

Norfolk Boreas Offshore Wind Farm Applicant's Response to the Request for further information

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Glossary of Acronyms

AEol	Adverse Effect on Integrity
AOE	Alde Ore Estuary
DAS	Design and Access Statement
DCO	Development Consent Order
dDCO	Draft Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
FFC	Flamborough and Filey Coast
FID	Final Investment Decision
HHW	Haisborough, Hammond and Winterton
HRA	Habitats Regulations Assessment
JNCC	Joint Nature Conservation Committee
MHWS	Mean High Water Springs
MMO	Marine Management Organisation
NE	Natural England
NBL	Norfolk Boreas Limited
NVL	Norfolk Vanguard Limited
PEIR	Preliminary Environmental Information Report
OFTO	Offshore Transmission Owner
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
OPS	Onshore Project Substation
SAC	Special Area of Conservation
SoS	Secretary of State
SPA	Special Protection Area
VWPL	Vattenfall Wind Power Limited

1 The Applicant's Response to the Request for Information in regard to the Norfolk Boreas Application.

1. Following the completion of the Examination on 12 October 2020, the Examining Authority submitted a Report and Recommendation in respect of its findings and conclusions on the above application to the Secretary of State on 12 January 2021. Following this, a decision was due on 12 April 2021. However, on 12 April 2021 the Secretary of State confirmed that a new deadline for the decision would be set. On 28 April 2021 a request for further information was published, and responses to that request were sought by 28 May 2021. On 18 May 2021, in response to a request from Natural England, the Secretary of State extended the period for providing responses to 25 June 2021.
2. The Secretary of State's request of 28 April 2021 noted that a separate consultation would be undertaken to consider the implications in respect of the re-determination of the Norfolk Vanguard decision. The Applicant responded separately to that consultation on 20 May 2021.
3. During the Norfolk Boreas examination, the Applicant made a number of submissions to evidence the Applicant's position that the project does not give rise to an AEoI in respect of any European site. Notwithstanding the highly precautionary approach taken by Natural England, the Applicant has designed and further refined the Project to commit to significant levels of mitigation in order to avoid AEoI. The natura 2000 sites given the greatest examination time were the Haisborough, Hammond and Winterton (HHW) Special Area of Conservation (SAC), the Alde Ore Estuary (AOE) Special Protection Area (SPA) and the Flamborough and Filey Coast SPA. For all three designated sites that Applicant is of the firm position that it has mitigated all possible effects and therefore AEoI can be ruled out.
4. With respect to the HHW SAC the Applicant committed to an extensive suite of additional mitigation measures, during the Norfolk Boreas examination (see REP14-031 and REP14-033 for detail) which resulted in a reduction of effects from "permanent" to "long term temporary" and resulted in a reduction of scale from 0.052km² to a worst case maximum area 0.02km² which is 0.0014% of the HHW SAC.
5. With respect to ornithological mitigation, the design revisions have resulted in considerable reductions in the predicted ornithological impacts of the Project. The wind farm design submitted in the original application comprised 180, 10MW turbines with a draught height (gap from the sea surface to the lower rotor tip of 22m). In response to requests from Natural England, the RSPB and the Examining Authority, the Applicant undertook a detailed review of the turbine and construction

vessel market to explore realistic options for reducing the Project's impact footprint. This resulted in a commitment to reduce the number of turbines to a maximum of 158 (for an 11.55MW model) or 124 (for a 14.7MW model) and increases in draught height to 30m for turbines of 14.7MW (or higher capacity) and 35m for turbines with generating capacities below 14.7MW. These variable limits reflected the availability of construction vessels capable of installing turbines of this size. The consequent reduction in worst case collision risks obtained with these changes was 72% for kittiwake (and between 63% and 74% for other species; [REP7-029]). The number of kittiwake collisions apportioned to the Flamborough and Filey Coast SPA, derived using Natural England's preferred methods, was thereby reduced from 50 to 14, which is less than 4% of the total predicted mortality of birds from the SPA, and 1/5th the equivalent mortality predicted for the Hornsea Project Three wind farm (the only project for which kittiwake compensation has been required).

6. A very similar collision reduction was obtained for lesser black-backed gulls from the Alde-Ore Estuary SPA, with the collision prediction (using Natural England's preferred methods) reducing from 6 to 2.1.
7. While these turbine design changes have reduced collision risks, the way displacement is assessed (based on the lease area footprint) means there have not been any equivalent updates to the assessed impacts. However, rather than this meaning that these impacts would be unaffected by the design changes, this is considered to be a limitation of the methods used which do not incorporate changes such as turbine spacing (which increases with larger turbines in order to accommodate extended wake effects). This aspect notwithstanding, the predicted displacement impact of the Project on the guillemot and razorbill features of the Flamborough and Filey Coast SPA are very small. Even when the most precautionary combinations of parameters are used (70% displacement and 10% mortality, which Natural England has indicated they do not consider are likely to apply to the Project) the guillemot mortality from the SPA was only 42 individuals and for razorbill was only 3 individuals. Indeed, when evidence about realistic displacement mortality rates for these species is considered, the 10% mortality value reduces to no more than 2-3% (note that while Natural England's assessment in [REP4-040] equates to this, Natural England has stressed to the Applicant that this does not represent their advice on this topic in all cases). Under these lower mortality rates the guillemot impact reduces to 13 individuals and the razorbill impact reduces to 1 individual.
8. Therefore the Applicant considers it is clear that any remaining impacts of the Project are extremely small and can be regarded as de minimis. Nonetheless, during the Examination and subsequently the Applicant has undertaken a considerable amount of work to develop in-principle compensation proposals for the Project's predicted impacts. These have been provided without prejudice to the Applicant's

position, detailed in submissions made throughout the Examination, that the wind farm will not give rise to Adverse Effects on the Integrity of any European site, either alone or in-combination with other plans and projects.

9. More recently, stakeholders such as Natural England (NE) and the Marine Management Organisation (MMO) have questioned the operation of the de minimis rule in the context of any lasting or irreparable loss of habitat whose conservation is the objective justifying the designation of a site as an SCI/SAC.
10. The MMO, for example, in a position paper setting out its approach to the question of whether a project gives rise to an adverse effect on integrity, have stated:

"The MMO's view is that the uncompromising language of the Court of Justice of the European Union (CJEU) in its judgements, and particularly in Sweetman requires the MMO to conclude that the lasting and irreparable loss of the whole or part of a national habitat type whose conservation was the objective that justified the designation of the site as an SCI/SAC is an adverse effect on the integrity of the site. As such any project or plans which fall into this category can only be consented or licensed where the "imperative reasons of overriding public interest" (IROPI) process is followed and satisfied. The fact that new areas of habitat may be created elsewhere in the same site, even in circumstances where the creation of the new habitat will deliver a net beneficial effect, is immaterial. Given there is a loss of existing habitat, the plan or project has to be considered as having an adverse effect on the site.

In our view, as the case law currently stands and in light of the uncompromising language used in the judgements of the CJEU, there is no scope for the MMO to apply any form of de minimis rule for projects involving any lasting and irreparable loss of habitat whose conservation was the object that justified the designation of the site, even where the amount of habitat to be lost is to be very small."

11. Stakeholders have advocated a strict approach to Article 6(3) of the Habitats Directive as to what amounts to an adverse effect on integrity, such that a project fails the Appropriate Assessment, and falls to be considered under Article 6(4) as a derogation, however small the long-term/permanent loss (often comprising less than 1% of the entire area of habitat) and whether or not that loss relates to priority natural habitat as defined by the Habitats Directive.
12. In the Applicant's view it is clear that there is a concept of de minimis impact under Article 6(3) of the Habitats Directive and hence it is not correct to suggest that any long-term or permanent adverse impact on a European Site must automatically be treated as an "adverse effect on integrity" under Article 6(3). This is because, firstly, that view is not supported by Sweetman (No.1), and secondly because the possibility

of de minimis adverse impacts in relation to the Habitats Directive is already recognised domestically in guidance and in case law and decisions.

1.1 Sweetman (No.1)

13. The opinion of Advocate-General Sharpston in *Sweetman v An Bord Pleanala* EU:C:2013:220 (*Sweetman (No.1)*) in fact supports the existence of a de minimis concept. At AG48 it states:

"The requirement that the effect in question be "significant" exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."

14. Although the opinion is here referring to the "screening" stage of Article 6(3) it is clear that a concept of "de minimis" effects is also applicable at the Appropriate Assessment stage.
15. Nor did the CJEU in that case support the strict approach apparently advocated by the Advocate General: it was not necessary for the CJEU to go that far, given that what was being lost in that case (limestone pavement) was priority habitat. There can be no justification for taking the view that any loss of habitat or negative effect on those elements which support the designation of a site, no matter how small the loss or effect, must be regarded as giving rise to an adverse effect on integrity.

1.2 Guidance

16. Reference is made to the possibility of de minimis adverse impacts in English Nature's Habitats Guidance Note 3¹

"Proposals having no, or de minimis, effects can be progressed without further consideration under the Habitats Regulations."

17. De minimis impacts are also discussed in Natural England's Report NECR205²

"No two cases are the same. As already set out in section A.11 of this Report, the circumstances of each case must be taken into account in interpreting the decision. Moreover, it is not appropriate to apply the findings of one court decision as if it was a blanket rule to be applied regardless of the circumstances in every case. Thus, for example, it cannot be assumed that, on the basis of the Sweetman ruling alone (case C – 258/11), any loss of habitat, no matter how small, whether it be priority habitat

¹ Habitats Regulations Guidance Note 3 – the determination of likely significant effects under the Conservation (Natural Habitats etc) Regulations 1994

² Small scale effects: how the scale of effects has been considered in respect of plans and projects affecting European sites – a review of authoritative decisions (29 February 2016).

or not, should be regarded as an adverse effect on site integrity, simply because in the circumstances of the Sweetman case, the loss of 1.47ha of the 270ha of limestone pavement in the SAC was ruled to be an adverse effect on the integrity of the SAC."

1.3 Case law

18. In domestic case law the existence of a de minimis concept was recognised in the context of the Habitats Directive in R (Morge) v Hampshire County Council [2010] PTSR1882, where the Court of Appeal, in considering the meaning of "disturbance" in Article 12 of the Habitats Directive stated (Ward LJ):

"Activity will not amount in law to disturbance at all if it is de minimis i.e. too negligible for the law to be concerned by it. Mr George QC, for the Claimant, submits that any activity above that minimal level is disturbance. I do not accept that submission... The disturbance does not have to be significant but, as para 38 of the Guidance explains, there must be some room for manoeuvre which suggests that the threshold is somewhere between de minimis and significant. It must be certain, that is to say, identifiable. It must be real, not fanciful. Something above a discernible disturbance, not necessarily a significant one, is required. Given that there is a spectrum of activity, the decision maker must exercise his or her judgement consistently with the aim to be achieved. Given the broad policy objection which I explored in para 27 above, disturbing one bat, or even two or three, may or may not amount to disturbance of the species in the long-term. It is a matter of fact and degree in each case."

19. In Wealden DC v Secretary of State for Communities and Local Government [2017] ENV.L.R.31 Jay J cited the Advocate General's opinion in Sweetman (No.1) in relation to de minimis impacts ([50]) and said that [53]:

"Competent authorities are quite entitled to use threshold levels and values in order to eliminate from further consideration de minimis environmental impacts which, on scientific evidence, fall short of engendering any relevant risk. However this is another point which will require development, de minimis is not a synonym for nugatory."

20. At [93] the Judge referred to such effects that could not be regarded as "*de minimis, or neutral, or be removed from scope*".

1.4 Secretary of State decisions

21. A number of decisions by the Secretary of State under the Planning Act 2008 support the de minimis concept. There are also a number of other decisions of relevance which are set out in the Small scale effects report (see above).

22. East Anglia THREE Offshore Wind Farm (7 August 2017) - in the Secretary of State's Appropriate Assessment findings in relation to the FFC pSPA he noted that the worst case in-combination estimate for impacts on gannet and kittiwake was just above that deemed acceptable for the Hornsea Two Offshore Wind Farm:

"a project for which a conclusion of no adverse effect on site integrity was reached. In view of the Development's revised contribution to the in-combination total, NE advised that "while [it is] not de minimis, [it] is so small as to not materially alter the significance or the likelihood of an adverse effect on the integrity of the SPA" (see the Secretary of State's decision at [4.12], and see the Examining Authority Report at [6.7.91], [6.7.94] and [6.7.109]).
23. This decision would suggest that both NE and the Secretary of State recognise the existence of a de minimis concept and, further, that impacts can even be judged to be above that de minimis level and still properly characterised as not giving rise to an adverse effect on integrity.
24. Rampion Offshore Wind Farm (16 July 2014) – the Examining Authority Report records NE's rejection of the level of collision risk as being de minimis *"ie too small to be concerned with"* ([4.2227]). This also suggests that NE do accept there to be a de minimis concept in this area.
25. Thanet Extension Offshore Wind Farm (1 June 2020) – the Secretary of State accepted the view of NE that a collision risk and barrier effects to relevant species:

"is beneath any threshold of significance and de minimis and such that there is no AEoI [adverse effect on integrity]"
26. This again suggests that NE and the Secretary of State accept the existence of a de minimis concept and that it can apply at the appropriate assessment stage.
27. Norfolk Vanguard Offshore Wind Farm (1 July 2020) – the Secretary of State's decision (which although since quashed, was not quashed on HRA grounds) states with regard to the HHW SAC (5.8):

"Having reviewed all the representations received during and after Examination, the Secretary of State agrees with a conclusion of no AEoI as the Applicant has demonstrated that the area of site affected will be relatively small (in the case of reef, kept to a minimum through micrositing), any affected features are able to recover, and all cable protection will be removed at the time of decommissioning."
28. This further supports that the Secretary of State accepts the existence of a de minimis concept in that the size of the area affected is a factor to be taken into account in the HRA process.

29. In relation to AEoI on the AOE SPA arising from in-combination impacts, the Habitats Regulations Assessment (HRA) which accompanied the Norfolk Vanguard decision concludes:

"Having considered the information presented following closure of Examination, the Secretary of State does not agree that the Project in-combination will have an adverse effect on the lesser black-backed gull feature of the Alde-Ore Estuary SPA. Using NE's preferred collision risk modelling approach, the Secretary of State has concluded that the potential loss of a relatively very small number of birds through collision does not contribute in a significant way to the total number of birds predicted to be impacted in-combination. Although, the site has a 'restore' objective the potential loss of an additional three birds per year as part of an in-combination total will have a de minimus effect on that objective. The Secretary of State has therefore concluded that collision risk to lesser-black-backed gull from the proposed Development alone and in-combination would not represent an AEoI."

30. Similarly, in relation to AEoI on the kittiwake feature of the FFC SPA, the HRA concludes:

"The Secretary of State has considered the information presented by the Applicant during and post- Examination, along with the advice from NE and the views expressed by the RSPB and the recommendations of the ExA. He recognises the precautionary nature of the NE approach to CRM upon which this assessment is based. He is also aware of the potential for lower numbers of predicted collisions than previously calculated based on built scenarios as opposed to the assessed or consented scenarios (the 'head room'). He considers the potential loss of no more than 21 kittiwakes per year is de minimus in that it will not have any material effect to predicted total of in-combination impacts nor alter the significance or the likelihood of an adverse effect on the integrity of the SPA.

On the basis of the above, the Secretary of State has concluded that the project will not have an adverse in-combination effect on the integrity of the kittiwake feature of the Flamborough and Filey Coast SPA."

31. The approach taken by the Secretary of State in the Norfolk Vanguard decision to concluding no AEoI in-combination due to a contribution that was de minimis or not discernible, follows the approach taken on East Anglia Three where, as stated above, Natural England also advised that the contribution to the in-combination impact would not materially alter the significance or the likelihood of an AEoI.

32. It is recognised that the Secretary of State has since concluded an in-combination AEoI for the kittiwake feature of the FFC SPA in respect of the Hornsea Project Three Offshore Wind Farm, however, compensation has also been secured for that impact such that it is reasonable for the Secretary of State to exercise discretion to discount Hornsea Project Three's contribution from future in-combination assessments. Whilst it is also recognised that Natural England's advice has changed since East Anglia Three, and Natural England now advise that there is an in-combination AEoI of the FFC SPA (and that this has existed since the determination of Hornsea Project Two), the Applicant has made numerous evidence based submissions during the course of the examination as to why this is not the case.
33. Overall therefore, there can be little doubt that there is a concept of de minimis impact which applies in relation to HRA, and which can be applied in both the screening and appropriate assessment stages of the HRA process. The Applicant is firmly of the view that no AEoI of any European site arises as a result of the Project, and that the Secretary of State is entitled to accept the Applicant's position in this respect.
34. Notwithstanding this, the Applicant has responded to each of the relevant questions raised by the Secretary of State, detailed in numerical order in Sections 2 to 5 of this document.

2 Additional Environmental Information

Reference	Topic	Question:	Applicant's Response:
4.	Alde-Ore Estuary SPA	<p>In relation to the in-combination impacts on the lesser black-backed gull feature of the Alde-Ore Special Protection Area (SPA), and in addition to the In Principle Compensation Package submitted as part of the application, the Applicant is requested to provide the following information in consultation with Natural England:</p> <ul style="list-style-type: none"> • Details of any strategic compensation options considered; • Evidence of how any proposed compensation site(s) will be acquired/leased; • An implementation timetable for when the compensation measures will be delivered and achieve their objectives in relation to the first operation of the wind farm. 	<p>The Applicant has provided a full response, with the additional requested material, in the In Principle Habitats Regulations Derogation Provision of Evidence Appendix 2 Alde-Ore Estuary SPA In Principle Compensation (document reference 8.24). Further details of the proposed compensation have been provided, including an update on strategic compensation options and landowner negotiations. There may be opportunities to deliver this compensation in collaboration with other wind farm developers and this has been allowed for in the plans. An implementation timetable has been provided which sets out the planned sequence of compensation and how this relates to wind farm construction and operation. Estimated costs and details on funding have also been included.</p> <p>However, the Applicant remains firmly of the view that the Project does not give rise to AEoI on the AOE SPA. The basis for this conclusion, as set out above and in the Applicant's submissions during the Examination, is that the predicted collision risk for lesser black-backed gull is very small (2 individuals) and even this figure contains considerable over-precaution in the modelling parameter values and assumptions in the assessment (see document reference REP2-035). Hence, there is a very high probability that the impact will be even smaller than the assessed estimate, and this will clearly not be discernible and will be insufficient to give rise to AEoI. In fact, the SoS determined that there was no AEoI for the Galloper offshore wind farm even though its collision risk estimates were much higher than they are for Norfolk Boreas, being 119 for the Galloper project alone, and an in-combination risk for Galloper of 270-357 (for Norfolk Boreas it is 2.1 for project alone and 54 in-combination).</p>
5.	Flamborough and Filey Coast SPA	<p>In relation to in-combination impacts on the kittiwake, razorbill, gannet, and guillemot features of the Flamborough and Filey Coast SPA, the Applicant in collaboration with Natural England is requested to provide updated in-combination assessments for collision and/or displacement effects, with and</p>	<p>The Applicant has provided a full response, with the additional requested material, in the In Principle Habitats Regulations Derogation Provision of Evidence Appendix 1 Flamborough and Filey Coast SPA In Principle Compensation (document reference 8.26). This is summarised below.</p> <p>Updated tables of the cumulative and in-combination collision estimates for gannet and kittiwake, and of population abundance (as used to estimate displacement risk) for gannet, guillemot and razorbill have been provided. As advised by Natural</p>

Reference	Topic	Question:	Applicant's Response:
		<p>without Hornsea Project Four Offshore Wind Farm, using:</p> <ul style="list-style-type: none"> Natural England's advised assessment parameters; and The latest project parameters and baseline ornithology survey data for Hornsea Project Three Offshore Wind Farm. 	<p>England, these also now include the Dudgeon Extension and Sheringham Extension projects which have recently submitted preliminary environmental impact reports (PEIR). The recently provided figures for the final Hornsea Project Three wind farm have also been included.</p> <p>Totals are presented with and without the PEIR wind farms (i.e. including and excluding the preliminary figures for Hornsea Project Four, Dudgeon Extension and Sheringham Extension). Natural England has reviewed these tables and agreed with the estimates used.</p>
6.	Flamborough and Filey Coast SPA	<p>The Applicant is also requested to provide details of the following:</p> <ul style="list-style-type: none"> Any modifications to the Norfolk Boreas project, that were not included at the time of the application or during the Examination, which could avoid or reduce adverse effects on the integrity of the site for the kittiwake, razorbill, and guillemot features; and Compensation strategies for kittiwake, razorbill, and guillemot, produced in consultation with Natural England, other interested parties and, if an action is required on its part, Defra. The strategies should include, but not be limited to, the following information: <ul style="list-style-type: none"> a) A description of the compensatory strategies proposed, accompanied by an explanation of how they will effectively compensate for the negative effects of the Norfolk Boreas project on 	<p>The Applicant has provided a full response, with the additional requested material, in the In Principle Habitats Regulations Derogation Provision of Evidence Appendix 1 Flamborough and Filey Coast SPA In Principle Compensation (document reference 8.26).</p> <p>The Applicant has been undertaking work to further develop the project design, however this has not affected the worst case collision impacts as defined at the close of the Examination, therefore the project alone impacts remain as set out in the final assessments.</p> <p>However, it should be noted that during the Project's Examination considerable reductions in impacts had already been achieved through the removal of the smallest turbine options from the design envelope and an increase in draught height (the minimum distance between the lower rotor tip height and the sea surface) to 30m above Mean High Water Springs (MHWS) for turbines rated at 14.7MW or higher and 35m for turbines with a lower capacity. Combined, these changes reduced the Project's collision risks by up to 74% compared with the design submitted in the Environmental Statement. On top of this, offshore ornithology impact assessments contain several sources of precaution, which operate additively to give rise to significant over-precaution in the final estimates. in the modelling this includes use of either upper values (from parameters with ranges) or precautionary estimates for several modelling parameters (e.g. nocturnal activity, flight speed, avoidance rate). Within the in-combination assessments, as well as the above precaution being compounded across projects, there is a reluctance to accept built wind farm designs</p>

Reference	Topic	Question:	Applicant's Response:
		<p>the species, and how they will ensure that the overall coherence of the National Site Network is protected.</p> <p>b) Confirmation of the selected site(s) for compensation strategies and details of how the site(s) will be acquired/leased. For kittiwake, this would include viable options for offshore artificial nest site creation.</p> <p>c) An implementation timetable for when the compensation measures will be delivered and achieve their objectives in relation to the first operation of the wind farm</p> <p>d) Details of any proposed routine maintenance and species population monitoring during the project lifetime, together with the funding mechanisms for their delivery</p>	<p>(and the associated impact levels) as appropriate to replace the consented project impact levels, even when there is a robust case that no further development can occur. In many cases the wind farm impacts have reduced considerably (e.g. by 50% see e.g.[REP6-021] on headroom). Thus, not only are the current Project's impacts over-estimated, the same is the case for other wind farms in the in-combination assessment, and the latter typically do not even reflect the reduced impacts for operational wind farms.</p> <p>Overall, in light of the significant reductions in impact achieved through additional mitigation for the Project and the wider levels of over-precaution inherent in offshore ornithological impact assessment, the Applicant remains firmly of the view that the Project does not give to any AEoI at the FFC SPA.</p> <p>Notwithstanding this, since the close of the examination, the compensation strategy for kittiwake has been further developed by the Applicant in discussion with Natural England and the Port of Lowestoft. This will provide an artificial structure suitable for kittiwake breeding to be located within the port area. Detailed designs have been developed for two alternative designs (a wall and a tower) to provide flexibility on location. The structures are modular, with an initial breeding capacity of 300 pairs but the option to expand this if necessary. This number has been estimated using evidence on the performance of kittiwake breeding at other artificial sites and allowing for a large degree of over-compensation as advised by Natural England.</p> <p>An implementation timetable has been provided which would allow two cohorts of fledged birds to reach breeding age before the wind farm becomes operational. However, modelling of the time taken for the compensation to achieve 'pay-back' of accrued mortality has demonstrated that in the event that the compensation is delayed, over-compensation will still be rapidly achieved. Additional information has been provided detailing the proposed monitoring (including design features to enhance access to the birds), management of the structure and the projected costs and funding mechanisms.</p> <p>The Applicant has also progressed plans to deliver this compensation in collaboration with ScottishPower Renewables, such that, if both developers are required to provide</p>

Reference	Topic	Question:	Applicant's Response:
			<p>compensation for kittiwake mortality, a joint structure capable of compensating for both developer's current wind farm plans will be constructed.</p> <p>Predicted displacement mortality of guillemot and razorbill from FFC SPA is estimated to be very small (13-42 guillemots and 1-3 razorbills from Flamborough and Filey Coast SPA), even when applying precautionary assumptions as advised by Natural England. Therefore, as above, the Applicant does not consider there to be any requirement to provide compensation as these will not give rise to AEoI of the FFC SPA. Nevertheless, as requested, compensation proposals for guillemot and razorbill have been developed and presented in the submitted materials. These have been presented for each species separately, however there are close parallels for these species and therefore they have been combined in the summary below.</p> <p>Consideration has been given to the potential options available for compensating impacts on the FFC SPA populations of these species. These include fishery management measures to improve stock levels, reducing by-catch in fishing gear and eradicating rats at island breeding colonies. Following a review of the evidence for each of these options, with respect to fishery management, this is subject to the same limitations identified for kittiwake compensation, namely that it is not a measure which can be delivered by the Applicant but rather requires a strategic approach (as with kittiwake, the Applicant is willing to contribute to such a strategic approach if this is feasible). While by-catch of auks from the FFC SPA was a source of mortality in past years, measures taken to reduce this have been successful and therefore there is currently no scope for further changes to offset even the very small magnitude of effect predicted for the project. Therefore it is concluded that for both species rat eradication is the option most likely to deliver the required levels of compensation (although it would almost certainly actually deliver considerable over-compensation). Rat predation is not a concern at FFC SPA itself, therefore this measure would only be deliverable at another site.</p> <p>Following a rat eradication programme it would be expected that the guillemot and razorbill breeding populations at the target site would increase (due to expansion of the breeding birds into areas previously rendered unattractive or unsuitable because of the presence of rats) and improved productivity in areas accessible by rats (due to</p>

Reference	Topic	Question:	Applicant's Response:
			<p>the reduction in egg and chick predation). Compensation for the FFC SPA populations would be through the resulting increase in the wider auk populations and therefore an increase in the availability of birds to recruit into the SPA population.</p> <p>The steps to achieve a successful rat eradication have been set out in an implementation timetable. Details are also provided of the proposed monitoring (of the seabirds and also to ensure success of the eradication itself), any ongoing management (e.g. measures to reduce the risk of reinvasion) and the projected costs and funding mechanisms.</p> <p>There may be opportunities to deliver this compensation in collaboration with other wind farm developers and this has been allowed for in the plans.</p> <p>In summary, whilst the Applicant has provided additional compensation details as requested by the SoS, the Applicant remains firmly of the view that the Project does not give rise to AEoI on the FFC SPA.</p>
7.	Haisborough, Hammond and Winterton SAC	The Applicant is requested to consider the letter published by Defra (February 2021), and provide details of alternative compensation strategies for the reef and sandbank features of the Haisborough, Hammond and Winterton Special Area of Conservation (SAC), which are produced in consultation with Natural England, other interested parties and, if an action is required on its part, Defra. The agreed compensation strategies should ensure that the overall coherence of the National Site Network is protected.	<p>The Applicant notes that Defra <i>“welcome the significant use of mitigation measures by the Applicant to avoid adverse effect where possible and in particular the restricted use of cable protection around reef areas in the site.”</i> Natural England has also advised that the Applicant has taken all possible steps to mitigate any effects and that the considerable measures taken have <i>“significantly reduced the risk of an adverse effect on integrity”</i> [REP16-010]. This strongly supports the Applicant's position that there is no AEoI on the HHW SAC as a result of the project, and that compensation is not required.</p> <p>The Applicant has provided, within its Information to Support HRA report [APP-201] and supplementary submissions [REP5-057, REP6-016, REP10-043, REP14-031 and REP14-033], a robust assessment of effects of cable protection on the HHW SAC and has concluded that these activities will not hinder the conservation objectives of the HHW SAC site. The maximum worst case area that could be impacted would be 0.0014% of the HHW SAC which, when read in the context of the Applicant's submissions on de minimis set out above (section 1), and in accordance with Natural</p>

Reference	Topic	Question:	Applicant's Response:
			<p>England's advice on small scale impacts [REP1-057] is of such small scale as to not cause AEoI. This is in keeping with various case studies, for example:</p> <ul style="list-style-type: none"> • Walney Extension - habitat loss of intertidal mudflats and sand flats due to cable installation and rock armour. 0.41% of overall 600ha of feature was affected and the appropriate assessment concluded no AEoI. • Hinkley Point C - habitat loss of a small area of potential Sabellaria reef within the rock armour barge berthing and unloading area. This area equated to less than 0.05% of the SAC reef feature and was not considered significant. • Kentish Flats Extension - habitat loss of 0.003% of Special Protection Area (SPA). The Secretary of State (SoS) and NE agreed this loss to be negligible. <p>Furthermore, it should be noted that the SoS concluded that for Norfolk Vanguard, which would have an almost identical effect on the HHW SAC as Norfolk Boreas,</p> <p><i>“no AEoI as the Applicant has demonstrated that the area of the site affected will be relatively small (in the case of reef, kept to a minimum through micro-siting), any affected features are able to recover, and all cable protection will be removed at the time of decommissioning. The Secretary of State notes that the decommissioning of cable protection will be secured in the DCO to ensure that any effects are lasting (for the duration of the project) but temporary (repairable effect)”.</i></p> <p>And whilst considering all measures proposed by Norfolk Vanguard, which are again virtually identical to Norfolk Boreas, (noting that on some measures the Applicant has made commitments which go beyond those made by Norfolk Vanguard):</p> <p><i>“The Secretary of State considers that it provides sufficient detail on potential mitigation measures at this stage, whilst granting the Applicant a flexible approach until the extent and nature of mitigation becomes clear.”</i></p> <p>Interested parties made submissions during the Norfolk Boreas examination which resulted in comparisons with the possible effects that Hornsea Project Three would have on the North Norfolk Sandbanks and Saturn Reefs SAC which is designated for</p>

Reference	Topic	Question:	Applicant's Response:
			<p>the same features. The Applicant has highlighted in [REP17-003] the difference in scale between the two projects. Impacts associated with the Norfolk Boreas project are on a much smaller scale than Hornsea Project Three; the area of habitat loss due to cable protection is approximately 1/25th of that of Hornsea Project Three; further detail is provided in section 1.12 of [REP17-003]. It should also be noted that significant steps have been taken by Norfolk Boreas to reduce the impacts of cable protection over and above those committed to by Hornsea Project Three, such as the commitment to not use rock protection within the HHW SAC and the commitment to not place cable protection in areas that Natural England and the JNCC have identified as priority areas for <i>Sabellaria spinulosa</i> reef recovery (further detail is provided in [REP14-033]).</p> <p>However, entirely without prejudice to the Applicant's position of no AEoI, and in accordance with the Examining Authority's original request as supplemented by the more recent request of the Secretary of State, the Applicant has provided an updated version of the Haisborough, Hammond and Winterton SAC In Principle Compensation Plan (Version 2). In updating the in-principle plan, the Applicant has taken account of the position provided by Defra within their letter and has consulted extensively with Natural England, Defra, TWT, the MMO, OPRED and owners of seabed infrastructure in an attempt to reach agreement with all parties on a suitable compensation solution. Through this consultation it is clear that there is no unanimous stakeholder agreement on the preferred approach. Therefore, the Applicant has considered four possible options, with two of these being recommended by the Applicant and thus developed further.</p> <p>Following further discussions with Defra they have confirmed that an extension to the HHW SAC, whilst not their preferred option, is not one that should be completely discounted and may provide a suitable strategic compensation option in the future. Therefore this option has been taken forward as one of the preferred options presented in the in-principle plan. The second preferred option which has been developed through discussions with stakeholders is removal of anthropogenic material from the seabed. This option consists of three strands which are designed to create new habitat by removing material and preventing further damage through return of further material.</p>

Reference	Topic	Question:	Applicant's Response:
			<p>Accordingly, should compensation be required notwithstanding the Applicant's position of no AEoI, two feasible options exist, either of which could be delivered if considered appropriate by the SoS.</p> <p>Since the Norfolk Boreas examination closed, the Applicant has continued to engage with potential suppliers tendering to install the Norfolk Boreas export cables. Through this engagement, bidders have assessed the geophysical and geotechnical data provided to them by Vattenfall and are confident that full burial will be achieved, and that no cable protection will be required (apart from at crossing points) within the SAC. Statements illustrating this position are provided in Appendix 2 of this document, However, it is not possible to completely rule out the need for cable protection in the HHW SAC until export cables have been installed.</p> <p>It is therefore the Applicant's position that given:</p> <ul style="list-style-type: none"> (i) it is not possible to establish whether cable protection will be required in advance of export cable installation; (ii) it is not possible to calculate the precise amount of compensation required (if any) before export cable installation; (iii) the low likelihood that cable protection will be required in the HHW SAC; and (iv) the very small scale of temporary (albeit lasting) impacts (even in a worst case) <p>the Project gives rise to an exceptional case where it is appropriate and proportionate to require delivery of compensation <u>only</u> in the event that cable protection is installed in the HHW SAC, and therefore <u>only</u> after the installation of cable protection (if any).</p> <p>The EC guidance makes allowance for this, and does not require compensation to be delivered prior to the effect occurring in every case. To require advance delivery of compensation without knowing whether, in practice, any AEoI would in fact arise, or the precise amount of the impact for which compensation should be provided, would set an undesirable precedent for future projects.</p>

Reference	Topic	Question:	Applicant's Response:
			<p>This has been discussed with Natural England, who have suggested that the Applicant considers the option of installing the export cable and if there are locations where burial is not possible, using marker buoys and/ or guard vessels to protect it until compensation is delivered, at which point the cable protection could be installed. This is simply not possible on grounds of: health and safety and navigational risk (a surface lying cable would always have a snagging potential); export cable integrity (a surface lying cable would have significantly more chance of damage and failure either whilst exposed or partial damage which may result in failure at a later date); and the inability to transfer an unprotected asset to an Offshore Transmission Owner (OFTO).</p> <p>Accordingly, the Applicant has proposed that the two recommended options for compensation are progressed to a proportionate stage prior to export cable installation, and that a single option is only identified and developed further once it is known that cable protection, and therefore compensation (including the amount), is required.</p> <p>The Applicant has proposed a condition which requires the compensation strategy to be submitted to and approved by the SoS (in consultation with Natural England) which would detail which of the options would be progressed to deliver the final compensation package. The draft condition requires the SoS to approve this strategy before energy could be generated by the wind farm. The suggested condition to secure compensation, which has been discussed with Natural England and the MMO, is provided within the in-principle plan at section 4.6.</p> <p>The Applicant has already started to progress each of the two preferred options. For example as part of the development of one of the two preferred options (removal of Anthropogenic material) the Applicant has reached in principle agreement with owners of infrastructure to remove material from the seabed. Letters confirming this agreement are provided in Appendix 1 of this document. Furthermore, the Applicant is also close to reaching agreement with BT to cut the final out of service cable within the HHW SAC rather than cross it, therefore further reducing the need for cable protection at the crossing point. Once agreement is confirmed, this will leave a single pipeline as the only crossing point required within the HHW SAC.</p>

Reference	Topic	Question:	Applicant's Response:
			<p>It should also be remembered, that as part of the Applicant's commitment to extensive mitigation measures the Applicant has committed to decommission any cable protection placed within the HHW SAC apart from at cable crossing points [See REP11-001, REP14-033 and REP6-018] thus ensuring that the impacts of cable protection would be long term temporary. However, should the SoS determine that compensation is required, the Applicant, having then compensated for the permanent impact of cable protection, should not also be required to decommission it. This was accepted by Natural England in the Statement of Common Ground [REP16-010]. Therefore, should the SoS conclude AEoI and that compensatory measures are required, Condition 3(1)(g) and Condition 20 (requiring cable protection to be installed in a way which is capable of decommissioning) must be removed from the DCO.</p> <p>In summary, the Applicant has provided details of alternative compensation as requested by the SoS. This has been provided in the form of version 2 of Appendix 3 to the In Principle Habitats Regulations Derogation, Provision of Evidence, being the Haisborough, Hammond and Winterton SAC In Principle Compensation (document reference 8.25). However, the Applicant remains firmly of the view that the Project does not give rise to AEoI on the HHW SAC.</p>

3 Potential cooperation agreement between Norfolk Boreas and Norfolk Vanguard

Reference	Question:	Applicant's Response:
8.	The Applicant is asked to provide any further details which are available in respect of the proposed cooperation agreement between Norfolk Boreas Limited and Norfolk Vanguard Limited mentioned by the Applicant in its response to the Examining Authority's Written Question 2.9.3.4. The Applicant is asked to indicate how, if at all, the cooperation agreement is intended to address design issues for the Norfolk Boreas and Norfolk	<p>Co-Operation Agreement</p> <p>Norfolk Vanguard and Norfolk Boreas are being developed together in order to optimise synergies and efficiencies between the two projects. Norfolk Vanguard Limited and Norfolk Boreas Limited are subsidiaries of Vattenfall Wind Power Ltd (VWPL). This ownership model therefore facilitates collective working and co-operation between the project companies.</p>

Reference	Question:	Applicant's Response:
	<p>Vanguard projects at the Necton substation to ensure that the cumulative landscape and visual impacts are minimised.</p>	<p>Whilst still in draft form, and with the precise terms being confidential, the Co-Operation Agreement (to which VWPL is also a party) currently contains an overarching principle of co-operation and good faith in respect of each parties' (Norfolk Vanguard Limited's and Norfolk Boreas Limited's) obligations and rights under the DCOs. This would include a requirement to consult one another in advance of any submission to discharge a requirement under the DCOs. The Co-operation Agreement will be finalised and completed post-consent once the status of both projects and their interactions are established.</p> <p>Design & Access Statement</p> <p>As the Secretary of State (SoS) recognises, matters of co-operation were raised by the Examining Authority for Norfolk Boreas specifically in connection with the co-ordination of the design of the onshore project substations for both projects, which will be co-located under Scenario 1, in order to ensure that cumulative landscape and visual impacts are minimised.</p> <p>The Norfolk Boreas and Norfolk Vanguard Design and Access Statements (DAS) ([REP14-014] and NV [APP-027] respectively) outline the design principles which will be adhered to in developing the detailed design of the onshore project substations for both projects. For both projects the DAS states:</p> <p><i>'in order to minimise visual impacts from the permanent onshore electrical infrastructure as far as possible, the appropriate building design and materials will be considered, to ensure blending with the local environment and minimisation of impacts as far as possible' (paragraph 38 and paragraph 29, respectively) .</i></p> <p>The Norfolk Boreas DAS, paragraph 43, also commits that:</p> <p><i>'Under Scenario 1 the design and development of the onshore infrastructure will also be considered cumulatively with Norfolk Vanguard and consideration will be given to a design approach which can be applied across both projects'.</i></p> <p>The Design Review Process and production of a Design Guide (as detailed in section 5.3.6 of the Norfolk Boreas DAS) will be conducted at an early stage. In line with the</p>

Reference	Question:	Applicant's Response:
		<p>commitments in the DAS, the design and landscape approach developed during the Design Review Process will take a holistic approach considering both projects. It will set out the design and landscape approach and identify and integrate mitigation measures in order to reduce potential effects on landscape character and visual amenity, including potential cumulative effects. A Preliminary Design Report for Norfolk Boreas was provided during the course of the examination (Appendix 3 of the DAS, [REP14-014]) which set out the initial parameters regarding the design options for the converter buildings at the onshore project substation.</p> <p>As the parent company for both Norfolk Vanguard Limited and Norfolk Boreas Limited, VWPL can ensure that the Design Guide is developed for both Norfolk Boreas and Norfolk Vanguard holistically. A masterplan which shows how the onshore project substations for both projects will be developed is attached (see document 8.27). The Onshore Project Substation (OPS) Masterplan drawing (PB5460-009-016, in document 8.27) shows the co-location of infrastructure, zoning of the onshore project substation footprints and how the indicative landscaping proposals have been designed to work together across both projects and with existing landscape features. The written principles, outlined in section 1.1 of document 8.7, set out the approach for ensuring that the design and development of the onshore infrastructure at the onshore project substations is considered holistically for Norfolk Boreas Scenario 1 and Norfolk Vanguard.</p> <p>Developing the detailed design of each onshore project substation in accordance with the principles of the OPS Masterplan will enable the cumulative effects of both projects to be mitigated during the detailed design process. The embedded mitigation measures shown on the OPS Masterplan, including strategic landscape planting will reduce potential effects on the local environment, including effects on landscape character, visual amenity, ecology and hydrology. The Design Guide will set out, and draw on, the existing local context and landscape character to explore options for building colour and materials and different landscaping features and species to inform the final design of the onshore project substations in accordance with the principles of the OPS Masterplan.</p>

Reference	Question:	Applicant's Response:
		<p>DCO Requirement</p> <p>The Applicant proposes that the OPS Masterplan (see document 8.27) is secured in the DCO as a certified document, which will ensure that the detailed design is developed in accordance with the principles of the OPS Masterplan should the SoS consider this to be appropriate.</p> <p>This could be secured through a new limb of Requirement 16(4) as follows (with new text in red):</p> <p>16...</p> <p><i>(4) Any details provided by the undertaker pursuant to paragraph (2) must:</i> <i>(a) accord with the design and access statement and be within the Order limits; and</i> <i>(b) in the event of Scenario 1, be supported by a statement illustrating how the details submitted accord with the principles of the OPS Masterplan and have been informed by a strategic approach to mitigate cumulative impacts arising from the onshore project substation and the Norfolk Vanguard Onshore Project Substation.</i></p> <p>With new definitions as follows:</p> <p><i>"OPS Masterplan" means the document certified as the OPS Masterplan by the Secretary of State for the purposes of article 37 of the Order;</i></p> <p><i>"Norfolk Vanguard Onshore Project Substation" means the facility containing electrical equipment including (but not limited to) power transformers, switchgear, welfare facilities, access, fencing and other associated equipment, structures or buildings as defined in the Norfolk Vanguard DCO;</i></p> <p>The Applicant has been engaging with Norfolk Vanguard Limited (NVL) and, subject to the scope of the SoS's re-determination on Norfolk Vanguard, NVL is also content to submit the OPS Masterplan as a certified document in the NV re-determination and accept a reciprocal Requirement (in the terms set out above) to comply with it.</p>

Reference	Question:	Applicant's Response:
		<p>In order to adopt the principles within the OPS Masterplan (see document 8.7) and enable a holistic approach for the development of the design, the Applicant also proposes a minor amendment to the wording of Requirement 16 (2) of the draft DCO as set out below (amended text in red):</p> <p>Requirement 16.. <i>(2) Construction works for the onshore project substation converter buildings referred to in paragraph (1) above must not commence until details of the layout, scale and external appearance of the same have been submitted to and approved by the relevant planning authority.</i></p> <p>This will bring the drafting into line with that proposed for the Norfolk Vanguard DCO. It will also ensure that works such as landscaping and earthworks at the Norfolk Boreas onshore project substation can be progressed in advance of the approval of the final detailed design of the converter buildings. This is necessary to enable the principles in the OPS Masterplan to be employed at the earliest opportunity specifically; maximising the efficient use of earthworks generated materials across both projects and developing a strategic landscaping scheme across both projects. It will also provide the opportunity to implement advanced planting in appropriate locations across both sites where possible, at the pre-construction phase, and to allow additional years growth prior to the completion of construction and commencement of operation. The final detailed design of the converter buildings can then follow subsequent to this once the detailed electrical engineering has been completed.</p> <p>Conclusion In summary, the Co-operation Agreement between Norfolk Vanguard Limited, Norfolk Boreas Limited, and VWPL will contain general duties of co-operation and good faith, including consultation prior to discharge of requirements under the DCO. The draft Co-operation Agreement will be finalised and completed post-consent. The Norfolk Boreas DAS contains a requirement for a Design Guide and secures principles of co-operation in relation to the design process between Norfolk Vanguard and Norfolk Boreas. This will also be facilitated by VWPL as the parent company of Norfolk Boreas Limited and Norfolk Vanguard Limited, in line with the strategic approach to co-location taken to date. Notwithstanding this, the Applicant has submitted an OPS</p>

Reference	Question:	Applicant's Response:
		<p>Masterplan (document 8.7) to be secured as a certified document under the DCO. This illustrates and defines the principles for the development of the design for the onshore project substations across both the Norfolk Vanguard and Norfolk Boreas sites. The Applicant is content for this to be secured, along with a requirement for the Applicant to demonstrate the strategic approach taken to mitigate potential cumulative effects at the onshore project substations, in a new limb to Requirement 16(4) of the draft DCO as set out above. The Applicant also proposes a minor amendment to the wording of Requirement 16(2) to facilitate the application of the OPS Masterplan principles.</p>

4 Funding for compulsory acquisition

Reference	Question:	Applicant's Response:
9.	<p>The Secretary of State notes that the Applicant did not disclose specific values in relation to funding for potential compulsory acquisition liabilities. The Applicant is asked to explain how the financial liabilities relating to compulsory acquisition will be funded in the event that they exceed the £6.8m cap set in Clause 4.4 of the Funding Agreement between Norfolk Boreas Limited and Vattenfall AB dated 10 March 2020 submitted to the Examination at Deadline 7.</p>	<p>Funding Agreement & Funding Statement</p> <p>The Funding Agreement dated 10 March 2020 submitted to the Examination at Deadline 7 [REP7-015] sits alongside the Funding Statement which was submitted as part of the Application [APP-025].</p> <p>The Funding Statement [APP-025] explains that:</p> <p><i>... "3.2 The Applicant will have the ability to procure the financial resources necessary to fund the works to be authorised by the Order, subject to final Board authority. The Company and the Parent Company have the experience and reputation to enable funds to be procured.</i></p> <p><i>3.3 The Applicant intends to secure funding for construction of the Project after certainty is obtained on the planning consent, the tender process is complete for the major construction contracts and the investment case has been satisfied. Once these criteria are met the Applicant will take a final investment decision (FID) which will irrevocably commit funding.</i></p> <p>...</p>

Reference	Question:	Applicant's Response:
		<p>3.9 In summary, the Company and the Parent Company have substantial net assets as well as a positive track record in the field of renewable energy development. The Applicant and the Parent Company have agreed that collectively they are able to provide the required funding for the Project, including all likely compensation liabilities resulting from the exercise of compulsory acquisition powers."</p> <p>Compulsory Acquisition Cost Breakdown</p> <p>Scenario 2 (Norfolk Boreas delivered as an independent project) will need to utilise a greater extent of the Order limits than that needed for Scenario 1 (Norfolk Boreas delivered as a pull through operation). This is because Scenario 2 involves the consent of additional infrastructure that would not be required if enabling works for Norfolk Boreas are carried out by Norfolk Vanguard. For example, the duct laying across the entire cable route and the modification to the overhead line at the National Grid substation near Necton is required for Scenario 2 but is not required for Scenario 1 because under Scenario 1 these works will be undertaken by Norfolk Vanguard. Scenario 1 is Vattenfall's preference and the most likely option to be taken forward.</p> <p>The Applicant provided a breakdown of the compulsory acquisition costs in its response to the ExA's second round of written questions (WQ. 2.3.0.5) [REP5-045]. The Scenario 1 maximum costs estimate is £1,700,000 (rounded up and including a 10% contingency on the worst case) which is approximately allocated as follows:</p> <ul style="list-style-type: none"> • Purchase of Freehold land, including loss payments, injurious affection, agents' fees and legal fees: £750,000; • Purchase of permanent easement rights for pulling of Norfolk Boreas cables through pre-laid ducts, including crop loss (as a result of temporary occupation of land within the cable corridor for cable pulling works) and associated agents' and legal fees: £930,000. <p>The Scenario 2 maximum costs estimate is £6,800,000 (also including a 10% contingency) which is approximately allocated as follows:</p> <ul style="list-style-type: none"> • Purchase of Freehold land, including loss payments, injurious affection, agents' fees and legal fees: £830,000; • Temporary possession of land during construction, including associated costs (Crop loss, agent and legal fees): £1,710,000;

Reference	Question:	Applicant's Response:
		<ul style="list-style-type: none"> • Purchase of permanent easement rights for duct installation and pull-through of Norfolk Boreas cables, including crop loss and associated agents' and legal fees: £4,260,000. <p>A contingency percentage of 10% has been applied within each of the estimated costs allocated above in both scenarios, and the cost estimates have been assessed on the assumption that no voluntary agreements are concluded and that compulsory acquisition powers are required to acquire <u>all</u> land interests and required rights. It is also worth noting that the calculations of estimated compensation have also been undertaken on the basis of worst case figures for items such as land value, crop loss compensation and land rental. The Applicant has, at the date of writing, signed Heads of Terms with 85% of the landowners and the Applicant expects to complete the associated Option Agreements in due course. In those circumstances all payments would flow under private agreements without recourse to compulsory acquisition and therefore without any need for those third party landowners to rely upon the Funding Agreement [REP7-015].</p> <p>It should also be noted that one of the largest elements of the Scenario 2 compensation cost (amounting to just over 12% of the total estimate) relates to the freehold acquisition of land for the onshore project substation and National Grid substation extensions. The majority of this land lies within the ownership of one land interest for which Heads of Terms have been agreed. Negotiations for the Option Agreement with this landowner are well progressed and it is anticipated that the Option Agreement will be exchanged shortly.</p> <p>Conclusion</p> <p>In summary, the Applicant, Vattenfall Wind Power Ltd (VWPL), and the ultimate parent company (Vattenfall AB) have substantial net assets as well as a positive track record in the field of renewable energy development. The Applicant, VWPL, and the Parent Company have agreed that collectively they are able to provide the required funding for the Project, including all likely compensation liabilities resulting from the exercise of compulsory acquisition powers. In the unlikely event that costs relating to compulsory acquisition exceed the £6.8m cap set in Clause 4.4 of the Funding Agreement between Norfolk Boreas Limited and Vattenfall AB dated 10 March 2020,</p>

Reference	Question:	Applicant's Response:
		<p>these costs would be funded in the same way as the wider project as set out in the Funding Statement [APP-025].</p> <p>In any event, the £6.8m estimate for Scenario 2 and £1.7m estimate for Scenario 1 include headroom comprising a contingency percentage (of 10%) and the Applicant expects to acquire the majority of the land interests by agreement so as to avoid the need for compulsory acquisition.</p> <p>The Secretary of State can therefore be satisfied that funding will be available for claims for compensation by landowners as a result of exercising any compulsory acquisition powers in the DCO, but noting the well advanced status of negotiations with landowners as set out above.</p>

5 Protective Provisions

Reference	Question:	Applicant's Response:
10.	<p>The Secretary of State notes that the Applicant stated that Protective Provisions with several parties had been agreed by the close of Examination but that the affected parties had not confirmed this to the Examining Authority. The Secretary of State requests the following parties confirm whether they have agreed Protective Provisions with the Applicant:</p> <ul style="list-style-type: none"> • National Grid plc; • Network Rail Infrastructure Limited; • The Environment Agency. 	<p>The Applicant has been in correspondence with these parties since the Secretary of State's letter of 28 April 2021 to confirm that the Protective Provisions included in the final dDCO [REP18-009] were agreed. The Applicant understands that the parties wrote to the Planning Inspectorate to confirm the same on the following dates:</p> <ol style="list-style-type: none"> 1. National Grid: 14 May 2021 2. Network Rail Infrastructure Limited: 29 April 2021 3. The Environment Agency: 21 May 2021.

6 References

Natural England (2021) Natural England's Approach to Offshore Wind: Our ambitions, aims and objectives (TIN181) available at: <http://nepubprod.appspot.com/publication/5400620875120640>

Appendix 1 Letters from Infrastructure Owners

Provided below are letters from owners of telecommunication cables and oil and gas pipelines who own out of service infrastructure which is located within the HHW SAC. The letters provide assurance to the Applicant that they are in agreement with the principle of the Applicant removing their infrastructure if this is required.



Vattenfall Wind Power Ltd.
5th Floor 70
St Mary Axe
London
EC3A 8BE

Our ref:
Your ref:

22nd June 2021

Dear Mr. Laws

BT Subsea [and relevant consortia] Out of Service telecommunications Infrastructure

The purpose of this letter is to record recent discussions between Vattenfall Wind Power Ltd (**Vattenfall**) on behalf of Norfolk Boreas Limited and Norfolk Vanguard Limited (**the Projects**), and BT plc (**BT**) regarding the potential to remove Out of Service (**OoS**) telecoms infrastructure which is situated located within the Haisborough Hammond and Winterton Special Area of Conservation (**HHW SAC**; see Figure 1, attached).

In the event that cable protection (in the form of external mattress/rock placement etc) is deployed in the HHW SAC by the Projects, BT understands that the Projects may be required to deliver environmental compensation as a result of the potential for adverse effects on integrity (**AEol**) of the HHW SAC. BT and associated consortia are the owners of a number of OoS subsea cables which are located within the HHW SAC. BT and associated consortia already have OoS Agreements in with Vattenfall place for the following cables: UK-Germany 2, 3, 4 and 5 and UK-Denmark 1 & 2 and are currently seeking agreement for UK-Netherlands 14 (which is a BT, Vodafone, KPN consortium asset).

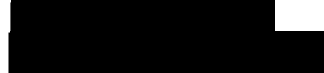
These agreements currently permit (amongst other obligations) the cutting, lifting and responsible disposal of these OoS cables at crossing points with the Projects export cables corridor. Vattenfall have proposed that these agreements are extended to permit the removal of any sections of cables within the HHW SAC that are agreed between the parties as appropriate and feasible to facilitate environmental compensation in the event of AEol.

BT are supportive of this proposal/initiative in principle, and look forward to collaborating further with Vattenfall to facilitate flexibility in our current and future agreements where appropriate.

British Telecommunications plc
Registered office:
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Technology
BT Friary House
Briton Street, Southampton
Hampshire SO14 3LX

Tel: +44 (0)203 251 6980



BT also confirm they have no objection if Vattenfall wish to submit this letter to the Secretary of State to demonstrate our positive discussions and BT's support in principle for this initiative

Yours sincerely,

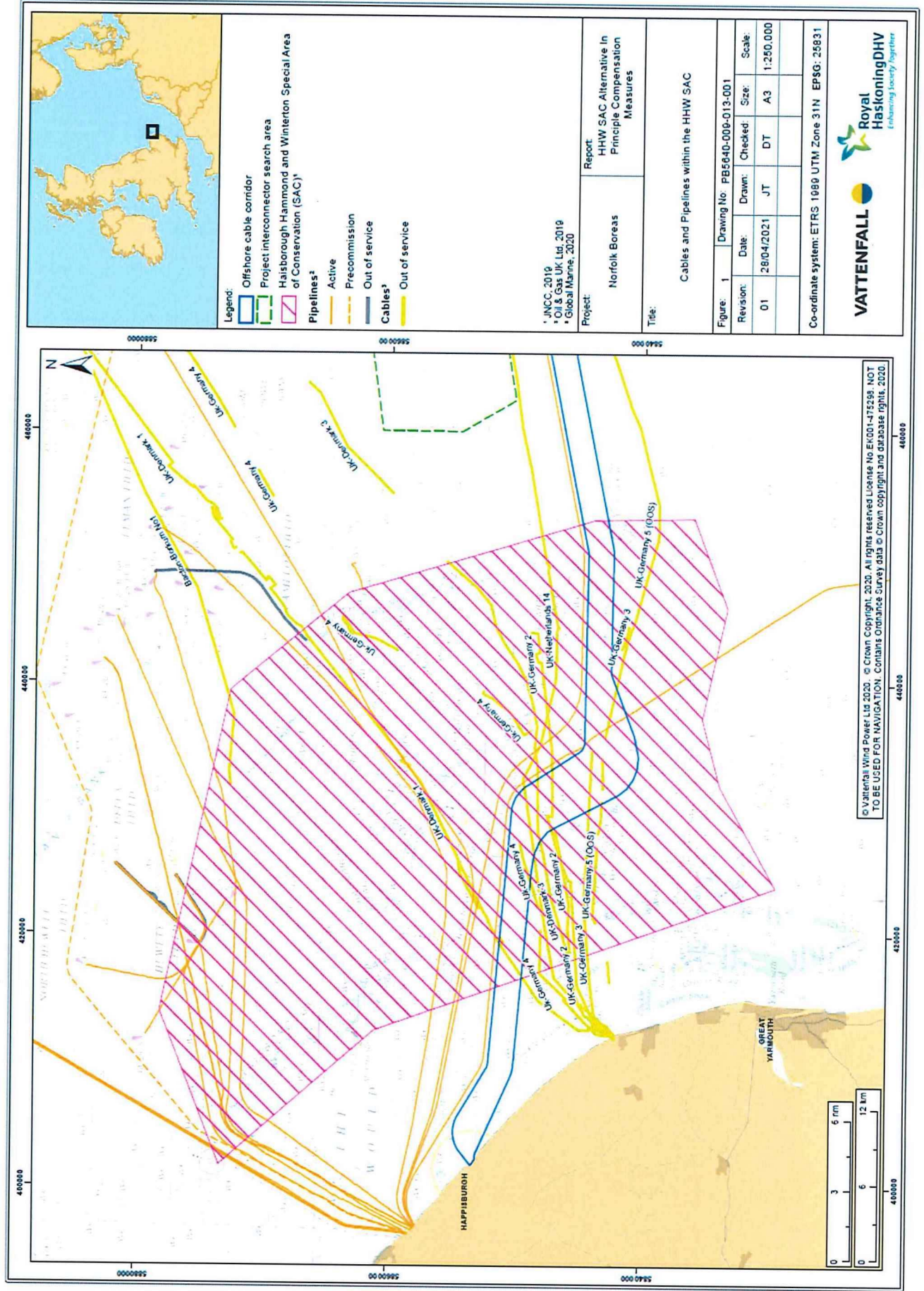


Richard Hill

Specialist Network Designer (Subsea)

For and on behalf of BT PLC

Figure 1



Jake Laws
Vattenfall Wind Power Ltd
5th Floor 70
St Mary Axe
London
EC3A 8BE

Dear Jake

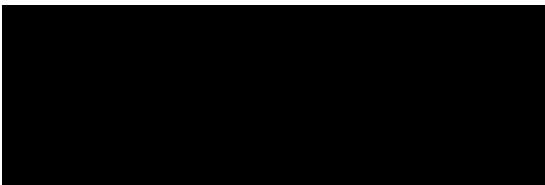
Helix Subsea Out of Service Oil and Gas Infrastructure

The purpose of this letter is to record our recent discussions between Vattenfall Wind Power Ltd (**Vattenfall**) on behalf of, Norfolk Boreas Limited and Norfolk Vanguard Limited (**the Projects**), and Energy Resource Technology UK Ltd (**Helix**) regarding the potential to remove disused oil and gas infrastructure in the decommissioned Camelot Field, which is situated partly within the Haisborough Hammond and Winterton Special Area of Conservation (**HHW SAC**).

In the event that cable protection is deployed in the HHW SAC by the Projects, Helix understands that the Projects may be required to deliver compensation as a result of the potential for adverse effects on integrity (**AEoI**) of the HHW SAC. Helix are the owners of the disused oil and gas infrastructure in the decommissioned Camelot field and are supportive of Vattenfall's proposal to explore whether a section of the existing oil and gas pipeline can be removed as compensation for the use of cable protection by the Projects. We look forward to collaborating further with Vattenfall as to the precise nature and volume of disused infrastructure located in the decommissioned Helix field and whether it may be possible to remove this infrastructure in due course.

Helix have no objection if Vattenfall wish to submit this letter to the Secretary of State to demonstrate our positive discussions and Helix's support regarding potential removal of the oil and gas infrastructure in the decommissioned Helix field, should this option be necessary or pursued by the Projects.

Yours sincerely



Oliver Willis

VP Projects
On behalf of ERT UK Ltd

Appendix 2 Statement from parties bidding to install the Norfolk Boreas export cable

Provided below are statements from parties currently bidding to supply and install export cables for the Norfolk Boreas Project. Due to confidentiality of the bidding process it is not possible to identify the bidders or include anything from their statements which could be used by competing bidders to gain an advantage in the bidding process.

Sent by email from bidders

Vattenfall Wind Power limited
5th Floor
70 St Mary Axe
London
EC3A8BE

Date:
14/06/21 – 24/06/21

Contact: Anonymous
E-mail: Anonymous

Phone: n/a
Fax: n/a

Appendix 2 Quotes from possible cable installation suppliers

Bidders currently tendering to install the Norfolk Boreas export cables were asked to respond to the statement provided below. The bidding process is ongoing and will not be concluded until early 2022. Due to the requirement to ensure that the bidding process remains confidential it has not been possible identify the tenderers who provided the statements below. Furthermore, any details of the methods bidders propose to use to bury the cables has been redacted as this could be used to gain advantage in the bidding process.

Statement:

To provide confidence to the environmental authorities interested in minimising impact in the Special Area of Conservation (SAC) on the main export route, can the bidder please confirm or comment on the below.

With regards to the bidders review of the Employer provided site information as part of the tendering process, and their preliminary assessments in relation to their proposed burial method and seabed lowering strategy, the bidder is wholly confident that the export cable can be buried to the Depth of Lowering requirements under the reference seabed level (RSBL) throughout the HHW SAC (apart from at cable crossing points) and therefore there is high confidence that placement of cable protection will not be required for the lifetime of the project.

Response from bidder:

“At this stage of the tendering and with the information provided we are pleased to confirm the statement.”

Response from bidder:

“Along Special Areas of Conservation (KP15-KP55) for all three EC routes we proposed [REDACTED] [REDACTED] With this methodology we have high confidence to achieve the burial requirements without having to resort to cable protection.”

Response from bidder

[Our] preliminary assessment of the provided site data indicates that burial can be performed throughout the SAC area

Response from bidder:

Bidder hereby informs Employer that the export cables can be buried to the required Depth of [REDACTED] under the reference seabed level (RSBL) throughout the HHW SAC (apart from the cable crossings locations). The Bidder agrees that based on the provided data during ITT round One and TWO no remedial cable protection will be anticipated.

Bidder reserves the right to review this information according to any changes during technical clarification meetings.

All bidders have responded and have confirmed their consent for these statements to be included within this submission.