



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES
2010

East Anglia TWO Offshore Wind Farm

Appendix K8 to the Natural England Deadline 8 Submission

**Natural England's Comments on Report on the Implication for European Sites
(RIES) [PD-033]**

For:

The construction and operation of East Anglia TWO Offshore Windfarm, a 900MW windfarm which could consist of up to 67 turbines, generators and associated infrastructure, located 37km from Lowestoft and 32km from Southwold.

Planning Inspectorate Reference: EN010078

25th March 2021



Natural England's Comments on Report on the Implication for European Sites (RIES) [PD-033]

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.

Introduction

Natural England have reviewed the Report on the Implication for European Sites (REIS) [PD-033] for both East Anglia 1N (EA1N) and East Anglia 2 (EA2). This response has been split into the following thematic areas:

1. Offshore Ornithology
2. Marine Mammals
3. All other matters

General Comments

- Natural England acknowledge that only submissions up to Deadline 5 have been considered in the REIS, therefore the REIS does not take account of updated advice on various aspects since then. Where we are able to, we have signposted to our updated advice. Natural England recommends that the REIS is updated before it is included within an ExA report to the Secretary of State (SoS)
- If it is considered that the conservation objectives for any designated site interest feature will be hindered, then an Adverse Effect on Integrity (AEoI) cannot be excluded. Please note that there seems to be some confusion over this matter between qualifying features in Section 4.
- Please be advised that as an Statutory Nature Conversation Body (SNCB) our remit doesn't extend beyond advising on the ecological merits of proposals, thus excluding us from making comment on Imperative Reasons of Overriding Public Interest (IROPI) submissions.



Detailed Comments

1. Offshore Ornithology

	Pg	Section	EA1N EA2 Both	NE Comments	RAG Status
1.	9	Likely Significant Effects -3.0.4	Both	Following the Applicant submitting an updated 'Information to Support Appropriate Assessment Screening Matrices' [REP3-016] Natural England confirms we agree with the conclusions for sites where a likely significant effect (LSE) cannot be ruled out, either alone or in-combination with other plans or projects.	
2.	16	Ornithological matters for which outstanding HRA concerns remain - Table 4.0	EA1N	<p>We confirm that Natural England advises that it cannot be excluded beyond reasonable scientific doubt that EA1N would have an adverse effect alone or in-combination on the integrity of the designated sites and their ornithological features shown in Table 4.0.</p> <p>However, for completeness Flamborough and Filey Coast (FFC) Special Protection Area (SPA) should list gannet for in-combination displacement and in-combination collision and displacement, as the Hornsea 3 (and Hornsea 4) uncertainty issues apply to these as well. We have flagged this in our previous responses [REP3-117 and REP7-071].</p>	
3.	16	Ornithological matters for which outstanding HRA concerns remain - Table 4.0	EA2	<p>We confirm that Natural England's advises that it cannot be excluded beyond reasonable scientific doubt that the EA2 would have an adverse effect in-combination on the integrity of the designated sites and their ornithological features shown in Table 4.0.</p> <p>However, for completeness FFC SPA should list gannet for in-combination displacement and in-combination collision and displacement, as the Hornsea 3 (and Hornsea 4) uncertainty issues apply to these as well. We have flagged this in our previous responses [REP3-117 and REP7-071].</p>	



4.	16-17	AEOI - 4.2.7	EA2	EA2 is 8.3km from the Outer Thames Estuary (OTE) SPA, and the Applicant's modelling results suggest that the turbines will be at a distance that no displacement effects of the array will result. Natural England cannot rule out the possibility of some displacement effects, based on the evidence from the London Array monitoring that affects may extend to 11.5km. We do accept that the area of SPA subjected to any displacement is likely to be relatively small, particularly compared to EA1N. Therefore, we accept that a case can be made that EA2 alone will not have an AEol on RTD of the OTE SPA. However, there is the potential for EA2 to contribute to the in-combination displacement AEol, and therefore EA2 should be included as part of the in-combination assessment.
5.	17	RTD – Assessment of Displacement – Offshore Laying Activities - 4.2.10	EA2	The operations and maintenance (O&M) requirements for consented and operational windfarms (and other infrastructure) are expanding as more projects come forward. Therefore, the spatial and temporal level of vessel activity in and adjacent to the Outer Thames SPA is increasingly becoming a concern in relation to disturbance and/or displacement of red-throated divers from a more persistent presence of vessels. In this context of increasing vessel activity, we consider that a 'worst case scenario' of 110 days of cable installation during the period that red-throated diver are likely to be most sensitive (1st November to 1st March inclusive) could make a meaningful contribution to in-combination effects on the SPA. This gives further weight to the need for a seasonal restriction for cable installation.
6.	17	Vessel Traffic Associated with Site Maintenance - 4.2.11	EA2	Natural England notes that since the publication of this REIS that the Best Practice Protocol (BPP) has been updated and will be again at Deadline 8.
7.	18	Propose Array Area - 4.2.12	EA2	Natural England cannot rule out the possibility of some displacement effects on the SPA from EA2, based on the evidence from the London Array monitoring that affects may extend to 11.5km. We do accept that the area of SPA subjected to any displacement is likely to be relatively small, particularly compared to EA1N. Therefore, we accept that a case can be made that EA2 alone will not have an AEol on RTD of the OTE SPA. However, there is the potential for EA2 to contribute to the in-combination displacement AEol, and therefore EA2 should be included as part of the in-combination assessment.



8.	19	RTD – extent of displacement effects from the array (project-alone) - 4.2.14, 4.2.16, 4.2.19	EA2	<p>As noted above, we agree there it is likely to be no AEol from EA2 alone.</p> <p>NB: please note that the impacts from London Array are not ‘predicted’, as they have been observed through post construction monitoring and therefore are empirical evidence.</p>	
9.	17	Outer Thames Estuary SPA Red-throated Diver - 4.2.9, and 4.2.10	EA1N	<p>We wish to highlight that the phrase “... (which NE calculates could affect up to 3.5% of the total OTE SPA area based on a 10km buffer)...” is in relation to area affected by the array, rather than the cable laying activities.</p> <p>Please be advised that the Best Practice Protocol (BPP) mitigation measures do not mitigate the impacts of the array itself. BPPs were developed to mitigate disturbance from vessels and helicopters transiting through red-throated diver SPAs. Please see point 5 in relation to seasonal restrictions for cable laying.</p>	
10.	20	RTD – extent of displacement effects from the array (project-alone) - 4.2.17	EA1N	<p>In this section reference is made to the potential for birds in this region of the OTE SPA to be displaced and to suffer mortality. Para 4.2.17 states: “...the Applicant concludes that “available evidence suggests that the most likely result of displacement is that there will be little or no impact on adult survival...”. However, this focuses on the potential implications of mortality for one of the Conservation Objectives, which relates to the population of the qualifying features.</p> <p>As stated at para 23 and 25 of REP4-087, maintaining the population of divers is not the only Conservation Objective that needs to be met to secure the integrity of the SPA. Even if it were the case that no birds die as a result of displacement, an AEol on the Outer Thames Estuary SPA alone cannot be ruled out. Natural England’s conclusion of AEol from EA1N alone is based on the extent of supporting habitat within the SPA that will no longer be able to support the same numbers and distribution of birds in the absence of EA1N being constructed; in other words impairing the ability of the SPA to support the feature for which it was classified. This conclusion is the same whether that is based on displacement effects extending to 7km as the Applicant’s suggest from their modelling, or 11.5km as reported in the London Array post-construction monitoring.</p>	



				<p>Therefore, a key issue in undertaking the Habitats Regulations Assessment is the need to consider the effective habitat loss, as well as mortality, for the conservation objectives of the SPA. The ecological consequences of effectively reducing the area of SPA available to the red throated diver are not known.</p> <p>UPDATE: The submissions made by the Applicant at Deadline 6 on RTD modelling [REP6-019] did not provide any substantive response to our concerns raised, and do not change our advice that there is likely to be an AEoI alone. The Applicant's response to Natural England's legal submission [REP6-020] has only highlighted the issue of effective habitat loss for RTD. Please see our Deadline 8 Appendix A20 response on [REP7-070].</p>	
11.	20-21	Red throated diver – assessment of displacement (in-combination) - 4.2.19	Both	Natural England notes that the Applicant has now included projects that were excluded from their earlier assessments for 'illustrative purposes'. As stated in REP4-089, Natural England advises that these existing windfarms should be included as critical context for in-combination integrity judgements and not just for illustrative purposes.	
12.	21	Red throated diver – assessment of displacement (in-combination)- 4.2.20	Both	Natural England advises that the in-combination assessment should not be based on assumptions from the Applicant's modelling. Of particular concern for an in-combination assessment, which includes those offshore wind farms within the SPA, is the figure used to estimate the 'within windfarm' displacement. The figure of 33% for 'within windfarm' displacement used by the Applicant in its assessment (REP3 -049 and subsequent revisions) is contrary to every empirical study, all of which indicate a much higher level of displacement within the windfarm area. This significantly undermines the basis of the Applicant's conclusions.	
13.	21	Red throated diver – assessment of displacement (in-combination) - 4.4.22	Both	Natural England strongly advises that the in-combination assessment is based on a range of displacement scenarios. For 'within windfarm' displacement we advise that this range goes up to 100 % within the windfarm footprint, to reflect the strong evidence base for high levels of displacement within the windfarm itself. A gradient of displacement values out to 11.5km, decreasing with distance from the windfarm, should then be presented. The percentages used in this gradient should again be a range, due to the level of uncertainty on precise values. We advise that the figures presented in the London Array final year post construction monitoring 2020 report are included within that range.	



				<p>We advise that the SoS cannot rely on the assessment provided by the Applicant, as this is likely to be a significant under estimate of the levels of displacement with the OTE SPA. This is particularly the case with respect to the use of 33% for ‘within windfarm’ displacement, as the evidence from multiple studies indicates that this can be 80-100%.</p>	
14.	21	RTD Displacement implication for OTE SPA conservation objectives -4.2.24	Both	<p>Natural England have considered the Applicant’s legal submissions [REP6-020] in respect of the conservation objectives. We responded to these in REP7-070 and note that there is agreement that consideration of AEoI of the SPA should start with the conservation objectives for the SPA. We note that three of those objectives are engaged by issues of effective habitat loss. It is right to say that the test of what amounts to an AEoI should be broad and not mechanistic, and that the simple fact of an element of disturbance is not of itself enough to prove AEoI.</p>	
15.	21	RTD displacement implication for OTE SPA conservation objectives – 4.2.27 and 4.2.30	Both	<p>The Appropriate Assessment needs to have regard for consideration all the conservation objectives, and not to focus solely on the population objective as the Applicant does.</p> <p>The Defra guidance on HRA (February 2021) states that one of the principles for HRA is to:</p> <ul style="list-style-type: none"> - understand the conservation objectives for the relevant European site affected - these describe the ecological reasons for its protection. <p>All conservation objectives follow the same format: Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site. 	



				There is no hierarchy of objectives, and it is not the case that they are focussed on population. All the attributes contributing to site integrity in the conservation objectives carry equal weight.	
16.	22	Red-throated Diver – mitigation 4.2.31	EA2	The 'Best Practice Protocol (BPP) for minimising disturbance to Red-Throated Diver' does provide mitigation for the temporary effects of vessels and helicopters transiting the SPA by reducing the number of movements and disturbance episodes	
17.	22	Red-throated diver – mitigation -4.2.30	EA1N	There has been no change in Natural England's advice that the buffer between EA1N and the OTE SPA boundary should be at least 10km in order to avoid AEol.	
18.	23	Red-throated diver – mitigation -4.2.31	EA1N	Please see points 5 and 9 above. In addition, as stated in REP7-071 Natural England's continued advice is that a relevant mitigation measure to avoid an AEol on the OTE SPA could be provided by increasing the buffer between the SPA boundary and EA1N, i.e. in the form of a smaller array. This could be considered as a suitable project-level 'alternative solution', as set out in the EEC Article 6.4 Derogations guidance.	
19.	23	Flamborough and Filey Coast (FFC) SPA – auks (guillemot and razorbill) and seabird assemblage - 4.2.34	Both	Natural England's advice at the end of the Norfolk Boreas Examination, remains unchanged, i.e. an AEOI could not be ruled out for the guillemot and razorbill features of the FFC SPA for displacement in-combination with other plans and projects when the Hornsea Project Three and Hornsea Project Four projects are included in the in-combination totals [REP3-116].	
20.	25	Assessment of Collision Risk (in-combination)- 4.2.43, table 4.2	Both	Natural England agrees with the text here and has no further comments to make under this section.	



21.	31	Alde-Ore Estuary SPA and Ramsar – Lesser black-backed gull 4.2.78	Both	Natural England’s conclusion in relation to the in-combination effects on lesser black-backed gull (LBBG) from the Alde-Ore Estuary SPA/Ramsar is not dependent on the consideration of Hornsea 3 and 4 figures, as no LBBGs were apportioned to the Alde-Ore Estuary SPA at Hornsea 3 and in the Hornsea 4 PEIR. Natural England agrees with zero apportioning for these projects on SPA LBBGs. Therefore, our advice is that an AEol in-combination cannot be ruled out <i>irrespective</i> of whether Hornsea 3 and 4 are included or excluded.	
22.	32	Offshore Ornithology – post-consent monitoring -4.2.84	Both	We acknowledge that that only submissions up to Deadline 5 were included in the REIS, however Natural England is satisfied that the revised IPMPs [REP6-015] have addressed NE’s previous comments, subject to any compensation measures being appropriately monitored to inform adaptive management.	
23.	43	Alternatives and IROPI -5.0.6	EA1N	Please see REP7-71. Natural England’s continued advice is that mitigation to avoid an AEol could be achieved by increasing the buffer between the Outer Thames Estuary SPA boundary and EA1N, and that this could be considered as a suitable ‘Alternative’ under the Article 6.4 Derogations guidance. Therefore, whether EA1N should progress to the subsequent derogations (IROPI and compensation) is a matter for the ExA and SoS to determine. However, given NE’s advice is that the proposed compensatory measures for red throated diver are not fit for purpose, and acknowledging that it will be difficult to secure the required level of compensation due to the nature of the impacts, we believe that a focus on mitigation is more appropriate.	
24.	44	Compensatory Measures -6.0.2	Both	Natural England has provided a response to Offshore Ornithology Compensation and Derogation documents at Deadline 7 [REP7-071]. Natural England and the Applicant discussed in principle compensation measures at a workshop on 10 th March 2021. The Applicant’s committed to submitting further details at Deadline 8. For kittiwake from the FFC SPA and LBBG from the Alde-Ore Estuary SPA this focused on providing more detail on how compensatory measures may be delivered where this project is contributing a small proportion to a larger in-combination total, and where other developers are planning/proposing to provide the same compensation measures.	



				Natural England have provided comments on the Compensatory Measures provided by the Applicant at Deadline 6 in REP7-071.	
25.	44	Compensatory Measures -6.0.2	EA1N	For RTD at the OTE SPA Natural England do not accept the proposed measures of managing vessel traffic as compensation for displacement from the array. This is because the conclusion of AEol is based on displacement effect from the presence of turbines, without considering vessel movements. Managing vessel traffic would only be minimising a separate impact of the project, rather than providing any benefit. In that context it should also be noted that the management of vessel traffic is already considered in the Best Practice Protocol, and so should be seen as best practice mitigation for vessel movements rather than compensation. Natural England's advice is that vessel management does not offset the displacement impact from the turbines, and as a result these proposals do not constitute compensatory measures.	
26.	47	Summary - 7.0.8	EA1N	Whilst the summary is largely an accurate one, we suggest that the displacement issues around guillemot and razorbill from the FFC SPA and red throated diver from the OTE SPA are not considered in the same point. For guillemot and razorbill at FFC SPA, the methods of assessing displacement impacts on the SPA have been agreed between Natural England and the Applicant. The only issue for the FFC SPA is that if totals from Hornsea 3 and 4 are included an AEol in-combination cannot be ruled out, due to the uncertainty in the figures for these projects. Similarly, for gannet at FFC SPA, the reason why an AEol on the combined displacement and collision in-combination totals cannot be ruled out is due to the uncertainty in the Hornsea 3 and Hornsea 4 figures.	
27.	47	Summary - 7.0.8	EA1N	In contrast, NE disagrees with the methods used to assess impacts on the RTD features of the SPA. For example, NE do not accept a 33% value for 'within windfarm' displacement, as empirical evidence from the same SPA reveals that this would significantly underestimate the in-combination levels of displacement. However, even using the Applicant's approach, an AEol alone cannot be ruled out on the basis that between 0.5% and 1.4% of the SPA would be subjected to effective habitat loss. Therefore, we do believe the summary suitably reflects the significance of the impacts and/or the level of disagreement between Natural England and the Applicant. Natural England considers that the proximity of EA1N to the SPA represents a significant ecological risk.	



2. Marine Mammals

	Pg	Section	EA1N EA2 Both	Natural England Comments	RAG Status
1.	33	MMMP and SIP Measures - 4.3.4	Both	The SNCB noise management guidance thresholds are 20% over of the relevant area of the site in any given day, not season as stated here.	Yellow
2.	66	Stage 2, matrix 7 - SNS SAC (alone) –	Both	Natural England is satisfied that there will be no adverse effect on integrity of the SNS SAC from the project alone.	Green
3.	67	Stage 2, matrix 8 - SNS SAC (in-combo), 5.0.8 AND 7.0.11	Both	We note that the Applicant has agreed to have the commitments included as conditions on the DML. However, Natural England cannot exclude adverse effect on integrity of the SNS SAC until a mechanism is in place to manage multiple SIPs (as per our Relevant Representation). Therefore, this is considered to be a Regulator issue, rather than a project-specific one. The correct mechanism should mitigate in-combination impacts such that further compensatory measures are not required.	Red

3. All Other Matters

	Pg	Section	EA1N EA2 Both	Natural England Comments	RAG status
1.	38	Effects on Onshore Ornithology/ Terrestrial Ecology - 4.4.6	Both	Please be advised that the Local Planning Authority (LPA) concerns re disturbance are in regard to human receptors and not disturbance to designated site features.	Purple
2.	48	Summary - 7.0.12	Both	Please be advised that Natural England believes that impacts to Sanderlings SPA can be mitigated, negating the requirement for compensation.	Yellow

Natural England's key to RAG status	Risk
<p>Purple</p> <p>Note for Examiners and/or competent authority. May relate to DCO/DML.</p>	
<p>Red</p> <p>Natural England considers that unless these issues are resolved it will have to advise that (in relation to any one of them, and as appropriate) it is not possible to ascertain that the project will not affect the integrity of an SAC/SPA and/or comply fully with the Environmental Impact Assessment requirements and/or avoid significant adverse effect on landscape/seascape, unless the following are satisfactorily provided:</p> <ul style="list-style-type: none"> new baseline data; significant design changes; and/or significant mitigation; <p>Natural England feels that issues given Red status are so complex, or require the provision of so much outstanding information, that they are unlikely to be resolved during examination, and respectfully suggests that they be addressed beforehand.</p>	
<p>Amber</p> <p>Natural England considers that if these issues are not addressed or resolved by the end of examination then they would become a Red risk as set out above. Likely to relate to fundamental issues with assessment or methodology which could be rectified; preferably before examination.</p>	
<p>Yellow</p> <p>These are issues/comments where Natural England doesn't agree with the Applicant's position or approach. We would flag these at the PEI stage with the view that they would be addressed in the Application. But otherwise we are satisfied for <u>this particular project</u> that it will not make a material difference to our advice or the outcome of the decision-making process. However, it should be noted that this may not be the case for other projects. Therefore it should be noted by interested parties that just because these issues/comments are not raised as part of our Relevant Representations in this instance it should not be understood or inferred that in other cases or circumstances Natural England will take this approach. Furthermore, these may become issues should further evidence be presented.</p>	
<p>Green</p> <p>Natural England supports the Applicant's approach.</p>	