



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES

2010

Sheringham Shoal Extension and Dudgeon Extension Offshore Wind Farms

**Appendix E1 to the Natural England Deadline 2 Submission**

**Natural England's Advice on [REP1-059] 13.5 Marine Processes Technical Note**

For:

The construction and operation of the Sheringham Shoal Extension and Dudgeon Extension Offshore Wind Farms located approximately 16km and 27km respectively from the Norfolk Coast in the Southern North Sea.

Planning Inspectorate Reference: EN010109

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7<sup>th</sup> March 2023

## **Appendix E1 Natural England's Advice on [REP1-059] 13.5 Marine Processes Technical Note.**

### **Summary**

Natural England welcomes the Marine Processes Technical Note Revision A ([REP1-059] PINS Doc. No. 13.5) provided by the Applicant in response to Natural England's Relevant Representations [RR-063].

### **1. Applicant's Response to NE Comments**

#### **1.1 (Section 1.1.2) Applicant's Response to NE Comments ID 3, ID 8, ID 21, and ID 28**

We welcome the additional information and clarification provided by the Applicant regarding the characterisation of the sandbank features present within the Project's Order Limits. Natural England's concerns have now been addressed.

#### **1.2 (Section 1.2.2) Applicant's Response to NE Comments ID 6 and ID 23**

We welcome the additional information on spring tidal ellipses/excursions provided by the Applicant. Natural England's concerns have now been addressed.

#### **1.3 (Section 1.3.2) Applicant's Response to NE Comment ID 47**

We welcome the updated Figure 6.11 (Figure 10) provided by the Applicant showing the Zone of Potential Influence on the tidal regime in the context of Marine Protected Areas (MPAs). Natural England's concerns have now been addressed.

#### **1.4 (Section 1.4.2) Applicant's Response to NE Comments ID 37, ID 38, ID 39 and ID 40**

Natural England welcomes the upscaled sediment disturbance volume, plume extent and deposition thickness for SEP/DEP export cable installation. We are content to agree with the conclusions drawn here and have updated our Risk and Issues log accordingly.

#### **1.5 (Section 1.5.2) Applicant's Response to NE Comments ID 6 and ID 52**

We welcome the additional evidence provided by the Applicant from the comparison of pre- and post-construction geophysical surveys for Dudgeon Offshore Wind Farm (DOW). We agree that there appears to have been little change in overall seabed depth between 2013 and 2018 appears. However, given that the DOW array was only completed in 2017, it is not possible to establish any long-term trends in seabed morphological change based on the data presented in the Technical Note.

The DOW array sandwave migration analysis (2007-2018) is extremely useful. However, of the six sites analysed, results from only three sites have been provided in this Technical Note. Of these, two sites show both a marked decrease in sandwave height and an increase in migration rate between 2017 (when the DOW array was completed) and 2018 (one year later). Therefore, we cannot agree with the conclusion in Point 46, that '*sandwave migrations are indicative of naturally occurring processes across the array site and are not driven by changes caused by DOW.*' Further subsequent sandwave migration analysis would be required to support this conclusion.

## **2. Conclusions**

We welcome and are content with the additional information provided by the Applicant, in regard to, Sections 1.1.2, 1.2.2, 1.3.2 and 1.4.2 in the Technical Note, as detailed above. However, we do not agree with the conclusions in Section 1.5.2 or Section 2 regarding seabed bathymetry and bedforms. To establish long-term trends in the overall seabed bathymetry across the DOW array site would require comparison of further bathymetry datasets from different time periods to better inform quantification of trends in seabed erosion/accretion. Furthermore, in regard to, sandwave migration across the DOW array area, we advise that analysis of additional datasets from different time periods is needed to help establish whether bedform changes and migration rates are due to natural or anthropogenic drivers.