

# Vattenfall Wind Power Ltd

# **Thanet Extension Offshore Wind Farm**

Appendix 48 to Deadline 3 Submission: ISH3 Action Point 13 - Schedule of Monitoring

Relevant Examination Deadline: 3 Submitted by Vattenfall Wind Power Ltd Date: March 2019 Revision A

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## **1** Introduction

### **1.1** Aim of the Schedule

- 1 This schedule forms part of the application to PINS for a DCO for the Thanet Extension Offshore Wind Farm (Thanet Extension) project. Its purpose is to map the monitoring measures identified within the Environmental Statement (Application Document 6.1.1 *et seq*) and subsequent documentation submitted into the written process of the Examination (up to Deadline 3 at the time of writing).
- 2 This schedule was requested by the Examining Authority (ExA) as has been prepared at the Applicant's submission for Action 13 arising from Issue Specific Hearing 3 (EV-019).
- 3 This schedule relates to both onshore and offshore elements of the proposed development.

## **1.2** Monitoring

- 4 Monitoring will form a central part of certain elements of mitigation which are proposed in respect of the proposed development; a revised Schedule of Mitigation has been submitted to the ExA as Appendix 32 of the Applicant's Deadline 3 Submission.
- 5 All relevant monitoring will be conducted in accordance with the monitoring provisions outlined the DCO Conditions or in the specific monitoring plans to be approved by the relevant authorities pursuant to the Requirements of the draft DCO, or the Conditions of the Deemed Marine Licence(s) which form Schedule 11 and 12 to the draft DCO.

## **1.3** Schedule of monitoring

6 Table 1 presents the proposed monitoring by the Applicant and how it has been secured within the draft DCO (Appendix 33 of the Applicant's Deadline 3 Submission).



#### Table 1: Monitoring provisions for Thanet Extension

Monitoring Type	Monitoring Commitment	Relevant ES chapter	Document/ plan	Where secured Draft DCO reference
<u>Saltmarsh</u> monitoring	The Applicant's commitment to undertake monitoring, in line with best practice, and the requests made by Natural England and the Environment Agency following review of previous drafts of the plan. The monitoring is provisionally noted to be up to 5 years, though this will be agreed with the relevant statutory stakeholders on receipt of each monitoring output.	Benthic Intertidal and Subtidal Ecology (PINS Ref APP- 046/ Application Ref 6.2.5)	Saltmarsh Monitoring, Reinstatement and Management Plan (PINS Ref REP2- 032)	Schedule 12, Part 4, Condition 13 (2)(b) Schedule 12, Part 4, Condition 15 (2)(a)
Ornithological monitoring	An in principle ornithological monitoring plan has been proposed with Natural England, focussing on the key recognised sensitivity and area of uncertainty at Thanet Extension (Red Throated Diver).	Offshore Ornithology (PINS Ref APP- 045/ Application Ref 6.2.4)	In-principle Ornithological Monitoring Plan	Schedule 11, Part 4, Condition TBC Schedule 12, Part 4, Condition TBC
Geophysical monitoring	Geophysical monitoring across the area in which construction takes place, with a suitable buffer to be determined with the MMO subject to the final design (post-consent).	Benthic Intertidal and Subtidal Ecology (PINS Ref APP- 046/ Application ref 6.2.5)	Geophysical Survey Plan	Schedule 11, Part 4, Condition 15(2)(b) Schedule 12, Part 4,



Monitoring Type	Monitoring Commitment	Relevant ES chapter	Document/ plan	Where secured Draft DCO reference
				Condition 13(2)(c)
Biogenic Reef Plan	Ground truthing (using drop down video) of the geophysical survey data referred to above to inform the biogenic reef plan (and associated micro-siting around areas of core reef)	Benthic Intertidal and Subtidal Ecology (PINS Ref APP- 046/ Application ref 6.2.5)	Biogenic Reef Plan (PINS Ref REP1- 071)	Schedule 11, Part 4, Condition 15 (2) (a) Schedule 12, Part 4, Condition 13 (2)(a)
Geophysical monitoring	Ground truthing (using drop down video) of the geophysical survey data referred to above focussing on areas of cable protection where this is proposed to take place within the Goodwin sands MCZ (if designated).	Benthic Intertidal and Subtidal Ecology (PINS Ref APP- 046/ Application ref 6.2.5). MCZ Assessment (PINS Refs APP- 083/ Application Ref 6.4.5.3 and REP2-006).	Geophysical Survey Plan)	Schedule 11, Part 4, Condition TBC Schedule 12, Part 4, Condition TBC



Monitoring Type	Monitoring Commitment	Relevant ES chapter	Document/ plan	Where secured Draft DCO reference
Geophysical monitoring	Interpretation of the geophysical survey data referred to above to allow consideration of the recovery of the sands and gravels within the Goodwin sands MCZ (if designated) should sandwave clearance be required within the Goodwin sands MCZ (secured in dML through the relevant disposal site).	Benthic Intertidal and Subtidal Ecology (PINS Ref APP- 046/ Application ref 6.2.5). MCZ Assessment (PINS Refs APP- 083 Application Ref 6.4.5.3 and REP2-006).	Geophysical Survey Plan)	Schedule 11, Part 4, Condition 15(2)(b) Schedule 12, Part 4, Condition 13(2)(c)
Intertidal ornithological monitoring	Intertidal ornithological monitoring to ensure adequate mitigation is in place for the ringed plover (if required).	Onshore Biodiversity (PINS Ref APP- 061/ Application Ref 6.3.5).	Onshore Biodiversity (PINS Ref APP-061/ Application Ref 6.3.5)	Schedule 12, Part 4, Condition TBC
Habitat reinstatement monitoring	Monitoring of reinstated habitats is proposed within Pegwell Bay Country Park, Stonelees Nature Reserve and at the substation site. The purpose of the monitoring will be to determine whether the habitat reinstatement has been successful and to identify the need for remedial measures, if required.	Onshore Biodiversity (PINS Ref APP- 061/ Application Ref 6.3.5).	Outline Landscape and Ecological Management Plan (PINS Ref REP1- 069)	Schedule 1, Part 3, Requirement 23



Monitoring Type	Monitoring Commitment	Relevant ES chapter	Document/ plan	Where secured Draft DCO reference
Habitat reinstatement monitoring	All reinstated grassland will be subject to monitoring. Monitoring will also include new ephemeral pools.	Onshore Biodiversity (PINS Ref APP- 061/ Application Ref 6.3.5).	Detailed Outline Landscape and Ecological Management Plan (PINS Ref REP1- 069)	Schedule 1, Part 3, Requirement 23
Terrestrial invertebrate monitoring	Monitoring of open mosaic habitats at the substation will be undertaken in conjunction with the monitoring of terrestrial invertebrates.	Onshore Biodiversity (PINS Ref APP- 061/ Application Ref 6.3.5).	Detailed Outline Landscape and Ecological Management Plan (PINS Ref REP1- 069)	Schedule 1, Part 3, Requirement 23
Terrestrial invertebrate monitoring	Monitoring of terrestrial invertebrates will take place within the retained and created areas of open mosaic habitat at the substation site (where safe access is possible). The need for monitoring of species forming part of the designated site invertebrate assemblages will depend on whether any such species will be affected, and the nature of any measures employed to reduce impacts upon them. Detailed proposals for monitoring of terrestrial invertebrates will be included in the TIMS, which will form part of the detailed LEMP.	Onshore Biodiversity (PINS Ref APP- 061/ Application Ref 6.3.5).	Detailed Outline Landscape and Ecological Management Plan (PINS Ref REP1- 069)	Schedule 1, Part 3, Requirement 23
Cable monitoring	Monitoring of offshore cables (including fibre optic cables) including cable protection during the operational lifetime of the		Cable Specification, Installation and Monitoring Plan	Schedule 11, Part 4,



Monitoring Type	Monitoring Commitment	Relevant ES chapter	Document/ plan	Where secured Draft DCO reference
	authorised scheme which includes a risk based approach to the management of unburied or shallow buried cables.			Condition 12 (g)(iii)
				Schedule 12, Part 4, Condition 10 (h) (iii)
Offshore Archaeology	Monitoring of archaeological exclusion zones during and post construction.	Offshore Archaeology and Cultural Heritage (PINS Ref APP-054/ Application Ref 6.2.13)	N/A	Schedule 11, Part 4, Condition 12 (h)(v) Schedule 12, Part 4, Condition 10 (i)(v)
Offshore noise monitoring	The noise generated by the installation of the first four foundations will be measured.	Fish and Shellfish (PINS Ref APP-047/ Application Ref 6.2.6)	N/A	Schedule 11, Part 4, Condition 18 (1) Schedule 12, Part 4,



Monitoring Type	Monitoring Commitment	Relevant ES chapter	Document/ plan	Where secured Draft DCO reference
		Marine Mammals (PINS Ref APP-048/ Application Ref 6.2.7)		Condition 16 (1)
Onshore noise monitoring	A scheme of monitoring onshore noise during construction to ensure compliance with the Construction noise and vibration management plan.	Noise and Vibration (PINS Ref APP-066/ Application Ref 6.3.10)	Construction noise and vibration management plan	Schedule 1, Part 3, Requirement 20 (2)(c)



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