THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

Dogger Bank South Offshore Wind Farm

Appendix B4 to the Natural England Deadline 4 Submission
Natural England's comments and updated advice on Marine Physical Environment

For:

The construction and operation of the Dogger Bank South (East and West) Offshore Wind Farm located approximately 100-122km off the Northeast Coast in the Southern North Sea.

Planning Inspectorate Reference EN010125

25th April 2025

Appendix B4 – Natural England's Advice on Marine Physical Environment at Deadline 4

In formulating these comments, the following documents submitted by the Applicant have been considered in relation to the impacts of Dogger Bank South (East and West) Offshore Wind Farm (DBS) on Marine Physical Environment:

- [REP3-024] 10.37 Coastal Erosion Rate Technical Note (Revision 2) (Tracked)
- [REP3-032] 13.7 Bed Mobility and Thermal Environment (Revision 1)
- [REP3-026] 10.38 Benthic Ecology Technical Note (Revision 2) (Tracked)
- [REP3-027] 13.2 The Applicants' Response to ExQ1 (Revision 1)
- [REP3-028] 13.3 The Applicant's Responses to Deadline 2 Documents (Revision 1)

Our detailed comments on documents submitted by the Applicant in relation to Marine Physical Environment as listed above are provided in Tables 1 - 4 below.

Table 1 - Natural England's Advice On: [REP3-024] 10.37 Coastal Erosion Rate Technical Note (Revision 2) (Tracked)

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue
1	2.5	Findings from the revised National Coastal Erosion Risk Map (NCERM2) published by the Environment Agency on 28th January 2025 have been incorporated into the coastal erosion assessment initially outlined in [APP-080] Chapter 8 Marine Physical Environment. The erosion rates initially presented in this chapter ([APP-080]) have been revised using data provided by East Riding of Yorkshire Council data and the UKCP18 RCP4.5 50th percentile, RCP 8.5 70th and 95th percentile predictions of sea level rise. The revised data shows a reduction in the predicted rates of cliff retreat over the next 50 years compared to original predictions. This supports the original assessment conclusions in [APP-080] Chapter 8 Marine Physical Environment.	We consider this issue resolved and would anticipate the ES Chapters being updated accordingly.
2	General	It is stated in Paragraph 217 of 7.5 – Project Description [REP1-010] regarding Transition Joint Bays (TJB), *"The TJBs would be located beyond any areas at risk of natural coastal erosion across the anticipated operational life of the Projects. The location of the TJB's, along with the respective indicative trenchless landfall drill lengths, will take cliff erosion and a 30 to 32 year operational duration into consideration."* This should take into account the revised predictions as discussed under ref (1) above.	The rates of cliff erosion and exposure of cables will need to be considered in the pre-construction and decommissioning plans.

		This set back distance will ensure the integrity of the cliff is not compromised during construction and reduce the assets being at risk from natural coastal erosion.	

Table 2 - Natural England's Advice On: [REP3-032] 13.7 Bed Mobility and Thermal Environment (Revision 1)

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue
1	General comment	Natural England welcomes the Bed Mobility & Thermal Environment report [REP3-032]. However, we note that this report pre-dates the ES (2024), including a review of all selected and deselected export cable route options. We also note that it includes the MarineSpace (2023) DBS background review of bed mobility which was used to support the ES Chapter 8 Marine Physical Environment [APP-080]. There does not appear to be any new information in this report that changes our current advice. Furthermore, we note that this report is due to be superseded.	Whilst Natural England welcomes this background review, the information doesn't change our current advice.
2	5.3.1	We note the conclusion drawn in [REP3-032] regarding cable burial risk within the arrays. This states that the *"sorted bedforms prevalent on Dogger Bank and covering large sections of the DBS OWF footprint are the primary sources of bed level change and this will need to be considered fully in the design of the inter-array cables and the latter sections of the export cable."* This aligns with concerns raised in our	Natural England reiterates our previous advice that, at present, the potential for seabed mobility, cable exposure, and scour require further investigation, particularly on Dogger Bank and the latter two thirds of the offshore export cable corridor, and the nearshore. With regards to the assessment of seabed mobility and sediment transport pathways and rates, we advise that whilst observations of seabed morphological features may

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		Relevant Representation and Risk and Issues Log [R&I, B29], that currently we do not have sufficient information to support the assessment conclusions regarding changes to bedload sediment transport and seabed morphology due to the presence of cable protection measures on Dogger Bank. We also advised that a seabed mobility assessment will need to be carried out to inform the cable burial assessment and, thus, requirement for surface laid cable protection on Dogger Bank. In [REP3-028], it is stated that as further site investigation and design work is due to be completed prior to construction, [REP3-032] this will be superseded, however an update to this or the Cable Burial Risk Assessment will not be provided within Examination timeframes.	be indicative of seabed mobility, the relative importance of tides and waves will need further consideration. We also advise that acquisition of further high-resolution site-specific bathymetric data would allow more accurate and confident assessment of bedform migration (direction and rate). Furthermore, the future effects of climate change and increased storminess will need to be considered over the lifetime of the project(s). [R&I, B29]

Table 3 - Natural England's Advice On: [REP3-028] 13.3 The Applicant's Responses to Deadline 2 Documents (Revision 1)

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue
1	2.4.2/REP2-064:2 & Appendix C	Natural England welcomes the Applicants' further clarification that the approximate length of cable protection measures within the nearshore would be 116m per cable trench (assuming the cables were laid in a straight line) and will only protrude 50cm above the seabed. However, it is unclear if the anticipated maximum length of cable protection per cable trench will be secured. Furthermore, we note	Natural England advises that clarification is provided on whether the anticipated WCS cable protection length in the nearshore is secured in a plan/document and that design parameters for any cable protection will not negatively impact on coastal processes and/or the structural integrity of any external cable protection can be maintained. [R&I, B28]

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue
		that the Applicant intends to undertake modelling to demonstrate that this proposed nearshore cable protection MDS will have a limited effect on the wave regime in the area, for submission at Deadline 5.	
2	REP2-069:B3 & REP2-069:B4	We reiterate our previous advice whereby a realistic WCS for cable protection should be provided within Dogger Bank SAC and along the ECC with identification of affected features / sensitive habitats. The Applicant has indicated that further geotechnical surveys will be undertaken in 2025, however the CBRA will not be updated further within Examination timeframes.	We advise that it would be helpful if the Applicant could provide indicative locations for cable protection requirements based on currently available information. [R&I, B3, B4, C3]
3	REP2-069:B35	Natural England notes the Applicant's position that the Project will not hinder the conservation objectives of the MCZs, which is similar to other Applicant's positions in regard to determining significance of impacts, including Sheringham and Dudgeon Extension Projects (SEP and DEP). However, Natural England advises that if significant indirect impacts from DBS cable installation on designated features of the MCZ can't be excluded during Examination, then we would recommend that a without prejudice MEEB proposal and/or commitments to invest in strategic compensation are progressed as was submitted for DEP and SEP.	Natural England advise that the assessment is updated as needed. We note that further information in relation to impacts to nearshore processes is due for submission at Deadline 5, and further discussion is planned with the Applicant regarding indirect effects to Holderness Offshore MCZ which may progress this issue.
4	Appendix D	Natural England welcomes the Applicant's further information (Appendix D) on the indicative location of	In line with Hornsea Project Four, we advise that the DBS/Hornsea Project Four cable crossing should be

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		the DBS cable crossing with Hornsea Project Four, to the east of Smithic Bank off the Holderness Coast. We remain concerned that the DBS/ Hornsea Project Four cable crossing (with MDS parameters per cable crossing of 15.2m width, 400m length, and 1.4m height), located in shallow water in close proximity to Smithic Bank and Holderness Offshore MCZ, has the potential to interrupt or affect sediment transport processes.	located seaward of the 20m depth contour to the east of Smithic Bank, and as distant from Holderness Offshore MCZ as possible. We advise that it is demonstrated that the location is sufficiently seaward as to avoid alterations to the local wave/current regime, sediment transport regime and morphology of Smithic Bank. [R&I, B28].
5	Table 2-8:1	We welcome the Applicants' clarification [REP3-028] on the WCS figures presented for secondary scour. However, we advise that currently there remains uncertainty regarding seabed mobility, bedform formation and migration and scour potential within the arrays and along large sections of the export cable routes (see advice in Appendix B4 of our Deadline 4 submission). Further, in the ES [APP-080] secondary scour effects are predicted to extend only 'a few metres' from the direct footprint of any scour protection. We advise that this needs to be secured better within the IPMP which includes only 'consideration' of secondary scour. 'Consideration' is not actually a firm commitment to 'monitor', as was proposed in [APP-080]. Moreover, given the high value of receptors such as DB SAC, it is important to ensure that the risk of potential impacts are managed as far as possible and that appropriate monitoring to detect	Natural England advise that further consideration is given to the assessment and monitoring of secondary scour.

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		changes and trigger any necessary counter measures is secured.	

Table 4 - Natural England's Advice On: [REP3-027] 13.2 The Applicants' Responses to ExQ1

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue
1	MCP.1.10	Flamborough Front Monitoring Having reviewed the Applicant's response to MCP.1.10, Natural England agrees with the Applicant that physical monitoring of the Flamborough Front would be impracticable and that any monitoring campaign should utilise remote sensing satellite data which is open source (i.e. freely available). With respect to Hornsea 4 and gravity base structures (GBS), the Secretary of State determined that monitoring remained a requirement following removal of GBS from the project envelope[1].	Natural England maintains the advice provided in our Deadline 3 comments on the IPMP [REP3-056] and response to ExQ MCP.1.10 [REP3-057].

[1] Hornsea Four Secretary of State Decision Letter 12th July 2023