

Vattenfall Wind Power Ltd

Thanet Extension Offshore Wind Farm

Appendix 1 to Deadline 3 Submission: Response to
ExA Action Points arising from Issue Specific
Hearing 3

Relevant Examination Deadline: 3

Submitted by Vattenfall Wind Power Ltd

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Revision A

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Annexes referred to

Annex A PD Transcription

Annex B MCZ Chart Illustrating Goodwin Sands with relevant projects

1 Introduction

- 1 This note has been drafted in response to requests by the Examining Authority (ExA) during Issue Specific Hearing 3 (ISH3) on 19/02/2019 and through reference to the ISH3 Action Points document PINS Ref EV-0019.
- 2 The ExA, in EV-019, provide the Action Points as follows:
 - Action Point 1 – Final check on figures in [REP1-023];
 - Action Point 2 –Effects of Nemo cable connection and other cable connections on saltmarsh in Pegwell Bay;
 - Action Point 3 –Thanet Offshore Wind Farm (OWF) Cable Replacement project;
 - Action Point 4 –Site Selection and Alternatives (policy);
 - Action Point 5 -Site Selection and Alternatives: Natural England position;
 - Action Point 6 -Landfall Options 1 and 3;
 - Action Point 7 - Crossing Nemo surface laid onshore cables;
 - Action Point 9 - Natural England position in respect of HRA (Action 8 has been omitted from EX-019 and this omission has been retained for ease of review against the Actions);
 - Action Point 10 - Consultation with Scottish Natural Heritage in relation to St Abb’s Head to Fast Castle SPA;
 - Action Point 11 - Draft Site Integrity Plan;
 - Action Point 12 -Thanet Coast and Sandwich Bay Ramsar;
 - Action Point 13 - Schedule of Monitoring;
 - Action Point 14 - Goodwin Sands pMCZ and consented dredging activities;
 - Action Point 15 - KWT Post-construction monitoring of fish and shellfish and benthic ecology;
 - Action Point 16 - Cessation of piling – noise levels;
 - Action Point 17 – Applicant and MMO SoCG.
- 3 This document reflects the structure of the request and as such the document is laid out in the following way:
 - Section 1: Introduction
 - Subsequent Sections defined according to Action Points.

2 Action Point 1 - Final check on figures in [REP1-023]

4 The ExA Action Point identified in EV-0019 is:

Appendix 1, Annex B to Deadline 1 Submission – please review the figures in this document – particularly Table 7. There are a number of apparently large order differences between the figures shown here and the figures in the original application documents.

- ***Is the Applicant content that the revised figures are accurate?***
- ***Are Interested Parties (IPs) content that the revised figures are accurate and do the figures change any conclusions about project effects that have been reached by any IPs?***

5 The ExA action point relates specifically to Annex B of Appendix 1 of the Applicant's Deadline 1 submission [PINS REP1-023].

6 Following a review of the Annex the Applicant can confirm that all figures as presented within it were correct, with the exception of those related to the RIAA. The RIAA referred to in [PINS REF REP1-023] was RevA, as submitted with the application [PINS REF APP-031]. Since the document was resubmitted at Deadline 2 [PINS REF REP2-018 and REP2-019] it was considered prudent to update the document to refer to RevB. A clean, and track change version of the Annex is included at Annex A of this Deadline 3 submission. It is important to note that this does not alter the figures presented in Annex A to Appendix 1 of the Applicant's Deadline 1 submission, though this document is also submitted with this Deadline 3 submission as a standalone component of the Explanatory Memorandum to the DCO.

3 Action Point 2 - Effects of Nemo cable connection and other cable connections on saltmarsh in Pegwell Bay

7 The ExA Action Point identified in EV-019 is:

Kent Wildlife Trust is to clearly document any adverse effects arising upon the saltmarsh from the previous cable connection projects passing through Pegwell Bay. What is the potential for in combination / cumulative effects with the Thanet OWFE project?

8 The Applicant notes that this Action Point is for Kent Wildlife Trust, however the Applicant has the following observations to make for the ExA to consider alongside KWT's response, which the Applicant will respond to where appropriate at subsequent deadlines.

9 The Applicant notes that whilst the Nemo interconnector project is still in its nascency with regards construction having been recently completed and monitoring of recovery being underway, the installation of the existing Thanet OWF export cable was subject to monitoring which is complete.

10 The monitoring, as reported within Volume 2, Chapter 4 (subtidal and intertidal ecology) [PINS REF], identified that following installation of the existing Thanet OWF export cable in 2012 monitoring was undertaken until recovery was agreed as complete with Natural England. Monitoring subsequently stopped in 2014 following confirmation that the habitat had recovered to its pre-construction status. The post-construction monitoring reports were referred to when considering the sensitivity of the receiving environment in addition to understanding gained at other areas.

11 It is also of note that the conclusions with regards recovery of the saltmarsh following temporary disturbance are agreed with Natural England and the Environment Agency, subject to monitoring being undertaken. The Saltmarsh Monitoring, Reinstatement and Management Plan [PINS REF REP2-032] captures the Applicant's commitment to undertaken monitoring, in line with best practice, and the requests made by Natural England and the Environment Agency following review of previous drafts of the plan. The monitoring is provisionally noted to be up to 5 years, though this will be agreed with the relevant statutory stakeholders on receipt of each monitoring output.

4 Action Point 3 - Thanet Offshore Wind Farm (OWF) Cable Replacement project

12 The ExA Action Point identified in EV-019 is:

The Applicant is to confirm in writing the status of the Thanet OWF Cable Replacement project and its position made orally that there is now no intention to replace the export cable for Thanet OWF during the lifetime of Thanet Extension OWF project.

13 The Applicant can confirm that whilst a screening report was submitted to the MMO, and a Screening Opinion received, the project has not been progressed any further and has been withdrawn from the marine licencing process. The issues with the TOWF cables that led to the cable replacement being proposed will be managed through ongoing maintenance rather than replacement. The Applicant can confirm that there is no Vattenfall proposal to bring the project forward again. It should also be noted that the export cables are under the ownership of the TOWF offshore transmission operator (OFTO) and as such responsibility for the ongoing management and maintenance of the cables rests with them and not Vattenfall.

5 Action Point 4 – Site Selection and Alternatives

14 The ExA Action Point identified in EV-019 is:

The National Trust and Kent Wildlife Trust are to set out the specific policy basis (including references to National Policy Statements) for their objections to site selection conclusions, specifically in relation to the export cable landfall location. To include Habitats Regulation Assessment effects where relevant.

15 The Applicant notes that this is for NT/KWT but has the following observations to make.

16 It is the view of the Applicant that all relevant policy, specifically the national policy tests and those required under inter alia the Habitats Directive have been adhered to in undertaking the site selection and alternatives process. As noted in the chapter (Volume 1, Chapter 4 [PINS REF APP-040], from a policy perspective, the National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) does not contain a general requirement to consider alternatives or to establish whether the proposed project represents the best option.

17 Paragraph 4.4.2 of the NPS EN-1 also highlights requirements under the EIA Regulations, Habitats Regulations and Offshore Habitats Regulations regarding the consideration of alternatives, notably:

“applicants are obliged to include in their Environmental Statement, as a matter of fact, information about the main alternatives they have studied. This should include an indication of the main reasons for the applicant’s choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility”; and

“in some circumstances, there are specific legislative requirements, notably under the Habitats Directive, for the [Secretary of State] to consider alternatives. These should also be identified in the Environmental Statement by the applicant.”

18 Where there is a policy or legal requirement to consider alternatives, paragraph 4.4.3 of NPS EN-1 highlights other guiding principles that the Secretary of State should consider when deciding what weight should be given to alternatives, specifically (amongst other things):

19 *the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner;*

20 and, as detailed at para 4.2.8 of the chapter it notes:

- 21 The National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) states at paragraph 2.6.81 that the applicant should include an assessment of the effects of installing cable across the intertidal zone which should include information, where relevant, about:
- “any alternative landfall sites that have been considered by the applicant during the design phase and an explanation for the final choice”;* and
- “any alternative cable installation methods that have been considered by the applicant during the design phase and an explanation for the final choice.”*
- 22 The Applicant has demonstrated throughout the chapter that, in reverse order:
- 23 Alternative installation methods have been considered and technical responses provided as to why certain technologies are not suitable at certain locations. Either because of the risk to designated features, should technologies such as HDD fail, or as was the case with the overground berm, a justification for introducing it initially (contam land and in response to the request being made of Nemo), or introducing related methodologies such as the overground crossing of Nemo (in response to stakeholder feedback.
- 24 A number of alternative landfall sites have been considered, these are addressed in further detail within the chapter.
- 25 The Applicant has identified consistently and throughout consultation that consideration of sites designated under the Habitats Directive requires consideration not only of the delineated site but, critically, the features within them. A project may interact with a very small proportion of a site, but critically damage designated features such as dune systems for which recovery is slow, or potentially absent. Alternatively, a comparatively wider area of site may be affected, but the habitats themselves may not form designated features or indeed may be recognised as recovering quickly.
- 26 As is demonstrated throughout Stages 1 – 7 of the site selection process presented within the chapter the Applicant has sought to transparently consider environmental, social and economic effects and including, where relevant, technical and commercial feasibility. This is evident through Stage 5 of the process whereby the Applicant undertook an expert driven analysis of constraints, including environmental, social, tourism, landscape, economic, and technical feasibility. Whilst it is not always possible to give the weight to a given topic area that a specific organisation may wish, the Applicant has sought to give due consideration and balance competing parameters in order to bring forward a project that is commercial viable, reflective of the environmental, social and economic constraints, in a transparent manner.

6 Action Point 5 – Site Selection and Alternatives

27 The ExA Action Point identified in EV-019 is:

The Applicant is to utilise the next iteration of their Statement of Common Ground to clarify and confirm Natural England’s position in respect of the Applicant’s approach to site selection and consideration of alternatives. Does Natural England have any remaining concerns about site selection and alternatives? If so, please state what the consequences of such concerns are in HRA terms?

28 The Applicant notes that this is for NE but can confirm that the current draft of the relevant SoCG is included at Appendix 27 of this Deadline 3 submission. The SoCG confirms that as a result of the removal of landfall Option 2 Natural England’s concerns are now addressed.

7 Action Point 6 – Landfall Options 1 and 3

29 The ExA Action Point identified in EV-019 is:

The Applicant is to provide a note explaining why it is necessary to retain Applicant the option to trench the cable landfall (option 3) in addition to option 1 which would utilise Horizontal Directional Drilling through the upper inter-tidal area.

30 The Applicant has engaged the services of a specialist HDD consultant who has concluded that based on publicly available information regarding local geological conditions, with the exception of the Landfill area, the geology along the route is considered to be likely favourable for HDD with the majority of the routes expected to be drilled within firm to stiff clays of the Thanet Formation. There is a potential risk of swelling clays within the Thanet Formation that could increase the programme and cost.

31 The Applicant notes that in order to make a full assessment of HDD feasibility and design will require specific site investigations to determine the subsurface geology and make-up of the landfill. Boreholes should be conducted both within the landfill and within the intertidal area to fully evaluate the HDD construction risks.

32 Even if the HDD option is shown to be feasible and preferred, it would be remiss of the Applicant not to ensure that mitigation measures were in place, assessed and approved to enable continuation of works, should HDD fail.

33 A report produced in relation to the unsuccessful Lincs Wind Farm HDD campaign noted that:

34 *“The project’s original consent was for a single installation approach based on HDD. This choice whilst imposed on the project ruled out assessing alternative installation methods. Tractebel UK concludes that the lack of awareness of the nearshore soil conditions in the saltmarsh was a contributing factor to the failure of the HDD approach.”*

- 35 *“Execution of HDD without a detailed soil survey to the depth of drilling constitutes a high project risk. Tractebel UK concludes that the developer could have challenged the consenting authorities to obtain permission for a geotechnical survey. This would have allowed the developer and its contractors to inform the Authorities of the associated installation risks. Furthermore, since there was no geotechnical information about the saltmarsh available, the risk for an unsuccessful HDD campaign needed to be anticipated and alternative installation methods should have been prepared and discussed with the licensing Authorities up front. Tractebel UK was informed by the developer, that there was no contingency plan for the HDD works since the consent prescribed HDD drilling under the sea defense structure.”*

(https://www.ofgem.gov.uk/sites/default/files/docs/2014/11/appendix_7_tractebel_report_4_11_14_1.pdf)

- 36 Aside from the question of feasibility of the HDD operation itself, there is also a question regarding the ability of the cable to be pulled ashore through such an HDD. Pulling cable through an HDD duct significantly increases the pulling forces required to be able to pull the cable into its final position. The Applicant needs to develop its installation engineering solution fully, to understand cable type (weight/maximum pulling tension) and the cable installation vessels (location for shore end pull – determining length of cable) to determine suitability of an HDD landfall, especially considering the extent of the shallow water and the ability of vessels to work within this area.

8 Action Point 7 – Crossing Nemo surface laid onshore cables

37 The ExA Action Point identified in EV-019 is:

The Applicant is to document progress made toward achieving solutions for the onshore export cable to cross the surface laid cable for the Nemo project. To encompass both technical solutions and in terms of security (DCO drafting). In addition, check status of existing heavy vehicle crossings of the Nemo alignment for reporting in the Statement of Common Ground with Nemo Link.

38 The Applicant can confirm that a technical consultant has been engaged who will develop a concept design for the proposed vehicular crossing point over the NEMO berm. Further to this, the Applicant notes that the Protective Provisions to be included within the DCO will provide clear requirements for the Applicant to provide Nemo Link Limited with plans, designs, programming information, method statements and risk assessments for approval in relation to any such crossing implemented.

9 Action Point 9 – Natural England position with regard HRA

39 The ExA Action Point identified in EV-019 is:

After discussions with the Applicant through the SoCG process, does Natural England (NE) consider that there are any remaining instances of Adverse Effect on Integrity (AEoI) for the project alone and/or in combination for any site/features? If so, please list the sites and features.

Where it is agreed that the project assessment of in combination effects, please explain whether it can be concluded beyond reasonable scientific doubt that there is no AEoI, with particular reference to the effects on Red Throated Diver as a feature of the Outer Thames Estuary SPA and Kittiwake as a feature of the Flamborough and Filey Coast pSPA?

40 The Applicant notes that this Action is for Natural England however has the following observations to make.

41 The Applicant can confirm that the matter of a potential adverse effect on the integrity of the Outer Thames Estuary, and Flamborough and Filey Coast SPAs has been discussed with Natural England and wording incorporated within the SoCG. A revised SoCG is included at Appendix 25 of this Deadline 3 submission but in brief the Applicant can confirm that whilst The Applicant recognises that Natural England's opinion is that it is not possible to rule out an adverse effect on the integrity on the red-throated diver population of the Outer Thames Estuary SPA from existing operational projects, the following statements have been noted:

It is agreed that the relevant in-combination projects are existing projects which have been approved by the Secretary of State on the basis that there would be no adverse in-combination effects on the integrity of the SPA;

It is also agreed that in the particular circumstances of this case, the Thanet Extension would not cause any appreciable effect on the wider in-combination effects relating to the mortality of this species which arise from those projects;

It is also agreed that the Thanet Extension would not cause an adverse effect on integrity to arise as a result of this project being included as part of an in-combination assessment; and

NE does not advise that the result of the appropriate assessment relating to these proposals should be negative in relation to this effect on the SPA, having regard to the precautionary principle to be applied under the Habitats Directive and Regulations;

10 Action Point 10 – Consultation with Scottish Natural Heritage in relation to St Abb’s Head to Fast Castle SPA

42 The ExA Action Point identified in EV-019 is:

The Applicant is to consult Scottish Natural Heritage in respect of the conclusions of the Habitats Regulations Assessment in relation to the St Abb’s Head to Fast Castle SPA?

43 The Applicant can confirm that SNH have been approached and can confirm that as of 4th March 2019 SNH have not provided a response.

11 Action Point 11 – Draft Site Integrity Plan

44 The ExA Action Point identified in EV-019 is:

Updated Statements of Common Ground with NE and MMO to include coverage of matters relating to the draft Site Integrity Plan (SIP). MMO to advise on preferred wording for DML conditions relating to the SIP?

45 The Applicant can confirm that discussions have been held with the MMO with regards the preferred wording for the relevant dML conditions to secure the SIP. As of 5th March wording has not been provided, however the draft DCO at Appendix 33 of this Deadline 3 submission provides the Applicant's proposed wording to secure the SIP and subsequent iterations as required within the draft SIP submitted at Deadline 2 [PINS Ref REP2-033]. This is recorded within the SoCG with the MMO, and an associated action log that has been developed with the MMO and the Applicant to aid in closing out remaining matters.

46 With regards Natural England the SIP, it is also a matter of consideration within the SoCG and it is understood at this stage (5th March 2019) that there are no matters of significant concern. It is anticipated that comments will be received on the draft SIP from Natural England at Deadline 3, and that any minor changes will be updated accordingly in advance of Deadline 4.

12 Action Point 12 – Thanet Coast and Sandwich Bay Ramsar

47 The ExA Action Point identified in EV-019 is:

Kent Wildlife Trust (KWT) is to document specific concerns about any permanent effects on bird species in the intertidal zone. A basis for these concerns should be set out?

48 The Applicant notes that this is for KWT but would make the following observations.

49 As a result of the removal of landfall Option 2 there is no potential permanent habitat loss proposed as a result of the project. There is therefore a temporary effect on intertidal mud, and a temporary effect on the saltmarsh. Whilst it is the Applicant's position that the saltmarsh at the landfall location is not critical for the features of the SPA this position is somewhat immaterial as the effects on both the intertidal mudflats (which are a supporting habitat for the designated features) and the saltmarsh are temporary. The following paragraphs provide further context.

50 Any effect on intertidal habitat, with regards intertidal mud, is considered within the application documents to be temporary and not significant. This assessment is underpinned by a significant volume of literature both in terms of industry experience, peer reviewed papers, and notably the MarLIN and MarESA sensitivity analyses which are advocated by the Institute of Environmental Management and Assessment (IEMA) as suitable resources for undertaking EIAs, in particular to understand marine habitat sensitivity. This conclusion has also been agreed with Natural England and the Environment Agency, as is recorded within the relevant SoCGs. Furthermore, the mitigation measure of relevance (seasonal restriction between October and March inclusive) applies to planned O&M phase works in addition to the construction works, therefore there will be no effect on the most sensitive period for the ornithological features of relevance for the SPA.

51 Any effect on the saltmarsh is also considered to be short term and temporary in nature, and not significant. This conclusion is agreed with Natural England and the Environment Agency, subject to a commitment to undertake monitoring of the recovery of the saltmarsh. It has been noted that lessons should be learnt where appropriate from the experience of the Nemo Interconnector. Notwithstanding the Applicants understanding that the recovery of the saltmarsh following installation of the existing Thanet OWF export cable was complete within 2 years, and confidence should therefore be high that recovery would be comparable for the proposed project, the Applicant has committed to the pertinent monitoring measures to ensure lessons are learnt from Nemo (topographical monitoring).

13 Action Point 13 – Schedule of Monitoring

52 The ExA Action Point identified in EV-019 is:

The Applicant is to produce a schedule of monitoring commitment similar to that produced for mitigation, for reference by the ExA and other Interested Parties.

53 The Applicant can confirm that Appendix 48 provides the schedule of monitoring. In summary the following measures are provided, first offshore, and then onshore:

54 An in principle ornithological monitoring plan has been proposed with Natural England, focussing on the key recognised sensitivity and area of uncertainty at Thanet Extension (Red Throated Diver) (secured in dML).

55 Geophysical monitoring across the area in which construction takes place, with a suitable buffer to be determined with the MMO subject to the final design (post-consent) (secured in dML).

56 Ground truthing (using drop down video) of the geophysical survey data referred to above to inform the biogenic reef plan (and associated micro-siting around areas of core reef) (secured in dML).

57 Ground truthing (using drop down video) of the geophysical survey data referred to above focussing on areas of cable protection where this is proposed to take place within the Goodwin sands MCZ (if designated) (secured in dML).

58 Interpretation of the geophysical survey data referred to above to allow consideration of the recovery of the sands and gravels within the Goodwin sands MCZ (if designated) should sandwave clearance be required within the Goodwin sands MCZ (secured in dML through the relevant disposal site).

59 Saltmarsh monitoring in line with the Saltmarsh Monitoring, Reinstatement and Management Plan (secured in dML).

60 Intertidal ornithological monitoring to ensure adequate mitigation is in place for the ringed plover is incorporated as a condition within the dML (secured in dML).

61 Monitoring of reinstated habitats is proposed within Pegwell Bay Country Park, Stonelees Nature Reserve and at the substation site. The purpose of the monitoring will be to determine whether the habitat reinstatement has been successful and to identify the need for remedial measures, if required (secured through the LEMP (DCO Requirement)).

- 62 All reinstated grassland will be subject to monitoring. Monitoring will also include new ephemeral pools (secured through the LEMP (DCO Requirement)).
- 63 Monitoring of open mosaic habitats at the substation will be undertaken in conjunction with the monitoring of terrestrial invertebrates (secured through the LEMP (DCO Requirement)).
- 64 Monitoring of terrestrial invertebrates will take place within the retained and created areas of open mosaic habitat at the substation site (where safe access is possible). The need for monitoring of species forming part of the designated site invertebrate assemblages will depend on whether any such species will be affected, and the nature of any measures employed to reduce impacts upon them. Detailed proposals for monitoring of terrestrial invertebrates will be included in the TIMS, which will form part of the detailed LEMP (secured through the LEMP (DCO Requirement)).

14 Action Point 14 – Goodwin Sands pMCZ and consented dredging activities

65 The ExA Action Point identified in EV-019 is:

The MMO is to review the marine licence (ML) position on timing and location of Dover Western Docks Revival Project (Goodwin Sands dredge)

Applicant to submit a plan of the pMCZ showing the location of the Dover Western Docks Revival Project dredging area relative to the application site.

MMO and the Applicant SOCG to address the question of any likely temporal or geographical interface with the Dover Western Docks Revival Project project works and can any cumulative effect be excluded?

66 The Applicant can confirm that the matter of the potential for a temporal or geographical interface with the consented dredging within the pMCZ at Goodwin Sands is captured within the SoCG. Furthermore, the Applicant can confirm that a chart illustrating the consented aggregate dredging site within the pMCZ, and the overlap of the proposed cable corridor with the pMCZ is provided at Annex B to this Appendix.

15 Action Point 15 – KWT Post-construction monitoring of fish and shellfish and benthic ecology

67 The ExA Action Point identified in EV-019 is:

The KWT is to document the monitoring sought, the reasons for it and to draw attention to the best practice examples that you wish the ExA to refer to?

68 The Applicant can confirm that full consideration has been given to the potential for monitoring of all relevant receptors in the Thanet Extension project area. The Applicant can also confirm that reference has also been made to the MMO's 2014 review on post construction monitoring¹. The review noted *inter alia*

Environmental monitoring should be focused on areas identified in the environmental statement to be most likely to result in potential impacts on a sensitive receptor(s).

Monitoring should not be required for impacts where there is already high certainty.

In some cases, a strategic research programme may provide more certainty than site-specific monitoring.

69 The Applicant has sought to align with this approach by including reference to strategic monitoring where appropriate (ornithological monitoring for red throated diver), and where there is the potential for impacts on sensitive receptors (biogenic reefs).

70 With specific regard to fish and shellfish monitoring the MMO review notes that:

Generic fish monitoring conditions as previously seen in licences should be removed and replaced with targeted monitoring of significant impacts and or uncertainties as suggested by the EIA.

71 The EIA has predicted that there will not be any significant effect on fish and shellfish communities arising from the proposed activities, this includes those effects from EMF, which are noted as specifically not requiring monitoring by the MMO, and those associated with noisy activities (pile driving). In the case of pile driving, there are no significant effects predicted, and the impact ranges are such that there is high confidence in the assessment.

¹ Review of environmental data associated with post-consent monitoring of licensing conditions of offshore windfarms (MMO 1031) Review associated with post-consent monitoring of licence conditions of offshore wind farms.

- 72 With specific regard to benthic monitoring the MMO review, specifically the MMO detailed response to the overall review which provides definitive recommendations, noted that:

Where baseline surveys do not reveal the presence of species/habitat of conservation interest (e.g. Annex I habitat such as Sabellaria reef, Priority Marine Features (PMFs), Marine Protected Areas (MPAs), Biodiversity Action Plan (BAP) and OSPAR habitats; see JNCC 2014), and where modifications to the seabed through scour is not predicted then further PCM should not typically be required.

- 73 Given the Applicant has identified sensitive habitats and proposed detailed monitoring proposals for them, it is clear within the MMO recommendations that further monitoring should not be required at this location.
- 74 Further to the above statements the Applicant has noted that by virtue of the project being an extension that has undergone monitoring for a number of receptors there is generally high confidence in the predictions made within the EIA. As such there is limited justification for monitoring to validate those predictions, and where monitoring is considered appropriate detailed proposals have been put forward for consideration. The detailed proposals, or where detail is not available the relevant conditions in the DCO/dMLs, have now been subject to a number of review cycles by the relevant statutory consultees and as such are considered to be sufficiently advanced and accepted as to accurately reflect the limit of monitoring requirements.

16 Action Point 16 – Cessation of piling - noise levels

75 The ExA Action Point identified in EV-019 is:

The Applicant is to confirm its position that there is a general power available to the MMO to control / cease piling where noise levels are exceeded. MMO- what is the power? Is it the case that no provision is required in the dDCO?

76 The Applicant can confirm that through reference to the Marine and Coastal Access Act 2009 the MMO have existing powers to vary, suspend or revoke marine licences where it is considered appropriate to do so. Specifically, at Part 4, Chapter 1, Section 72, paragraph 1, it is confirmed that:

A licensing authority may by notice vary, suspend or revoke a licence granted by it if it appears to the authority that there has been a breach of any of its provisions.

77 Furthermore, in the same section at paragraph 3, it notes *inter alia*

A licensing authority may by notice vary, suspend or revoke a licence granted by it if it appears to the authority that the licence ought to be varied, suspended or revoked—

(d) for any other reason that appears to the authority to be relevant.

78 In addition to having the power to revoke or suspend a licence, the MMO also is able to utilise their powers to issue a stop notice, which is contained within Chapter 5, Section 201 of the Marine and Coastal Access Act 2009. This has the immediate effect of requiring those carrying out the licensable activity to suspend the works they are undertaking. One of the criteria that allows the MMO to utilise such a power includes serious harm to the environment.

79 It is therefore evident that the MMO has a general power to suspend a licence where there is a breach of its provisions, or for any reason the authority (MMO) consider to be relevant. In addition, there is a general power to issue a stop notice where specific environmental effects occur. Where a project has breached a known project parameter, in this case noise levels in excess of those assessed it is therefore clear that the MMO have an existing power to suspend the marine licence and the activities more broadly, or stop it if it is causing harm to the environment.

80 When reference is made to chapter 3 (enforcement) of the Marine and Coastal Access Act (the Act), section 85, paragraph 1 identifies *inter alia* that:

A person who—

(b) fails to comply with any condition of a marine licence, commits an offence.

- 81 In such a case the authority, under section 90 of the Act may issue a compliance notice *requiring a person to take such steps (falling within subsection (5)(b)) as are specified in it*. Further provisions are then made in subsequent sections allowing for matters such as remediation and fixed monetary penalties.
- 82 Given these powers exist under the legislation that provides for a marine licensing authority already, it is unnecessary to make these powers explicit on a statutory instrument such as the draft DCO proposed for Thanet Extension.

17 Action Point 17 – Applicant and MMO SoCG

83 The ExA Action Point identified in EV-019 is:

Please continue to refine and document positions on long-term effects on the benthic environment and herring spawning in the SoCG.

84 The Applicant would note that all parameters that have informed the existing assessment of potential impacts on fish receptors (including herring) and the benthic environment were agreed under the EIA Evidence Plan [PINS Ref APP-137]. The Applicant also notes that these are the subject of an SoCG that accompanies this Deadline 3 submission at Appendix 26, and most issues are now under discussion for minor clarifications or agreed. The exception at the current time relates to the MMO's request to undertake further modelling for the assessment of potential noise related effects on herring.

85 The Applicant is concerned that in the absence of any new scientific evidence that has been produced since formal application was made for the project regarding the sensitivities of herring to construction related noise, the position adopted by the MMO is one of changing the goal posts without robust justification beyond a general desire expressed by Cefas.

86 As has been expressed in response to the relevant and written representations made by the MMO the consultants working on behalf of the Applicant are the authors of scientific analysis² conducted on behalf of ORJIP, published at the same time as the application for Thanet Extension, that has been welcomed by both the MMO and Cefas. The analysis shifted the focus of studies from abandoned spawning sites and instead highlighted those regions that have shown recent spawning activity. The techniques and methodology of heat mapping utilised in the study provided clearer information of the areas of spawning and their proximity to offshore wind developments. Importantly the metrics utilised in the study with regards noise modelling are the same as those adopted in the EIA for Thanet Extension. Given the support noted by Cefas for the study it is unclear why further analysis is now desired at this late juncture in the Thanet Extension examination process.

² Boyle, G., New, P., 2018. ORJIP Impacts from Piling on Fish at Offshore Wind Sites: Collating Population Information, Gap Analysis and Appraisal of Mitigation Options. Final report – June 2018. The Carbon Trust. United Kingdom. 247 pp.

- 87 In brief the issue relates to the fleeing speed of an individual fish when exposed to a trigger, in this case noise. The Applicant has adopted a conservative fleeing speed of 1.5 m/s. Given a recognised 'intermediate' sustainable swimming speed for herring of 1.02 m/s³ is noted within the scientific literature, and that maximum sustainable swimming speeds of 1.4m/s have been recorded for immature herring⁴ it is considered that a fleeing speed of 1.5m/s for adult fish is reasonable.
- 88 Whilst it is recognised that Cefas' concern relates to gravid spawning female fish that will be subject to a strong 'driver' to remain in situ, it should be noted that there is no academic evidence to suggest that an adult fish wouldn't move. More importantly the impact of not moving is inconsequential. Given the impact ranges for injurious effect is limited to 350m, and the nearest historic spawning ground is 3km away, noting that there is limited evidence that this is still in use and that the primary grounds are agreed as being at least 20km to the south it is highly unlikely that in the event an adult fish did not flee at the assumed speed there would be an injury of that individual.
- 89 It appears therefore that the request being made is not only a distinct change from the agreed approach to assessment, but is a change of approach that is seeking to explore a potential theoretical effect that will have limited if any consequence for an individual receptor, let alone the spawning biomass of herring within the region. There would for example be no justification for any mitigation measure for such a negligible effect if assessed, and indeed limited justification for considering an effect that was unlikely to be significant with regards the EIA Regulations 2017.
- 90 The Applicant will continue to work with the MMO to further understand that rationale behind the request, and the potential significant effects.

³ He. P., Wardle, C.S. 1988. Endurance at intermediate swimming speeds of Atlantic mackerel, *Scomber scombrus* L., herring, *Clupea harengus* L., and saithe, *Pollachius virens* L. Journal of Fish Biology, Volume 33, Issue 2.

⁴ Boyar, H.C. 2011. Swimming Speed of Immature Atlantic Herring with Reference to the Passamaquoddy Tidal Project. Transactions of the American Fisheries Society Volume 90, 1961 - Issue 1