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule 1 (ancillary works) and any component part of any wind turbine generator or offshore substation described in Part 1 of Schedule 1 (authorised development) (but not including the alteration removal or replacement of foundations) to the extent assessed in the environmental statement; and “maintenance” shall be construed accordingly;

“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 or any successor body to its functions;

“major storm event” means a greater than 1 in 10 year wave event within the Order limits seaward of MHWS in terms of wave height;

“MCA” means the Maritime and Coastguard Agency or any successor body to its functions;

“mean high water springs” or “MHWS” means the highest level which spring tides reach on average over a period of time;

“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;

“the Order” means the Burbo Extension Offshore Wind Farm Order 201X;

“the Order limits” means the limits shown on the works plan within which the authorised scheme may be carried out, whose grid coordinates are set out in paragraph 2(3) of this Order;

“scour protection” means measures to prevent loss of seabed sediment around foundation bases by use of protective aprons, mattresses, flow energy dissipation (frond) devices or rock and gravel dumping;

“steel monopile foundation” means a steel large diameter pile, typically cylindrical, driven and/or drilled into the seabed, including associated scour protection, transition piece, J-tubes, corrosion protection systems, boat landings comprising an access ladder with vertical boat fenders fitted either side, access and work platforms and equipment;

“suction caisson” means a large diameter steel cylinder which is fixed to the base of the foundation and partially penetrates the seabed and remains in place using its own weight and hydrostatic pressure differential;

“Trinity House” means The Corporation of Trinity House of Deptford Strond or any successor body to its functions;

“UK Hydrographic Office” means the UK Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN or any successor body to its functions;

“undertaker” means DONG Energy Burbo Extension (UK) Limited, which is the named undertaker, or any other person who has the benefit of this Order in accordance with section 156 of the 2008 Act for such time as that section applies to that person;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“wind turbine generator” or “WTG” means a structure comprising a tower, rotor with three horizontal axis blades connected at the hub, nacelle containing mechanical and electrical equipment, ancillary equipment including access ladders and platforms, lifts, cables, corrosion protection systems, maintenance equipment, helihoist facilities and other associated equipment, fixed to a foundation;

“Work No. 2” means the offshore substation;

“the works plan” means the plan certified as the works plan by the Secretary of State for the purposes of the Order.

(2) A reference to any statute, order, regulation or similar instrument shall be construed as a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) Unless otherwise indicated—

- (a) all times shall be taken to be Greenwich Mean Time (GMT);
- (b) all co-ordinates shall be taken to be latitude and longitude degrees 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

Offshore Licensing Team

Lancaster House

Hampshire Court

Newcastle Business Park

Newcastle upon Tyne

NE4 7YH

Tel: 0300 123 1032;

(b) Marine Management Organisation Coastal Office

Neville House

Central Riverside

Bell Street

North Shields

Tyne and Wear

NE30 1LJ

Tel: (24-hour answer phone) 0191 257 4520 or 0191 257 0159

Fax: 0191 257 1595;

(c) Trinity House

- Navigation Directorate  
Tower Hill  
London  
EC3N 4DH  
Tel: 020 7481 6900;
- (d) The United Kingdom Hydrographic Office  
Oil and Gas Section (RT1)  
Admiralty Way  
Taunton  
Somerset  
TA1 2DN  
Tel: 01823 337 900;
- (e) Maritime and Coastguard Agency  
Navigation Safety Branch  
Bay 2/04  
Spring Place  
105 Commercial Road  
Southampton  
SO15 1EG  
Tel: 023 8032 9191;
- (f) Centre for Environment, Fisheries and Aquaculture Science  
Pakefield Road  
Lowestoft  
Suffolk  
NR33 0HT  
Tel: 01502 562 244;
- (g) Natural England  
Foundry House  
3 Millsands  
Riverside Exchange  
Sheffield  
S3 8NH  
Tel: 0300 060 4911;
- (h) English Heritage  
Eastgate Court  
195-205 High Street  
Guildford  
GU1 3EH  
Tel: 01483 252 057.

#### **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 (3) below;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation; and
- (d) the disposal of up to 173,500m<sup>3</sup> of inert material of natural origin produced during the drilling installation of monopiles or jacket foundations for Work No. 1 at disposal site reference IS135 Burbo Bank Extension OWF.

(2) The works referred to in (1)(b) comprise—

*Work No.1*

- (a) an offshore wind turbine generating station with a gross electrical output capacity of up to 259 MW comprising up to 69 wind turbine generators each fixed to the sea bed by one of three foundation types (namely steel monopile foundation, gravity base foundation or jacket foundation), fitted with rotating blades and situated within the Order limits and further comprising (b) below;
- (b) a network of cables laid underground within the Order limits between the WTGs and Work No. 2, for the transmission of electricity and electronic communications between those different structures, including one or more cable crossings;

and in connection with Work No. 1 and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence;

and in connection with Work No. 1, works comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction and/or maintenance of the authorised scheme; and
- (b) buoys, beacons, fenders and other navigational warning or ship impact protections works.

(3) The substances or articles authorised for deposit at sea are—

- (a) iron and steel;
- (b) stone and rock;
- (c) concrete;
- (d) sand and gravel;
- (e) plastic and synthetic;
- (f) electrical apparatus including copper composites;
- (g) material extracted from within the Order limits during construction drilling; and
- (h) marine coatings, grout, other chemicals (such as water-based drilling muds) and timber.

3. The grid coordinates for the authorised scheme are specified below—

<i>Point</i>	<i>Latitude (DD)</i>	<i>Longitude (DD)</i>	<i>Point</i>	<i>Latitude (DD)</i>	<i>Longitude (DD)</i>
A	53.502373	-3.376542	E	53.463884	-3.196287
B	53.502832	-3.220001	F	53.463623	-3.305973
C	53.494704	-3.223993	G	53.465333	-3.309167
D	53.470225	-3.179047	H	53.468333	-3.314667

4. This licence shall remain in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 of the 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.



5. The provisions of Section 72 of the 2009 Act shall apply to this licence save that the provisions of Section 72(7) relating to the transfer of the licence shall only apply to a transfer not falling within **article 6** (benefit of the Order).

## 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 223 metres when measured from MHWS to the tip of the vertical blade;
- (b) exceed a height of 123 metres when measured from MHWS to the height of the centreline of the generator shaft forming part of the hub;
- (c) exceed a rotor diameter of 200 metres;
- (d) be less than 700 metres from the nearest WTG or be greater than 1,960 metres from the nearest wind turbine generator in either 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 the tower of that turbine.

2. *[Not used]*

3. The total length of the cables comprising Work No. 1(b) shall not exceed 65 kilometres.

4.—(1) Each steel monopile foundation forming part of the authorised scheme (excluding scour protection) shall not have a diameter greater than 8 metres.

(2) Each gravity base foundation forming part of the authorised scheme (excluding scour protection) shall not have—

- (a) a diameter at the level of the seabed which is greater than 35 metres;
- (b) a base height which is greater than 6 metres above the level of the seabed;
- (c) a column diameter of greater than 9 metres.

(3) Each jacket foundation forming part of the authorised scheme (excluding scour protection) shall not have—

- (a) a width spacing between each leg at the level of the seabed which is greater than 35 metres;
- (b) a leg diameter which is greater than 3 metres;
- (c) a width spacing between each leg at MHWS which is greater than 35 metres;
- (d) a pile sleeve height which is greater than 18 metres above the level of the seabed;
- (e) a pile diameter which is more than 3 metres;
- (f) more than one pile per leg; and
- (g) more than four legs.

(4) The total amount of scour protection for the WTGs forming part of the authorised scheme shall not exceed 1,552,500m<sup>3</sup>.

(5) To reduce potential impacts on adult salmon migration—

- (a) no more than 69 steel monopile foundations with a pile diameter of 6 metres or less (excluding scour protection) shall be installed as part of the authorised scheme;

- (b) no more than 65 steel monopile foundations with a pile diameter between 6 metres and 6.5 metres (excluding scour protection) shall be installed as part of the authorised scheme;
- (c) no more than 55 steel monopile foundations with a pile diameter between 6.5 metres and 7.5 metres (excluding scour protection) shall be installed as part of the authorised scheme;
- (d) no more than 45 steel monopile foundations with a pile diameter between 7.5 metres and 8 metres (excluding scour protection) shall be installed as part of the authorised scheme.

### **Notifications and inspections**

5.—(1) The undertaker shall ensure that—

- (a) a copy of this licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
  - (i) all agents and contractors notified to the MMO in accordance with condition 13; and
  - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 13;

- (b) Within 28 days of receipt of a copy of this licence those persons referred to in paragraph (a) above shall provide a completed confirmation form to the MMO confirming that they have read and will comply with 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 of 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 or removals are to be made.

(4) The documents referred to in paragraph (1)(a) shall be available for inspection by an authorised enforcement officer at the locations set out in paragraph 3(b) above.

(5) The undertaker shall provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during construction and operation of the authorised scheme.

(6) The undertaker shall inform the MMO Coastal Office in writing at least five working days prior to the commencement of the licensed activities or any part of them.

(7) Prior to the commencement of the licensed activities or any part of them the undertaker shall publish in the Kingfisher Fortnightly Bulletin details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part.

(8) The undertaker shall ensure that a notice to mariners is issued at least 10 working days prior to the commencement of the licensed activities or any part of them advising of the start date of Work No. 1 and the expected vessel routes from the local construction ports to the relevant locations.

(9) The undertaker shall ensure that the notices to mariners are updated and reissued at weekly intervals during construction activities and within 5 working days of any planned operations and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme approved under condition 11(b). Copies of all notices shall be provided to the MMO.

(10) The undertaker shall notify—

- (a) the Hydrographic Office of both the commencement (within two weeks), progress and completion (within two weeks) of the authorised scheme in order that all necessary amendments to nautical charts are made; and
- (b) the MMO, MCA and Trinity House within two weeks once the authorised scheme is completed and any required lighting or marking has been established.

### **Navigational practice, safety and emergency response**

6.—(1) The authorised scheme shall not 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 MGN 371 “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 as appropriate to the authorised scheme.

(2) The undertaker will prepare and implement a project-specific Active Safety Management System, taking account of safety and mitigation measures as referred to in the navigation risk assessment in the environmental statement.

### **Aids to navigation**

7.—(1) The undertaker shall at or near the authorised scheme during the whole period of the construction, operation, alteration, replacement or decommissioning of the authorised scheme exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation, as Trinity House may from time to time direct.

(2) The undertaker shall notify Trinity House, in writing, as soon as reasonably practicable, of the progress of construction of the authorised scheme or any part of it and any aids to navigation established from time to time during construction.

(3) The undertaker shall provide reports on the availability of aids to navigation periodically as requested by Trinity House.

(4) In case of injury to, or destruction or decay of, the authorised scheme or any part thereof the undertaker shall as soon as reasonably practicable notify Trinity House 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.

8.—(1) 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.

(2) Subject to paragraph (1) above, unless the Secretary of State otherwise directs, the undertaker shall ensure that the wind turbine generators shall be painted submarine grey (colour code RAL 7035).

### **Chemicals, drilling and debris**

9.—(1) Unless otherwise agreed in writing by the MMO all chemicals used in the construction of the authorised scheme, including any chemical agents placed within any monopile void, 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).

(2) The undertaker shall ensure that any coatings/treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by the Health and Safety Executive or the Environment Agency Pollution Prevention Guidelines.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances shall be undertaken so as to prevent releases into the marine environment, including bunding of 110% of the total volume of all reservoirs and containers.

(4) Where foundation drilling works are proposed, in the event that any system other than water-based mud is proposed the MMO's written approval in relation to the proposed disposal of any arisings shall be obtained before the drilling commences, which may also require a marine licence.

(5) The undertaker shall ensure that any debris arising from the construction of the authorised scheme or temporary works placed below MHWS are removed on completion of the authorised scheme, unless otherwise agreed with the MMO.

(6) At least two months prior to the commencement of the licensed activities the undertaker shall submit to the MMO an audit sheet covering all aspects of the construction of the licenced activities or any part of them. 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 (or relevant part) and any changes notified immediately in writing to the MMO which shall give written approval prior to any change being implemented.

(8) In the event that the MMO becomes aware that any of the materials on the audit sheet cannot be accounted for it shall require the undertaker to carry out a side scan sonar survey to plot all obstructions across the relevant area(s) within the Order limits where construction works and related activities related to those materials have been carried out and, if the initial survey does not locate the missing materials, over such wider area as the MMO may reasonably request. Local fishermen shall be invited to send a representative to be present during the survey. Any new obstructions that the MMO believes to be associated with the authorised scheme shall be removed at the undertaker's expense.

(9) The undertaker shall inform the MMO of the location and quantities of material disposed of each month under the Order, by submission of a disposal return by 31 January each year for the months August to January inclusive, and by 31 July each year for the months February to July inclusive.

(10) The undertaker shall ensure that only inert material of natural origin, produced during the drilling installation of foundations, and drilling mud shall be disposed of within the offshore Order limits (disposal site reference IS135 Burbo Bank Extension OWF). Any other materials shall be screened out before disposal at this site.

(11) The undertaker shall ensure that any rock material used in the construction of the authorised scheme is from a recognised source, free from contaminants and containing minimal fines.

(12) In the event that any rock material used in the construction of the authorised scheme is misplaced or lost below MHWS, the undertaker shall report the loss to the Coastal Office within 48 hours and if the MMO shall reasonably consider such material to constitute a navigation or environmental hazard (dependent on the size and nature of the material) the undertaker shall endeavour to locate the material and recover it.

(13) The undertaker shall ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas should be contained to prevent run off entering the water through the freeing ports.

(14) The undertaker shall ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team.

### **Force majeure**

**10.** If, due to stress of weather or any other cause the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the

safety of human life and/or of the vessel is threatened, within 48 hours full details of the circumstances of the deposit shall be notified to the MMO. The unauthorised deposits shall be removed at the expense of the undertaker unless written approval is obtained from the MMO.

### **Pre-construction plans and documentation**

**11.** No part of the works at paragraph 2(2) of Part 1 (licensed marine activities) of this Schedule shall commence until the following (as relevant to that part) have been submitted to and approved in writing by the MMO—

- (a) A design plan at a scale of between and including 1:25,000 and 1:50,000, including detailed representation on the most suitably scaled admiralty chart, to be agreed in writing with the MMO in consultation with Trinity House and the MCA which shows—
  - (i) the indicative proposed layout and location and choice of foundation of all wind turbine generators;
  - (ii) the height to the tip of the vertical blade; height to the centreline of the generator shaft forming part of the hub; rotor diameter and spacing of all wind turbine generators;
  - (iii) the length and arrangement of all cables comprising Work No. 1(b);
  - (iv) the dimensions of all gravity base foundations;
  - (v) the dimensions of all jacket foundations;
  - (vi) the dimensions of all steel monopile foundations;
  - (vii) in plan form, the indicative programming of particular works as set out in the indicative construction programme to be provided under condition 11(b)(iv);
  - (viii) any exclusion zones or micrositing requirements identified in any mitigation scheme pursuant to condition 11(j);
  - (ix) any archaeological exclusion zones identified under condition 11(h)(iv);

to ensure conformity with the description of Works No. 1 and compliance with conditions 1 to 5 above.

- (b) A construction and monitoring programme to include details of—
  - (i) the proposed construction start date;
  - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works;
  - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction monitoring and related reporting in accordance with conditions 11(h), 15, 16 and 17. The pre-construction survey programme and all pre-construction survey methodologies shall be submitted to the MMO for written approval by the MMO in consultation with Natural England at least four months prior to the commencement of any survey works detailed within; and
  - (iv) an indicative written construction programme for all wind turbine generators and cables comprised in the works at paragraph 2(2) of Part 1 (licensed marine activities) of this Schedule (insofar as not shown in (b) above).
- (c) A construction method statement in accordance with the construction methods assessed in the environmental statement and including details of—
  - (i) drilling methods and disposal of drill arisings;
  - (ii) WTG location and installation, including scour protection;
  - (iii) cable installation;
  - (iv) contractors;
  - (v) vessels and vessels transit corridors;
  - (vi) associated works; and

- (vii) proposed mitigation measures.
- (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;
  - (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 plan and disposal arrangements; and
  - (iv) the appointment and responsibilities of a fisheries liaison officer and an environmental liaison officer
- (e) A scour protection management and cable armouring plan providing details of the need, type, sources, quantity and installation methods for scour protection and cable armouring for cable crossings.
- (f) In the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol to be agreed in writing with the MMO in consultation with Natural England and following current best practice as advised by the statutory nature conservation agencies, to include—
  - (i) identification of a Marine Mammal Monitoring Zone (MMMZ);
  - (ii) appointment of an appropriate number of suitably qualified marine mammal observer(s);
  - (iii) methods for the detection of marine mammals within the MMMZ whether visually (by the marine mammal observer(s)) or acoustically using Passive Acoustic Monitoring equipment or other means of detection;
  - (iv) a reporting methodology to enable efficient communication between the marine mammal observer(s) and the person responsible for approving commencement of piling;
  - (v) an appropriate soft start procedure whereby piling activities do not commence until an agreed time has elapsed and during which marine mammals have not been detected within the MMMZ;
  - (vi) where appropriate, methods for the application of acoustic deterrent devices.
- (g) A cable specification and installation plan to be agreed in writing by the MMO, and to include—
  - (i) technical specification of the offshore cables including a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice; and
  - (ii) a detailed cable laying plan, incorporating a burial risk assessment to ascertain suitable burial depths and cable laying techniques.
- (h) A written scheme of archaeological investigation (WSI) in relation to the Order limits in accordance with industry best practice and to be approved in writing by the MMO in consultation with English Heritage to include—
  - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
  - (ii) a methodology for any further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
  - (iii) analysis and reporting of survey data, 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 including all spatial data for the extent and location of archaeological exclusion zones;

- (v) monitoring during and post construction, including a conservation programme for finds;
  - (vi) archiving of archaeological material, inclusive of any completed and agreed archaeological reports produced through the WSI which are to be deposited by the undertaker within a public archive in accordance with the OASIS (Online Access to the Index of archaeological investigations) system; and
  - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme.
- (i) A vessel traffic management plan during construction and operation of the authorised scheme, to include vessel routing for any vessels operating from the Port of Barrow such that all such vessels avoid the area of the Liverpool Bay SPA plus a 2km buffer from the boundary of the SPA during the period October to March and in the area north of grid reference 53.683333 (DD, WGS 1984) in order to avoid the disturbance of wintering aggregations of common scoter at, and in the vicinity of, the Shell Flat.
  - (j) A mitigation scheme for any Annex 1 features identified by the survey referred to in condition 15(2)(a).

**12.—**(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 11 shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The licensed activities shall be carried out in accordance with the approved plans, protocols, statements, schemes and details approved under condition 11, unless otherwise agreed in writing by the MMO.

**Reporting of engaged agents, contractors and vessels**

**13.—**(1) The undertaker shall provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details shall be notified to the MMO in writing five working days prior to the agent, contractor or vessel engaging in the licensed activities.

**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 (save in the case of remotely operated vehicles or vessels) shall comply with paragraphs (2) to (5) below.

(2) All motor powered vessels shall be fitted with—

- (a) electronic positioning aid to provide navigational data;
- (b) radar;
- (c) echo sounder; and
- (d) multi-channel VHF.

(3) All vessels' names or identification shall be clearly marked on the hull or superstructure.

(4) All communication on VHF working frequencies shall be in English.

(5) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

### **Pre-construction monitoring**

**15.**—(1) The undertaker shall, in discharging condition 11(b), submit details for written approval by the MMO, in consultation with Natural England, of proposed pre-construction surveys, including methodologies and timings, with archaeological advice where necessary, and a proposed format and content for a pre-construction baseline report; and

- (a) the survey proposals shall specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement; and
- (b) the baseline report proposals shall ensure that the outcome of the agreed surveys together with existing data and reports are drawn together to present a valid statement of the pre-construction position, with any limitations, and shall make clear what post-construction comparison is intended and the justification for this being required.

(2) The pre-construction surveys referred to paragraph (1) shall unless otherwise agreed with the MMO have due regard to, but not be limited to, the need to undertake—

- (a) a survey, in combination with data derived from paragraph (2)(c) to determine the location and extent of any benthic Annex 1 Habitat in whole or in part inside the area(s) within the Order limits in which it is proposed to carry out construction works;
- (b) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and or economic importance;
- (c) a high resolution swath-bathymetric survey and side scan sonar survey of the area(s) within the Order limits in which it is proposed to carry out construction works, including a 500m buffer around the site of each works and inclusive of seabed anomalies or sites of historical or archaeological interest that lie within that 500m buffer; and
- (d) a survey of existing ornithological activity (in accordance with the principles set out in the outline ornithological survey document) inside the area(s) within the 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.

(3) The undertaker shall carry out the surveys agreed under paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO, in consultation with Natural England.

### **Construction monitoring**

**16.**—(1) Unless otherwise agreed, the undertaker shall, in discharging condition 11(b), submit details for approval by the MMO in consultation with Natural England 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. In any event, such monitoring shall, where driven or part-driven pile foundations are proposed to be used, include monitored background noise measurements (during periods when piling is not being undertaken) and measurements of noise generated by the installation of all piled foundations.

(2) The undertaker shall carry out the surveys approved under paragraph (1) and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with Natural England.

(3) The results of the initial noise measurements shall be provided to the MMO within four weeks of the installation of the last of the four piles, unless otherwise agreed with the MMO. The assessment of this report by the MMO shall determine whether any further noise monitoring is required.



## **Post construction surveys**

17.—(1) The undertaker shall, in discharging condition 11(b), submit details for written approval by the MMO in consultation with Natural England of proposed post-construction surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results at least four months prior to the commencement of any survey works detailed within. 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) The post construction surveys referred to in paragraph (1) shall unless otherwise agreed with the MMO have due regard to, but not be limited to, the need to undertake—

- (a) one high resolution swath bathymetric survey and side scan sonar survey per annum around a sample of adjacent turbines to a distance of three turbine spacings to assess any changes in seabed topography. For this purpose the undertaker will prior to the first such survey submit a desk based assessment to be approved by the MMO (which takes account of all factors which influence scour) to identify the sample of adjacent turbines with greatest potential for scour. The survey will be used to validate the desk based assessment: further surveys beyond three years post-construction specified in paragraph (3) may be required if there are significant differences between the predicted scour and recorded scour;
- (b) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and or economic importance to validate predictions made in the environmental statement; and
- (c) an ornithological survey (in accordance with the principles set out in the outline ornithological survey document) covering the area(s) within the Order limits in which construction works were carried out, and any wider area(s) where appropriate, as required to test predictions in the environmental statement concerning key ornithological interests of relevance to the authorised scheme.

(3) The undertaker shall carry out the surveys agreed under paragraph (1) for three years post-construction which may be non-consecutive years 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.

## **Piling restrictions**

18.—(1) Unless otherwise agreed in writing with the MMO, the installation of piled foundations of 8 metres diameter with a hammer energy of 2,700kj shall not take place within the Order limits between—

- (a) 1 April and 15 May to avoid the impacts on high intensity dover sole spawning; or
- (b) 15 April to 31 May to avoid the impacts on salmon smolt and sea trout smolt migration.

(2) In the case of proposed installation of piled foundations of less than 8 metres diameter and/or a hammer energy of less than 2,700kj a calculation of projected noise measurements and contours shall be provided to the MMO and installation shall not take place until the same or reduced piling restriction period or alternative mitigation has been approved by the MMO in writing in consultation with the Environment Agency, unless otherwise agreed in writing with the MMO.

(3) Unless otherwise agreed with the MMO, the installation of piled foundations shall be carried out on the basis of "6 hours on – 6 hours off", so that a period of 6 hours of no piling shall follow each piling event which shall be up to 6 hours in duration (be that from single or two simultaneous piling operations) in order to allow the migration of adult salmon and sea trout.

## SCHEDULE 3

### DEEMED MARINE LICENCE UNDER THE MARINE AND COASTAL ACCESS ACT 2009 – TRANSMISSION ASSETS

#### PART 1

##### Licensed Marine Activities

1.—(1) In this licence—

“the 2004 Act” means the Energy Act 2004;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“Annex 1 Habitat” means such habitat as defined under the EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora;

“authorised deposits” means the substances and articles specified in paragraph 2(3) of this licence;

“authorised scheme” means the works described in paragraph 2 of this licence or any part of those works;

“the CAA” means the Civil Aviation Authority constituted by the Civil Aviation Act 1982;

“cable armouring” means measures for cable crossings to protect cables and prevent loss of seabed sediment by use of grout bags, protective aprons, mattresses, flow energy dissipation (frond) devices or rock and gravel dumping;

“Cefas” means the Centre for Environment, Fisheries and Aquaculture Science;

“commence” means the first carrying out of any part of the licensed activities save for pre-commencement environmental surveys and monitoring;

“condition” means a condition in Part 2 of this licence;

“enforcement officer” means a person authorised to carry out enforcement duties under Chapter 3 of the 2009 Act;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of this Order and submitted with the application on 22 March 2013;

“gravity base foundation” means a structure principally of concrete, steel or steel and concrete which rests on the seabed either due to its own weight with or without added ballast or skirts, including associated sea bed preparation, scour protection, J-tubes, corrosion protection systems, boat landings comprising an access ladder with vertical boat fenders fitted either side and work platforms and equipment;

“jacket foundation” means a jacket/lattice type structure constructed of concrete, steel or steel and concrete which is fixed to the seabed at three or more points with driven or pre-installed piles or suction caissons, including associated scour protection, J-tubes, corrosion protection systems, boat landings comprising an access ladder with vertical boat fenders fitted either side, access and work platforms and equipment;

“Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“licensed activities” means the activities specified in Part 1 of this licence;

“LAT” means lowest astronomical tide;

“maintain” includes inspect, maintain, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule 1 (ancillary works) and any component part of any wind turbine generator or offshore substation described in Part

1 of Schedule 1 (authorised development) (but not including the alteration removal or replacement of foundations) to the extent assessed in the environmental statement; and “maintenance” shall be construed accordingly;

“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 or any successor body to its functions;

“major storm event” means a greater than 1 in 10 year wave event within the Order limits seaward of MHWS in terms of wave height;

“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;

“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” means an offshore platform constructed of steel or concrete or steel and concrete with single or multiple decks housing major electrical equipment including high voltage transformers, switchgear, control rooms, cabling and busbars, lightning protection masts, communications masts, cable management, back-up generators, fuel storage, emergency accommodation, workshops and stores, helihoist facilities, cranes and other associated electrical and ancillary equipment;

“the Order” means the Burbo Extension Offshore Wind Farm Order 201X;

“the Order limits” means the limits shown on the works plan within which the authorised scheme may be carried out, whose grid coordinates are set out in paragraph 2(3) of this Order;

“scour protection” means measures to prevent loss of seabed sediment around foundation bases by use of protective aprons, mattresses, flow energy dissipation (frond) devices or rock and gravel dumping;

“steel monopile foundation” means a steel large diameter pile, typically cylindrical, driven and/or drilled into the seabed, including associated scour protection, transition piece, J-tubes, corrosion protection systems, boat landings comprising an access ladder with vertical boat fenders fitted either side, access and work platforms and equipment;

“suction caisson” means a large diameter steel cylinder which is fixed to the base of the foundation and partially penetrates the seabed and remains in place using its own weight and hydrostatic pressure differential;

“transmission assets” means Works No. 2 and 3, as set out in paragraph 2(2) of this licence;

“Trinity House” means The Corporation of Trinity House of Deptford Strond or any successor body to its functions;

“UK Hydrographic Office” means the UK Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN or any successor body to its functions;

“undertaker” means DONG Energy Burbo Extension (UK) Limited, which is the named undertaker, or any other person who has the benefit of this Order in accordance with section 156 of the 2008 Act for such time as that section applies to that person;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“Work No. 1” means the offshore generating station comprising wind turbine generators and interconnecting subsea cables;

“the works plan” means the plan certified as the works plan by the Secretary of State for the purposes of the Order.

(2) A reference to any statute, order, regulation or similar instrument shall be construed as a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) Unless otherwise indicated—

- (a) all times shall be taken to be Greenwich Mean Time (GMT);
- (b) all co-ordinates shall be taken to be latitude and longitude degrees 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

Offshore Licensing Team

Lancaster House

Hampshire Court

Newcastle Business Park

Newcastle upon Tyne

NE4 7YH

Tel: 0300 123 1032;

(b) Marine Management Organisation Coastal Office

Neville House

Central Riverside

Bell Street

North Shields

Tyne and Wear

NE30 1LJ

Tel: (24-hour answer phone) 0191 257 4520 or 0191 257 0159

Fax: 0191 257 1595;

(c) Trinity House

Navigation Directorate

Tower Hill

London

EC3N 4DH

Tel: 020 7481 6900;

(d) The United Kingdom Hydrographic Office

Oil and Gas Section (RT1)

Admiralty Way

Taunton

Somerset

TA1 2DN

Tel: 01823 337 900;

(e) Maritime and Coastguard Agency

Navigation Safety Branch

Bay 2/04

Spring Place

105 Commercial Road  
Southampton  
SO15 1EG  
Tel: 023 8032 9191;

- (f) Centre for Environment, Fisheries and Aquaculture Science

Pakefield Road  
Lowestoft  
Suffolk  
NR33 0HT

Tel: 01502 562 244;

- (g) Natural England

Foundry House  
3 Millsands  
Riverside Exchange  
Sheffield  
S3 8NH

Tel: 0300 060 4911;

- (h) English Heritage

Eastgate Court  
195-205 High Street  
Guildford  
GU1 3EH

Tel: 01483 252 057.

### **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 (3) below;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation; and
- (d) the disposal of up to 6,800m<sup>3</sup> of inert material of natural origin produced during the drilling installation of monopiles or jacket foundations for Work No. 2 at disposal site reference IS135 Burbo Bank Extension OWF.

- (2) The works referred to in (1)(b) comprise—

*Work No.2*

Up to one offshore substation fixed to the seabed by one of three foundation types (namely steel monopile foundation, gravity base foundation or jacket foundation) within the Order limits.

*Work No.3*

A grid connection from Work No. 2 consisting of up to two cables laid along routes within the Order limits, including one or more cable crossings, up to Welsh territorial waters at grid coordinates 53° 25.82' / -3° 21.97' and 53° 25.99' / -3° 22.32';

and in connection with such Work Nos. 2 to 3 and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be

necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence;

and in connection with such Work Nos. 2 to 3, works comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction and/or maintenance of the authorised scheme; and
- (b) buoys, beacons, fenders and other navigational warning or ship impact protections works.

(3) The substances or articles authorised for deposit at sea are—

- (a) iron and steel;
- (b) stone and rock;
- (c) concrete;
- (d) sand and gravel;
- (e) plastic and synthetic;
- (f) electrical apparatus including copper composites;
- (g) material extracted from within the Order limits during construction drilling; and
- (h) marine coatings, grout, other chemicals (such as water-based drilling muds) and timber.

3. The grid coordinates for the authorised scheme are specified below—

<i>Point</i>	<i>Latitude (DD)</i>	<i>Longitude (DD)</i>	<i>Point</i>	<i>Latitude (DD)</i>	<i>Longitude (DD)</i>
A	53.502373	-3.376542	F	53.463623	-3.305973
B	53.502832	-3.220001	G	53.465333	-3.309167
C	53.494704	-3.223993	H	53.468333	-3.314667
D	53.470225	-3.179047	I	53.433167	-3.372000
E	53.463884	-3.196287	J	53.430333	-3.366167

4. This licence shall remain in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 of the 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.

5. The provisions of Section 72 of the 2009 Act shall apply to this licence save that the provisions of Section 72(7) relating to the transfer of the licence shall only apply to a transfer not falling within **article 6** (benefit of the Order).

## PART 2

### Conditions

#### Design parameters

1. [Not used]

2.—(1) The total number of offshore substations forming part of the authorised scheme shall not exceed one.

(2) The dimensions of any offshore substation forming part of the authorised scheme (excluding helihoist facilities, towers, masts and cranes) shall not exceed 50 metres in height when measured from LAT, 40 metres in length and 30 metres in width.

(3) The offshore substation shall have no more than one supporting foundation.

3. The total length of the cables comprising Work No. 3 shall not exceed 17 kilometres.

4.—(1) Any steel monopile foundation forming part of the authorised scheme (excluding scour protection) shall not have a diameter which is greater than 8 metres.

(2) Any gravity base foundation forming part of the authorised scheme (excluding scour protection) shall not have—

- (a) a diameter at the level of the seabed which is greater than 35 metres; and
- (b) a base height which is greater than 16 metres above the level of the seabed and less than 1 metre below LAT.

(3) Any jacket foundation forming part of the authorised scheme (excluding scour protection) shall not have—

- (a) a width spacing between each leg at the level of the seabed which is greater than 35 metres;
- (b) a leg diameter which is greater than 3 metres;
- (c) a width spacing between each leg at MHWS which is greater than 35 metres;
- (d) a pile sleeve height which is greater than 18 metres above the level of the seabed;
- (e) a pile diameter which is more than 3 metres;
- (f) more than four piles per leg;
- (g) more than four legs;
- (h) a suction caisson per leg which is greater than 15 metres in diameter.

(4) The total amount of scour protection for the offshore substation forming part of the authorised scheme shall not exceed 22,500m<sup>3</sup>.

#### **Notifications and inspections**

5.—(1) The undertaker shall ensure that—

- (a) a copy of this licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
  - (i) all agents and contractors notified to the MMO in accordance with condition 13; and
  - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 13;
- (b) within 28 days of receipt of a copy of this licence those persons referred to in paragraph (a) above shall provide a completed confirmation form to the MMO confirming that they have read and will comply with 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 of 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 or removals are to be made.

(4) The documents referred to in paragraph (1)(a) shall be available for inspection by an authorised enforcement officer at the locations set out in paragraph 3(b) above.

(5) The undertaker shall provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during construction and operation of the authorised scheme.

(6) The undertaker shall inform the MMO Coastal Office in writing at least five working days prior to the commencement of the licensed activities or any part of them.

(7) Prior to the commencement of the licensed activities or any part of them the undertaker shall publish in the Kingfisher Fortnightly Bulletin details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part.

(8) The undertaker shall ensure that—

- (a) a notice to mariners is issued at least 10 working days prior to the commencement of the licensed activities or any part of them advising of the start date of Work No. 2 and the expected vessel routes from the local construction ports to the relevant locations; and
- (b) a second notice to mariners is issued at least 10 working days prior to the commencement of Work No.3 (subsea export cables) advising of the start date of Work No. 3 and the route of the subsea export cables.

(9) The undertaker shall ensure that the notices to mariners are updated and reissued at weekly intervals during construction activities and within 5 working days of any planned operations and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme approved under condition 11(b). Copies of all notices shall be provided to the MMO.

(10) The undertaker shall notify—

- (a) the Hydrographic Office of both the commencement (within two weeks), progress and completion (within two weeks) of the authorised scheme in order that all necessary amendments to nautical charts are made; and
- (b) the MMO, MCA and Trinity House within two weeks once the authorised scheme is completed and any required lighting or marking has been established.

### **Navigational practice, safety and emergency response**

**6.**—(1) The authorised scheme shall not 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 MGN 371 “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 as appropriate to the authorised scheme.

(2) The undertaker will prepare and implement a project-specific Active Safety Management System, taking account of safety and mitigation measures as referred to in the navigation risk assessment in the environmental statement.

### **Aids to navigation**

**7.**—(1) The undertaker shall at or near the authorised scheme during the whole period of the construction, operation, alteration, replacement or decommissioning of the authorised scheme exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation, as Trinity House may from time to time direct.

(2) The undertaker shall notify Trinity House, in writing, as soon as reasonably practicable, of the progress of construction of the authorised scheme or any part of it and any aids to navigation established from time to time during construction.

(3) The undertaker shall provide reports on the availability of aids to navigation periodically as requested by Trinity House.

(4) In case of injury to, or destruction or decay of, the authorised scheme or any part thereof the undertaker shall as soon as reasonably practicable notify Trinity House 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.

**8.** 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.



## **Chemicals, drilling and debris**

9.—(1) Unless otherwise agreed in writing by the MMO all chemicals used in the construction of the authorised scheme, including any chemical agents placed within any monopile void, 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).

(2) The undertaker shall ensure that any coatings/treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by the Health and Safety Executive or the Environment Agency Pollution Prevention Guidelines.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances shall be undertaken so as to prevent releases into the marine environment, including bunding of 110% of the total volume of all reservoirs and containers.

(4) Where foundation drilling works are proposed, in the event that any system other than water-based mud is proposed the MMO's written approval in relation to the proposed disposal of any arisings shall be obtained before the drilling commences, which may also require a marine licence.

(5) The undertaker shall ensure that any debris arising from the construction of the authorised scheme or temporary works placed below MHWS are removed on completion of the authorised scheme, unless otherwise agreed with the MMO.

(6) At least two months prior to the commencement of the licensed activities the undertaker shall submit to the MMO an audit sheet covering all aspects of the construction of the licenced activities or any part of them. 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 (or relevant part) and any changes notified immediately in writing to the MMO which shall give written approval prior to any change being implemented.

(8) In the event that the MMO becomes aware that any of the materials on the audit sheet cannot be accounted for it shall require the undertaker to carry out a side scan sonar survey to plot all obstructions across the relevant area(s) within the Order limits where construction works and related activities related to those materials have been carried out and, if the initial survey does not locate the missing materials, over such wider area as the MMO may reasonably request. Local fishermen shall be invited to send a representative to be present during the survey. Any new obstructions that the MMO believes to be associated with the authorised scheme shall be removed at the undertaker's expense.

(9) The undertaker shall inform the MMO of the location and quantities of material disposed of each month under the Order, by submission of a disposal return by 31 January each year for the months August to January inclusive, and by 31 July each year for the months February to July inclusive.

(10) The undertaker shall ensure that only inert material of natural origin, produced during the drilling installation of foundations, and drilling mud shall be disposed of within the offshore Order limits (disposal site reference IS135 Burbo Bank Extension OWF). Any other materials shall be screened out before disposal at this site.

(11) The undertaker shall ensure that any rock material used in the construction of the authorised scheme is from a recognised source, free from contaminants and containing minimal fines.

(12) In the event that any rock material used in the construction of the authorised scheme is misplaced or lost below MHWS, the undertaker shall report the loss to the Coastal Office within 48 hours and if the MMO shall reasonably consider such material to constitute a navigation or

environmental hazard (dependent on the size and nature of the material) the undertaker shall endeavour to locate the material and recover it.

(13) The undertaker shall ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas should be contained to prevent run off entering the water through the freeing ports.

(14) The undertaker shall ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team.

### **Force majeure**

**10.** If, due to stress of weather or any other cause the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life and/or of the vessel is threatened, within 48 hours full details of the circumstances of the deposit shall be notified to the MMO. The unauthorised deposits shall be removed at the expense of the undertaker unless written approval is obtained from the MMO.

### **Pre-construction plans and documentation**

**11.** No part of the works at paragraph 2(2) of Part 1 (licensed marine activities) of this Schedule shall commence until the following (as relevant to that part) have been submitted to and approved in writing by the MMO—

- (a) A design plan at a scale of between and including 1:25,000 and 1:50,000, including detailed representation on the most suitably scaled admiralty chart, to be agreed in writing with the MMO in consultation with Trinity House and the MCA which shows—
  - (i) the indicative proposed layout and location and choice of foundation of the offshore substation;
  - (ii) the height length and width of the offshore substation;
  - (iii) the length and arrangement of all cables comprising Work No. 3;
  - (iv) the dimensions of any gravity base foundation;
  - (v) the dimensions of any jacket foundation;
  - (vi) the dimensions of any steel monopile foundation;
  - (vii) in plan form, the indicative programming of particular works as set out in the indicative construction programme to be provided under condition 11(b)(iv);
  - (viii) any exclusion zones or micrositing requirements identified in any mitigation scheme pursuant to condition 11(j);
  - (ix) any archaeological exclusion zones identified under condition 11(h)(iv);

to ensure conformity with the description of Works Nos. 2 to 3 and compliance with conditions 1 to 5 above.

- (b) A construction and monitoring programme to include details of—
  - (i) the proposed construction start date;
  - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works;
  - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction monitoring and related reporting in accordance with conditions 11(h), 15, 16 and 17. The pre-construction survey programme and all pre-construction survey methodologies shall be submitted to the MMO for written approval by the MMO in consultation with Natural England at least four months prior to the commencement of any survey works detailed within; and
  - (iv) an indicative written construction programme for all offshore substations and cables comprised in the works at paragraph 2(2) of Part 1 (licensed marine activities) of this Schedule (insofar as not shown in (b) above).

- (c) A construction method statement in accordance with the construction methods assessed in the environmental statement and including details of—
  - (i) drilling methods and disposal of drill arisings;
  - (ii) offshore substation location and installation, including scour protection;
  - (iii) cable installation;
  - (iv) contractors;
  - (v) vessels and vessels transit corridors;
  - (vi) associated works; and
  - (vii) proposed mitigation measures.
- (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;
  - (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 plan and disposal arrangements; and
  - (iv) the appointment and responsibilities of a fisheries liaison officer and an environmental liaison officer.
- (e) A scour protection management and cable armouring plan providing details of the need, type, sources, quantity and installation methods for scour protection and cable armouring for cable crossings.
- (f) In the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol to be agreed in writing with the MMO in consultation with Natural England and following current best practice as advised by the statutory nature conservation agencies, to include—
  - (i) identification of a Marine Mammal Monitoring Zone (MMMZ);
  - (ii) appointment of an appropriate number of suitably qualified marine mammal observer(s);
  - (iii) methods for the detection of marine mammals within the MMMZ whether visually (by the marine mammal observer(s)) or acoustically using Passive Acoustic Monitoring equipment or other means of detection;
  - (iv) a reporting methodology to enable efficient communication between the marine mammal observer(s) and the person responsible for approving commencement of piling;
  - (v) an appropriate soft start procedure whereby piling activities do not commence until an agreed time has elapsed and during which marine mammals have not been detected within the MMMZ;
  - (vi) where appropriate, methods for the application of acoustic deterrent devices.
- (g) A cable specification and installation plan, to be agreed in writing by the MMO, and to include—
  - (i) technical specification of the offshore cables including a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice; and
  - (ii) a detailed cable laying plan, incorporating a burial risk assessment to ascertain suitable burial depths and cable laying techniques.
- (h) A written scheme of archaeological investigation (WSI) in relation to the Order limits in accordance with industry best practice and to be approved in writing by the MMO in consultation with English Heritage to include—

- (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
  - (ii) a methodology for any further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
  - (iii) analysis and reporting of survey data, 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 including all spatial data for the extent and location of archaeological exclusion zones;
  - (v) monitoring during and post construction, including a conservation programme for finds;
  - (vi) archiving of archaeological material, inclusive of any completed and agreed archaeological reports produced through the WSI which are to be deposited by the undertaker within a public archive in accordance with the OASIS (Online Access to the Index of archaeological investigationS') system; and
  - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme.
- (i) A vessel traffic management plan during construction and operation of the authorised scheme, to include vessel routing for any vessels operating from the Port of Barrow such that all such vessels avoid the area of the Liverpool Bay SPA plus a 2km buffer from the boundary of the SPA during the period October to March and in the area north of grid reference 53.683333 (DD, WGS 1984) in order to avoid the disturbance of wintering aggregations of common scoter at, and in the vicinity of, the Shell Flat.
  - (j) A mitigation scheme for any Annex 1 features identified by the survey referred to in condition 15(2)(a).

**12.—**(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 11 shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The licensed activities shall be carried out in accordance with the approved plans, protocols, statements, schemes and details approved under condition 11, unless otherwise agreed in writing by the MMO.

### **Reporting of engaged agents, contractors and vessels**

**13.—**(1) The undertaker shall provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details shall be notified to the MMO in writing five working days prior to the agent, contractor or vessel engaging in the licensed activities.

### **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 (save in the case of remotely operated vehicles or vessels) shall comply with paragraphs (2) to (5) below.

(2) All motor powered vessels shall be fitted with—

- (a) electronic positioning aid to provide navigational data;
- (b) radar;

- (c) echo sounder; and
  - (d) multi-channel VHF.
- (3) All vessels' names or identification shall be clearly marked on the hull or superstructure.
- (4) All communication on VHF working frequencies shall be in English.
- (5) No vessel shall engage in the licensed activities until all the equipment specified in paragraph (2) is fully operational.

### **Pre-construction monitoring**

**15.**—(1) The undertaker shall, in discharging condition 11(b), submit details for written approval by the MMO, in consultation with Natural England, of proposed pre-construction surveys, including methodologies and timings, with archaeological advice where necessary, and a proposed format and content for a pre-construction baseline report; and

- (a) the survey proposals shall specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement; and
- (b) the baseline report proposals shall ensure that the outcome of the agreed surveys together with existing data and reports are drawn together to present a valid statement of the pre-construction position, with any limitations, and shall make clear what post-construction comparison is intended and the justification for this being required.

(2) The pre-construction surveys referred to in paragraph (1) shall unless otherwise agreed with the MMO have due regard to, but not be limited to, the need to undertake—

- (a) a survey, in combination with data derived from paragraph (2)(b) to determine the location and extent of any benthic Annex 1 Habitat in whole or in part inside the area(s) within the Order limits in which it is proposed to carry out construction works;
- (b) a high resolution swath-bathymetric survey and side scan sonar survey of the area(s) within the Order limits in which it is proposed to carry out construction works, including a 500m buffer around the site of each works and inclusive of seabed anomalies or sites of historical or archaeological interest that lie within that 500m buffer.

(3) The undertaker shall carry out the surveys agreed under paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO, in consultation with Natural England.

### **Construction monitoring**

**16.**—(1) Unless otherwise agreed, the undertaker shall, in discharging condition 11(b), submit details for approval by the MMO in consultation with Natural England 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. In any event, such monitoring shall, where driven or part-driven pile foundations are proposed to be used, include monitored background noise measurements (during periods when piling is not being undertaken) and measurements of noise generated by the installation of all piled foundations.

(2) The undertaker shall carry out the surveys approved under paragraph (1) and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with Natural England.

(3) The results of the initial noise measurements shall be provided to the MMO within four weeks of the installation of the last of the four piles, unless otherwise agreed with the MMO. The assessment of this report by the MMO shall determine whether any further noise monitoring is required.

### **Post construction surveys**

**17.**—(1) The undertaker shall, in discharging condition 11(b), submit details for written approval by the MMO in consultation with Natural England of proposed post-construction surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results at least four months prior to the commencement of any survey works detailed within. 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) The post construction surveys referred to in paragraph (1) shall unless otherwise agreed with the MMO have due regard to, but not be limited to the need to undertake a survey to determine the effects of construction activity on any benthic Annex 1 Habitat in whole or in part inside the area(s) within the Order limits, dependent on the outcome of the survey undertaken in condition 15(2)(a) above.

(3) The undertaker shall carry out the surveys agreed under paragraph (1) for three years post-construction which may be non-consecutive years 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.

### **Piling restrictions**

**18.**—(1) For the purposes of addressing any uncertainty in the environmental impact assessment (but not in the Habitats Regulations assessment) regarding salmon and sea trout smolt migration, no more than eight pin piles for the offshore substation jacket foundation shall be installed between 1 April and 15 May unless a pin pile method statement for pin pile installation showing numbers of piles and estimated piling duration shall first have been submitted to and approved in writing by the MMO.

(2) Thereafter the installation of all such pin piles shall be carried out in accordance with the approved method statement.

(3) "Habitats Regulations" means the Conservation of Habitats and Species Regulations 2010(a).

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(a) 2010 No. 490

## **EXPLANATORY NOTES**

*(This note is not part of the Order)*

This Order grants development consent for, and authorises DONG Energy Burbo Extension (UK) Limited to construct, operate and maintain a generating station in the sea approximately 7 km off the north Wirral coast, 8.5 km from Crosby beach and 12.2 km off the coast of Point of Ayr, Wales, being an extension to the existing Burbo Bank offshore wind farm located on the bed of Liverpool Bay, together with all necessary and associated development. The Order imposes requirements in connection with the development for which it grants development consent.

The Order also grants deemed marine licences for the marine licensable activities, being the deposit and removal of substances and articles and the carrying out of works involved in the construction of the generating station and associated development. The deemed marine licences impose conditions in connection with the deposits and works for which they grant consent.

A copy of the plans referred to in this Order and certified in accordance with **article 12** (certification of plans, etc) of this Order may be inspected free of charge at the offices of Denbighshire County Council at 64 Brighton Road, Rhyl, LL18 3HN and Wirral Metropolitan Borough Council at Wallasey Town Hall, Brighton Street, Wallasey, CH44 8ED.

**APPENDIX E:  
REPORT ON THE IMPACT ON EUROPEAN SITES (RIES)**

An electronic copy of the RIES can be accessed from the following hyperlink:

<http://infrastructure.planningportal.gov.uk/Document/2298061>