Vattenfall Wind Power Ltd

Thanet Extension Offshore Wind Farm

Appendix 1 to Deadline 6A Submission: Applicant's Responses to the ExA's further requests for information under EPR Rule 17

Relevant Examination Deadline: 6A

Submitted by Vattenfall Wind Power Ltd

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Revision A

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Contents

Annexes referred to

Annex A to Appendix 1 to Deadline 6A Submission	Applicant's response to ExA's further requests for information under EPR Rule 17 – 4.12.7
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1 Applicant's responses to the Rule 17

1 Following the issue of the Examining Authority's questions and requests for information under Rule 17 of the National Infrastructure (Examination Procedure) Rules 2010 (EPR) on the 30th May 2019 the Applicant has collated responses to the questions where applicable (noting that some require submission at Deadline 7 or 8 (D7 or D8)).

2 This document sets out answers in a tabulated format as requested by the ExA, with overarching 'sections' and tables for each topic area identified by the ExA. As noted within the ExA's further requests for information under EPR Rule 17 a number of topic areas do not have specific questions at this time. For ease of reference the following topic areas have questions which have been answered in sections within this document:

ExQ Section	ExQ Topic area
4.1	Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))
4.3	Compulsory Acquisition, Temporary Possession and other Land or Rights Considerations
4.4	Draft Development Consent Order
4.7	Electricity Connections and Other Utility Infrastructure
4.8	Environmental Statement General
4.9	Fishing and Fisheries
4.12	Navigation: Maritime and Air

2 ExQ4.1 Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
4.1.1.	The MMO, the Applicant	**Potential Construction Noise Effects on Fish: submissions and evidence from the MMO** The ExA notes the respective evidence submitted at D6 by both the Applicant and the MMO in respect of the potential noise effects on herring and sole. This remains a contended subject matter with opposing evidence. Whilst progress toward agreement would be preferable, the ExA is mindful of the very limited time remaining in this examination. In the absence of agreement, the following evidence is sought from the MMO by D7 with comments from the Applicant by D8:	The Applicant notes that the response is for the MMO, and is not required until D7, with the Applicant requested to respond at D8. The Applicant does however have the following observations to make that are considered of notable importance. a)-b) The Applicant understands that the MMO have further information available with regards the seasonal restriction applied to Thanet OWF. It is the Applicant's understanding, as discussed with the MMO via email, that the seasonal restriction for Thanet OWF applied to Thames herring only, and for the period Feb-Apr only. It is also the Applicant's understanding that the seasonal restriction was removed from the licence for Thanet OWF. The licence submitted to the ExA at D6 (REP6-089) can therefore be considered to be superseded by the information. It is the Applicant's understanding that the MMO will be submitting the pertinent text, however in advance of that being before the ExA the Applicant considers the following rationale (with the Applicant's comparable position) for the removal of the seasonal restriction to be important to note: • Margate sands complex attenuates the noise o The Applicant's submissions during examination and the modelling undertaken for the application confirms this to

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		a) Does the MMO hold any further evidence from its advisors or stakeholders on this matter that could usefully be submitted into the examination for consideration by the ExA? If so, please submit it at D7. (This could include scientific advice from CEFAS and/or comments from fishing and fisheries representative bodies.) b) The TOWF licence referred to a seasonal restriction period 'between mid- February and the end of April'. In the interests of precision and enforceability in this case, can the MMO specify particular dates for such restrictions? If so, what would they be and on what basis? c) As granted, the TOWF licence restricted noisy activities in the mid-February to end of April period, so as to avoid the main spawning period for Thames herring. In addition to a similar provision for this case, the MMO is also recommending a restriction from	be the case. In particular P30 of PINS Ref APP-086 (Annex 6-3, Underwater Noise Assessment) illustrates the 145dB (SELss) contour. This has twofold importance, the first being it clearly demonstrates the influence of the Margate Sands sandbank complex, and secondly it illustrates the 145dB SELss which the MMO's advisers recommend for behavioural effects. This therefore demonstrates there to be no interaction with spawning grounds to the west of Margate Sands. • 100 WTGs o As confirmed in Table 1.4 (WTGs) and Table 1.11 (OSS) the Applicant's PD chapter (PINS Ref APP-042), and assessment of all potential impacts on relevant receptors, the proposed Thanet Extension project is for 34 WTGs plus two further foundations (offshore substation and metmast). The project therefore has a comparatively reduced maximum number of WTGs. • Piling to be 5-7 hours o As confirmed in Table 1.4 of the Applicant's PD chapter (*ibid*), and assessment of all potential impacts on relevant receptors, the proposed Thanet Extension project maximum piling duration per pile of 6 hours. • All foundations by pile driving o As confirmed in Table 1.4 of the Applicant's PD chapter (*ibid*), and assessment of all potential impacts on relevant receptors, the proposed Thanet Extension

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		the end of November to January for the Downs stock. Could the MMO set out the reasons for the different approach in this case? d) If the MMO remains of the view that seasonal restrictions are necessary in this case, please could it provide draft wording for inclusion in the DMLs that it considers would provide appropriate security? e) The Applicant contends that the seasonal restriction forming part of the marine licence condition for the TOWF (referred to in (c) above) was subsequently removed, citing the following document by way of reference ('Review of Environmental Data Associated with Post-Consent Monitoring of Licence Conditions of Offshore Wind Farms', MMO, April 2014[1] at pg 87). Can the MMO please confirm whether this was	project parameters (with regards noise) provide for a worst case of foundation installation by piling. • Pile driving does not overlap with any other OWFs in the Thames o As confirmed in the Applicant's EIA Methodology chapter and accompanying cumulative effects annex (PINS Ref APP-039), and assessment of all potential impacts on relevant receptors, the proposed Thanet Extension project maximum piling scenario does not overlap with any other OWFs in the Thames. • Single pile driving vessel operating o As confirmed in paragraph 1.4.34 of the Applicant's PD chapter (*ibid*), and assessment of all potential impacts on relevant receptors, the proposed Thanet Extension project parameters (with regards piling) preclude simultaneous piling. In light of the above it remains the Applicant's position that a seasonal restriction for piling is not appropriate due to the scale of effect predicted, and the underlying rationale for removing the Thanet OWF seasonal restriction being directly applicable to Thanet Extension. The Applicant therefore considers the scientific evidence provided previously to remain robust, and the assessment outcomes to be

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/317787/1031.pdf

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		indeed the case, and if so, when and why the condition was removed? f) Does the MMO consider that it is necessary to impose any seasonal restrictions in relation to noise effects on sole spawning grounds? If so, on what basis and what, precisely, would be the restriction period?	equally robust and appropriate. Notwithstanding this the Applicant has offered to make a commitment to only pile during a single season (a commitment made for the existing TOWF to remove the seasonal restriction). The MMO have however responded that they consider this commitment, whilst entirely in accordance with the rationale for Thanet OWF, to not address Cefas' concerns. The Applicant has been unable to discuss this issue or the matter of impacts on herring directly with Cefas at any point during the examination, despite repeated requests. c) The Applicant notes that this action is for the MMO and will respond in due course. It remains the Applicant's position that given the assessment and revised modelling all complies with requests made by Cefas (and the MMO) and the conclusions identify there to be minimal overlap with the Downs spawning stock grounds, the result of which is a negligible impact (<1%) impact on the spawning potential for the Downs stock (and no overlap with the Thames stock), there is no justification in either scientific or policy terms for a seasonal restriction to be enforced. The position is strengthened by there being no precedent at the existing Thanet OWF, despite previous advice from Cefas (via MMO) that a seasonal restriction was in place. d) The Applicant notes that this action is for the MMO and will respond in due course. e) The Applicant can confirm that the MMO have discussed the referenced publication, and other sources, with the Applicant. The

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			Applicant's response to points a-b above confirm the rationale for why the seasonal restriction was removed, and the Applicant contends that the rationale as directly applicable to the Thanet Extension project. f) The Applicant notes that this action is for the MMO and will respond in due course. The Applicant would note however that previous submissions have confirmed the interaction to be negligible, and as such the Applicant does not consider a seasonal restriction to be appropriate or justified.
4.1.2.	The MMO, the Applicant	**Potential Construction Noise Effects on Fish: submissions and evidence from the Applicant** Further the issue raised in R17Q4.1.1, in the absence of agreement, the following evidence is sought from the Applicant at D7 with comments from the MMO by D8: a) Could the Applicant please provide an indication of the implications for the overall construction programme in the scenario that one or both of the two seasonal restrictions sought by	a) The Applicant can confirm that the maximum piling duration presented within the offshore PD chapter (*ibid*) is for a construction period of 6 months. A 4.5 month seasonal restriction (although Nov-Apr as suggested by the MMO is effectively 6 months) would, on an initial review, be able to be accommodated within the overall programme. It is important to note however that this would leave the Applicant in a position whereby all foundations, and the export cable within the intertidal zone, would be required to be installed within a window from May to October before the seasonal restriction in the intertidal zone comes into force. The Applicant recognises the need to restrict works in the intertidal to avoid potential effects on the internationally designated Special Protected Area. This does not allow for the maximum 6 month duration of offshore construction and, in a sequential constructions scenario whereby WTG foundations are installed before export cables, this would therefore risk an overrun into the over-wintering seasonal restriction. The result of which is a potential conflict whereby a seasonal restriction for an impact that is

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		MMO (Nov-Jan and Feb-April) were imposed? b) In the scenario that both seasonal restrictions were imposed, could the overall construction period be delivered within the maximum time-scale envisaged within the originally assessed Rochdale Envelope? c) Does the Applicant consider that there would be any other implications (eg financial, commercial, environmental) of a longer overall construction period required should the combined seasonal restriction(s) be imposed? d) The Applicant's reservations about the effectiveness and justification for the use of bubble curtains are noted from responses to ExQ1 [REP1-024] and Appendix 27 Annex A of the Applicant's D6 submission. However, could bubble curtains or other 'at source' mitigation techniques be used to remove or limit the extent of seasonal restrictions? If so, how	evidentially not significant and without precedent with regards the EIA Regulations risks conflict with a mitigation measure to avoid a potential adverse effect on integrity of an internationally designated site. Furthermore, imposing seasonal restrictions on the project would increase the level of risks relating to programme and consequently commercial/financial confidence in the construction phase of the project. For example, a delay to the manufacturing of foundations even by a few weeks could translate to the target installation window being missed, resulting in either: • a delay to the commencement of the offshore installation programme and all associated knock on programme effects; or • the requirement for two installation campaigns. If two installation campaigns for foundations installation are required this would result in longer offshore construction programme with added time for mobilisation and demobilisation of vessels, added difficulties in securing vessels for installation, increased time offshore and therefore the probability of weather downtime in the programme. Overall, having a seasonal restriction would remove flexibility in the project and could remove the possibility of targeting an earlier commissioning date if the project finds the requirement or opportunity to do so at later stage. b) As it stands, if both seasonal restrictions were imposed, programme flexibility in the installation of foundations would be reduced significantly. Whilst it is not impossible to plan the delivery within the

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		would they be secured within the DCO/DML? e) Is there any need for UXO clearance to be similarly seasonally restricted to piling?	originally assessed Rochdale Envelope with the seasonal restrictions, it removes flexibility and float in the programme resulting in a risk of delay (as outlined above) and increasing the probability of exceeding the maximum timescale envisaged, especially if construction is also hindered by poor weather. The seasonal restriction could also mean delays of 6 months or more in offshore installation or having to carry out two campaigns of installations which, if this risk materialises, could delay the overall programme significantly. Export cable installation is also already restricted by environmental restrictions in the intertidal area and any delay to foundation installation would result in further delays to the cable installation programme. c) The combined restrictions, effectively eliminating November-April for foundation piling, would introduce significant financial and commercial risks. The net effect is that even a relatively minor delay to fabrication (which itself relies on a number of time-critical milestones being met, e.g. delivery of primary steel, etc.), of just a few weeks, could result in significant delays in start of offshore construction. If it became apparent that not all foundations would be able to be installed within the available window, a decision would have to be made whether to delay all foundation installation (and therefore also WTG and cable installation) until the next window, or to install in two phases. Both of which have significant commercial implications including, but not limited to: • losing the designated installation vessel (and having to complete engineering analysis on an alternate vessel)

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			• prolonged foundation/WTG and cable storage costs • multiple foundation/WTG installation vessel mobilisations and demobilisations • delayed start of generation (if risks materialised, there could be serious implications on the ability to adhere to CfD obligations, such as target commissioning window and longstop date, and therefore a risk of CfD termination, although this would be remote) • additional costs for maintaining exposed foundations and/or towers (in a situation where a portion of the foundations are installed, but not all) • higher overall cost for the project due to longer offshore programme d) It is the Applicant's understanding that bubble curtains or other 'at source' mitigation techniques can be used to attenuate underwater noise in the correct conditions, and this has been evidenced to be effective for harbour porpoises. The study on effectiveness for harbour porpoises concluded that if a reduction in temporary habitat loss is considered necessary for maintaining good conservation status of harbour porpoises, bubble curtains are clearly a feasible way to achieve this. The associated cost increases the overall project cost however and should only therefore, in the view of the Applicant, be applied where there is a notable benefit and reduction in potential effect on the good conservation status of a species (in the context of the Habitats Directive) or to mitigate the potential for a significant effect to occur. The Applicant's evidenced position is that there is no such risk for herring and given the apparent disparity in advice provided by the

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			MMO that runs contrary to precedent at the site level there is no justifiable reason for a seasonal restriction or mitigation such as bubble curtains. It is also of importance to note that the effectiveness of bubble curtains is dependent on a number of physical conditions, including depth and current speed. Whilst the proposed project is in sufficiently shallow water, the current speeds are such that the effectiveness may be in question. e) The Applicant can confirm that should a UXO clearance marine licence be required, following pre-construction surveys, all relevant mitigation will be considered inclusive of the need to observe seasonal restrictions. The need for mitigation will be determined on the basis of the marine licence application parameters including season, location, type of UXO, and safety considerations with regards deploying bubble curtains in proximity to UXO.
4.1.3.	National Federation of Fishermen's Organisations and the Applicant	**National Federation of Fishermen's Organisations (NFFO)** The NFFO was invited to participate in the Examination as an Other Person (OP) at D6 and submitted a copy of its advice to the MMO on this matter into the examination.	The Applicant notes this question is for the NFFO and will respond in due course. It is the Applicant's understanding that there is currently no seasonal restriction in place for herring fishing within the region, and that the spawning stock biomass has recovered (after the 1970s crash due to over fishing) to above a precautionary level and is considered to be at full reproduction capacity. When combined with the Applicant's evidenced position that there is a negligible interaction with historic spawning grounds that are infrequently used, this can be considered to give all stakeholders comfort that the predicted impact to the spawning stock biomass, and therefore future catches.

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		a) Could the NFFO please provide a response to the evidence advanced by the Applicant in relation to effects on herring and sole and to the material provided by all parties in response to ExQ3.1.5 by D7? b) The Applicant is invited to respond at D8.	
4.1.4.	Thanet Fishermen's Association and other fishing and fisheries IPs	**Other Fishing and Fisheries Interests** Interested Parties with interests in fishing and fisheries are invited to comment on the matters raised in questions R17Q4.1.1, 2 and 3 at Deadline 7 and on the responses provided to these questions at Deadline 8. The MMO and the Applicant are invited to respond to any responses to this question at Deadline 8.	The Applicant notes this question is for fishing interests and will respond in due course.
4.1.5.	The Applicant	**Documents Informing HRA Conclusions** Natural England raises at para. 9.1.1 of its D6 submission that, in the light	a) Annex B to Appendix 1 of the Applicant's Deadline 6A Submission provides a standalone document, as requested by the ExA and Natural England, which provides the requested summarised information. The Applicant has adopted the suggested approach and provided updated tables (1-3) as presented within PINS Ref REP5-016. The Applicant notes

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		of the large number of clarification notes and other evidence relating to HRA matters submitted during the examination, it could be difficult for discharging authorities at the post-consent stage to understand all of the evidence that has informed the HRA conclusions in this case. The ExA notes this position. Please could the Applicant: a) Submit at D7 a single document that lists all of its examination submissions that inform, supplement or clarify its HRA findings. For simplicity, this could be a document that provides a summary updated version of the information presented in summary tables 1-3 contained in [REP5-016]. b) Propose a way to secure this document so that it may be easily discoverable for potential future users, for example as a new annex to the Explanatory Memorandum.	that this document was requested for Deadline 7 but has sought to provide the information for Deadline 6A to provide all parties with a longer period to review the information. b) The Applicant proposes to secure this document (Revision A) by submitting it as Annex E to the Explanatory Memorandum as part of the Applicant's Deadline 7 Submission.

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4.1.6.	The Applicant	**Seasonal Restriction: Onshore Works** Natural England highlights the commitment in paragraphs 5.3.19-5.3.21 of the latest OLEMP [REP1-069] to a seasonal restriction on all driven and percussive piling work within Pegwell Bay Country Park and to the erection of screening fencing for any works within 250 meters of intertidal habitats that are in direct line of sight of intertidal habitats during the same season. The ExA notes that these are mitigation references 5.8 and 5.9 of the Rev.D Schedule of Mitigation submitted at D6 and that security is also currently provided through the Construction Environmental Management Plan. Natural England states that these mitigation measures are "required to rule out any Adverse Effect on Integrity on the SPA", which is understood to refer to the Thanet Coast and Sandwich Bay SPA, and	a) The Applicant can confirm that the mitigation measures are required to rule out an Adverse Effect on Integrity (AEoI) beyond scientific doubt. There remain project precedents elsewhere within UK waters that limited intertidal construction activities carried out during the over winter period have not resulted in an AEoI. It is also of note that the existing Thanet OWF marine licence required restrictions in the intertidal and in relation to certain states of the tide only. The restriction for Thanet OWF was around high tide (1 ½ hours – 2hrs stoppage in advance of high water) during the over wintering period to mitigate impacts. The Applicant's position however has been to take a precautionary view and commit to undertaking no work during this period up to a distance of 250m inland where there is a clear line of sight. b) The Applicant recognises the ExA's observation that the seasonal restriction is provided for within the OLEMP at Paragraphs 5.3.18-20 (REP1-069) and the Schedule of Mitigation and as such would consider this commitment to be fully and appropriately secured. The Applicant's view is therefore that securing on the face of the DCO is not necessary. c) The reason for taking a different approach is firstly because the intertidal timing restriction was not captured in a plan that was subsequent approval (although it was set out in the ES and Schedule of Mitigation, and therefore it was accepted that further security was required. This is not the case for the onshore timing restriction.

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		that they should therefore be included on the face of the DCO in the same way that Requirement 26 imposes a seasonal restriction on works in the inter-tidal area. a) Does the Applicant accept that these mitigation measures are required to rule out an Adverse Effect on Integrity (AEoI) of the SPA? b) Does the Applicant agree to including these measures on the face of the DCO, as requested by Natural England? If so, please provide the suggested drafting at D7. c) If not, could the Applicant please set out the reasons for taking a different approach in this case to that taken in respect of the inter-tidal area under R26.	Secondly, the timing restriction set out in the OLEMP is more nuanced that the strict limitation on works in the intertidal, with some works being allowed subject to matters requiring approval. These include the use of screening and whether works will be in direct line of sight of the intertidal or not. These will require further discussion with the relevant authorities to determine the exact extent of the timing restriction and the mitigation required to avoid it for some works. As such it is most suitable secured in the OLEMP where the final details of construction at the landfall can be taken into account and approved post-consent.
4.1.7.	Natural England, The Applicant	**Goodwin Sands pMCZ** Paragraph 2.5 of Natural England's D6 letter considers that the	a) The Applicant recognises this question is for Natural England but would make the following observations. The Applicant recognises the ExA's observation that the Goodwin sands MCZ is provided for within the Schedule of Mitigation, and the other identified documents, and as

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		Applicant's commitment to dispose of sediment within 500 m of Goodwin Sands pMCZ should be sufficiently secured within the DCO/DML. The ExA notes that this is reflected as mitigation reference 5.5 of the updated Schedule of Mitigation (Rev. D) which points to the Cable Specification and Installation and Monitoring Plan but that does not appear to be explicitly stated on the face of the DCO/DML. a) Noting that the Schedule of Mitigation will be a certified document, does NE consider that sufficient security for the commitment has been provided? If not, please could Natural England articulate how they would wish to see this secured within the DCO at Deadline 7. b) The Applicant is also invited to comment on this matter and provide any revised drafting by Deadline 8.	such would consider this commitment to be fully and appropriately secured and does not require further explicit reference on the face of the DCO. b) The Applicant will respond in due course.

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4.1.8.	The Applicant, Natural England	**Schedule of Mitigation, Rev.D** The ExA notes that Rev. D of the Schedule of Mitigation contains a number of references to Landfall Option 2, which has been removed from the project description. a) Given that the Schedule of Mitigation is to become a certified document, could the Applicant please remove all references to withdrawn Landfall Option 2 from the document and also undertake a sense check of the whole document to ensure that it reflects the latest position. b) Natural England is invited to provide comments on drafting by Deadline 7.	a) The Applicant has undertaken a full review of the Schedule of Mitigation and provided a revised copy (Revision E), with all references to Option 2 removed, as Appendix 2 of the Applicant's Deadline 6A Submission. The Applicant has provided an associated annex (Annex A) which indicates the rows of the schedule which have been updated. b) This is noted by the Applicant and will review the submission in due course.
4.1.9.	The Applicant, Natural England	**Security for the Saltmarsh Mitigation, Reinstatement and Monitoring Plan (SMRMP)** Paragraph 3.4.1 of Natural England's D6 letter raises some questions about the security of the contents of	a) The Applicant can confirm that the commitment for submission of monitoring scope is explicit within the SMRMP document, requiring the Applicant to agree final survey layout and transect alignment. This is secured by the relevant monitoring conditions. As such this commitment is made clear within the SMRMP which is a certified plan, and as a result the Applicant does not feel it appropriate to commit to resubmission of the plan itself.

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		the SMRMP. Could the applicant please respond to these points, specifically: a) Should the DCO include a requirement for an updated version of the SMRMP to be submitted to the relevant authorities prior to construction, in a similar way to the other pre-construction plans and documentation dealt with under conditions 11 and 13 of Schedule 12? If so, please provide the revised drafting. If not, please provide reasons. b) Whilst the monitoring associated with the SMRMP is secured in conditions 15 and 17 of Schedule 12, does specific provision need to be made within the DCO/DMLs to secure any mitigation arising from the SMRMP? If so, please provide the revised drafting. If not, please provide reasons. c) Natural England is invited to comment on any revised drafting by Deadline 7.	b) The Applicant does not consider it appropriate or necessary to make specific provision within the DCO/DMLs to secure any mitigation arising from the SMRMP. The Applicant considers the relevant measures to be secured in the SMRMP and would note that as the suite of available measures are contingent on survey results, the DCO would require 'either/or' drafting which is not considered appropriate DCO drafting. c) The Applicant questions if this should read D8 but will respond in due course.

3 ExQ4.3 Compulsory Acquisition, Temporary Possession and other Land or Rights Considerations

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
4.3.1.	The Applicant, the Crown Estate	**Crown Lease: effect on CA case** In ExQ2.3.1 response a) [REP5-002], the Applicant records that the Crown Estate has prepared a draft agreement for lease and a draft lease for the array area and the cable corridor. However, it also advises that it remains the case that the Crown Estate will not enter into legal relations with the Applicant until a Plan Level HRA for offshore wind farm extensions including the proposed development is complete – after the closure of the examination. The timing for completion of this exercise is currently set at 'summer 2019' [REP3-088]. It may be concluded within the SoS decision period, but that is not certain. Nor are the outcome and timing of lease decisions thereafter certain.	4.3.1(a) The Applicant agrees that a separate agreement for lease would be granted for the offshore cable route which in turn would then form part of the OFTO assets. 4.3.1(b) The Applicant is grateful for the suggested drafting proposed by the Examining Authority. 4.3.1(c) The Applicant agrees with the Examining Authority's assessment that this is a minimal risk. The Applicant proposes the following revised Art. 17(3) drafting: (3) The undertaker may not exercise any powers of compulsory acquisition authorised by this Order until it has: (i) acquired a legal estate in the seabed in the form of an agreement for lease from The Crown Estate which includes the offshore wind turbine generating station comprised in Works No. 1 and 2; (ii) acquired a legal estate in the seabed in the form of an agreement for lease from the Crown Estate which includes Work No. 3; and (ii) provided the Secretary of State with written confirmation of those agreements.

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		In its response b), the Applicant provides a view that it 'does not consider that the negotiations regarding the agreement for lease with the Crown Estate should influence the decision on the application'. Our remaining concern relates to the interface between the Plan level HRA decision, the conclusion of agreements for relevant leases and the granting of those leases and the CA powers sought in the dDCO. The HRA decision is a discretionary decision (and it is one on the outcome of which the Crown Estate declines to provide us with 'comfort' – see [REP3-088]). It is possible that the Crown Estate could conclude from the Plan Level HRA that the proposed extension should not proceed and hence determine not to agree to or to grant leases. Or it could determine not to agree to or	

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		to grant leases to the Applicant for other (broadly commercial) reasons. The Applicant seeks CA powers over land, broadly to provide for the construction and operation of an onshore substation and cable connection for the proposed development to the grid. If further to a Plan Level HRA or a lease decision by the Crown Estate, the offshore array area was not to be developed, there would be no need for the onshore infrastructure and it too would not be constructed. In this context, the Applicant has offered to provide drafting in the dDCO that prevents 'the exercise of any compulsory purchase powers until the agreement for lease has been concluded'. a) The current draft wording (in Art 17(3) of the Deadline 6 DCO (Appendix 49)) only makes reference	

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		to a single lease covering Work No 1. To address the principle identified and agreed to by the Applicant above, does this need to be expanded to cover a second lease for the offshore cable alignment (the OFTO lease). b) If so, the Applicant is asked to provide a form of drafting (although see below). c) In terms of security, blocking the CA until the leases are in place assumes the Crown will do as it has said, and only grant leases if the Crown considers that the Plan Level HRA permits the development. So, in theory, there is a risk that the Crown could grant leases for the development knowing that it does not comply with the Plan Level HRA – a decision which could of course be challenged in the courts. However, given the stated intent of the Crown Estate, this would appear to be a minimal risk. Does the Applicant and do relevant IPs agree?	

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		A possible form of drafting for a revised Art 17(3) could be as follows: (3) The undertaker may not exercise any powers of compulsory acquisition authorised by this Order until it has: (i) acquired a legal estate in the seabed in the form of an agreement for lease from the Crown Estate which includes the offshore wind turbine generating station comprised in Work No. 1; (ii) acquired a legal estate in the seabed in the form of an agreement for lease from the Crown Estate which includes Work No. 3; and (ii) provided the Secretary of State with written evidence of those agreements. The Applicant's, IPs and OPs views are sought on this.	
4.3.2.	The Crown Estate	**Crown consent: PA2008 s135**	The Applicant notes that this question is intended for the Crown Estate. The Applicant has discussed the matter with the Crown and

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		In its submission to D6 (which has been categorised by the ExA as a late submission to D5 as it addresses ExQ2.3.4 [PD-016]) the Crown Estate addresses the ExA's question about the grant of consent under PA2008 s135(2). Having considered that submission, the ExA retains a concern with the consent provided, because of the way the letter is worded: "Accordingly, the Commissioners confirm their consent for the purpose of s135(2) of the Act to the inclusion of the following "Crown rights" wording in the Order at Article 40…" It appears to the ExA that the Crown Estate may have wished to say that it grants consent to the various provisions of the order which might apply to Crown land subject to the inclusion of Article 40. Unfortunately, that is not what the	understands that the Crown Estate intend to give the necessary confirmations at Deadline 6A.

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		letter says – it just consents to the inclusion of Article 40. PA2008 s135(2) reads as follows: "An order granting development consent may include any other provision applying in relation to Crown land, or rights benefiting the Crown, only if the appropriate Crown authority consents to the inclusion of the provision." It follows that any provisions of the DCO outwith Art 40 itself which apply in relation to Crown land do not currently benefit from s135(2) consent. There are various provisions of the Order which might apply in relation to Crown land (other than compulsory acquisition of rights which would be covered by s135(1)). For example, Art 15 includes powers to enter land for survey/investigation purposes and to make trial holes. While Art 15(4) makes the power subject to Crown	

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		consent, it only does so for the making of trial holes, so the power to enter would still apply to Crown land. Based on the wording of the consent given in the Crown Estate letter, that provision does not currently have Crown consent. For this reason, the ExA and/or the SoS at the point of approval would need a further submission confirming exactly what the Crown Estate intended to give consent to under s135(2). If the consent is given for the order as currently worded, there would be no consent for a later version of the order with revised wording. So, if the SoS makes amendments to the wording (which is usually the case), the consent might cease to apply and would need to be reconfirmed. Drawing these matters together, the Crown Estate is requested to confirm the following:	

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		a) Consent in principle to all of the various provisions in the DCO which might apply to Crown land subject to the inclusion of Article 40; and b) that it notes and agrees the possible need to review and make a final letter of consent to the SoS, should the drafting of the DCO change.	

4 ExQ4.4 Draft Development Consent Order

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
4.4.1.	The Applicant, Kent County Council, Dover District Council, Thanet District Council and the MMO	**Definitions of commencement and pre-commencement works** The Applicant is asked to review the definitions of 'commence' on the basis that R32 (and related DML provisions) provide that '[n]o pre-commencement works may commence', a form of drafting that relates pre-commencement works to 'commence', which is a defined term. c) Does a formulation ''[n]o pre-commencement works may be carried out' address this point? d) If so, the Applicant is requested to provide amended drafting in a consolidated dDCO. e) If not, the Applicant is requested to address the point with alternative drafting and reasoning.	The Applicant notes that parts a-b of this question appears to be omitted. c) The Applicant acknowledges the Examining Authority's proposed drafting and is content to amend the dDCO accordingly. d) The Applicant will amend the dDCO at D7 accordingly. e) A response to this question is not required as a result of the responses to part c) and d).
4.4.2.	The Applicant, Kent County	**The relationship between arbitration and appeals**	a) This wording has been included following comments made by the ExA during the examination to provide an alternative to arbitration for decisions made by the Secretary of State, however, there is no

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
	Council, Dover District Council, Thanet District Council and the MMO	Art 5(11), Art 36 and new Sch 14 in the Applicant's D6 DCO (Appendix 49) contain new provision for what amounts to an either way optional mechanism for the applicant to submit an appeal or to take a matter to arbitration. ('[T]he undertaker may refer the matter for determination in accordance with article 36 (arbitration) or appeal the decision in accordance with Schedule 14 (procedure for appeals).') This provision is confusing and apparently without precedent in a made Order. a) If there is precedent for such an either way provision, the Applicant is asked to refer to it. b) Parties other than the Applicant are requested to comment upon it at Deadline 7. c) The Applicant is requested comment at Deadline 8.	precedent that the Applicant is aware of for including an either way provision in relation to dispute resolution. b) Noted c) Noted – the Applicant will consider responses received at Deadline 7 and will prepare a comment and any revisions to the DCO considered necessary for Deadline 8.

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		In the absence of a clear justification or basis for an 'either' way provision, parties are asked to identify whether they consider that: d) Sch 14 appeal provisions should replace arbitration; e) Arbitration provisions should replace Sch 14 appeals; f) A more clearly defined and confined role for each procedure should be drafted for; g) One or both procedure(s) should not extend to a particular body (for reasons); and/or h) A particular identified procedure should be removed from the dDCO. It should be noted that it is not clear that the SoS would agree to accept the appeals process in Sch 14 and so the ExA may recommend its removal. The Applicant should submit drafting to manage such circumstances.	
4.4.3.	The Applicant,	**Sch 14: Appeals**	a) The appeals process has been taken from the process set out in the model 'procedure for discharge of requirements' schedule. However, as

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
	Kent County Council, Dover District Council, Thanet District Council and the MMO	The proposed appeals process in Sch 14 imports a statutory role for the Law Society. This appears to be without precedent in made Orders under PA2008. a) Please provide any precedent for this provision. b) Is the Law Society an appropriate body for the role proposed? c) Please provide evidence that the Law Society has agreed to discharge the proposed role.	the process applies to a decision made by the Secretary of State, it is not appropriate for the Secretary of State to appoint an independent decision maker. The Law Society is regularly referred to in contractual dispute resolution clauses as the appropriate body to appoint an independent person and therefore the Applicant has decided to adopt this approach in Schedule 14. b) As above, the Law Society is regularly referred to as the determining body in dispute resolution clauses c) it is not common practice for a body to confirm it will discharge a role, but this is a role the Law Society is often assigned in legal agreements and contracts.
4.4.4.	The Applicant	**Certification of plans (Art 35)** As drafted at D6 (Appendix 49), this provision allows the amendment of documents which have been certified by the SoS. This removes certainty for the SoS as to what consent is being granted for. The Planning Inspectorate Advice Note 15 (AN15) identifies that the inclusion of 'tailpieces' authorising the approval of changes to the scope of the Authorised Development as	The Applicant acknowledges the concerns of the ExA and will remove Article 35(5). However, a level of flexibility for certain offshore plans has been requested by the MMO at Deadline 5 (see item 31 in Appendix 44 of the Applicants Deadline 6 submission) for example the Biogenic Reef Mitigation Plan which is not finalised and the Fisheries Liaison and Co-existence Plan which is considered a 'live' document subject to ongoing changes throughout the project. The Applicant has therefore retained the drafting in Condition 25(2) of Schedule 11 and Condition 28(2) of Schedule 12 in response to the MMOs request.

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		applied for and examined is not acceptable (para 17.4). a) Are the provisions of Art 35 of the nature of a tailpiece? b) If so, the ExA requests the Applicant to amend the drafting to address the point raised in AN15.	
4.4.5.	The Applicant	Sch 8 Part 2 Para 13: definition of apparatus The undertaker is defined in Art 2 as Vattenfall Wind Power Ltd. The definition in Para 13 states: "in the case of an electricity undertaker, electric lines or electrical plant as defined in the Electricity Act 1989, belonging to or maintained by the undertaker". The Applicant is requested to amend the drafting to "that electricity undertaker" to avoid confusion with the Art 2 definition.	The Applicant acknowledges the Examining Authority's proposed drafting and is content to amend the dDCO accordingly.
4.4.6.	The Applicant	**Sch 8 Part 2 Paras 16 and 17: clarification of drafting**	The comment is noted and the Applicant will propose new drafting at Deadline 7.

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		Sch 8 Part 2 Paras 16 and 17: clarification of drafting These paragraphs are not well-drafted, and the Applicant is requested to provide drafting to improve clarity and comprehension.	
4.4.7.	The Applicant	**The Certified Environmental Statement** For continuity, R17Q4.8.1 in Matter 4.8 (Environmental Statement General) develops ExQ3.8.1, but also has implications for DCO drafting.	The Applicant refers the Examining Authority to the response provided at R17 Q4.8.1.
4.4.8.	The Applicant, Natural England	**Natural environment security** Attention is also drawn to the questions in matter 4.1 (Biodiversity, Ecology and Natural Environment) above that have implications for DCO drafting.	The Applicant refers the Examining Authority to the responses provided at R17Q section 4.1.

5 ExQ4.7 Electricity Connections and Other Utility Infrastructure

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
4.7.1.	Shakespeare Martineau for National Grid plc	**Withdrawal of National Grid plc Relevant Representation** On 23 May 2019, Shakespeare Martineau for National Grid plc wrote to the ExA withdrawing their client's RR. The correspondence refers to the 'Thanet Offshore Windfarm Development Consent Order' and is in a .pdf file entitled 'Vanguard NG wdraw'. Please confirm that the correspondence relates to the application for development consent for the Thanet Extension Offshore Wind Farm Extension under reference EN010084 and has not been made in error in relation to another proposal.	The Applicant notes that this question is addressed to Shakespeare Marineau for National Grid plc. Having discussed matters with National Grid plc. The Applicant can confirm that the correspondence relates to the application for development consent for the Thanet Extension Offshore Wind Farm Extension under reference EN010084 and understands that National Grid plc. intend to submit an amended .pdf file as soon as possible.

6 ExQ4.8 Environmental Statement General

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
4.8.1.	The Applicant	**The Certified Environmental Statement** The Applicant's response to ExQ3.8.1 sets out a list of eight documents that it states: "are intended to form part of the certified Environmental Statement". These eight documents are now included in Schedule 13 of the dDCO. The ExA welcomes this addition and the commitment to update Schedule 13 at each subsequent deadline, if required. However, the ExA notes that the Art 2 definition of the 'Environmental Statement' remains unchanged in the latest dDCO. Due to the extensive use of the Rochdale Envelope approach to offshore design parameters, there are a series of provisions in the dDCO that are limited "to the extent that this	a) The Applicant confirms it is content to include further drafting to ensure the Environmental Statement is correctly defined. b) The Applicant proposes to include a separate table setting out all the documents which form part of the environmental statement within Schedule 13 and refer to this table in the definition of environmental statement. This will be included in the DCO submitted at D7. c) The Applicant confirms it will remove the duplicated reference.

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		has been assessed in the Environmental Statement authorised by this Order" or allowing variation from the order where it "does not give rise to any materially new or different environmental effects to those assessed in the Environmental Statement". The ExA is concerned that the Applicant's new drafting does not fully address the fact that the submitted ES has been updated and clarified to such an extent during the examination that the definition of the 'Environmental Statement' should be broader than simply the original document submitted with that title. a) Can the Applicant please confirm whether it agrees to making further amendments to the dDCO wording to address this point? b) If so, please could it propose new drafting (and see below). c) Schedule 13 appears to list the document entitled 'An addendum to	

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		the Environmental Statement (ES) assessing the SEZ proposal (PINS Ref REP4B-010)' twice. Please could the Applicant check and if necessary, correct this. One approach to (b) may be to add a new Schedule containing all documents intended to form part of the certified ES and for the article 2 definition of the Environmental Statement to be revised to refer to all documents within that Schedule. However, the ExA is open to any drafting that achieves the same outcome by D7.'	

7 4.9 Fishing and Fisheries

3 The Applicant notes the following and provided responses in Section 2 of this document.

"Fishing and fisheries questions relating to species management and sustainability have been included in the Biodiversity, Ecology and Natural Environment questions (Matter 4.1), to which fishing and fisheries IPs and OPs are requested to refer."

8 ExQ4.12 Navigation: Maritime and Air

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
4.12.1.	Marine Management Organisation, The Applicant, Port of London Authority / Estuary Services Ltd, London Pilots Council, Port of Tilbury London Ltd, London Gateway Port Ltd, Port of Sheerness Ltd, Maritime and Coastguard Agency, Trinity House	**Pilotage simulation** In their letter covering the Deadline 6 submission the Applicant refers to its proposed approach to a further "pilotage simulation", which is detailed in Appendix 38. The ExA notes that, if such a simulation were to be undertaken and concluded after Deadline 8, on the basis that the ExA cannot consider any document submitted after closure of the Examination, it could not be taken into account in the ExA's recommendations. Further, unless it were to be concluded by Deadline 7, there would be no adequate mechanism for the ExA to take account of IPs and OPs responses to it. These timelines do not appear to be immediately deliverable.	a) Whilst the Applicant notes this question relates to a potential future simulation (and is directed at the IPs and OPs), it would wish to state that it considers the findings of the simulation remain valid and represent a relevant and robust body of evidence in relation to the impact of the proposed development on pilot transfer operations, general navigation in the relevant sea area and on the economic sustainability of the relevant operators. However, in the event that the ExA is not satisfied that the NRA and NRAA (as informed by the existing simulation) are sufficient to justify a positive recommendation to the SoS, the Applicant recognises that the ExA could recommend to the SoS that further simulation work be carried out before any consent is granted. b) The Applicant has no further comment at this stage and will provide further comment at Deadline 7 and 8 on receipt of IP comments. c) The Applicant does not consider it certain/or a requirement that, in the event simulation was undertaken, the NRA or NRAA would require any update. The simulation focus on feasibility and confirmation of navigation and pilotage risk controls does not inherently trigger a requirement for an update to the NRA. Notwithstanding this the Applicant recognises that there may be circumstances where the risk controls in the NRA/NRAA need to

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
	Lighthouse Service	There is a possible mechanism for the Applicant to submit such additional evidence directly to the SoS during the decision-making period. The Applicant points out that if an additional pilotage simulation were to be prepared and submitted at that time, it would then be necessary for it – "and the results of it that may or may not necessitate changes to application documentation" – to be properly consulted on, and for the SoS to have time to consider and take into account those changes and associated consultation responses. The Applicant also suggests that "...should the Examining Authority be of the view that a pilotage simulation could still be necessary to inform the SoS' decision … a procedural decision is made before	be amended, in particular if amendments to the scheme are agreed to be necessary to confirm the adequacy of sea room for pilotage operations (notwithstanding the view of the Applicant that it is already valid and robust as proposed). d) The Applicant can confirm that should the navigation simulation be deemed necessary to validate feasibility of pilotage operations and to refine risk controls this would be achievable in the ExA's recommendation period. The following is the Applicant's understanding and proposed approach (and should be seen as a complement to the programme presented with the Applicant's D6 submission on navigation simulation (REP6-058): i. The simulation and reporting will take 6 weeks. ii. The consultation on the simulation exercise report should comprise 2 primary questions – does the report accurately reflect the work undertaken on the day and the results from the exercises, and does the revised navigation simulation address the concerns raised by IPs. iii. Given the proposed participation by IPs in an observation capacity the Applicant considers that an adequate consultation period is 14 calendar days. iv. The Applicant will consider representations made and publish a consultation report within seven calendar days of the close of the consultation period. In the unlikely event that the findings identify that certain pilotage operations are no longer deemed feasible, and as such there is a required change to risk controls and/or other

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		close of Examination recommending that the Applicant undertakes such a simulation voluntarily and in particular that all associated parties and stakeholders continue to engage with the Applicant in order to facilitate and discuss any pilotage simulation and its results." The ExA has considered this request with care but indicates that it cannot make a procedural decision that binds the Applicant, IPs and OPs after the closure of the Examination. Rule 2 of the National Infrastructure (Examination Procedure) Rules 2010 (EPR) defines the term "procedural decision", in relation to an application and under those rules as meaning 'a decision about how the application is to be examined…'. It follows from this that the ExA's procedural decisions cannot regulate the conduct of the	application material the report will identify these, and any changes will be submitted alongside the consultation report. The above provides for a 6 week exercise, plus 14 day consultation period and 1 week to prepare the report. The Applicant therefore considers that there would be sufficient time for the Secretary of State to carry out any further consultation as is necessary, during the three month decision period.

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		Applicant, IPs or OPs once the Examination is complete and closed. The ExA may recommend that the Applicant take such a course of action and that IPs and OPs assist in its delivery but that is a far is it can go within its powers and, once the Examination is closed, it cannot advise on, review, question or even see any related documents. The MCA has maintained in its D6 submission that if such a simulation is done, it should feed into a Navigation Risk Assessment and should not simply be a validation exercise applied ex post facto to a Navigation Risk Assessment that has already been completed. To help the ExA form a view whether this is indeed a matter for a recommendation to the Applicant, IPs and OPs before closure of the Examination, would	

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		the IPs and OPs please provide their views "in the round" about the potential practical benefits and value of such a pilotage study to the SoS' decision, if it were to be undertaken voluntarily by the Applicant, commenting particularly on the following considerations: a) the potential of a simulation study to provide further valuable information for the SoS on the overall impact of the proposed development to pilot transfer operations, to general navigation in the relevant sea area and to economic sustainability of the operation of the ports of London and Sheerness; and b) participation, configuration and other details of a simulation, with reference to the scope and detail set out in the Applicant's D6 Appendix 38; and c) the need for a further simulation to be followed by further	

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		consultation with IPs on Hazard scoring and further addendum or revision to the NRA; and d) the likely timeline for carrying out, documenting and delivering consultation on responses to the simulation results and consequent amendments to the application, if any, to the Secretary of State in time for appropriate consideration before the due decision date.	
4.12.2.	The Applicant	Reference Citation in the D5 NRAA Para 145 of the NRAA submitted at D5 [REP5-039] states: "Cost benefit is an optional step of FSA process and is aimed at determining risk controls to justify As Low As Reasonable Practical (ALARP) judgements. No steps were taken in relation to this step for the Addendum NRA. However, the assessment of cost benefit in the original NRA remains valid."	The Applicant cites Section 8.5.3 of the original NRA (APP-089 page 121) in which narrative is provided in relation to the risk controls which were identified and not recommended because, although they would reduce the impact or risk to the project, would be disproportionate in terms of cost of operational impact and the assessment conclusions of ALARP. The project has therefore considered these risk control options in terms of risk benefit related to life cycle costs as per FSA guidelines. In the accompanying table of this document (Table 22) the Applicant provides qualitative comment to each risk control in relation to impact benefit and cost, drawing on the assessment and inputs from IP's during consultation. Whilst some of this cost benefit was reviewed qualitatively using expert judgement, others were supported by more extensive assessment that was reported separately, and discussed with IPs (e.g. risk control 2 of Table 22 'relocation of pilot boarding station'

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		• Can the Applicant please provide a full citation for the reference to the original NRA in the examination document set (document(s), page(s) and paragraph(s)).	(https://corporate.vattenfall.co.uk/globalassets/uk/projects/thanet-ext/peir-nov-2017/volume-4/vol4ann10-1-pilotagestudy.pdf) . The Applicant notes that IPs have not proposed risk controls other than boundary reduction which they consider to be the primary risk control, whilst the Applicant has made two revisions to the boundary since the original Pilotage study/PEIR layout, meeting the qualitative and quantitative nature of the assessment. Further to this, and in order to provide confidence to the ExA on the appropriateness of the approach undertaken, the Applicant wishes to note, with reference to Hornsea Three as an example, that it is not uncommon for review and further work of cost benefit analysis to be undertaken post consent once the layout and associated mitigations are defined and in line with standard industry practice. This may include risk controls such as further AIS monitoring, monitoring and liaison with VTS operators. This could also include ongoing review and update of navigation risk assessment as is undertaken on the Tideway project (a DCO project currently under construction in central London and within PLA Statutory Harbour Authority area). The Applicant is committed in this regard to implementing measures that show a positive effect on impact and reduction in worst case value consequence in conjunction with the frequency of occurrence.
4.12.3.	The Applicant, Marine	**D6 Appendix 22 Annex C: Supplementary Note to ExAQ3.12.34**	a) The Applicant has provided a response which aids in the understanding of where consequence classifications were on a

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
	Management Organisation, Port of London Authority / Estuary Services Ltd, London Pilots Council, Port of Tilbury London Ltd, London Gateway Port Ltd, Port of Sheerness Ltd, Maritime and Coastguard Agency, Trinity House Lighthouse Service and any other IPs / OPs with an interest in these matters	In para 31 of D6 Appendix 22 Annex C the Applicant states: "[w]ith regards to the consequence assessment, then it is not possible to identify whether any consequence scores are close to a category threshold as theses [*sic*] scores are generated based on discussions with IPS at the hazard work shop, based on a review of available data." a) Would the Applicant please help the ExA to understand why it is not possible for the Applicant's expert to identify examples in the top 4 NRAA hazard scores where the consequence assessments are close to the threshold between categories (e.g C2 to C3) and in addition please provide clarification of where the consequence scores for the Hazards 5-14 (scored by the Applicant's expert) lie close to that threshold C2 to C3.	threshold. The response provides some context in understanding the basis for the consequence scores, including the process by which they were developed with IPs, where threshold scores were discussed, and the final consensus reached. The approach to hazards 1 – 4 was based on the group input and decision at the hazard workshop with participants contributing to and agreeing most likely consequence scores from their experience (within the study area or wider careers). The worst credible consequence was informed by participants together with incident investigation reports which provide indication of consequence magnitude for comparable vessels. The eventual output was a consensus in terms of the consequence scores. Given the consensus (as set out in agreed meeting minutes) the ExA can have confidence in the findings. Specifically, with regards the hazards for which consequence scores were on a threshold, the Applicant can confirm that of Hazards 1-4 each of the consequence scores were subject to scrutiny as to whether a given category was more or less appropriate. In this context each of them can be considered to the at a threshold of categorisation, generally with a precautionary approach agreed with the IPs. Following the consensus reached at the workshop, and the outputs and principles defined at the workshop were applied to Hazard scores 5-14. Subsequent to the workshop, IP's (POTLL and DPWLG) identified that they considered the category applied to

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		b) If close to category threshold assessments cannot be made, what implications (if any) does this have for the sensitivity and confidence level that might be ascribed to categorisations.	certain stakeholder consequence scores (for hazards 1-4) remained at a level that was considered too low. The Applicant responded by increasing the scores through sensitivity testing in the NRA A issued at Deadline 4B (Para 153 of REP4B-002) which were taken forwards in the NRA A issued at Deadline 5 (REP5-039). Again, this reflects the iterative process by which scores and consequence classifications were made, which can be considered to account for Hazard ID's 1-3 and the threshold between C1 and C2. The Applicant does not consider these scores to now be at a threshold between C2 and C3. No further requests were received with regards Hazard 4. The Applicant has not received requests from other IPs to consider increasing consequence scores in the interim period between the workshop and Deadline 6. With regards Hazards 5-14 the Applicant can confirm that whilst all hazard scores were scrutinised, those scores relating to commercial fishing vessels, and the likelihood/consequence categories applied were the subject of notable discussion and scrutiny by the mariners as part of the QA/QC process of the hazard logs. The Hazards were considered to be on a threshold whereby the categories applied were actually considered to be potentially too precautionary (but nonetheless were kept in order to present a worst case). In this instance the

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
			scores were subject to expert judgement, combined with the perceived sensitivity identified by IPs during the workshop, and a judgement made to retain the consequence scores in the upper category rather than lowering the category in line with the mariner input. These provide examples of sensitivity around the elevation of consequence category thresholds for hazards which the Applicant felt had reached agreement at the workshop, but were subject to further judgement regarding which side of a threshold the consequence classification should reside. In general terms where a score has been considered to be at a threshold, the final determination has been to elevate rather than reduce the final input. To illustrate this with examples, specific reference is made to Hazard ID No 1 & 2 and 7 & 8 between Table 19 of REP4B-002 and Table 20 of REP5-039 that shows the outcome of where consequence categories were increased. In addition to the approach to defining consequence categories in consultation with IPs, benchmarking was undertaken with the PLA risk assessment by the Applicant in line (as reported in Section 4 of REP5-039) to ensure that similar hazards were afforded consistent scores.

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
			b) With regards the confidence that might be ascribed to the consequence scores the Applicant considers that the iterative and stakeholder lead approach to defining the consequence assessments to give a high level of confidence.
4.12.4.	The Applicant, Port of London Authority / Estuary Services Ltd, London Pilots Council, Maritime and Coastguard Agency, Trinity House Lighthouse Service	Possible commercial agreement with Pilot Services In D6 Appendix 22 item 3.12.7 the Applicant states in relation to pilot services effects: "[s]hould appropriate relocation incur additional cost the Applicant would be willing to arrange a commercial agreement or other security to the extent that it covers the additional steaming time. Whilst the Applicant has not been able to discuss such an arrangement with the IPs, it would be reasonable to assume an evidence-based displacement payment would be most suitable, taking into account the historic use of the diamond through pilot records to set appropriate benchmarks and agreeing a per-	The Applicant is happy to include a condition within the dML providing for a condition that secures a mitigation agreement detailing the steps to define the displacement according to the final layout and design of the project. This would result in a comparable arrangement to that undertaken with the commercial fishing interests whereby an evidence based approach to usage of the area is considered in determining appropriate displacement payments. The degree to which any relocation of pilotage diamond would be necessary is based on the distance from the project features of relevance (foundations) rather than the RLB and as such a mitigation plan to be agreed on the basis of the final design is considered the most appropriate mechanism by which to secure this agreement. The principles secured will include the distances from infrastructure that should be applied and proposed calculations for compensation and the Applicant will provide drafting at Deadline 7, having reviewed IP submissions at Deadline 6a. The Applicant notes similar conditions are included in other DCOs to secure unknown mitigation schemes, to be approved by the Secretary of State following the grant of consent. For example, requirement 20 of the Triton Knoll Offshore Wind Farm Order 2013 in relation to mitigation for aggregate dredging activity and requirements 13 and 34 of the draft

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
		transfer cost for transfers to a relocated diamond that were demonstrated through data provided by the IPs. This could be secured through a condition requiring approval from the SoS for the approach to determining the displacement payment and the quantum." This matter is not currently secured, either through the DCO or another means. To the extent that appropriate relocation might become a necessary precondition of the construction and/or operation and/or decommissioning of the TEOWF, should this be secured and if so, how?	Norfolk Vanguard Offshore Wind Farm Order in relation to surveillance operations and radar.
4.12.5.	Marine Management Organisation, The Applicant, Port of London	**Ports, Shipping and Navigation Policy Context: UK Marine Policy Statement**	The Applicant set out its view on the relevance of the UK Marine Policy Statement (MPS) in Appendix 5 at Deadline 4 (REP4-007) agreeing that it is an appropriate marine document and should be taken into account in the determination of the application. This response to Deadline 4 identified relevant parts of the MPS that may be applicable.

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
	Authority / Estuary Services Ltd, London Pilots Council, Port of Tilbury London Ltd, London Gateway Port Ltd, Port of Sheerness Ltd, Maritime and Coastguard Agency, Trinity House	Please identify any policy from the UK Marine Policy Statement[2] that you consider to be relevant to a decision by the SoS on the application. The Applicant is asked to respond to identified policies at Deadline 8.	The Applicant will respond to policies identified by IPs at Deadline 8 as requested.

[2] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69322/pb3654-marine-policy-statement-110316.pdf

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
	Lighthouse Service		
4.12.6.	Marine Management Organisation, The Applicant,	**Ports, Shipping and Navigation Policy Context: South East Inshore Marine Plan** The ExA note that a consultation draft South East Inshore Marine Plan was originally programmed for release by April 2019[3]. If a draft plan will be published before the end of the Examination, the MMO is requested to alert the ExA and the Applicant to it and to submit it to the Examination.	The Applicant notes that this question is for the MMO and will respond as appropriate in due course.
4.12.7.	The Applicant, Port of London Authority /	**Responses to Applicant's new evidence and concluding remarks at D6**	a) The Applicant has submitted supplementary information and evidence at D6 which provides further context and independent support for the analysis carried out in the NRA and NRAA and does not alter the findings of those assessments. b) Not for Applicant

[3] https://www.gov.uk/government/publications/statement-of-public-participation-north-east-north-west-south-east-and-south-west/south-east-marine-plan-proposed-engagement-timetable

PINS Question number:	Question is addressed to:	Question:	Applicant's Response:
	Estuary Services Ltd, London Pilots Council, Port of Tilbury London Ltd, London Gateway Port Ltd, Port of Sheerness Ltd, Maritime and Coastguard Agency, Trinity House Lighthouse Service	The Applicant has submitted a new body of evidence relevant to shipping and navigation at Deadline 6. Please review this evidence and provide all concluding remarks in relation to it at Deadline 7. The Applicant may make closing submissions on responses to this question at Deadline 8. In responding to this request and without excluding a general capacity to comment on other matters, IPs and OPs are asked to provide observations on whether the following have addressed previously expressed concerns: a) Appendix 22 responds to ExA questions on hazard scoring by HAZMAN2 software, provides additional information on expert credentials and Marico QA/QM procedures. b) Appendix 26 Annex C provides Applicant analysis of commercial	c) Not for Applicant d) Not for Applicant e) The Applicant has prepared a table, at Annex A to this Deadline 6A submission, providing comparison details between the CRM modelling undertaken for the Applicant by Marico Marine and Anatec, together with commentary on the differences and implications. One of the key differences is in the way that corrections for human intervention are handled. Marico Marine apply this a correction factor based on comparison between baseline and modelled data in the wider study area to the results of the CRM, whereas Anatec consider the likelihood of an encounter becoming a collision (based upon a national statistical data set) and therefore human factors (for example) influencing the outcome of an encounter are inherent and are applied to the CRM itself. f) In summary whilst the approaches differ, both models are robust tools from experienced and respected providers that have been used and accepted on a wide variety of approved projects. The conclusions from both, (particularly the CRM submitted at Deadline 6 which took the SEZ into account) is that the project will not lead to a substantial increase in collisions and as such these models can be viewed as corroborating the qualitative outcomes from the NRA A.

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		impact to pilot services. It is not evident that IPs / OPs have been consulted. c) Appendix 38 sets out the specification and potential providers for a Simulation Study. d) Appendix 41 provides new animations of selected vessel tracks with commentary by the Applicant's experts. e) Appendix 42 provides new Collision Risk Modelling (CRM) post SEZ by a new consultancy. How does this compare with the Collision Risk Modelling within the Application produced by Marico? In this last respect, the Applicant is asked to provide a tabulated comparison between the Marico CRM and the new CRM.	

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