THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES

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East Anglia TWO Offshore Wind Farm

Appendix F8 to the Natural England Deadline 5 Submission

Natural England's Comments on EA1N and EA2 In-Principle Monitoring Plan (IPMP)

For:

The construction and operation of East Anglia TWO Offshore Wind Farm, a 900MW wind farm which could consist of up to 75 turbines, generators and associated infrastructure, located 37km from Lowestoft and 32km from Southwold.

Planning Inspectorate Reference: EN010078

4th February 2021

Natural England's Comments on EA1N and EA2 In-Principle Monitoring Plan (IPMP) [REP3-040/41]

This document is applicable to both the East Anglia ONE North (EA1N) and East Anglia TWO (EA2) applications, and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's (ExA) procedural decisions on document management of 23rd December 2019. Whilst for completeness of the record this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it again for the other project.

Summary

This document contains the following elements:

- Purpose of the IPMP document
- Overarching concerns with EA1N/ EA2 IPMP
- Detailed Comments - Benthic Ecology, Marine Mammals, Ornithology
- Specific comments on the EA1N/ EA2 IPMP (Table)

Purpose of the IPMP Document

Purpose of the IPMP document

The outcomes of the monitoring are necessary to:

- validate the predictions that were made during the consenting phase;
- mitigate against unforeseen impacts;
- evidence the effectiveness/success of mitigation measures;
- inform adaptive management strategies

Therefore, it is important that the IPMP represents a useful document that ensures the monitoring commitments are detailed and can be referred back to throughout the monitoring process.

Natural England advises that a good IPMP should:

1. Provide a brief background/overview of the proposed OWF project at the start of the document, which will be updated as the project design is refined, to ensure that the monitoring remains fit for purpose.

2. Clearly set out what the uncertainties, residual concerns, and evidence gaps of the EIA are.

3. Provide outlines of questions/hypotheses that could potentially be answered/tested through monitoring.

4. Provide the reader of the IPMP with an indication – albeit in-principle at this consenting stage – of where the project considers their monitoring should be focussed (the 'what') and what this should achieve (the 'why').

5. The IPMP should provide the framework for the monitoring i.e. outline numbers of surveys, timings and duration, but other topic-specific monitoring documents should provide the finer details regarding how the monitoring will be carried out e.g. Ornithological Monitoring Plan (OMP).

6. The above should be clearly presented, for instance, with a table summarising the proposed in-principle monitoring for each topic. The inclusion of 'headline reasons for monitoring' and 'monitoring proposal' within the tables are helpful.

7. Where appropriate identify potential routes to achieving strategic level monitoring in collaboration with others i.e. ORJIP in order to address project specific concerns.

8. Commit to looking for opportunities to maximise monitoring outputs through working with other developers/ projects/stakeholders.

9. Align with any monitoring associated with an compensatory measures. For example, there is a requirement for Hornsea Project 3 to design

and deliver a Kittiwake Monitoring Plan (KIMP) in addition to the ornithology monitoring included with the IPMP.

10. But most of all the IPMP should include monitoring options which are most likely to provide the required evidence to better understand uncertainties. It should also avoid monitoring for monitoring sake and learn lessons from monitoring at other projects rather than just repeating.

Overarching Concerns with the IPMP

11. Overall, we feel that much more detail is required than is provided in the IPMP in its current form.

12. The IPMP repeats the outcomes of the EIA. However, it does not set out what the uncertainties, and evidence gaps of the EIA are. Establishing the uncertainties and evidence gaps of the EIA is necessary to inform what monitoring should be undertaken.

13. It would be useful to set out what specific uncertainty/assumption the Applicant intends to target through the monitoring they have proposed, rather than merely stating that they aim to 'validate the predictions made in the Environmental Statement'. It would be helpful to know what predictions would be tested with a clearly defined hypothesis.

14. The IPMP focuses on EIA and not on residual impact monitoring for HRA issues, which will also require monitoring.

15. Limited detail is provided regarding marine mammals and ornithology. A table outlining monitoring for these topics needs to be included, as has been included for other topics such as Table 2 for Benthic Ecology (see Marine Mammal and Ornithology comments below).

16. We appreciate that the thematic specific monitoring plans like the OMP will be developed at a later date and that these will contain the finer details and methods of the monitoring. However, the thematic specific monitoring plans should use the IPMP as the foundation of what monitoring should occur. For

example, the objectives of the marine mammals and ornithology monitoring need to be clearly defined in the IPMP.

Detailed Comments

Benthic Ecology

17. Please see Appendix F5b in relation to the requirement for two pre-construction Annex I surveys due to potential time lag between UXO clearance and commencement of construction.

18. We disagree with the proposed 'single post-construction survey' for monitoring impacts on Sabellaria reef. A single post-construction survey will determine the status of the reef, but will not provide information on recovery of Sabellaria. If a reef is predicted to be impacted by the development, then it is reasonable to expect more than a single survey of the area post-construction.

19. Furthermore, there are no details on the 'associated buffers' needed to consider an area of reef as being avoided – this should be made clear in the IPMP at what point.

Marine Mammals

20. Please be advised that the IPMP references the MMMP which is a Marine Mammal **Mitigation** Plan not a monitoring plan. Any monitoring included within the MMMP relates only to ensuring the successful delivery of the mitigation i.e. checking there are no marine mammals in the vicinity. It is not considered monitoring to address uncertainties or understand impacts. Therefore, we advise that a separate Marine Mammal Monitoring Plan (MMMoP) is submitted to demonstrate how the Applicant will address identified project specific concerns

21. We are disappointed that the only monitoring proposed relating to marine mammals is underwater noise monitoring of the first four piles during construction. This could this be amended to reflect the need to consider not just the first four piles, but some consideration of the worse-case piles/those that are predicted to be more problematic. For example, an approach could be to consider monitoring the noise levels of an agreed consecutive four piles within the first x number of

piles. This could result in the monitoring providing more meaningful noise data that better reflects the worst case noise predictions and determine if this matches the EIA/HRA assessments.

22. We would like to see more of the Applicant's intentions regarding marine mammal monitoring beyond the first four piles. If the project wishes to participate in strategic marine mammal monitoring proposals, we suggest that the projects role in this is made clear, for example, 'EA1N/EA2 will contribute towards a strategic project by monitoring x, y, z…'.

Ornithology

23. We have fundamental concerns that the EA2 IPMP does not propose to conduct any project specific bird monitoring, and that the in-principle monitoring only makes reference to supporting joint industry/strategic monitoring for ornithology. We have previously advised that ornithological monitoring needs to be undertaken for both EA1N and EA2, and we would like to re-iterate this here. Although, we do note that at ISH3 the Applicant said that this was an error on their part and Ornithology Monitory will be included for EA2.

24. We are aware of other OWF developers which in their draft IPMP state that they will support a strategic monitoring study/programme. This was not considered acceptable as the MMO require more concrete commitments from individual projects in order to approve the IPMP. It would therefore be appropriate to consider this further.

25. The concern with proposing to only support strategic monitoring programmes is that there is not yet sufficient detail regarding these programmes and the roles that individual developers will have in contributing to the outcomes of such strategic programmes, nor is there currently any guarantee that these external/wider strategies will come to fruition. Developers should not commit to support something in the IPMP that does not yet exist without a corresponding proposal for something that they can directly deliver and be responsible for.

26. Examples of suitable ornithological monitoring objectives may include:
    - To validate the number of collisions at the offshore windfarm location
    - To validate the extent and distribution of birds in the array area

- To validate the apportioning of birds back to SPA(s)
- To detect any changes at the relevant colony(ies) which may arise at the colony as a result of the proposal.

27. Natural England agrees the focus of monitoring should be the extent of displacement on red-throated diver; this should be undertaken as part of a pre- and post-construction monitoring programme. This will be particularly important if a design is consented where the buffer is less than 10km or less than the modelled extent of displacement (once issues such as considering change in survey platform have been considered).

28. The first reason the applicant provides for monitoring is : “Displacement of red-throated divers from operational wind farms has been observed in multiple geographies” is not very clear. Natural England advise the reason for monitoring is:
    - To determine the extent of displacement from EA1N windfarm, and specifically to determine the total area of the Outer Thames Estuary SPA subject to displacement
    - To determine if there has been any re-distribution of red throated divers within the Outer Thames Estuary

29. The monitoring proposal currently included in the plan is: “Determine whether there is a change in abundance and distribution within the windfarm site and appropriate buffer zones in relation to a suitable reference site.” Natural England’s advice is that the monitoring should primarily focus on the extent and strength on displacement within the Outer Thames Estuary SPA. We are not clear what is meant by a suitable reference site, but for clarity we advise that monitoring is based on before and after of the area of SPA which is of sufficient size to detect the full extent of displacement. Based on the evidence from the London Array post construction monitoring, we advise that this should be at least 12km from the array.

30. Natural England agree with the analysis of pre and post construction digital aerial survey data, although the number of surveys required should be based on a power analysis.

Specific comments on the EA1N/ EA2 IPMP (Table)

Page/ section	Comment	
Page iii (Glossary) and Page 2 Section 1.4 & 1.4.1	Inconsistency in number of turbines – the glossary and Section 1.4.1 states up to 75 turbines, and Section 1.4 states up to 67 turbines. *Recommendation: Amend to correct maximum number of turbines*	
Page 2 Section 1.4.1	We would like to know when it will be determined if the northern or southern offshore cable route will be selected, and what this decision depends. We believe the row labelled 'Maximum offshore cable corridor area (northern and southern route options combined)* should be removed from the list of key project characteristics. This area may be referenced incorrectly as a MDS, and used for a 'headroom' argument at a later date. This inclusion of this line is unnecessary given that 'this area is for both the northern and southern offshore cable corridor route options. In practice, only one of the route options would be chosen following detailed project design', both of which are already captured in the characteristics table. *Recommendation: Remove the row labelled 'Maximum offshore cable corridor area (northern and southern route options combined)'*	
Page 4 Section 1.5	'Where there is potential for a significant environmental impact this should not, on its own, necessarily lead to the requirement for monitoring.' We disagree with this statement. Where there is potential for significant environmental impact, monitoring should be conducted to determine if there was a significant impact or not. And inform any adaptive management *Recommendation: Remove this sentence from the IPMP*	
Page 4 Section 1.5	'The Applicant is supportive of appropriate strategic monitoring issues' It is not our remit to discuss the applicant's 'business goals' except to say that this should not come at the cost of cutting corners with regards to environmental monitoring.	
Page 4 Section 1.5	Adaptive approach: 'Where it has been agreed that there are no significant impacts, monitoring need not be conditioned through the DMLs.' This seems reasonable, however, this should not provide	

	justification for the applicant not to do the fully surveys they have committed to.	
Page 5 Section 1.6 Para 12	'The significance of the residual impact should not in its own right necessarily lead to the requirement for monitoring'. If there are residual impacts, it will be necessary to understand (amongst other things): - The size of the area impacted - The species/habitats impacted and their ecological importance - How long the residual impact lasts for – will the impact reduce over time? Long/ short term/permanent residual impact? These questions could be answered through appropriate monitoring.	
Page 5 Section 1.6 Para 13	'Only where moderate or major adverse impacts are predicted, or significant uncertainty remains in the assessment has monitoring been deemed necessary' What happens in instances where there are disagreements between the applicant and the relevant interested party on the significance of the predicted impacts *Recommendation: Better to also consult the risks and issues log to capture all impacts to be monitored*	
Page 5 Section 1.6 Para 15	We agree with the use of other relevant studies carried out from EA1 and EA3 to provide the most relevant and up-to-date information/evidence. It is worth considering other publically available publications and data gathered from other OWFs, and if this could also be used/referenced where appropriate and relevant.	
Page 5 Section 1.7.1 Para 17	In general, we agree with combining surveys for monitoring purposes, as long as they don't conflict or influence each other. For instance if there are vessels conducting noisy activities then this may influence the results of any marine mammal observations.	
Page 10 Table 2 (Benthic Ecology)	There is not sufficient detail presented on the buffers for avoiding *Sabellaria* reef. *Recommendation: Provide additional information on the 'associated buffer' ranges for avoidance of Sabellaria reef*	
	We believe that one single post-construction survey if *Sabellaria* reef is impacted is not sufficient. *Recommendation: Commit to more than one post-construction survey if areas of reef are impacted and not able to be avoided*	

Page 10 Table 2 (Benthic Ecology)	The geophysical survey is going to be conducted to inform the benthic surveys. However, the time period for submission of the methodologies is both 6 months prior to undertaking any survey. This may lead to conflict as the benthic scope and methodologies are to be based on results of the geophysical survey. Currently, the timing implies they will both be submitted at the same time. *Recommendation: Amend/clarify timings of geophysical and benthic surveys*	
Page 13 Section 1.7.6.2 (Marine Mammals)	This paragraph effectively states the Marine Mammal monitoring is proposed in the SIP and MMMP. All monitoring should be recorded in the IPMP. Further consideration of noise monitoring during piling may be required, for instance, monitoring could extend beyond the first four piles, and instead look to monitor the four 'worse case' piles. Natural England would be happy to discuss the feasibility of this with EA2. *Recommendation: Explore the benefits of conducting underwater noise modelling for the four predicted 'worst case' piles*	
Page 13 1.7.6.2 (Marine Mammals)	There currently is no table showing the proposed monitoring for marine mammals. *Recommendation: For clarity and ease of understanding, clearly set out the proposed marine mammal monitoring in a tabular layout, similar to Table 2 (Benthic Ecology)*	
Page 14 Section 1.7.7.2 (Ornithology)	No ornithological monitoring is proposed. It is not sufficient to 'support, in principle' joint industry projects/strategic monitoring programmes. Firm commitments and frameworks for monitoring should be included in the IPMP. *Recommendation: The IPMP needs to state what monitoring they will conduct in relation to this project*	
Page 14 Section 1.7.7.2 (Ornithology)	There currently is no table showing the proposed monitoring for ornithology. *Recommendation: For clarity and ease of understanding, clearly set out the proposed ornithological monitoring in a tabular layout, similar to Table 2 (Benthic Ecology)*	