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Our ref: 278493
Your ref: EN010084



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BY EMAIL ONLY

Dear Sirs

EN010084 Thanet Extension offshore Windfarm – Natural England’s Response at Deadline 5

- 1 The following constitutes Natural England’s formal statutory response. We have provided comments on documents submitted by the applicant at Deadline 4 and 4b. Deadline 4c contained no relevant documents for Natural England to review. The following documents have been reviewed:
 - Saltmarsh Mitigation, Reinstatement and Monitoring Plan – Revision C (Appendix 16 to Deadline 4)
 - Biogenic Reef Mitigation Plan - Revision C (Appendix 21 to Deadline 4)
 - MCZ Assessment Clarification Note – Revision B (Appendix 20 to Deadline 4)
 - Sandwave Clearance, Dredge and Disposal Site Characterisation – Revision B (Appendix 15 to Deadline 4)
 - Outline Offshore Operation and Maintenance Plan – Revision B (Appendix 22 to Deadline 4)
 - The consequences of the SEZ on assessment of Red-throated Diver interest feature of OTE SPA alone and in-combination (Appendix 19 to Deadline 4)
 - Offshore Ornithology In-combination Effects Position Paper on Kittiwake and the FFC SPA (Appendix 25 to Deadline 4)
 - Draft Development Consent Order – Revision E (Appendix 9 to Deadline 4B)
 - Review of the Environment Statement and Report to Inform Appropriate Assessment in relation to the Structure Exclusion Zone (Appendix 23 to Deadline 4)
 - Addendum to the Environment Statement in relation to the Structure Exclusion Zone (Appendix 3 to Deadline 4b)
 - RIAA Addendum (In relation to the Structure Exclusion Zone – Appendix 4 to Deadline 4b)
 - Draft Site Integrity Plan – Revision B (Appendix 18 to Deadline 4)
- 1.1 At Deadline 5 Natural England have also submitted to the applicant an updated Site Selection and Alternatives Statements of Common Ground (SoCG). An Ornithology SoCG was submitted at Deadline 4c. We have also submitted answers to Examiner Questions 2 (ExQ2) and ISH8 Hearing Action Points which are provided in separate documents.
- 1.2 Please see below for comments on the documents outlined above.

2 Saltmarsh Mitigation, Reinstatement and Monitoring Plan – Revision C (Appendix 16 to Deadline 4)

- 2.1 Overall, Natural England are content that the SMRMP has been successfully updated following Natural England's comments at Deadline 3. As a result, Natural England agree the current document provides the scope to monitor, mitigate and reinstate the saltmarsh within Pegwell Bay following construction in accordance with best practice and Natural England advice. However, Natural England advise that Horizontal Directional Drilling (HDD) under the saltmarsh still represents the best landfall option, as there is more certainty in the environmental outcome.

3 Biogenic Reef Mitigation Plan (BRMP) - Revision C (Appendix 21 to Deadline 4)

- 3.1 In Natural England's response at Deadline 3 it was stated the applicant took an action to make explicit the links between the geophysical surveys and the biogenic reef plan to ensure that the geophysical survey dataset is ground truthed in order to inform the biogenic reef plan, for both pre and post construction surveys. From reviewing Revision C of the Biogenic Reef Plan (submitted at Deadline 4) it is clear there are references to ground truthing pre-construction data, this is in conjunction with clear references made within the schedule of monitoring at deadline 3. Natural England welcome these references. However, references to ground truthing geophysical surveys post-construction is still lacking. Section 5.1.1. of the BRMP states "The nature of the post-construction monitoring will be defined in consultation with Natural England and MMO when drafting the monitoring plans required under Condition 15 and 13 of the Generation and Export Cable System DMLS respectively." When consulting the post construction commitments within condition 15 and 13 respectively, it is clear that a bathymetric survey shall be carried out, however there is no clear indication that scope exists for ground truthed surveys associated with the BRMP.
- 3.2 As a result, Natural England require further clarification that data will be ground truthed where necessary, to validate the success of any micro-siting around areas of core reef. This should be preferably stated within the DCO / DML.

4 MCZ Assessment Clarification Note – Revision B (Appendix 20 to Deadline 4)

4.1 Summary Comments

- 4.1.1 Natural England welcome the further clarification provided by revision B of the MCZ clarification note. However, we still have remaining questions about the potential impacts from cable activities upon designated sites and their associated features. Within this document it relates to Goodwin Sands pMCZ, however these comments are also applicable to other sites that are adjacent to the red line boundary i.e. Thanet Coast SAC and MCZ.
- 4.1.2 The MCZ assessment needs to explicitly state how much deposition is likely to occur within the site, and this should be across a few variables:
- What (percentage) area in the site will be affected by deposition of sediment;
 - Which features will be affected;
 - The percentage of each feature to be affected;
 - To what depth will smothering occur and
 - For how long?

- 4.1.3 The information above should be provided in terms of the worst case scenario (WCS), which should be assumed to be discrete deposition occurring in locations that pose the most risk. For example:
- Discrete deposition occurring where the applicant's red line boundary is closest to designated sites and thus features.
 - If the applicant knows where sandwaves occur, then assuming discrete deposition occurs by the sandwaves that are closest to / within designated sites and thus features.
- 4.1.4 The above variables in section 3.2 should be looked at alone and in-combination with other plans or projects. For example, in regard to the Dover Harbour Board (DHB) dredge aggregates site, the (percentage) area to be impacted by the applicants cabling works should be presented alongside the (percentage) area of the aggregates area, to successfully compare the impact. This may show that there are still sufficient areas of unimpacted sand to ensure recovery of both activities, even if they are both in an impacted state at the same time. However, Natural England require that confirmation.

4.2 Detailed Comments

- 4.2.1 *Table 1 (Point 3)* – Natural England advise that extraction within the MCZ should be assessed as a pressure. By removing material during sandwave clearance the applicant is still creating the extraction action / pressure irrespective of whether the sediments are redeposited within the pMCZ (which creates additional pressures of smothering and changes in suspended solids).
- 4.2.2 *Table 1 (Various points)* - There is also still no firm commitment from the applicant to retain sediments within the pMCZ. Natural England would welcome a stronger commitment to depositing sediment on material of similar grain size and retaining those sediments within the designated sites.

5 Sandwave Clearance, Dredge and Disposal Site Characterisation – Revision B (Appendix 15 to Deadline 4)

5.1 Summary of Comments

- 5.1.1 Natural England welcome many of the changes and clarifications provided by the applicant. Particularly around the predicted levels of deposition across the array and cable corridor area and the secured additional monitoring in the dDCO within Goodwin Sands pMCZ to further interpret the recovery of the site using drop down video. However, as above in section 3, we have outstanding questions regarding the potential impacts of cable preparation works upon designated sites (Goodwin Sands pMCZ, Thanet Coast SAC and MCZ) and their associated features.
- 5.1.2 We point the Examining Authority and the Applicant to section 3.1.2 to 3.1.4 which outlines what further information needs to be considered and presented in relation to the potential effects of deposition upon the relevant designated sites and associated features.

5.2 Detailed Comments

- 5.2.1 *Point 14.4.9* – Natural England still advise that the use of dredged material for the Dover Harbour Board development should be kept as a consideration rather than dismissed entirely. Whilst we appreciate this may lead to more boat trips and associated emissions there would be large benefits in significantly reducing benthic impacts on Goodwin Sands pMCZ.
- 5.2.2 *Point 14.5.36* – Natural England would like clarification that disposal has been sufficiently considered in the biogenic reef plan i.e. disposal will not occur on areas of core reef?
- 5.2.3 *Point 14.6.7 and 14.6.9* – These two paragraphs conclude “*material disposed of in situ via seabed preparation works will be similar to the existing material as the removal and subsequent disposal of material will take place in almost the exact same area.*” How will it be ensured that sediments are deposited on similar grain sizes?
- 5.2.4 *Point 14.7.30* – It states “*An average uniform increase in bed elevation of height of 30 cm has been assessed as a worst case...*” It is not clear why 30 cm is the worst case scenario. Is this the maximum depth to which the applicant will deposit too? This requires some clarification. Furthermore, is this deposition of up to 30 cm considered discrete deposition or is this equal deposition over a certain area? We assume the reference to 12.8 % and disposal site 3 is just to illustrate the potential size over which 30 cm deposition would occur.
- 5.2.5 *Point 14.7.33* – Natural England note that sandwave clearance was not standard industry practice at the time of the Thanet Offshore Windfarm cable installation. Therefore, we consider it more likely to be used at Thanet Extension due to changes in industry approach.
- 5.2.6 *Table 14.11 – ‘Post-construction surveys undertaken for TOWF identified that changes in faunal composition between pre and post-construction were only as a result of natural variation, suggesting no long-term impacts from increased SSC or increased sediment deposition.’* Is there suitable and comparable evidence that is applicable to this assessment as there was no foundation drilling or sandwave clearance at Thanet offshore windfarm?

6 Outline Offshore Operation and Maintenance Plan – Revision B (Appendix 22 to Deadline 4)

- 6.1 Natural England has no further comments on this document, but find it a useful document to refer to particularly in the post-construction stage when we provide our statutory advice to the MMO.

7 The consequences of the SEZ on assessment of Red-throated Diver interest feature of OTE SPA alone and in-combination (Appendix 19 to Deadline 4)

- 7.1 Natural England notes the submission of a paper to consider the implications of the introduction of the Structural Exclusion Zone (SEZ). We acknowledge that the SEZ has the incidental result of Thanet Extension OWF being at a greater distance from the Outer Thames Estuary SPA boundary than the original assessment, which will have the effect of reducing the impacts of any potential disturbance effects of the SPA.
- 7.2 We agree with the applicant that Thanet Extension OWF alone will not have an adverse effect on the integrity on red throated diver from the Outer Thames Estuary SPA. However, we cannot rule out adverse on in-combination with other plans and projects. As stated previously, prior to the submission of Thanet Extension, Natural England had already advised that it was not possible to

rule out an adverse effect on integrity on the SPA from operational and consented projects due to displacement effects.

- 7.3 We accept that Thanet Extension's in-combination contribution is in all likelihood very small in the context of impacts from other OWF projects which lie within, rather than some distance beyond, the SPA. The fact that the array will be further still from the SPA boundary, coupled with the presence of the existing Thanet OWF, which may already be exerting displacement effects within the SPA in this general area, strengthens the argument that this project's additional influence on the in-combination displacement effect is likely to be very small indeed. Nevertheless, as the Extension has the potential to result in additional displacement effects within the SPA beyond those from the Thanet OWF, it is not possible for Natural England to state that there is no adverse effect in-combination beyond reasonable scientific doubt.
- 7.4 The paper 'Red throated diver cumulative (EIA) and in-combination (HRA) impact assessment methodology' was submitted as Appendix 1, Annex C of Deadline 1 submission by the Applicant. It is not clear how Thanet Extension's relative contribution to the total RTD displacement is reduced from 0.31% (Table 12) to zero. There are no updated calculations provided to demonstrate that the relative contribution from Thanet Extension is now 0.0%, though it will clearly be less than the 0.31% originally predicted.
- 7.5 In Paragraph 13 it states that "*...the array area is now very close to the 8 km distance that Natural England has advocated as the outer limit for any potential influence of a constructed OWF on red-throated diver. This outer limit was defined by Natural England based on a post-construction study of the London Array OWF (APEM 2016) that identified that the displacement effect decays from 100% displacement at 0 km from the OWF to 0% displacement at 8 km from the OWF.*"
- 7.6 This statement is inaccurate, as we do not consider 8 km as the outer limit for influence of windfarms, as some studies have detected displacement beyond 8 km (Petersen *et al.*, 2014). In the evidence plan meetings Natural England advocated that evidence suggests that red throated divers may exhibit displacement from offshore wind farms at distances greater than 4 km, and for screening purposes a distance of up to 10 km should be used to screen in SPAs for assessment.
- 7.7 We note the applicant's view that this project may now be considered to be outside of any influence on this species when in the SPA. However, whilst this may be this case, the evidence to show the contribution is zero as a result of the implementation of the SEZ is not evidenced in this paper. Nevertheless, we do acknowledge that there is now some uncertainty regarding the probability of there being any displacement effect at all, given the distance that the project is now planned to be from the SPA and the presence of the existing Thanet Windfarm.
- 7.8 **Natural England's Position** - We note the error in our previous reference to the project being 8 km from the Outer Thames Estuary SPA. We confirm the Applicant's assumption that Natural England's "*...concerns arise from consents for OWFs that have already been granted and not from the predicted impacts of Thanet Extension*" is correct. However, we have not seen the implications of the SEZ assessed as part of the revised RTD in-combination assessment (originally presented by the Applicant at Deadline 1). Therefore, we are unable to agree with the Applicant's assertion that "*Thanet Extension will therefore make no contribution to any in-combination assessment of potential displacement of red-throated diver in the Outer Thames Estuary SPA.*" Although clearly there will be a reduction of the effect previously predicted due to the array being further from the SPA boundary.

- 7.9 Natural England's conclusion remains that Thanet Extension alone has no adverse effect on the integrity of the RTD feature of the Outer Thames Estuary SPA. There is some uncertainty whether there is likely to be any contribution to in-combination displacement effects given the distance between Thanet Extension and the OTE SPA, now that the SEZ forms part of the application. But due to the existing displacement effects from operational projects it is not possible for Natural England to state that there is no adverse effect in-combination beyond reasonable scientific doubt.
- 7.10 In this context, Natural England highlights the importance of the need for any post consent ornithological monitoring, should this project be consented, to focus on the extent of red throated displacement in and around Outer Thames Estuary SPA.

8 Offshore Ornithology In-combination Effects Position Paper on Kittiwake and the FFC SPA (Appendix 25 to Deadline 4)

- 8.1 We welcome the Applicant's aim to provide the Examining Authority with a clearly defined position with regards potential effects on the kittiwake feature of the Flamborough and Filey Coast (FFC) SPA that are associated with the Thanet Extension project.
- 8.2 Natural England notes the competent authority concluded that all projects included in Table 1 within the in-combination assessment for kittiwake from Flamborough and Filey Coast SPA concluded no AEoI alone and in-combination. However, Natural England's view (as was already advised at Hornsea 2 and East Anglia 3) is that it was not possible to rule out an adverse effect on integrity on the SPA from operational and consented projects due to the level of annual collision mortality predicted for kittiwake.
- 8.3 We agree with paragraphs 12 to 14, but note that paragraphs 15 and 16 appear to be the Applicant's views.
- 8.4 Whilst we may not agree with every aspect of this paper, Natural England agrees that Thanet Extension will not have an adverse effect on the integrity on the kittiwake population of the Flamborough & Filey Coast SPA when considered alone. However, Natural England considers that it is not possible to rule out an adverse effect on integrity when the project is considered in combination with other plans and projects. Although Thanet Extension is some distance beyond the likely foraging range of kittiwake from the SPA during the breeding season, there is the potential for the proposal to make a contribution to the overall collision mortality total. As previously stated, this contribution is likely to be small in the context of an in-combination total arising from a number of operational, consented or proposed projects, several of which are larger and/or closer to the SPA, including projects within the likely foraging range during the breeding season.

9 Draft Development Consent Order – Revision E (Appendix 9 to Deadline 4B)

- 9.1 In previous responses at Deadline 3 and at Deadline 4 Natural England have been encouraged by the progress in securing relevant monitoring plans within the DCO. This includes additional commitments to pre and post construction monitoring associated with offshore infrastructure and the potential impacts they could cause to the benthic environment, particularly within designated sites.

- 9.2 However, there are still instances where Natural England require further assurances around some monitoring commitments and believe the impacts of certain proposed works need to be included in any pre and post-construction surveys.
- 9.3 It should also be noted that following discussions with the MMO we have suggested variations to the timescales on which some documents should be received by the MMO and subsequently by Natural England as their statutory advisers.
- 9.4 Further detailed comments are provided below.

9.5 Detailed comments

9.5.1 Schedule 12 – Export Cable System

- 9.5.1.1 *Part 4 Conditions – Condition 13 2 (a)* – As mentioned previously in section 2.1, there is reference to ground truthing the pre-construction geophysical data within the BRMP and the schedule of monitoring. However, for completeness it would be useful to explicitly state that ground truthing will be carried out within this condition, to ensure a clear mechanism to carry out the surveys is provided.
- 9.5.1.2 *Part 4 Conditions – Condition 13 (2) (b)* – It states “*In the event that certain works are carried out in the Goodwin Sands rMCZ...*” Further reference to what these works are should be made clearer to avoid any ambiguity.
- 9.5.1.3 *Part 4 Conditions – Condition 13 (2) (b) (i)* – Reference is made to sub paragraph 2(c) however, paragraph 2(c) refers to the saltmarsh plan which is not in line with this paragraph. This requires further clarification from the applicant.
- 9.5.1.4 *Part 4 Conditions – Condition 13 (2) (b) (ii)* – It states that geophysical monitoring will be “*interpreted*” to help monitor changes in sediment type following sandwave clearance. What will this interpretation involve? Furthermore, in line with Natural England’s suggestion at section 9.5.1.6. and the applicants Condition 13 (2) (b) (i) pre-construction ground truthing drop down video surveys should be extended to include areas likely to be impacted by sandwave clearance.
- 9.5.1.5 *Part 4 Conditions – Condition 13 (2) (e)* – Natural England welcome the addition of further surveys for ringed plover to inform a ringed plover mitigation plan. However, we would welcome further discussion with the applicant to seek clarity on how the surveys will be used to inform and implement additional mitigation.
- 9.5.1.6 *Part 4 Conditions – Condition 15 (5)* – Within the pre-construction section at Condition 13 (2) (b) (ii) it states that data will be interpreted to determine the potential effects from sandwave clearance within the pMCZ. At condition 15 (5) regarding the post construction phase there is no reference to monitoring the effects of sandwave clearance within the pMCZ, only cable protection. There needs to be sufficient linkages between the pre and post construction surveys to determine any impacts from these works. Additionally, and as stated in Natural England’s response at Deadline 4 within section 3.2.1.4, there needs to be a widening of these post-construction ground truthed surveys to cover the areas impacted by sandwave clearance within the pMCZ.

- 9.5.1.7 *Part 4 Conditions – Condition 15* – Within the BRMP it is made clear that post-construction monitoring will be undertaken to validate the success of any micro-siting. However, there is no reference to this within condition 15, and 17 of Schedule 11 Part 4. For completeness, it should explicitly state within this condition that this monitoring will be carried out. This will ensure a clear mechanism is there. Also, in line with the applicant's assertions that ground truthing data will be collected pre-construction for the BRMP this should be committed to post-construction to aid in determining the success of any micro-siting.
- 9.5.2 *Part 7 Miscellaneous and General – Arbitration (36)* – Natural England's concerns regarding arbitration remain. Natural England feel that this is unlikely to change during the examination process without a significant change in position of the Applicant. We note that the Norfolk Vanguard and Hornsea 3 application have made recent changes to their dDCOs which excludes the MMO and BEIS from arbitration. It is our view that it excludes Natural England and any consultee on these matters as well; because the wording as proposed is not excluding the MMO, but excluding the decision processes which the MMO/BEIS regulate. Thus, Natural England's statutory advice would be free from arbitration. A similar decision on the Thanet Extension project would be welcome.

10 Review of the Environment Statement and Report to Inform Appropriate Assessment in relation to the Structure Exclusion Zone (Appendix 23 to Deadline 4)

- 10.1 Overall, Natural England agrees with the conclusions reached within this document following the introduction of the Structure Exclusion Zone (SEZ). Table 3 highlights the various chapters and protected sites that will be affected or have implications as a result of the SEZ. In the parameters of Natural England's remit, we believe the applicant has successfully identified the topics and protected sites that could be affected by the SEZ. This is primarily the implications for the Outer Thames Estuary SPA.

11 Addendum to the Environment Statement in relation to the Structure Exclusion Zone (Appendix 3 to Deadline 4b)

- 11.1 Overall, Natural England agrees with the conclusions of this review that the introduction of the SEZ results in no significant change to the effects presented in the ES. Consideration by Natural England of the implication of the SEZ upon the Outer Thames Estuary SPA is provided in section 6 of this response.

12 RIAA Addendum (In relation to the Structure Exclusion Zone – Appendix 4 to Deadline 4b)

- 12.1 Overall, Natural England agrees that the only sections within the RIAA that are affected by the introduction of the SEZ are those relating to the Outer Thames Estuary SPA, and obvious changes to the project description section. Consideration by Natural England of the implications of the SEZ upon the Outer Thames Estuary SPA is provided in section 7 of this response.

13 Draft Site Integrity Plan – Revision B (Appendix 18 to Deadline 4)

- 13.1 Section 6 (paragraph 27, first bullet point) – Natural England believes this paragraph is intended to read '...the risk of injury is considered to be very low.' rather than '...disturbance...' as it currently does.

13.2 Natural England welcomes the commitments made within the SIP regarding the mitigation methods described in section 4, specifically; undertaking management of project activities to ensure the project remains within thresholds, AND/OR liaison with MMO to determine if the in-combination effect could be managed so as to remain within the thresholds, AND/OR a seasonal restriction for Thanet Extension, enabling works to be planned in a manner that avoids exceeding the thresholds. Natural England considers these commitments should be secured in the DCO/DML to ensure they are enforceable. This would also allow Natural England to conclude no Adverse Effect on Integrity on the harbour porpoise feature of the Southern North Sea SAC.

For any queries relating to the content of this letter please contact me using the details provided below.

Yours sincerely,

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