

THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

Outer Dowsing Offshore Wind Farm

Appendix L1 to the Natural England Deadline 6 Submission

Natural England's comments on the Offshore In-Principle Monitoring Plan [REP4a-074]

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 L1 - Natural England's Comments on the Offshore In-Principle Monitoring Plan

In formulating these comments, the following document has been considered:

• [REP4a-074] 8.03 Offshore In-Principle Monitoring Plan (Tracked)

Summary

For the avoidance of doubt and audit trail purposes, Natural England has set out below our final advice in relation to monitoring requirements. In providing this advice we have highlighted where there is now agreement based on the updated IPMP [REP4a-074] and where there remain unresolved matters both from our review of the Applicant's Deadline 4a updates to the plan and our Deadline 3 response [REP3-075] on the Applicant's original IPMP [APP-276].

Unfortunately, much of our advice on the IPMP at Deadline 3 [REP3-075] remains unresolved. In particular, we advise that monitoring requirements in the form of hypotheses to be tested/met should be secured in the IPMP at the time of consent. Otherwise, our experience on other projects is that the need/requirement to undertake monitoring is open to challenge and that it is the lack of clear and robust hypotheses that introduces ambiguity around the purpose of the monitoring, thereby nourishing the challenge.

A. Natural England's Detailed Advice on 8.3 Offshore In-Principle Monitoring Plan (Version 2) (Tracked) [REP4a-074]

1) Marine Processes

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue
1	Table	Natural England welcomes the	We advise that the IPMP consider
	3.1	updated IPMP and Applicant's	the need for adaptive monitoring if
		commitments to monitor seabed	unforeseen impacts are detected.
		and bedform recovery. However,	Similarly, triggers for the
		the IPMP should include	development of countermeasures
		consideration of the need for	should be clearly stated.
		adaptive monitoring if unforeseen	
		impacts are detected, and triggers	
		for the development of	
		countermeasures, where needed.	

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue
2	Table 3.1	Natural England welcomes the	We advise that the Applicant should
	3.1	Applicant's commitment to monitor	manage the risk of potential impacts
		scour in the updated IPMP and	as far as possible and that if the
		testing of a hypothesis regarding	proposed scour monitoring detect
		seabed level changes due to	changes greater than expected,
		scour. However, we advise that	triggers should be established, and
		this needs to go further to consider	any necessary counter measures is
		options for addressing the	secured. This should be adequately
		impacts, should scour	captured in the OOOMP so that the
		observations prove greater than	proposed post-construction
		predicted.	geophysical surveys are used to
			validate ES predictions.

2) Marine Mammals

Please note that 8.13 Schedule of Mitigation V5 [REP4a-087] should also be updated accordingly.

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue
1	1 Section 3.5.2, Para 38	Natural England acknowledges the	Natural England accepts the
		Applicant has stated that 'the	Applicant's suggestion, however,
		purpose of this monitoring will be to	continues to request further detail
		validate the predictions made within	on how this will be
		the ES, but also to validate the	monitored/implemented. Natural
		impacts ranges used to inform the	England would welcome the
		MMMP and the specific mitigation	opportunity to engage with the
		measures set out therein'.	Applicant on this matter post-
			consent.

3) Benthic Ecology

NE Ref	Section Para/ Table/ Figure	Key Concern and/or Update	Natural England's Advice to Resolve Issue
1	3.3.2	Natural England notes that the in- principle monitoring proposed for benthic receptors is limited to considering only effects on Annex I reef.	Natural England advises that the in-principle monitoring should be extended to include considerations of changes in the quality, extent and recovery of <i>S. spinulosa</i> supporting habitat, as well as that of Annex I sandbank communities.

4) Offshore Ornithology

Upon review of 8.3 Offshore In-Principle Monitoring Plan Revision 2 [REP4a-074] it is evident that proposed ornithological monitoring remains focused solely on the compensatory measures that are implemented for the project and that no further monitoring is proposed. The IPMP states "...monitoring must have a clear purpose in order to provide answers to specific questions. Monitoring should be targeted to address significant evidence gaps or uncertainty, where there is a potential for significant impact. In this instance no monitoring or independent surveys are required". Natural England considers there to be significant evidence gaps and areas of uncertainty associated with the offshore ornithology assessment process, including but not limited to the effects of displacement, the various parameters used within collision risk modelling, and the connectivity of the array area to the colonies to which impacts are apportioned at different times of the year (and therefore the appropriate approach to apportioning impacts from the Project).

Some of these evidence gaps and areas of uncertainty have been discussed in depth by Natural England and the Applicant throughout the examination, and the Applicant has outlined some of the sources of this uncertainty (and the implications for the need to apply precaution to the assessment) within their document 'Levels of precaution in the assessment and compensation calculations for offshore ornithology' [REP4a-049] stating "The use of precaution occurs where there is uncertainty, e.g. spatial apportioning, demographic structures of offshore populations, variation in published biometric information (the flight heights, speeds, nocturnal activity and avoidance rates used for Collision Risk Modelling (CRM)), uncertainty regarding the impact of a pressure (the displacement and mortality rates

used), uncertainty on sabbatical rates." Therefore, it is Natural England's view that the IPMP should seek to address some of these uncertainties, particularly as some of them are associated with significant impacts to species including kittiwake, guillemot and razorbill.

At Deadline 3, Natural England responded to the first revision of the Offshore In-Principle Monitoring Plan [REP3-075] [advising that post-consent monitoring of the offshore wind farm could help clarify the key risks for offshore ornithology, such as those posed from collision and/or displacement. The Applicant responded to this stating: "The Applicant's proposals focus on the monitoring of species which are the subject of compensatory measures as these are the species with the greatest potential for sensitivity to the Project. By definition, monitoring the success of the compensation measures, or the benefits from them, will provide monitoring of the effects of the Project." Given that the Applicant's proposed compensation measures (predator control measures on Jersey and additional measures at auk colonies in the South-West of England and, to a slightly lesser degree, offshore Artificial Nesting Structures (offANS)) are to be carried out remote from both the Project's array area and the colony for which these measures are proposing to address impacts to i.e. Flamborough & Filey Coast (FFC) SPA, it is unclear how monitoring the success of these measures will provide information on the impacts to these colonies.

Further, the Applicant has not provided further detail on how monitoring of the predator control measure on Jersey and the additional measures at colonies in the South-West will be designed to provide data on the effects of the Project on key species for which impacts have been identified i.e. auks, or whether the monitoring undertaken for either of these measures includes monitoring of the array area or monitoring at FFC SPA. For the monitoring of offANS, the Applicant has referred to the mechanism set out within the Kittiwake Strategic Implementation and Monitoring Plan (KSIMP) which references monitoring of nearby colonies, but this is lacking in any further detail and is restricted to kittiwake.

Natural England therefore again refers the Applicant to the guidance set out in Phase IV of Natural England's Best Practice Advice document Environmental considerations for offshore wind and cable projects - Home, which provides advice for monitoring programmes for seabirds in the post-consent phase, including specific advice on monitoring to target key areas of uncertainty in ornithological assessments, including displacement, collision and apportioning of impacts to colonies, as well as monitoring at colonies. Further detail is provided below on additional monitoring options that could be undertaken to target the specific uncertainties associated with this Project:

Connectivity of the array area to Flamborough and Filey Coast (FFC) SPA

Connectivity is a key area of uncertainty in affecting how both collision and displacement impacts of the Projects are apportioned to colonies, and there is often a disagreement around the appropriate rates to use within the apportioning process. There is limited tracking data from FFC SPA for auks in particular, and Natural England advise that the Project considers monitoring to determine the level of connectivity between the array area and FFC SPA, including considering how tagging/tracking studies of key affected species could be incorporated into the monitoring plans. Other approaches to determining connectivity could also be explored including photography, catching birds at sea, analysis of stable isotopes, colour ringing and dietary studies.

The importance of the array area for auks at the beginning of the breeding season and post-breeding chick-rearing/moult period

The high numbers of auks recorded within the array area and buffers during the baseline characterisation surveys in both the early breeding season and post-breeding season suggest a high degree of importance of the array for these species at these times of year. These would therefore be highly relevant topics for monitoring. The Applicant has suggested that the large numbers of auks present in the array area in the post-breeding months are in the process of dispersing to other areas beyond it, however this is based on very limited data on post-breeding dispersal from breeding areas. Focusing digital aerial surveys on the area of sea between FFC SPA and the Project array area in the pre-breeding, breeding and post-breeding months has the potential to contribute to addressing this area of uncertainty and to address key questions about the importance of the Project's array area to auks at these times of year.

Colony-based studies

Colony-based studies play an important role within post-consent monitoring in establishing evidence of the changes that occur in species' ecology, key demographic rates and abundance and how those compare with the predictions of, or assumptions made within, ornithological assessments. In order to have sufficient monitoring data to detect impacts at colonies, including from indirect effects such as reduced prey availability, long-term integrated monitoring that incorporates not just the standard abundance and productivity monitoring but also monitoring of survival, phenology and diet, is needed. All offshore wind projects with significant impacts to SPAs should consider contributing (in a strategic and collaborative way) to monitoring those colonies.

B. Appendix L - Natural England's Comments on the Offshore In-Principle Monitoring Plan [APP-276]

Natural England has focused in this section on providing an updated on the unresolved advice from our Deadline 3 response [REP-075]. This section should be read alongside the advice provided above on the Applicant's updated IPMP at Deadline 4a.

5) Engineering and design related monitoring

It remains unclear to Natural England how engineering and design related monitoring encompasses monitoring surveys to inform final project design, including those required to inform mitigation measures such as avoidance of certain sensitive receptors particularly environmental ones. We continue to highlight that geotechnical investigations will be critical to inform the cable burial risk assessment and in relation to reducing the direct or indirect impacts to environmental receptors particularly within IDRBNR SAC and the nearshore.

6) Natural England's further updates to our [REP3-075] Advice to the IPMP

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue	NE D6 response
1	[APP-	Marine Processes	Natural England advises	This is resolved in ,
	276]	Evidence is needed to	that sandwave/sandbank	but outstanding
	Section	validate predictions of	pre- and post- construction	issues remain in
	3.1	impacts to, and recovery of,	monitoring should be carried	relation to adaptive
		sandbanks, sandwaves and	out to ensure no unexpected	measures. Please
		designated areas of seabed	changes occur to seabed	see Section 1
		following seabed	morphology, as predicted in	above
		preparation and sandwave	the EIA. And that	
		clearance.	hypothesis on sandbank	
			recovery have been met.	
2	[APP-	Offshore Ornithology	We advise that post-consent	Please see our
	276]	The IPMP proposes that	monitoring of the offshore	advice in Section 4
	Section	ornithological monitoring is	wind farm could help clarify	above.
	3.6	focused solely on the	the key risks, such as those	
		compensatory measures	posed from collision and/or	
		that are implemented for	displacement, and as such	
		the project. No further	be included within the IPMP.	
		monitoring is proposed.	IPMP should also like with	

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue	NE D6 response
		Natural England highlights	conditions within the	
		that compensation	DCO/dML.	
		monitoring is undertaken to		
		observe the success of the		
		compensation measures		
		and not to test the		
		predictions of the ES.		
		Therefore, we advise that		
		further monitoring is		
		required of residual		
		concerns and to test agreed		
		hypothesis.		
3	[APP	Benthic Ecology	Natural England advises	The issue of
	276]	It remains unclear if all	that all infrastructure within	Hypotheses to be
	Section	surface laid infrastructure	IDRBNR SAC should be	tested remains.
	3.5	within IDRBNR SAC will be	monitored post installation to	Natural England
		monitored post construction	test particular hypotheses	advises the IPMP
		and for how long. Or will	relating to significance and	needs to be
		any monitoring only be	duration of impacts	updated to ensure
		along a subsection.		the benthic
		Again, as with Ornithology,		hypothesis are
		we highlight that		updated to ensure
		compensation monitoring is		necessary
		undertaken to observe the		mitigation as
		success of the		identified though
		compensation measures		the R&I log
		and not to test the		is appropriately
		predictions of the ES.		monitored and
		Therefore, we advise that		adaptive
		further monitoring is		management
		required of residual		appropriately
		concerns and to test agreed		secured.
		hypothesis.		