

THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

Outer Dowsing Offshore Wind Farm

Appendix B5 to the Natural England Deadline 6 Submission Natural England's comments on Marine Processes regarding the proposed ORCP Area

For:

The construction and operation of Outer Dowsing Offshore Wind Farm located approximately 54 km from the Lincolnshire Coast in the Southern North Sea.

Planning Inspectorate Reference EN010130

Appendix B5 - Natural England's Advice on Marine Processes regarding the Proposed Offshore Reactive Compensation Platform (ORCP) Area at Deadline 6

Summary

Natural England has raised concerns that the presence of the Outer Dowsing Offshore Windfarm (ODOW) Offshore Reactive Compensation Platforms (ORCPs) adjacent to Inner Dowsing, Race Bank and North Ridge (IDRBNR) Special Area of Conservation (SAC) and Inner Dowsing sandbank could modify waves, hydrodynamics and sediment transport and in turn lead to morphological change to Annex I interest features within the SAC. We continue to advise that more detailed information is needed to support the Applicant's conclusions.

Natural England advises all mitigation options should be explored, following updates to the bedform migration assessment, and these options could include, but not exclusively consideration for siting the ORCPs as far to the west of their ORCP area (thereby increasing their distance from the SAC/sandbanks to the east). However, we highlight that this should not be to the detriment of protected habitats and species.

Natural England advises that currently indirect impacts which could hinder the conservation objectives of IDRBNR SAC cannot be excluded; and without further evidence we are unable to advise further on the scale and significance of these impacts.

Please see our detailed comments below.

Detailed Comments

1. Effects from the modification to the wave and tidal regime

We note that the position of the ORCPs relative to the SAC western boundary and Inner Dowsing sandbank's western edge, will be defined post-consent during the detailed design stage. However, the ORCP area is currently located adjacent to the IDRBNR SAC i.e. the distance between the ORCP area and the SAC is 0.0km.

The Applicant has assessed the effects from modification to the wave and tidal regime to be of minor adverse significance. However, given the proximity of the ORCP area to the SAC (and Inner Dowsing sandbank) we do not believe that there is sufficient detailed bathymetric and modelling data for the ORCP/SAC area to support the Applicant's conclusions and adequately demonstrate the scale and extent of potential changes to the wave, tidal current and sediment transport regimes due to the presence of the ORCPs over the lifetime of the Project.

2. Cumulative impacts

We also advise that potential impacts to the SAC seabed morphology, due to the presence of the ORCPs, should not be considered in isolation. It is important to consider the potential for cumulative impacts, such as changes to physical processes and seabed morphology, due to the presence of the ORCPs and other nearby developments or activities (e.g. the Lincs Offshore Wind Farm (OWF)). Post-construction surveys from Lincs OWF, for example, revealed the presence of a large quantity of trench features and/or cable exposures which highlighted the risk of cable exposure in this highly dynamic environment. These impacts were greatly underestimated in the Environmental Statement (ES) assessment for the Lincs OFW. Whilst natural variation cannot be ruled out as a driver, it is possible that localised interruption of sediment transport and changes to seabed morphology occurred due to the construction and ongoing presence of the windfarm infrastructure. This, combined with uncertainties regarding the mobile bed layer thickness, scour potential, and seabed mobility, raises concerns for in-combination impacts to the SAC seabed morphology and changes to the physical processes operating in/around the ORCP/SAC area.

3. Sandbank-sandwave migration

Evidence provided by the Applicant in [APP-152] demonstrates that the sandbanks in the west of IDRBNR SAC i.e. Inner Dowsing (but including those outside of the boundary of the site) are advancing to the west and therefore towards the proposed ORCP locations. Sandbank migration rate at this SAC/ORCP area has been estimated as ranging from 10-60m during construction, 100-490m during an initial operational period of 25 years and 170-840m during an extended operational period of 45 years. Therefore, Natural England advises that further consideration needs to be given to the potential effect of sandbank migration, and significant seabed elevation changes at the ORCP area in terms of asset integrity. Conversely, consideration also needs to be given to the potential effect of the ORCP structures interacting with the migrating sandbank-sandwave system. More detailed modelling and bathymetric analysis may enable refinement or validation of the estimates of sandbank-sandwave migration rates.