

Hornsea Offshore Wind Farm

Project Two

Environmental Information Signposting Document – Version 3

Appendix D to the Response submitted for Deadline II

Application Reference: EN010053

10 August 2015

smartwind.co.uk

1. Introduction

- 1.1 Smart Wind Limited, as agent on behalf of Optimus Wind Limited and Breesea Limited (together “the Applicant”), submitted an application (“the Application”) for a Development Consent Order (“DCO”) in relation to Hornsea Offshore Wind Farm Project Two (“the Project”) on 30 January 2015.
- 1.2 The Application was accepted for examination by the Planning Inspectorate (on behalf of the Secretary of State) on 19 February 2015. Accompanying the notification of this acceptance was a Section 51 Letter and Section 55 checklist identifying a number of areas in the Application requiring clarification. The Applicant responded to this advice in April 2015 providing the clarification sought as well as providing additional areas of clarification. This has resulted in the submission of an Errata List and separate clarification notes relevant to the Environmental Statement (“ES”) and Habitats Regulations Assessment (“HRA”).
- 1.3 To ensure that all environmental information is easily locatable, the Applicant has provided this Signposting Document.
- 1.4 It is intended that this Signposting Document will be a working document which will be periodically updated by the Applicant if and when required. Within Version 3 of this Signposted Document, the Applicant has signposted additional pieces of clarification information provided as part of the Applicant’s response to Deadline II.
- 1.5 This document should be consulted alongside the Index to the Environmental Statement (PINS Doc ref 1.4) which provides an index of all ES chapters, accompanying ES documents and relevant non-ES documents which accompanied the Application. A copy of this document is available on the Planning Inspectorate website – [here](#).

2. Structure of Signposting Document

- 2.1 The first column of the table below provides a reference to each chapter of the ES and to the HRA submitted with the Application and provides a link to that part. The second column then identifies the principal clarification documents which have been subsequently submitted and which are relevant to the particular part of the ES or the HRA. When these documents are published on the Planning Inspectorate webpage for the Project a link will be provided. The final column then seeks to summarise (in high level terms) the relevance of the clarification note to the ES or HRA topic and the purpose for its submission.

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
7.1 Introduction		
7.1.a Non-technical Summary	-	-
7.1.b Glossary	-	-
7.1.1 Introduction	-	-
7.1.2 Policy and Legislative Context	-	-
7.1.3 Project Description	Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015)	<p>The Applicant has identified a typographical error in paragraph 3.5.5 of the Project Description, which incorrectly stated the construction period for intertidal area will be completed within 4 and a half years. This should instead have read “completed within 5 sequential years.”</p> <p>The Applicant confirmed in the Errata List that this typographical error was limited to this reference in the Project Description only and that the assessments within the ES (where relevant) were assessed on the basis of the correct 5 year period.</p>
7.1.4 Site Selection and Consideration of Alternatives	-	-
7.1.5 Environmental Impact Assessment Methodology	-	-
7.2 Offshore		

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
<p>7.2.1 Marine Processes</p>	<p>Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015)</p> <p>Monopile and Suspended Sediment and Deposition Assessment Clarification Note (see Appendix R to the Applicant's submission of 27 April 2015)</p> <p>Jacket Foundation Scour Assessment Clarification Note (see Appendix S to the Applicant's submission of 27 April 2015)</p> <p>Appendix D: Additional clarification in relation to Marine Processes, as submitted within Appendix NN of the Applicant's response to Deadline I (SoCG between the Applicant and the Environment Agency)</p> <p>Appendix L of the Applicant's response to Deadline II: Clarification Note on matters relating to Marine Processes as raised by the Environment Agency</p>	<p>Table 3.6 of the Project Description details that the largest monopile foundation is for a 8MW turbine, which allows for a maximum of 225 turbines within the Project's parameters by consequence. However, the assessments included within the Marine Processes Chapter were incorrectly based on a maximum monopile foundation for a 15MW turbine, which would have a commensurately reduced maximum number of 120 turbines. The Errata List and the Monopile and Suspended Sediment and Deposition Assessment Clarification Note address this minor discrepancy in the assessment. This clarification note confirms that the original assessment conclusions within the relevant ES chapters remain valid and unchanged.</p> <p>Table 3.7 of the Project Description details that the diameter of the main tubular elements of the jacket foundation is 3m for each turbine type. However, the Marine Processes chapter to the ES incorrectly lists a diameter of 2.5m instead. The Applicant has documented this in the Errata List and has produced a Jacket Foundation Scour Assessment Clarification Note to address this minor discrepancy in the assessment. This Clarification Note provides scour calculations for a 3m diameter and confirms that the conclusions within the ES remain valid and unchanged.</p> <p>Appendix D of the SoCG between the Applicant and the Environment Agency (Appendix NN of the Applicant's response to Deadline I) provides further clarification by the Applicant in response to the following matters:</p> <ul style="list-style-type: none"> • Age of data used to calibrate tidal models and how sensitive these are to climate change; • Cable burial depth at the landfall; and • Use of tidal level data within the landfall assessment. <p>The clarification provided by the Applicant on these matters has provided further justification as to the assessment techniques used within the EIA process.</p> <p>Appendix L of the Applicant's response to Deadline II provides further</p>

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
		clarification on those matters sited as being under discussion within the SoCG (Appendix NN of the Applicant's response to Deadline I).

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
<p>7.2.2 Benthic Subtidal and Intertidal Ecology</p>	<p>Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015)</p> <p>Monopile and Suspended Sediment and Deposition Assessment Clarification Note (see Appendix R to the Applicant's submission of 27 April 2015)</p> <p>Humber SAC Subtidal Benthic Habitat Disturbance Clarification Note (see Appendix U to the Applicant's submission of 27 April 2015)</p> <p>Jacket Foundation Scour Assessment Clarification Note (see Appendix S to the Applicant's submission of 27 April 2015)</p>	<p>Table 3.6 of the Project Description details that the largest monopile foundation is for a 8MW turbine, which allows for a maximum of 225 turbines within the Project's parameters by consequence. However, the assessments included within the Benthic Subtidal and Intertidal Ecology Chapter was incorrectly based on a maximum monopile foundation for a 15MW turbine, which would have a commensurately reduced maximum number of 120 turbines. The Errata List and the Monopile and Suspended Sediment and Deposition Assessment Clarification Note address this minor discrepancy in the assessment. This clarification note confirms that the original assessment conclusions within the relevant ES chapters remain valid and unchanged.</p> <p>Table 2.4 of Volume 2, Chapter 2: Benthic Subtidal and Intertidal Ecology of the ES lists the temporary habitat loss for subtidal benthic habitats (Annex 1 estuary) as 128,000m². This is incorrect and should have stated 256,000m². The Errata List and the Humber SAC Subtidal Benthic Habitat Disturbance Clarification Note confirm that the overall conclusions within the ES remain valid and unchanged as a result of this correction.</p> <p>Table 3.7 of the Project Description details that the diameter of the main tubular elements of the jacket foundation is 3m for each turbine type. However, the Marine Processes chapter to the ES incorrectly lists a diameter of 2.5m instead. The Applicant has documented this in the Errata List and has produced a Jacket Foundation Scour Assessment Clarification Note to address this minor discrepancy in the assessment. This Clarification Note provides scour calculations for a 3m diameter and confirms that the conclusions within the ES remain valid and unchanged.</p>

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
7.2.3 Fish and Shellfish Ecology	Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015) Monopile and Suspended Sediment and Deposition Assessment Clarification Note (see Appendix R to the Applicant's submission of 27 April 2015)	<p>Table 3.6 of the Project Description details that the largest monopile foundation is for an 8MW turbine, which allows for a maximum of 225 turbines within the Project's parameters by consequence. However, the assessments included within the Fish and Shellfish Chapter was incorrectly based on a maximum monopile foundation for a 15MW turbine, which would have a commensurately reduced maximum number of 120 turbines. The Errata List and the Monopile and Suspended Sediment and Deposition Assessment Clarification Note address this minor discrepancy in the assessment. The Errata List and the Clarification Note confirm that the original assessment conclusions within the relevant ES chapters remain valid and unchanged.</p>
7.2.4 Marine Mammals	Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015) Marine Mammals Decommissioning Vessels Clarification Note (see Appendix T to the Applicant's submission of 27 April 2015)	<p>Table 4.17 of Volume 2, Chapter 4: Marine Mammals of the ES assessed vessel movements over the decommissioning phase to a maximum number of 739. This is incorrect and should instead have been assessed to a maximum number of 2,956. The Applicant has documented this in the Errata List and produced the Marine Mammals Decommissioning Vessels Clarification Note to address this discrepancy in the assessment. The Errata List and the clarification note confirm that the conclusions within the ES remain valid and unchanged.</p>
7.2.5 Ornithology	Offshore Ornithology Baseline Data Clarification Note (see Appendix L to the Applicant's response to Deadline I) Collision Risk Modelling: Addressing Uncertainty Clarification Note (see Appendix J of the Applicant's response to Deadline I) Ornithological Survey Coverage: Baseline Clarification Note (see Appendix L of the Applicant's response to Deadline I) Appendix K of the Applicant's response to Deadline II: Updated Ornithology Baseline Data Clarification Note (as previously submitted as Appendix L to the	<p>Clarification on matters raised by Natural England in their Relevant Representation.</p> <p>The Baseline Ornithology Clarification Note provides a full breakdown of the raw (i.e. unprocessed) ornithological baseline data collected through a two year programme of boat-based surveys for Hornsea Project Two. The document responds to requests made by Natural England in their Relevant Representation for Hornsea Project Two, specifically the Baseline data collection and analysis methodology section of Appendix 1</p> <p>The Collision Risk Modelling Clarification Note further explores the Collision Risk Modelling (CRM) outputs originally presented in Volume 2, Chapter 7.2.5: Offshore Ornithology of the Environmental Statement</p>

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
	Applicant's response to Deadline I)	<p>(ES) and the Habitat Regulations Assessment Report (Document ref No. 12.6).The CRM assessment in these documents presents a range of values, including all four options of Band (2012) and a range of avoidance rates for each assessed species</p> <p>The Survey Coverage Clarification Note has been prepared in response to queries raised by Natural England in reference to the level of survey coverage during baseline boat-based surveys as part of their Relevant Representations. Specifically this note responds to the 'Dealing with incomplete surveys' section in paragraphs 10 to 15 of Natural England's Relevant Representation.</p> <p>Appendix L has been updated due a small number of transposition errors found in Tables 1.11 and 1.12, these have now been corrected and an updated version of Appendix L can be found in Appendix K of Applicant's response to Deadline II. The Applicant can confirm that this changes do not have any bearing on the predictions made within the ES.</p>
7.2.6 Commercial Fisheries	-	-
7.2.7 Shipping and Navigation	-	-
7.2.8 Aviation, Military and Communications	-	-
7.2.9 Marine Archaeology and Ordnance	-	-
7.2.10 Seascape and Visual Resources	-	-
7.2.11 Infrastructure and Other Users	-	-

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
7.2.12 Inter-related Effects (Offshore)	-	-
7.3 Onshore		
7.3.1 Geology and Ground Conditions	Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015) Transition Joint Bays and Jointing Pits Clarification Note (see Appendix V to the Applicant's submission of 27 April 2015)	<p>The Applicant has identified certain instances across the ES of inconsistent referencing of the “transition joint bays” and the “jointing pits”, as well as their dimensions and the approach to their reinstatement. The Applicant has documented this in the Errata List and produced a Transition Joint Bays and Jointing Pits Clarification Note to address and clarify these matters to avoid confusion. The Errata List and the clarification note confirm that the conclusions within the ES remain valid and unchanged.</p>

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7.3.2 Hydrology and Flood Risk	Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015) Transition Joint Bays and Jointing Pits Clarification Note (see Appendix V to the Applicant's submission of 27 April 2015)	<p>Table 2.11 of Volume 3, Chapter 2: Hydrology and Flood Risk of the ES details the target depth for cable duct installation to be 1.2m. This is incorrect and should read 1.5m. The Applicant confirmed in the Errata List that the assessments were carried out on the basis of the correct 1.5m target depth and thus the conclusions reached remain unchanged.</p> <p>The Applicant has identified certain instances across the ES of inconsistent referencing of the “transition joint bays” and the “jointing pits”, as well as their dimensions and the approach to their reinstatement. The Applicant has documented this in the Errata List and produced a Transition Joint Bays and Jointing Pits Clarification Note to address and clarify these matters to avoid confusion. The Errata List and the clarification note confirm that the conclusions within the ES remain valid and unchanged.</p>
7.3.3 Ecology and Nature Conservation	Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015) Transition Joint Bays and Jointing Pits Clarification Note (see Appendix V to the Applicant's submission of 27 April 2015) Updated Figure 2 of Annex 6.3.1 (see Appendix T to the Applicant's response to Deadline I)	<p>The Applicant has identified certain instances across the ES of inconsistent referencing of the “transition joint bays” and the “jointing pits”, as well as their dimensions and the approach to their reinstatement. The Applicant has documented this in the Errata List and produced a Transition Joint Bays and Jointing Pits Clarification Note to address and clarify these matters to avoid confusion. The Errata List and the clarification note confirm that the conclusions within the ES remain valid and unchanged.</p> <p>Updated Figure 2 (Protected Species Survey Findings) of Annex 6.3.1</p>

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
		provides the relevant missing data associated with great crested newt surveys from the original figure as submitted within the ES.
7.3.4 Intertidal Ornithology	-	-
7.3.5 Landscape and Visual Resources Part 1 of 3 Landscape and Visual Resources Part 2 of 3 Landscape and Visual Resources Part 3 of 3	Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015)	<p>Table 5.7 of Volume 3, Chapter 5: Landscape and Visual Resources of the ES lists the maximum dimensions of one onshore HVAC substation building as 82m long x 111m wide x 15m high. This is incorrect and should accord with the dimensions outlined in Table 3.32 of the Project Description – 82.5m long x 18.5m wide x 15m high. The Applicant confirmed in the Errata List that the assessments were carried out on the basis of the correct dimensions listed in the Project Description and thus the conclusions remain unchanged.</p>

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<p>7.3.6 Historic Environment</p>	<p>Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015) Transition Joint Bays and Jointing Pits Clarification Note (see Appendix V to the Applicant's submission of 27 April 2015)</p>	<p>Table 6.13 of Volume 3, Chapter 6: Historic Environment of the ES lists the cable trench dimensions as 1.5m wide x 2m deep. This is incorrect and should mirror the equivalent dimensions outlined in Table 3.29 and Figure 3.28 of the Project Description – 1m wide x 2m deep. The Applicant confirmed in the Errata List that the assessments were carried out on the basis of the correct dimensions listed in the Project Description and thus the conclusions remain unchanged.</p> <p>The Applicant has identified certain instances across the ES of inconsistent referencing of the “transition joint bays” and the “jointing pits”, as well as their dimensions and the approach to their reinstatement. The Applicant has documented this in the Errata List and produced a Transition Joint Bays and Jointing Pits Clarification Note to address and clarify these matters to avoid confusion. The Errata List and the clarification note confirm that the conclusions within the ES remain valid and unchanged.</p>
<p>7.3.7 Land Use, Agriculture and Recreation</p>	<p>Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015)</p>	<p>Table 7.12 of Volume 3, Chapter 7: Land Use, Agriculture and Recreation of the ES states that the dimensions of the temporary compound on the landward side of the sea defences are 65m x 120m. These dimensions are incorrect and should reflect the correct dimensions outlined in paragraph 3.3.59 of the Project Description, which lists them as 200m x 150m. The Applicant confirmed in the Errata List that the assessments were carried out on the basis of the</p>

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
		correct dimensions listed in the Project Description and thus the conclusions remain unchanged.
7.3.8 Traffic and Transport	-	-
7.3.9 Noise and Vibration	-	-
7.3.10 Air Quality and Health	-	-
7.3.11 Socio Economics	-	-
7.3.12 Inter-Related Effects Onshore	-	-

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
<p>12.6 Habitats Regulations Assessment Part 1 of 2</p> <p>Habitats Regulations Assessment Part 2 of 2</p>	<p>Errata List (see Schedule 2 of the Applicant's submission of 27 April 2015)</p> <p>Monopile and Suspended Sediment and Deposition Assessment Clarification Note (see Appendix R to the Applicant's submission of 27 April 2015)</p> <p>Humber SAC Subtidal Benthic Habitat Disturbance Clarification Note (see Appendix U to the Applicant's submission of 27 April 2015)</p> <p>Habitats Regulations Assessment Screening and Integrity Matrices (Version 2) (see Appendix P to the Applicant's submission of 27 April 2015)</p> <p>Appendix K of the Applicant's response to Deadline II: Updated Ornithology Baseline Data Clarification Note (as previously submitted as Appendix L to the Applicant's response to Deadline I)</p>	<p>These HRA Appendices have been updated to include a number of missing footnotes. The footnotes provide necessary context to the conclusion drawn in the relevant matrix. The inclusion of these footnotes has not affected the outcome of the Screening and Integrity Matrices (and therefore, HRA conclusions).</p> <p>The HRA incorrectly referenced the temporary disturbance of 128,000m² of benthic subtidal habitat within the Humber Estuary SAC for the Project alone and in-combination with other projects. It should have stated 256,000m². The Errata List and the Humber SAC Benthic Habitat Disturbance Clarification Note address this erratum and confirm that the overall conclusion of the HRA remains valid.</p> <p>The Applicant has produced the Auk Displacement Clarification Note to update the assessment of in-combination displacement effects for guillemot, razorbill and puffin as part of the work contained in the HRA. The purpose of this note is to provide clarification to the in-combination displacement figures for guillemot, razorbill and puffin for the Flamborough and Filey Coast pSPA. This note, therefore, updates the in-combination displacement figures published in Section 5.8 of the HRA Report. The Applicant can confirm that this Clarification Note does not affect the outcome of the conclusions drawn within the HRA.</p> <p>The Baseline Ornithology Clarification Note provides a full breakdown of the raw (i.e. unprocessed) ornithological baseline data collected through a two year programme of boat-based surveys for Hornsea Project Two. The document responds to requests made by Natural England in their Relevant Representation for Hornsea Project Two, specifically the Baseline data collection and analysis methodology section of Appendix 1. The Applicant can confirm that this Clarification Note does not affect the outcome of the conclusions drawn within the HRA.</p> <p>The Collision Risk Modelling Clarification Note further explores the Collision Risk Modelling (CRM) outputs originally presented in Volume 2, Chapter 7.2.5: Offshore Ornithology of the Environmental Statement</p>

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
		<p>(ES) and the Habitat Regulations Assessment Report (Document ref No. 12.6).The CRM assessment in these documents presents a range of values, including all four options of Band (2012) and a range of avoidance rates for each assessed species. The Applicant can confirm that this Clarification Note does not affect the outcome of the conclusions drawn within the HRA.</p> <p>The Survey Coverage Clarification Note has been prepared in response to queries raised by Natural England in reference to the level of survey coverage during baseline boat-based surveys as part of their Relevant Representations. Specifically this note responds to the 'Dealing with incomplete surveys' section in paragraphs 10 to 15 of Natural England's Relevant Representation. The Applicant can confirm that this Clarification Note does not affect the outcome of the conclusions drawn within the HRA.</p> <p>Appendix L has been updated due a small number of transposition errors found in Tables 1.11 and 1.12, these have now been corrected and an updated version of Appendix L can be found in Appendix K of Applicant's response to Deadline II. The Applicant can confirm that this changes do not have any bearing on the predictions made within the HRA.</p>

Relevant part of ES/HRA (Link)	Document submitted post Application (Link)	Relevance of Document
7.5.2.2 Water Framework Directive Assessment	Appendix C: Applicant's response to EA letter of 14.05.2015, as submitted within Appendix NN of the Applicant's response to Deadline I - SoCG between SMart Wind and the Environment Agency	The clarification addressing outstanding concerns raised in relation to the WFD assessment within their Relevant Representation. The clarification has enabled the Applicant and the Environment Agency to reach agreement on these points.