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Dear Frances,

**Request to Remove Sch.9 Cond.14(3) and Sch.10 Cond.13(3)
Post-Storm Seabed Monitoring**

Pursuant to the Walney Extension Offshore Windfarm Development Consent Order, Schedule 9 Condition 14(3) and Schedule 10 Condition 13(3), the attached position paper has been produced to support discussions with the MMO in respect of the requirement to undertake post-storm seabed monitoring.

DONG Energy acknowledges that post-construction surveys will be undertaken in line with the agreed plan and monitoring programme, however given that there is no particular sensitivity within the array site relating to scour, the conclusions of the MMO's strategic review, and the disproportionate cost associated with maintaining survey vessels on standby, DONG Energy are of the view that storm-related monitoring should not be required during the post-construction period.

DONG Energy therefore requests that the MMO issues a varied Deemed Marine Licence with the following conditions removed: Schedule 9; Condition 14(3) and Schedule 10; Condition 13(3).

Yours sincerely,
David King



Environmental Manager
DONG Energy Wind Power

26 April 2017

Our ref. SAHOL/DAVKI
Doc. no. 2771301
(ver. no. 2771301A)
Case no. 200-15-1626

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REPORT



Walney Extension Offshore Wind Farm

Post-Storm Seabed Monitoring Position Paper

*Pursuant to Walney Extension Offshore Windfarm Development Consent Order
Schedule 9 Condition 14 (3) and Schedule 10 Condition 13 (3)*

Prepared GoBe Consultants Ltd.
Checked GoBe Consultants Ltd.
Accepted David King (DAVKI), 03 April 2017
Approved Sally Holroyd (SAHOL), 03 April 2017

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1. Introduction

1.1 Overview

This position paper has been produced to support discussions with the MMO with respect to the requirement to undertake post-storm seabed monitoring, which is specified under Condition 14(3) of the Walney Extension Generator Assets deemed Marine Licence (dML) and Condition 13(3) of the Walney Extension Transmission Assets dML. This paper has been prepared following the approval of the Walney Extension Seabed Monitoring Plan (submitted October, 2015; approved 16th December 2015) and the Walney Extension Geophysical Baseline Report (doc. ref. 160574) approved by the Marine Management Organisation (MMO) on 22nd September 2016 (MMO ref. DCO/2013/00008Post Consent).

1.2 Project Background

The Walney Extension Offshore Wind Farm (“the Project”) received consent on 28th November 2014 in the form of The Walney Extension Offshore Wind Farm Order 2014. The Project is located in the Irish Sea, and consists of an area of 149 km² with a capacity of 660 MW. Since the conclusion of the examination process in May 2014, further project optimisation has taken place, which includes a refinement of the number of wind turbine generators (WTGs), offshore substations (OSSs), and inter-array and export cables. The Project now consists of 87 WTGs, two OSSs, 171 km of inter-array cable and approximately 150 km of export cable.

1.3 Report Structure

The remainder of this paper is structured in the following way:

- Monitoring Plans and Previous Consultation: Provides a summary of the agreed monitoring plans and the consultation with the statutory bodies that has taken place with regards to the baseline surveys.
- Post-Storm Surveys: Consideration of the need for post-storm surveys.
- Conclusions: Relevant conclusions on the need for post-construction monitoring.

2. Monitoring Plans and Previous Consultation

The agreed Seabed Monitoring Plan (MMO ref. DCO/2013/00008Post Consent) details the methodology for the pre-construction geophysical baseline surveys which consisted of side scan sonar (SSS) and multi-beam echo sounder (MBES) surveys of the array and export cable corridor to characterise the seabed morphological conditions present within the study area.

The primary pre-construction survey requirements (noting that the buffer was reduced as agreed within the agreed seabed monitoring plan) of the generator and transmission assets dMLs (Conditions 12(2) and 11(2) respectively) being to undertake:

“a high resolution swath-bathymetry survey and side-scan sonar survey of the areas within the Order limits seaward of MHWS in which it is proposed to carry out construction works, including a 500 metre buffer area around the site of each work inclusive of seabed anomalies or sites of historic or archaeological interest that lie within that 500 metre buffer”

The wording of the conditions for post-construction monitoring within the generator and transmission asset dMLs (Conditions 14(3) and 13(3) respectively) is as follows:

“high resolution swath-bathymetric surveys of such representative areas within the Order limits seaward of MHWS as may be agreed with the MMO in which construction works were carried out to assess any changes to bed form morphology and such further monitoring as may be agreed to ensure that the cables have been buried.”

And, with specific regard to storm monitoring:

“If a major storm event occurs at any time between the completion of the authorised development and the completion of the third year of surveys required under sub-paragraph (2), the undertaker must carry out a side scan sonar and bathymetry survey within the Order limits seaward of MHWS in which the construction works were carried out, in accordance with such timetable as may be agreed with the MMO following consultation with Natural England.”

DONG Energy have committed to undertaking post-construction geophysical monitoring as laid out within the agreed monitoring plan. This will be surveys conducted over three years (which may be non-consecutive) in line with the agreed post-construction monitoring plan. As such, the remainder of this document will set out DONG Energy's position that there is no need for further, storm related, post-construction monitoring and provides the appropriate justification in order to inform the discussion with the MMO.

3. Post-Storm Seabed Surveys

With regard to storm-related monitoring generally, DONG Energy note that the MMO's strategic review (MMO, 2014¹) concluded that:

“The condition for “scour monitoring after a significant storm” should be removed unless clear rationale and guidance for this condition can be presented. Assuming this condition continues to be a requirement in future Marine Licences, further monitoring specifications need to be included such as: How soon after a storm; how is a storm classified (i.e. thresholds); locations where scour monitoring would be most valuable (e.g. thick mobile surface sediments).

It is also important to point out that logistically scour monitoring after a storm would be very difficult. In theory it would require all wind farms to have surveyors on standby in order to fulfil that specific licence condition. Assuming that this particular monitoring would have to be conducted soon (e.g. within a few days) after a specified storm event - the tendering process alone for the surveys would require significant time – logistical survey delays could potentially result in the storm effects not being captured, at significant cost to the developer with no tangible results.

Where scour monitoring is required, it should be done at select locations across the site which are representative of seabed characteristics – e.g. where large mobile bedforms are present (indicative of the level of seabed mobility) or where palaeochannels may be located.

Representative sampling based on seabed/shallow geological characteristics and hydrodynamics is more feasible for Round 3 OWFs, since these developments plan to have hundreds of turbines spanning large areas.

Round 2 OWFs that have not completed monitoring should consider the likelihood of scour based on the geological conditions and hydrodynamics at each individual site and whether or not scour monitoring will add value or knowledge to the project and a decision reached with the licensing authority.”

The MMO's review was published subsequent to the examination and drafting of the Walney Extension DCO. DONG Energy therefore feels that it is appropriate now for further consideration to be given both to the need and specific requirements of post-storm seabed surveys.

With regard to the need of scour monitoring, the maximum potential for scour to occur was considered within the Walney Extension Environmental Statement, specifically within Chapter 7 'Metocean, Coastal Processes, Geology and Geomorphology'. Paragraph 7.9.3.15 concludes that the predicted impact would be of slight adverse significant, and not significant in EIA terms. This conclusion was drawn on the basis of the region not being a wave driven system with typical wave heights in the region reaching 2.7m to 5.7m during large storm events.

It is, therefore, clearly demonstrable that the Walney Extension site is not a wave driven system, and therefore not significantly affected by storms. Furthermore, it is also of note that the requirements of

¹ MMO (2014b). The Marine Management Organisation (MMO) Response to an Independent Review of Environmental Data Collected at UK and European Offshore Wind Farm and 22 Recommendations for Future Post-Consent Monitoring.

the scour/post-storm monitoring are unclear. The requirements of the scour monitoring would, in line with the position set out in the MMO's strategic review, potentially result in vessels needing to be on standby in order to undertake survey following a storm event. In an area recognised as not being wave-driven, and therefore at a very low risk of significant scour developing, this would represent significant logistical challenges, and a disproportionate cost to the Project, with potentially limited or no benefit in terms of measuring post storm event effects within the offshore windfarm area.

4. Conclusion

DONG Energy acknowledges that post-construction surveys will be undertaken in line with the agreed plan and monitoring programme. DONG Energy wishes to highlight the following points:

- The MMO's strategic review in 2014 concluded that "*the condition for "scour monitoring after a significant storm" should be removed unless clear rationale and guidance for this condition can be presented.*"
- The conclusions of ES Chapter 7 regarding the lack of sensitivity with regards to both the receiving environment and potential for scour to develop at the Walney Extension site.
- The logistical challenges, in terms of procurement and survey management, and the cost challenges associated with having vessels on standby in order to undertake seabed surveys following a storm event.

Given that there is no particular sensitivity in the array area relating to scour, the conclusions of the strategic review as set out above, and the disproportionate cost associated with maintaining survey vessels on standby in order to undertake post-storm surveys DONG Energy are of the view that storm-related monitoring is not required during the post-construction period.

DONG Energy therefore requests that the MMO issues a varied Deemed Marine Licences with the following conditions removed: Schedule 9; Condition 14 (3) and Schedule 10; Condition 13 (3).