



Norfolk Boreas Offshore Wind Farm Applicant's Comments on Deadline 10 Submissions and **Other Submissions**

(Tracked Changes)

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Glossary of Acronyms

AEoI	Adverse Effect on Integrity
dB	Decibels
DCO	Development Consent Order
dDCO	Draft Development Consent Order
DML	Deemed Marine Licences
dDML	Draft Deemed Marine Licence
EIA	Environmental Impact Assessment
ES	Environmental Statement
ExA	Examining Authority
HHW	Haisborough, Hammond and Winterton
HRA	Habitats Regulations Assessment
IPMP	In Principle Monitoring Plan
Kj	Kilojoules
LAeq	The A-weighted, equivalent continuous sound level in decibels measured over a stated period of time.
Leq	The equivalent continuous sound level in decibels measured over a stated period of time.
ММО	Marine Management Organisation
MoU	Memorandum of Understanding
NE	Natural England
NSIP	Nationally Significant Infrastructure Project
OASIS	Online Access to the Index of Archaeological Investigations
ОМР	Operations and Maintenance Plan
ОООМР	Outline Offshore Operations and Maintenance Plan
ORM	Offshore Ring Main
OWF	Offshore Wind Farm
pSAC	Potential Special Area of Conservation
SAC	Special Area of Conservation
SIP	Site Integrity Plan
SNCB	Statutory National Conservation Bodies
SoCG	Statement of Common Ground
SoS	Secretary of State
SuDS	Sustainable Urban Drainage Systems
UK	United Kingdom
UXO	Unexploded Ordnance
WSI	Written Scheme of Investigation





1 Applicant's Comments on Deadline 10 Submissions and Other Submissions

1. This document contains the Applicant's comments on submissions by Interested Parties at Deadline 10 of the Norfolk Boreas Examination and other submissions.





1.1 REP9-059 North Norfolk District Council Deadline 8 & 9 Submissions

Summary of Submission	Applicant's Comment
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North Norfolk District Council Deadline 8 & 9 Submissions

Comments in respect of Onshore Construction Effects

NNDC provided within its delayed Deadline 7 submission answers to ExQ3 questions raised by the ExA on 23 March 2020 including a series of questions relating to onshore construction effects.

There were a number of outstanding matters raised by NNDC requiring action by the Applicant including:

- (Q3.12.1.1) NNDC have suggested that Section 3.2.1 of the Outline Code of Construction Practice (OCoCP) (version 4) be amended to include an addition recommending the use of white noise / low noise vehicle reversing warnings. This inclusion is considered unlikely to present a problem for the Applicant given they are proposing to use modern and quiet equipment (fifth bullet point);
- (Q3.12.2.3) NNDC have suggested that Section 9.2.2 Para 135 (third sentence) of the OCoCP (version 4) be amended to state 'The potential requirement for enhanced mitigation has been identified in ES Chapter 25 and it is expected that enhanced mitigation will be required for the receptors identified in Table 9.2.'
- (Q3.12.2.3) NNDC also consider that, in addition, to those sites in Table 9.2, a
 considerable number of additional receptors types, as detailed in Table 9.1, which
 include non-residential receptors, will require standard or enhanced mitigation.
 This is because NNDC consider that the number of sites set out at paragraph 136
 of the OCoCP (version 4) have been underestimated;
- (Q3.12.2.5) NNDC welcome the applicant's response to Q3.12.2.5 including reference to Best Available Techniques (BAT) and Best Practicable Means (BPM) and note and welcome the commitment from the Applicant to update the OCoCP to reflect the position outlined in response to the question.

In addition, NNDC raised a series of matters with the Applicant relating to Section 2.8 (Noise, Vibration & Air Quality) within the Statement of Common Ground following the submission at Deadline 9 (Version 3). These primarily relate to the OCoCP (version 4) and the Outline Traffic Management Plan (OTMP) (version 4) in terms of how the proposed

The Applicant can confirm that the OCoCP (Version 5) [REP10-012] submitted at Deadline 10 has addressed these matters and now includes the following amendments:

- Section 3.2.1 includes 'Vehicles should be fitted with white noise / low noise reversing warnings where possible.';
- Section 9.2.2 has been amended to 'The potential requirement for enhanced mitigation has been identified in ES Chapter 25 and it is expected that enhanced mitigation will be required for the receptors identified in Table 9.2.'
- Section 9.2.2 states 'it is acknowledged that there are other receptor locations in close proximity to the onshore cable route not specifically assessed with the ES. The locations identified in the ES will be used as indicators to identify potential receptors at similar distances from the cable route where enhanced measures may also be required. These locations and any required mitigation measures will be identified during the detailed design stage and included in the Construction Noise (and vibration) Management Plan, which will be submitted to and reviewed by the relevant planning authority as part of the final CoCP and discharge of DCO Requirement 20(2).'
- Section 9.2 includes a commitment to 'Best Available Techniques and the Best Practicable Means (BPM) to minimise any associated noise impacts.'

The Applicant refers to the final Statement of Common Ground with North Norfolk District Council submitted at Deadline 10 (Version 4) [[REP10-040] where all matters relating to noise, vibration and air quality are now agreed.

The Applicant also confirms that paragraph 46 of the OCoCP (Version 5) [REP10-012] and paragraph 160 of the OMTP (Version 5) [REP10-016] now





Communication Plan deals with any complaints arising. These matters were raised previously but are yet to be addressed.

At the time of submission of this document, the applicant has confirmed they will be looking to amend OTMP Para 158 and OCoCP Para 46 to state that "A designated Norfolk Boreas Limited local community liaison officer will respond to any public concerns, queries or complaints in a professional and diligent manner as set out in a project community and public relations procedure which will be submitted for comment to the Local Authorities. Any complaints received should be shared with the relevant local authority in a timely manner, where complainant consent is given, to enable the local authorities to undertake their duties to investigate complaints relating to construction activities and respond within an agreed timeframe'.

The Applicant has also confirmed and agreed with NNDC proposed amendments to the OCoCP in relation to reversing noise and enhanced mitigation. NNDC are therefore reasonably confident that the above matters can be satisfactorily addressed by the applicant prior to the examination closing.

Applicant's Comments

includes the text requested by NNDC as follows: 'Any complaints received should be shared with the relevant local authority in a timely manner, where complainant consent is given, to enable the local authorities to undertake their duties to investigate complaints relating to construction activities and respond within an agreed timeframe.'

With the exception of matters outstanding in relation to tourism (see below comments on NNDC's response to Q3.13.2.1), all matters are now agreed with NNDC as evidenced in the final SoCG Statement of Common Ground with North Norfolk District Council submitted at Deadline 10 (Version 4) [REP10-040].

Comments in Respect of Tourism Impacts

On the assumption that the matters set out in Section 2 above can be addressed, the only area of significant disagreement between the Applicant and NNDC is in relation to Tourism Impacts.

As set out in NNDC's response to Q3.13.2.1, NNDC's Local Impact Report [REP2-087] provided significant detail and evidence in relation to tourism impacts, starting from paragraph 14.21, including suggested wording for a DCO Requirement relating to tourism and associated businesses and provided a further update following the Issue Specific Hearing on 21 January 2020 at Deadline 4 [REP4-031 (Section 5).

The Applicant, through responses to Q2.13.2.1 and Q3.13.2.1, continues to seek to downplay the impacts from this project on tourism and refuses to accept the tourism impacts asserted by NNDC.

NNDC's position remains that if business owners in NNDC suffer as a result of the Actual Tourism Impact of Negative Perceptions associated with the individual and cumulative impact of windfarm cable route works, it would be neither fair or reasonable that those

The Applicant's position with regard to potential tourism impacts resulting from negative perceptions associated with construction impacts has been presented in detail in response to the ExA's Third Written Questions Q3.13.2.1 [REP7-017].

The Applicant considers that there is no evidential link that the short-term construction presence associated with an offshore wind farm in North Norfolk would lead to an actual or potential impact on tourism as a result of negative perceptions.

The Applicant does not consider the Requirement proposed by NNDC is a precautionary approach, and remains of the firm opinion that the suggested wording of the Requirement would not meet the tests in paragraph 55 of the National Planning Policy Framework (NPPF) (2019) and embedded through paragraph 4.1.7 and 4.1.8 of EN-1. Whilst the Applicant of course acknowledges that restrictions associated with Covid-19 will affect the





businesses should be affected as a result of the project without some form of mitigation strategy being in place.

It is clear that the ExA are faced with a stark choice between the position of the Applicant with no tourism mitigation against the sensible precautionary approach being advocated by NNDC which includes appropriate mitigation in the form of the Requirement wording suggested by NNDC at Deadline 2 [REP2-087] (Pages 32/33 – para 14.21).

The sensible precautionary approach being advocated by NNDC in relation to tourism impacts during windfarm construction now has even greater significance, importance and meaning in light of the effect of Covid-19 on businesses within the District, including the tourism sector (the second highest employment sector). What the medium and long term future will look like for the tourism sector remains unclear.

At the time of submission of this document to the examination, a number of surveys have and are being undertaken to better understand the impact of Covid-19. A Tourism Business Survey has been undertaken by Visit East of England (which produced 776 responses including 128 responses from businesses in North Norfolk). A North Norfolk specific report based on the evidence gathered is also being prepared. Further work has also been undertaken by the District Council and the Brand Manager of Visit North Norfolk in completing a series of interviews with attraction and accommodation providers to help inform the Council's response to the Department for Culture Media and Sport (DCMS) Select Committee Inquiry into the impact of the pandemic on areas that fall within DCMS's remit. Where possible and appropriate, the evidence from the above surveys and any general conclusions will be shared with the ExA and Secretary of State to help inform the decision.

On 27 April 2020 a briefing paper undertaken by Fabian Wallace-Stephens and Alan Lockey on behalf of RSA (Royal Society for the encouragement of Arts, Manufactures and Commerce) considered 'Which local areas are most at risk in terms of impacts of coronavirus on employment?'. The aim of the report was to assess the 'demand shock' economic impact of Covid-19 in different Local Authority Areas. A copy of this report is attached at Appendix A.

Applicant's Comments

economy at all levels (and sectors) it does not alter the Applicant's position that there remains no evidential link between short-term construction and tourism. This is not dependent on the sensitivity of the sector, which should in any event be judged not now but in several years, at the time when construction commences. Finally, it is clearly not the role of an individual project to provide financial support for tourism businesses hit by Covid19.





Summary of Submission Applicant's Comments The report identifies risk factors as follows: Rurality Coastal towns Tourist hotspots where the economy is reliant on hospitality and retail sectors Younger workers are more likely to be furloughed – twice as likely as middle-aged people 40% jobs performed by 16-19 year olds are at risk The report identified that the top three sectors with furloughed staff include: 80% accommodation and food services 68% arts, entertainment and recreation 41% construction For North Norfolk the report states that: 31% of jobs in the district are at risk North Norfolk is 14th out of 370 districts in the UK most at risk of loss of jobs Whilst it is important to seek to remain positive and optimistic for the future, which may well see many opportunities from people choosing to holiday in the UK rather than holidaying abroad, in reality right now accommodation and food service providers making up a key part of the tourism sector as well as attraction providers currently face an existential threat as a direct result of lockdown rules with most forced to temporarily close and many having no option but to furlough staff in the absence of customer income streams needed to keep businesses operating. The closure of these businesses also detrimentally affects supply chains and services which support the tourism economy. What does all this have to do with the construction of the onshore elements of the offshore wind farms? Put simply, whilst the District Council and central government are doing all that they reasonably can to help, many well-respected small businesses may be forced to close for good if they do not have the cash flow to ride out the current situation. Assuming consent is granted for Norfolk Vanguard and Norfolk Boreas, by the time that

the onshore elements are being constructed (indicated as 2022 for duct installation), the tourism sector will hopefully be showing positive signs of recovery. The last thing it would





Enhancing Society Together	
Summary of Submission	Applicant's Comments
need in North Norfolk is the cumulative impact of multiple large infrastructure projects over a five year window creating negative perceptions resulting in people choosing to holiday or visit elsewhere. The likely fragility of the sector in the coming years again supports the sensible precautionary approach being advocated by NNDC and is yet another reason why the Requirement wording suggested by NNDC at Deadline 2 [REP2-087] (Pages 32/33 – para 14.21) must be included within the DCO consent.	
Comment in respect of progress towards the final Statement of Common Ground	
At the time of this submission, work is progressing on the Final version of the Statement of Common Ground which is expected to be submitted by the Applicant for Deadline 10.	The Applicant confirms that the final Statement of Common Ground with North Norfolk District Council (Version 4) [REP10-040] was submitted at Deadline 10.
Comments in respect of the use of a Planning Performance Agreement relating to Require	ement discharges
North Norfolk District Council have considered the Applicant's submission 'VATTENFALL WIND POWER LTD - PLANNING PERFORMANCE AGREEMENT POINTS OF REFERENCE' which was attached as Appendix A of the Council's Deadline 7 Submission. NNDC's position remains that whilst we would be prepared to enter into a PPA	The Applicant's acknowledges NNDC's position with regard to delegated powers and will continue to work with NNDC to progress the details of the PPA.
arrangement with the Applicant ourselves, we would not be prepared to do so through another Council/Body acting under delegated powers as we would not have certainty over outcomes or processes for our communities on issues that we have worked hard through examination to secure. NNDC would wish to make use of the knowledge and experiences gained through the examination processes to ensure we can deliver the best outcomes for our communities during the Requirement discharge stage.	
Whilst resolution of this matter is not required before the examination closes and there appears to be a general commitment from all parties to deliver discharge of Requirements through a PPA type arrangement, what still remains unclear is how the PPA would work in practice and whether agreement can or will be reached as to the best way forward in this regard. However, these are matters for each relevant planning authority to determine and NNDC will continue to work with the Applicant and other parties to seek the best way forward it can in the wider public interest.	





1.2 REP10-046 Cawston Parish Council Comments on Submission from Deadline 6 - 9

Summary of Submission Applicant's Comments

Cawston Parish Council Comments on Submission from Deadline 6 - 9

Highway Intervention Scheme

We refer back to our comments in our D6 submission (REP6-042), which concluded:

The geometry of Cawston High Street has remained unchanged for 250 years; if it was ever a "main distributor route", that would have been for horse drawn traffic. It is time to recognise this.

The RSA identifies narrow footways as a perceived risk.

The Applicant offers an extensive presentation of data which purports to show why pedestrians are wrong to be frightened of being hit by passing HGVs which are planned to travel so close to the footway that their wing mirrors overlap onto the footway.

Telling people they are wrong, with or without copious diagrams, is rarely an effective way to manage perceptions. Advising pedestrians that if they are hit by a passing truck then they would be an outlier is not particularly helpful.

The Applicant's response to the danger to pedestrians from close passing HGVs and their wing mirrors has been to propose to install a number of "Pedestrians in the road ahead" signs. These signs are appropriate to warn drivers about pedestrians who are forced to walk across the old railway bridge where no footway exists.

However, these signs are an inadequate warning to road-users of the physical and perceived danger to pedestrians in the village centre, not least because the pedestrians identified as at risk on the RSA are on the footway. A "Please don't hit pedestrians on the footway" sign might be more appropriate.

The Applicant supplies further drawings which purport to show how HGVs and other vehicles should be able to pass each other. These drawings show that in many parts of the village the tracks of vehicles pass so close as to be indistinguishable at the screen resolutions available to Cawston Parish Council, demonstrating that in much of the village HGVs are unable to pass safely.

Highway geometry

The Applicant reiterates their position with regard to the selection of the B1145 Cawston as a suitable construction route, first introduced to the examination at Deadline 2, 'Applicant's response to the ExA's written questions, Appendix 14.2' [REP2-023]. The salient points are summarised as follows:

In the UK, a 'functional road hierarchy' was established in its current form in the 1960s to provide for the efficient movement of motor vehicles on the highway network (ref. Guidance on Road Classification and the Primary Route Network, 2012, DfT).

The Local Highway Authority (LHA) is responsible for managing all local classification decisions and an LHA is able to set their own policies if desired. The functional hierarchy informs policies relating to maintenance, spatial planning and traffic management; by definition A and B roads are subject to higher levels of service and less traffic restraints.

In their role as LHA for the Project, Norfolk County Council (NCC) have classified the High Street through Cawston as the B1145, a 'Main Distributor'. The Main Distributor sub-category indicates a route linking Primary Distributors (i.e. linking significant settlements to A roads serving the County) and these are not subject to any restrictions on Heavy Goods Vehicles (HGV). During the early stages of the onshore cable route option assessment for Norfolk Vanguard and Norfolk Boreas, Vattenfall were cognisant of the NCC functional hierarchy and the Project was planned to maximise the use of A and B roads in order to minimise the impact on local communities. This resulted in the B1145 (Link 34) being selected as a route that was suitable to be assigned the HGV demand generated by the Project.





The additional width of vehicles from wing mirrors is not shown in the drawings and even in the areas designated for passing the additional width for two sets of wing mirrors and a safe passing distance between them is not evident.

Cawston Parish Council views the proposed HIS to be flawed and impractical. For the scheme to have any hope of operating as designed a number of conditions need to be satisfied which include:

- 1. The ability of all HGV drivers to be able to see oncoming traffic around corners on the bend at the railway bridge, on the bend by the Old Forge and on the bend close to White House Farm
- 2. A requirement for all HGVs, not only the Applicant's and/or Hornsea 3 project HGVs, to arrive at evenly spaced intervals
- 3. Where two HGVs approach from either East or West they must not have any other road traffic between so they can fit in the proposed system of "passing places". Any train of vehicles longer than the planned "passing space", which is designed for two HGV lengths, will obstruct passing manoeuvres and make gridlock more likely.

Norfolk County Council echoes some of CPC's concerns. The Applicant's Statement of Common Ground with NCC states that:

NCC have raised a concern with regard to driver compliance, drivers may potentially fail to yield at pinch points causing traffic to back up, inducing unacceptable delays.

In their letter of 27th April (REP8-036) NCC also reiterate their concerns that the HIS could fail

- 1. If parking occurs outside the designated parking areas
- 2. Traffic fails to yield at the correct points
- 3. Or if traffic speeds are much higher than 20mph.

Residents of Cawston already see all three of these conditions on a daily basis, and our D6 submission (REP6-042) noted official Government sources showing that 20mph limits

Applicant's Comments

Narrow footways

[REP5-055] Revised Cawston Highway Intervention Scheme Road Safety Audit Decision Log ('RSA log') reports that the Road Safety Audit (RSA) recognises that the likelihood of pedestrian/vehicle conflicts has been reduced by the HIS key design principles of:

- Providing adequate road space for HGVs to traverse the High Street without the requirement to mount or project over the pavement;
- Protecting adequate road space for the HGV routes with the introduction of formal parking controls;
- Advance sign warning of 'pinch points'; and
- The introduction of a mandatory 20mph limit.

The RSA notes there may be a residual perceived risk to pedestrians and makes the following recommendations:

- Introduce measures to highlight the presence of pedestrians within the area;
- Introduce road markings and 20mph signage at the gateways allowing for maximum impact and awareness;
- Provide maximum footway area, by attaching all signs to existing street furniture where possible and introducing any new signposts to the back of the footway, reducing footway clutter.
- Review the compliance of drivers following the introduction of the reduced speed limits and introduce further measures if necessary.

The Applicant has accepted all of these recommendations and has incorporated them into the finalised HIS design (detailed in the OTMP [REP10-016]. The Applicant therefore reiterates the conclusion of the RSA log [REP5-055]:

"Following the evaluation of the key effects that are likely to influence pedestrian risk it is concluded that the likelihood and severity are low and





have a low compliance factor. The Applicant seems to have no practical solution should the scheme fail.

Drivers' being unable to see oncoming traffic around corners is a problem that even "intensified correction measures" might find it difficult to overcome.

The Applicant does not have the ability to regulate the orderly arrival of traffic, in numbers and proportions, which the Applicant believes would make their HIS workable. The Applicant seems to disregard the other vehicles which try to use the B1145, whose drivers may not possess the semi-magical qualities ascribed to the Applicant's contractors, whoever they may appoint.

The Applicant suggests "intensifying monitoring regime" and then "intensifying correction measures" as a solution to driver compliance issues. Such intensified correction measures" have not been described. It may be enlightening for inspectors to hear that in one of CPC's meetings with the Applicant they suggested that if the scheme proved not to be workable the Applicant would seek to remove more, or all, parking from the village centre to produce a "rural" clearway, to be enforced by intensive Civil Enforcement so that HGVs might pass each other.

By failing to publish such proposals it is not possible for the Examination to assess what Cawston Parish Council would describe as the calamitous impact of such action on local businesses and the disruption imposed on residents who park outside their homes on the High Street.

The presence of parked vehicles on sections of the B1145 in Cawston is cited as a protection to pedestrians in the Road Safety Audit. Removing parking when added to the removal of any footway widening in the village, as originally proposed by the Applicant as a road safety measure, would show a reckless disregard for the safety of pedestrians.

The presence of parked vehicles on the High Street has been acknowledged by all parties to help reduce the speed of traffic in the centre of Cawston. The Road Safety Audit has identified traffic speeds above 20mph as a risk of failure for the HIS.

Applicant's Comments

therefore the probability of the perceived pedestrian risk manifesting into an incident is low."

NCC's position on narrow footway concerns is set out in their response to the ExA's fourth questions, Q4.14.11b [REP10-050] where NCC note they are in agreement with the response provided by the Applicant:

"NCC notes there are existing narrow sections of footway throughout Cawston village centre and we are aware of Cawston Parish Council's concerns. The Applicant's response to the RSA, including the specific point in relation to the narrowness of the footways was considered by NCC's development team at its sitting on Monday 9th March 2020. By way of explanation, the team comprised officers from all parts of the Highway Authority including various development management engineers; an area manager for highway maintenance; the growth and infrastructure manager; as well as an internal road safety auditor. The conclusion of the team was that it agreed with the Applicant's response and had no further comment to add."

Highways Intervention Scheme concerns (including wing mirror oversailing)

The Applicant reiterates their position with regard to the scheme design as set out in [REP7-016] Applicant's Comments on Deadline 6 submissions (Cawston PC). The salient points are summarised as follows:

A key design principle of the HIS is to provide adequate road space for HGVs to traverse the High Street without the requirement to mount or project over the pavement. These principles are captured in the HIS design that was submitted for the RSA [REP4-016] which introduces single way HGV working through the High Street, ensuring there is enough adequate road space for HGVs to traverse without the requirement to mount or project over the pavement. For the sections of the HIS where two-way flows are encouraged there are two distinct HGV pinch points at the eastern and western entry to the High Street where there would be a risk of HGVs mounting or oversailing the pavement. To mitigate this risk, the HIS adopts the design principles of providing hazard warning signs depicting oncoming vehicles in the middle of the road, supplemented by UK standard stopping sight/visibility distance for





Summary of Submission Applicant's Comments

a 20mph speed limit to enable HGV drivers to safely react to the highway environment and 'yield' to oncoming HGVs as required.

The HIS design has been informed by a full topographical survey and demonstrates the swept path simulation of the largest UK standard HGV; a 44t articulated tractor and semi-trailer, 2.55m wide trailer, 2.49m cab width and 0.25m wide wing mirrors.

In respect of HGV arrival/regulation, the HIS scheme design has been developed to accommodate an even arrival profile for the Project's HGVs (the management of which is secured in the OTMP [REP10-016]) and a random arrival pattern for non-Project HGVs.

An intensive monitoring regime and further driver compliance intervention measures were introduced at Deadline 8 in the Outline Traffic Management Plan (V4) [REP8-008] to accommodate the RSA recommendations. In addition, in response to NCC's request for clarification, the text has been refined, as agreed with NCC, and is included in the OTMP (Version 5) submitted at Deadline 10 [REP10-016]. Agreement is confirmed in both the final Statement of Common Ground with Norfolk County Council (Version 3) [REP9-015] and the Applicant's Joint Final Position Statement with Norfolk County Council Highway Intervention Scheme, Cawston (ExA.AS-1.D11.V1) to be submitted at Deadline 11. The range of measures to enable targeted intervention on validation of a driver compliance issue are as follows:

- Applying the OTMP 'breach' corrective process identified in Section 5.4 and 5.5 to the supply chain;
- Further hazard signing;
- Introducing mandatory priority 'give-way';
- Increased parking enforcement;
- A reduction in the cumulative HGV cap (239 HGV movements) by ensuring Norfolk Boreas and Hornsea Project Three traffic demand does not overlap; and
- Incrementally reducing the volume of traffic passing through Cawston from 239 HGV movements through targeted intervention





Summary of Submission A	
Н	informed by monitoring in consultation with the Highways Authority. As a result, NCC has now agreed that (whilst not their preferred option) the HIS is an appropriate and sufficient to mitigate impacts on Cawston, both alone and cumulatively with other projects.

Alternative Routes

We note that NCC's letter dated 27th April 2020 states that while they have no technical objection to the HIS (our emphasis) it is no longer their preferred solution.

NCCs letter shows their clear preference for Option 2, and we are in full agreement with that. Cawston residents should not be the victims of the Applicant's failure to use accurate data and carry out proper surveys when drawing up its plans.

Cawston Parish Council would like to re-emphasise that the Applicant has provided details of a viable alternative route for all Windfarm Construction Traffic avoiding the centre of Cawston, the weak railway bridge and inadequate bridge across Salle Beck. Unsurprisingly this route, originally proposed by Cawston Parish Council, is the preferred diversionary route for both Norfolk County Council and Cawston Parish Council.

The preferred diversionary route, designated Option 2 by the Applicant in the meeting convened by the ExA between the County District and Parish Councils in February, follows the line of the Applicant's cable route from Oulton to Salle. At that meeting the Applicant made clear that it did not favour Option 2, mainly for reasons of expense and the inconvenience of reopening negotiations with landowners.

The Applicant's inconvenience from having to implement Option 2 results from their overconfidence that their plans would emerge unaltered by the National Infrastructure Planning process. Pre-judging the application's outcome is not a justification for the Applicant trying to force through an unworkable and destructive plan for construction traffic in Cawston. Sadly, it is another display of the inflexibility and arrogance with which the Applicant regards local concerns and objections.

The Applicant refers to the Applicant's comments on responses to the ExA's fourth round of written questions Q4.14.1.7, where they have commented on Cawston Parish Council, Broadland District Council and Norfolk County Council's responses on alternative routes.

In summary, the Applicant has given clear reasons why an alternative haul route is not workable or proportionate (please refer to the Applicant's response to the ExA's third written questions Q3.14.1.8 [REP7-017]). The Applicant fully explored the alternatives before reaching a conclusion, and expense or inconvenience were not reasons for eliminating any options.

Whilst the HIS may not be NCC's preferred approach, it is agreed that the HIS is sufficient to mitigate against the traffic impact arising from the Project on Link 34 (Cawston) alone, and cumulatively with other projects.

The Applicant has submitted compelling evidence to the Examining Authority, and in turn the Secretary of State, to rule out the alternative options. They are not appropriate alternatives to the HIS especially since the agreed position between NCC and the Applicant is that the HIS can mitigate impacts on Cawston.

On-street parking

Removal of all or a substantial amount of on-street parking capacity has never formed part of the HIS design taken forward by the Norfolk Boreas Project.

[REP4-016] Technical Note – Revised Cawston Highway Intervention Scheme sets out the rational for the HIS parking strategy. In summary, the on-street parking arrangements have been optimised, informed by the kerbside





On reading the Applicant's Responses (REP7-017) to the ExA's 3rd round of written questions, we are forced to ask why they proposed Options 2, 3, and 4 as alternatives at the meeting with IPs in February when in this document they say they are "unworkable".

The end of this meeting was notable for the Applicant unveiling a Position Statement which had been prepared in advance; and which none of the other parties then accepted. It seems we spent many hours, in good faith, preparing for and attending a meeting to discuss alternatives which the Applicant had themselves drawn up and yet considered "unworkable".

This shows a complete lack of respect both to the ExA, who requested that the meeting be arranged, and for other IPs, who attended the meeting in good faith to seek a viable alternative route, other than driving construction traffic through Cawston.

Applicant's Comments

parking surveys undertaken by Cawston Parish Council during July 2019, ensuring there are enough bays to meet the demand evidenced. Parking within the bays would be enforced by limited waiting restrictions during the hours of 09:00 to 18:00.

The guiding principle for the scheme is "a balance to protect residents parking amenity but to also afford enough time for deliveries to ensure the construction works can progress in a timely manner." No further changes are anticipated to the finalised HIS scheme detailed in the OTMP [REP10-016] and should the monitoring regime identify a driver compliance issue, the parking strategy guiding principle will be maintained when considering further intervention options.

As agreed with NCC, all residual HIS matters have now been addressed and the concept design is finalised (see the Applicant and NCC's Joint Position Statement [ExA.AS-1.D11.V1]). The Applicant and NCC are agreed that the HIS, with its associated monitoring regime and driver compliance intervention measures, is sufficient to mitigate the impacts of Norfolk Boreas and Hornsea Project Three cumulative construction traffic.

HGV Numbers

The ARX definition of HGV, used by the Applicant, includes all vehicles over 7.5 tonnes. Analysis of the "baseline" number of HGVs used by the Applicant shows that it is largely made up of medium size vehicles, whereas the Applicant's HGVs will all be in the large category.

This imbalance will skew any average based calculations. Points to consider here include weight and the number of axles, which will cause more noise, vibration and damage as they increase.

An alternative view of the Applicant's Tables 1 & 2 looks like this:-

The Norfolk Boreas Traffic and Transport and Noise and Vibration assessments adopted the ARX system, a nationally recognised traffic classification system, adopted by traffic count specialist suppliers for mechanised traffic counts. It is archetypally used in the UK planning system when there is a requirement for a traffic impact assessment to support a planning application.

The Traffic and Transport and Noise and Vibration impact assessments both followed national guidance when determining impact and mitigation for the Norfolk Boreas Project namely; the Guidelines for the Environmental Assessment of Road Traffic, IEA, 1993 and Design Manual for Roads and Bridges (DMRB), Sustainability & Environment Appraisal LA111 Noise and





	BASELINE	BOREAS Scen. 2 peak		Consolidated H3 and Boreas peak	
Class	12 hour	12 hour	% increase	12 hour	% increase
Class 4	185	0		0	
Medium	13	0		0	
Heavy	9	112	1144%	239	2556%
Total	207	319	54%	446	115%

In our research we also came across the Government website roadtraffic.dft.gov.uk, which includes counts of the daily average traffic flow at various sites. Some have been taken more frequently than others, but it does give the following data:-

Ref.	Location	Year	All motor vehicles	Heavy goods vehicles
941732	B1145 Cawston	2008	3459	111
941768	B1145Reepham	2008	3216	59
941768	B1145Reepham	2018	2880	53

There is no data for Cawston in 2018, but this suggests that the flow of HGVs (using the ARX definition) in Reepham, the next town to Cawston on the B1145, has stayed about the same, whereas the HGV flow through Cawston has already increased from 111 (daily) in 2008 to the Baseline figure of 207 (12 hour) in 2019.

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Vibration, Highways England 2019, respectively. This guidance prescribes the methodology for the assessment of impact significance and is not sensitive to HGV disaggregation. Therefore, the ARX classification of HGV is valid to quantify baseline HGV flow.

In summary, the Applicant can confirm the assessments presented in the ES comply with national guidance and represent a valid and robust approach to Environmental Impact Assessment.

The DfT count for Cawston reference 941732 is a manual classified count and uses a different HGV classification system to the ARX system previously discussed. It is therefore not possible to make a meaningful comparison between the data sets.





HaskoningDHV Enhancing Society Together	VAITENFALL
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This is an increase of 86%, and the Applicant's peak 12 hour combined Boreas and H3 at 446 would represent an increase of 302% over the 2008 daily figure.	
No wonder residents are appalled at the prospect.	
Noise, Vibration and Air Quality	
The Applicant's "Note" (REP8-028) on these matters finds that impacts are not significant and no mitigation is necessary. This does not come as a surprise to those who have spent several years challenging such desk- based modelling assumptions across many issues and trying to introduce a sense of reality and rational assessment. While we may not have the technical or financial resources to conduct an independent analysis of these calculations we can assure the ExA that these conclusions are at odds with the daily real life experiences of residents, who are only too well aware how models can be set up to provide the results that the author wants to show. For example:	fourth round of written questions Q4.1.2.1 and Q4.12.2 [ExA.WQR-4.D11.V1], where detailed comment has been provided on Cawston Parish Council and Broadland District Council's responses to the specific concerns in Clarification Note potential noise, vibration and air quality effects of the Cawston Revised Highway Intervention Scheme [REP8-028]. It is important to note that the Clarification Note [REP8-028] produced provides assessment of potential road traffic noise in accordance with the latest best practice methodology (H. (Design Manual for Roads and Bridges (DMRB), Sustainability & Environment Appraisal LA111 Noise and Vibration,
 The Applicant assesses Cawston as merely "medium sensitivity" in its calculations. They use a basic noise calculation that compares relative not absolute levels. Calculations use 18 hour averages The calculations still use H3's questionable base data The conclusions rely on strict 20 mph adherence, when all official evidence tells 	Highways England 2019 and Calculation of Road Traffic Noise (CRTN), Department of Transport, Welsh Office, 1988). This desk-based modelling approach is the agreed and accepted methodology for undertaking assessment of road traffic noise. The methodology has been agreed by Broadland District Council both through the EPP and the Assessment Methodology sections of the Statement of Common Ground with Broadland District Council (Version 4) [REP10-036].

The model seems to be based on different working hours from those now proposed and to assume idling only when two of the Applicant's HGVs are approaching each other – the reality is that an HGV approaching any other vehicle, including non-wind farm HGVs, will have to stop.

us that speed will not be reduced to anything like 20mph

It does not take account of the effects of braking and acceleration from rest when HGVs have stopped at a passing place, their noise in moving away may be greater than for a constant speed vehicle passing. Apparently there are no standards for calculating or





Summary of Submission	Applicant's Comments
assessing noise from accelerating traffic. Just because you don't have a measure for it doesn't mean it doesn't exist or have impact on "receptors".	
There is no assessment of the impact of non HGV wind farm traffic, some 407 movements per day of staff going to and from work. These will be clustered in a short period before or after the working day, so there could be 200+ movements through Cawston around 0630-0645 and again 1915-1930. This will have a significant impact.	

Cawston Parish Council's Residents Survey

This was submitted as REP7-037. The Applicant's response (REP9-014) is intriguing. It concludes:-

"It appears from the residents' responses that the scope of the Highway Intervention Scheme (HIS) and overall package of measures to mitigate the issues raised are not clearly understood by residents".

The Applicant's analysis identifies a number of "general themes":

- Pedestrian conflict with vehicles
- High speeds through Cawston Village Centre
- Cars parking on pavements; and
- Risk to children walking to/from school.

This is an interesting selection, as "cars parking on pavements" is certainly not a theme whereas narrow footpaths and danger from wing mirrors are recurring issues, along with the dangers from traffic driving on the pavement, as witnessed at successive ASIs.

We might paraphrase the Applicant's conclusion in our own words:-

"It appears from the Applicants response that that the real dangers arising from its latest HIS, as identified by residents and noted in its own RSA, are still not clearly understood by the Applicants themselves."

The Applicant refers to the Applicant's comments on Deadline 7 submissions [REP8-014], where the full response to the residents survey can be read in full and in which the Applicant acknowledges that:

'the consistent tone from responses presented is that the concerns of pedestrians relating to existing conditions would be exacerbated by the introduction of additional construction HGVs related to the Norfolk Boreas and Hornsea Project Three Offshore wind farm projects, and consequently, perceived risks to pedestrian safety will be greatly increased.'

The Applicant understands the concerns over pedestrian safety and in the Applicant's response to the Road Safety Audit (REP5-055) sets out measures to address these. NCC in their response to the ExA's fourth written questions [REP10-050] Q14.1.1.1 confirm they 'agreed with the Applicant's response and had no further comment to add.'

The Applicant is committed to ongoing engagement throughout preconstruction and construction phases of the project should it be consented and proceed to construction. There will be opportunities for two way dialogue so that any appropriate local suggestions which can further mitigate potential impacts and allay residents' concerns, that can be accommodated, might also be considered.





1.3 REP10-048 Mulbarton Parish Council

Summary of Submission	Applicant's Comments
Mulbarton Parish Council – Offshore Ring Main	
REP10-048 raises the issue of the use of an Offshore Ring Main (OrM) and concludes that 'Mulbarton Parish Council objects to the proposed DCO for Norfolk Boreas. We do not consider that the public interest is served by the proposed radial connection scheme.'	The Applicant refers to the following submissions previously made regarding the topic of an ORM: • Comments on Relevant Representations [AS-024) • Response to the ExA's Further Written Questions at Q2.7.0.1 [REP5-045] • Response to the ExA's Third Written Questions at Q3.7.0.1 The Applicant's position remains that significant progress needs to be made before concrete proposals can be put forward for consent, let alone before the point of certainty that they will be implemented. As the expected construction time-frame for Norfolk Boreas is between 2025 and 2030, the Applicant considers that it would be impossible for the ORM to be developed, consented and delivered in time to facilitate connection to the Great Britain (GB) transmission system to suit the project construction time-line.

1.4 REP10-052 Oulton Parish Council Deadline 10 Submission

Summary of Submission	Applicant's Comments
Old Railway Gatehouse	
OPC has been deeply disappointed that the Applicant has not seen fit to make any direct approach to the residents until a very few days ago. This has caused unnecessary distress and uncertainty for them and will now mean that discussions on suitable mitigation will be carried out under a severe time pressure.	The Applicant refers to the Applicant's comments on responses to the ExA's fourth round of written questions Q4.12.2.1 [ExA.WQR-4.D11.V1] where it provides a summary of the correspondence undertaken with the residents of Old Railway Gatehouse.
The Applicant's conclusion that, simply because of the introduction of a few passing places and the grading of a hump, the adverse effects of their additional traffic will be "non-significant," is breathtaking.	The Applicant also refers to the Applicant's response to the ExA's fourth written questions Q4.12.2.1 and the OTMP [REP10-016] section 4.3.3 and Table 4.2 which sets out the full suite of mitigation proposed for The Street,





We understand that the residents are concerned that the current measures on offer only include acoustic glazing and the construction of a wall around the part of the property to the **south**, but no mention is made of the need for protection from noise and emissions at the **northern** end of the property, where the need is just as acute.

It is hard to avoid the conclusion that the Applicant would have preferred to 'deal' with the residents of the Gatehouse post-consent, and therefore post-scrutiny.

However, OPC urges the ExA to ensure, in every way possible, that any mitigation measures are secured in the DCO and with a much higher status than "Optional". It is vital for instance that such measures should be firmly embedded with the rest of the Highway Intervention Scheme for Link 68, such that it is clearly understood that whichever project goes ahead first (Hornsea Three or Vanguard/Boreas) the first developer is committed to carrying out those measures pre-construction on the Old Railway Gatehouse.

In addition, we are obliged to point out that, if the very recently submitted further option for the HIS through Cawston, which includes moving MA6 from Salle to the B1149, is implemented then Bluestone Lodge and the two dwellings next to the humpback bridge on the Holt Road will be in dire need of similar mitigation.

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Oulton. The application of these measures are sufficient to mitigate impact at The Street to non-significant levels in EIA terms, however the Applicant has always been committed to adopting the further measures at Old Railway Gatehouse should the resident wish to take them forward. For clarity this has been confirmed within the latest OTMP [REP10-016] submitted at Deadline 10.

The Applicant refers to the Applicant's response to the ExA's third written questions Q3.14.1.8 [REP7-017]) where the Applicant has given clear reasons why an alternative haul route is not workable or proportionate. Agreement of the Highway Intervention Scheme with Norfolk County Council is confirmed in both the final Statement of Common Ground with Norfolk County Council (Version 3) [REP9-015] and the Applicant's Joint Final Position Statement with Norfolk County Council Highway Intervention Scheme, Cawston (ExA.AS-1.D11.V1) to be submitted at Deadline 11. The Applicant can confirm that the final Highway Intervention Scheme does not include the relocation of MA6 from Salle to the B1149.

Trenchless crossing of the B1149 Holt Road and HIS for Cawston High Street

OPC notes the submission to the ExA of a letter from NCC, as the Highways Authority, dated 27th April 2020. We are grateful for the depth and clarity of this letter, and feel that it lays out very fully before the ExA many of the highway matters that remain – astonishingly – unresolved at this late stage in what is, after all, the second application by this same developer for the combined Vanguard/Boreas project.

Beyond the obvious issues of road-surface re-instatement, OPC agrees with NCC that the need that would be created by open-cut trenching for 24-hour traffic signals on the B1149 would have unacceptable impacts in terms of driver delay and the night-time noise of stopping and starting. It would also risk, at peak times, a dangerous backing-up

The Applicant refers to the Applicant's Comments on Deadline 9 and Other Submissions [REP10-033] section 1.26 where it has addressed the points raised by NCC regarding the B1149 in the letter dated 27th April 2020.

The Applicant's position remains that evidence has been submitted to the examination which demonstrates that open cut crossing methods are appropriate and feasible at this location. The Applicant has addressed every issue raised by NCC to reach a position where NCC has no technical reason to object to the open cut crossing method.

Following the completion of the Norfolk Vanguard examination and the start of the Norfolk Boreas examination, the Applicant has continued to





of traffic towards the humpback bridge. In addition, BDC has already identified an unacceptable loss of hedgerow.

At the end of the Norfolk Vanguard examination, NCC states clearly that no agreement had been reached regarding the acceptability of the Cawston Highway Intervention Scheme (HIS). An update on the Cawston report and an update of the Road Safety Audit were due to be received by NCC on 3rd May 2019. Neither of these were received before the start of the Boreas examination – many months later - and, as stated in the letter: "the Applicant instead sought to progress the Cawston intervention scheme during the examination itself" (NCC's emphasis).

This extraordinary and inefficient time-wasting on the part of the Applicant has caused great frustration to all Interested Parties and possibly to the ExA itself. It has certainly hampered the serious examination of the serious problems with the HIS for Cawston High Street and has created this lamentable situation at the very end of the examination where new schemes are still being introduced, with no possibility of proper assessment.

Again, it is hard to escape the conclusion that the Applicant might prefer to 'deal' with the intractable issue of Cawston post-consent, because this inevitably means post-scrutiny by the ExA.

The question has to be asked: if these critical matters relating to the crossing of the Holt Road and a feasible and safe method of getting HGV traffic through Cawston High Street are still being wrangled over at this very late stage - is it because they are simply incapable of satisfactory resolution?

If there is any doubt about this, then it would be dangerous for the ExA to permit this application to proceed into its post-consent phase without these matters having been resolved.

In the meantime, Oulton Parish Council is extremely concerned at the very recent additions to the number of options being considered now for an HIS for Cawston, including one which would move MA6 from Salle to the Holt Road. Whilst Oulton would never wish to stand in the way of an HIS that finally removed the dangers of increased HGV traffic from Cawston High Street, we object strongly to the late arrival of this new plan, and the fact that Oulton has had no opportunity to study it in detail, in discussion

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develop the Highway Intervention Scheme (HIS) through Cawston. This included making a number of minor revisions to the scheme and undertaking a further Road Safety Audit. This has resulted in a scheme which has been agreed by NCC and is considered to be suitable to mitigate traffic impacts of the Project on (Link 34) Cawston alone, and cumulatively with other projects

Agreement of the HIS is confirmed in both the final Statement of Common Ground with Norfolk County Council (Version 3) [REP9-015] and the Applicant's Joint Final Position Statement with Norfolk County Council Highway Intervention Scheme, Cawston (ExA.AS-1.D11.V1) to be submitted at Deadline 11.

The Applicant notes Oulton Parish Council's objections to alternative access proposals for Cawston. The Applicant refers to the Applicant's response to the ExA's third written questions Q3.14.1.8 [REP7-017]) where the Applicant has given clear reasons why an alternative haul route is not workable or proportionate. This is further supported by NCC's agreement that the HIS is appropriate to mitigate both project alone and cumulative traffic impacts in relation to Cawston as confirmed in both the final Statement of Common Ground with Norfolk County Council (Version 3) [REP9-015] and the Applicants Joint Final Position Statement with Norfolk County Council Highway Intervention Scheme, Cawston (ExA.AS-1.D11.V1) to be submitted at Deadline 11.





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with NCC personnel. We have thus been deprived of the ability to assess properly its possible knock-on adverse impacts on our residents and we are concerned as to whether due process has been carried out.	
Link 68	

OPC are aware that NCC has accepted the Highway Mitigation Scheme for Link 68, but we would like it noted that the term used to describe it is only "adequate". Since it is largely an exercise based on the theoretical 'capacity' of a rural lane, we can only hope that their confidence will be justified.

Several of our concerns remain however, including our anxiety that the increased traffic on The Street and the B1149 will produce the significant potential for increased accidents if vehicles both large and small that *are not associated with the projects* misjudge the ability to pass one another at any point on the route. Driver understanding and judgement of how to operate the use of passing places on such a scale is notoriously unreliable. 'Passing places' as a traffic management solution to such a density of cumulative HGV traffic present their own problems in terms of driver compliance.

OPC would like to request that the ExA ensures that **the removal of these passing places is secured in the DCO** at de-commissioning stage, to prevent the legacy issues of a permanent industrialisation of our rural landscape.

Finally on this issue, the Parish Council remains concerned that the regular occurrence of highway congestion and dysfunction on Link 68 that will be created by the cumulative traffic generated by these projects will be entirely likely to displace large amounts of agricultural traffic from Street Farm and Saltcarr Farm and force them to choose over time *to come north through the residential settlement of Oulton Street*. At present, residents are only forced to tolerate about 50% of the traffic generated by these agribusinesses, but many fear that the dysfunction and congestion created by these projects on the southern end of The Street will force the agricultural HGVs to change their routes - and there is no mechanism available to prevent them from doing so.

The Applicant reiterates the Oulton Highway Mitigation Scheme has been subject to an Independent Road Safety Audit (RSA). A RSA is a review of scheme intervention by qualified road safety professionals independent to the design team. The purpose of a RSA is to identify aspects of engineering interventions that could give rise to road safety problems and to suggest modifications that could improve road safety for all users.

The RSA has informed the scheme development and any matters raised have been addressed in the finalised plans. NCC have confirmed in their response to the ExA's third round of written questions [REP8-036];

"our view remains the Highway Mitigation Scheme for Link 68 is adequate. The Highway Mitigation Scheme was assessed as part of the RSA conducted by Hornsea3 which included an assessment of suitability for NMU's. The RSA covered the cumulative scenario for all three wind farms and thus is applicable for Norfolk Boreas."

The Applicant's Comments on Responses to the Examining Authority's Written Questions Appendix 1, Hornsea Project Three Main Construction Compound Access Strategy VISSIM Modelling Update [REP3-004]. Concludes that:

- The VISSIM model for future scenario shows that the entire study network including The Street/B1149 junction would operate satisfactorily with delays of only 38 seconds to the journey from The Street to the B1149.
- A theoretical VISSIM model considering the traffic impact of an abnormal load vehicle using The Street and its junction with the B1149 is predicted to increase journey time by 69 seconds in a





Summary of Submission	Applicant's Comments
	northbound direction, the likelihood of such a scenario occurring is low with the majority of abnormal loads expected to be travelling outside the normal working day to limit the effect on the wider highway network.
	It is therefore evidenced that the delays forecast for the Street are not of the magnitude that would induce traffic to re-assign to alternative routes and therefore a shift in agricultural traffic movements is unlikely.
	The issue of highway reinstatement is addressed in paragraph 133 of the OTMP [REP10-016] which confirms; "The first project (either Hornsea Project Three or Norfolk Boreas or Norfolk Vanguard) to proceed to construction would deliver the full scheme of mitigation and the final project would be responsible for removing the measures once all project's construction phases are complete."
Link 75	

OPC challenges the possibility of the Applicant being able to implement any meaningful "localised carriage widening" on the scale needed to actually improve matters. The whole length of this narrow and tortuous rural road would be involved, which would be unrealistic.

Again, this sort of situation only serves to underline the point made by NCC Highways during ISH6 for the Hornsea Three project, namely that when traffic issues are left unresolved until after Examination or post-consent, then *Highways are at a disadvantage in future negotiations with the developer*.

OPC therefore urges the ExA to resolve these traffic issues in as much detail as possible within the DCO.

The B1354 has a centre line for the majority of the route which UK design standards direct can only be introduced on a minimum 5.5 m carriageway affording room for HGVs to pass. There are occasional pinch points which would require localised widening or hazard warning signs for HGVs to yield to oncoming HGVs (subject to adequate visibility) all of which measures can be accommodated within the public highway envelope.

More detail of highway accommodation measures would be secured in the final Traffic Management Plan submitted pursuant to the discharge of Requirement 21 of the dDCO following the appointment of a main contractor to enable logistics plans to be refined.





1.5 REP10-055 Eastern Inshore Fisheries and Conservation Authority Deadline 10 Submission

Summary of Submission Applicant's Comments

Response to the Applicant's proposed HHW SAC In-Principle Compensatory Measures

- 1.1. The following comments are raised for the situation in which the Secretary of State decides that no adverse effect on site integrity cannot be concluded and that compensatory measures are required to permit Norfolk Boreas Offshore Wind Farm to progress. We would like to refer to the mitigation hierarchy for dealing with negative impacts on biodiversity, which outline that compensatory measures should only be used where avoidance and mitigation are not possible or sufficient to conclude no adverse effect on site integrity.
- 1.2. Compensatory measures outside of the development site may offset the impact but will not prevent the negative impacts within the site. Eastern Inshore Fisheries and Conservation Authority (Eastern IFCA) would urge to first and foremost focus on avoiding, minimising and mitigating impacts within the offshore wind farm site and cable route.

The Applicant's firm position is that there is no adverse effect on integrity as a result of the Project alone or in-combination with other plans or projects. Therefore, derogation under Article 6 (4) of the Habitats Directive is not required. The Applicant has proposed significant mitigation measures, including those that which have been agreed at Deadline 10, to reduce any potential effects on the HHW SAC. These mitigation measures, many of which have been introduced during the Norfolk Boreas Examination, and therefore after the original Information to Support HRA Report [APP-201] had concluded there would be no AEoI, provide further confidence that a conclusion of no AEoI can be reached.

Without prejudice to this position, in-principle compensation has been presented as requested by the ExA along with appropriate drafting to secure this in the DCO if necessary.

The Applicant welcomes the advice and opinions provided within the Eastern IFCAs submission, and note that this is consistent with the advice which has been provided to the Norfolk Vanguard consultation.

The Applicant has undertaken an assessment of alternative cable routes both as part of the EIA [APP-217] and in the context of an in-principle derogation case [REP7-024] and has concluded that there is no feasible alternative export cable route that would avoid the HHW SAC. This is due to the fact that if cables were routed to the north of the HHW SAC they would encounter other designated sites (both SACs and MCZs) and if routed to the south they would encounter licensed aggregate dredging areas and further designated sites. Therefore, impacts would be far greater if an alternative were used. The Applicant has reduced and mitigated impacts as far as possible. This has been acknowledged by Natural England in their Position Statement regarding mitigation and compensation [REP9-045, para 1.24] which states, "Natural England considers that the Applicant has taken all reasonable steps to reduce the impacts of the proposed development on both of the designated features of HHW SAC and we welcome this effort". Whilst Natural England has also suggested that surface





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	laid cables and marker buoys could be employed to remove the need for cable protection, the Applicant has explained that this is not feasible due to water depths within the HHW SAC, the mobile sediment conditions, the distance offshore and possible risks to the Health and Safety of other marine users [REP10-033].
2.1. Eastern IFCA have identified a number of areas within REP7-027 that could benefit from increased clarity and/or correction. We would appreciate it if the Applicant could please provide either correction or explanation on these points, which are set out in paragraph 2.2 below.	[Please note that where the Eastern IFCA refer to 0.3km² in Table 3.1 of the [RE7-027], this is not quoted correctly as Table 3.1 refers to 0.03km². However, the response provided below assumes the Eastern IFCA are referring to the numbers as quoted correctly in Table 3.1].
2.2. Eastern IFCA have been in discussion with the Applicant regarding some errors in the numbers set out in REP7-027. In particular, Table 3.1 outlines that the maximum worst case habitat loss for the project would be 0.3km2 (including 0.02km² reef and 0.03 km² sandbanks), however Paragraph 36 then continues to state that based on Norfolk Vanguard creating 0.02km² area of habitat loss, the total habitat loss would then be 0.04km² for the two projects. When queried over these number, which do not add up, the Applicant outlined that Paragraph 36 has added in the additional total area of impact of Norfolk Vanguard for reef but omitted in error the combined area for Annex I sandbanks, and therefore should have stated that "if constructed Norfolk Vanguard Limited would also create up to 0.02km² area of habitat loss for Annex I reef and up to 0.3km² for Annex I sandbanks, thus the total area of habitat loss within the HHW SAC across the two projects would be up to 0.04km² for Annex I reef and up to 0.6km² for Annex I sandbanks." Based on these numbers, Eastern IFCA would like to further query the numbers used throughout the remainder of the document, which use a value of 0.02km² area of habitat loss for Annex I sandbanks (e.g. Figure 4.2/Footnote 10).	As stated in the Applicant's In Principle Habitats Regulations Derogation Provision of Evidence [REP7-024]. The nature and extent of compensatory measures can only be addressed if and when the precise nature of any AEoI has been identified and quantified. Furthermore, the Applicant will not know until further detail on the route design and further survey data (a survey is due to take place in summer 2020), the precise size of the area which will be affected, and therefore the precise area of compensation which may be required. The compensatory measures proposed by the Applicant were developed jointly with Norfolk Vanguard, in consultation with Natural England as the Statutory Nature Conservation Body. During these consultations [listed in Appendix 4 of the derogation case, REP7-028] the primary concern of Natural England was permanent habitat loss for Annex I reef due to cable protection placed where cables cannot be buried to the optimum depth. Natural England's position has always been that cable protection placed at cable crossings does not pose a threat to Annex I reef as any reef growing on existing infrastructure does not constitute Annex I reef. Therefore, the worst case scenario for habitat loss on Annex I reef is only associated with cable protection required to protect unburied cable. This area would be up to 0.02km².
	At the time of writing the derogation case, it had not been confirmed with Natural England whether this approach should also be applied to Annex I Sandbanks and their communities. Therefore, the worst case scenario for the Sandbank feature includes cable protection placed at crossings and (as with the reef) cable protection placed where cables cannot be buried to the optimum depth. This equates to an area of 0.03km ² .





Summary of Submission Applicant's Comments

Given that Natural England's primary concern was the effects that cable protection would cause to Annex I reef, the figure of $0.02 \, \text{km}^2$ was used when multiplying by the 1:10 ratio to determine that a $200,000 \, \text{m}^2$ ($0.2 \, \text{km}^2$) area was required for compensation. This was particularly relevant to the Norfolk Vanguard project as, at the end of Examination the areas of disagreement on AEoI focused on Annex I reef and cable protection to be installed where cables were not buried to the optimum depth. This is why paragraph 36 states a combined worst case scenario of $0.04 \, \text{km}^2$.

As set out above, the combined totals for Annex I Sandbanks were not included in paragraph 36 because in consultation with Natural England, this was not the focus of the compensatory measures. Whilst the combined values for Annex I Sandbanks of 0.06km² could have been included for completeness, the combined worst case has subsequently been reduced to 0.04km² because:

- The Applicant has agreed out of service agreements with BT Subsea and DTAG for Deadline 10 which has allowed the Applicant to reduce the number of cable crossings within the HHW SAC to four per export cable;
- The Applicant has now reached agreement with BT Subsea and TDC NET on a further two out of service cables which would reduce the worst case scenario to two cable crossings within the HHW SAC; and
- At Deadline 10, the Applicant agreed with Natural England to include a
 condition that cable protection measures must not take the form of rock
 or gravel dumping in the HHW SAC. As a result, cable protection will not
 hinder physical processes that govern the Annex I Sandbanks, and in
 Natural England's view this "significantly reduces the risk of AEoI".

With the out of service agreements in place the, the worst case scenario of each project for Annex I Sandbanks will be reduced from $0.03 \, \text{km}^2$ to $0.02 \, \text{km}^2$. Therefore, the combined total would be $0.04 \, \text{km}^2$ ($0.02 \, \text{km}^2 + 0.02 \, \text{km}^2 = 0.04 \, \text{km}^2$) and therefore the wording in paragraph 36 would not change.

As stated in the derogation case [REP7-028] the worst case scenario areas for Annex I reef and Annex I Sandbanks should not be added together as the habitats cannot overlap therefore if the worst case scenario area of 0.02km² is affecting Annex I Sandbanks, it cannot be affecting Annex I S. spinulosa reef. The worst





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	case scenario values used in the remainder of the document, e.g. Figure 4.2/Footnote 10, are therefore correct.
	As explained in the Applicant's response to WQ4.16.0.2 [REP10-034] should the Secretary of State (SoS) determine that both Norfolk Boreas and Norfolk Vanguard are required to provided compensatory measures, Norfolk Boreas would not be required to provide compensatory measures for combined effects with Norfolk Vanguard. Therefore, the combined figure stated in paragraph 36 relates to the proposal for strategic delivery of the compensation if it is required for both projects.
	In conclusion, the numbers provided in the derogation case were included to illustrate an area that could be delivered as a compensatory measure. However, until the SoS determines whether compensation is required, and if so which specific features require compensation (i.e. cable protection, cable installation, Annex I reef or Annex I sandbank) it is not possible to conclude the precise size of any compensatory measures to be delivered. This would therefore only be confirmed post consent as part of the scheme to be submitted for the Secretary of State's approval. Accordingly, the Applicant has not updated the derogation case previously submitted.
Section 2.2.2 of the document outlines the pressures that are already in existence in the Haisborough, Hammond and Winterton SAC (HHW SAC) and refers to high pressure from fishing.	The Applicant would like to clarify that the Natura 2000 Standard Data form for the HHW SAC ¹ identifies fishing as having high pressure on the SAC. This is due to the fact that the designated features are sensitive to fishing rather than identifying high amounts of fishing pressure.
Eastern IFCA would like to reiterate that this pressure is not consistent throughout the SAC, and that fishing pressure in the inshore area (within 0-6 nautical miles) is low. This has been explained in writing throughout the examination process, and is also detailed in the SAC Selection Assessment document, which explains "to the north and west of the site, the key fishing activities are less damaging, and include gill netting, long lining and potting". A more detailed description of fishing activity within the inshore area is provided below (Section 4.3).	The Applicant is aware that fishing pressure varies across the site and is currently much higher in the far east of the site, outside of the Eastern IFCA's jurisdiction.
	The Applicant considers that the Eastern IFCA's explanation that inshore areas of the HHW SAC currently experience very low fishing pressure adds further evidence to its firm position (stated in the Applicant's position paper on the HHW SAC [REP5-057]) that it will be able to successfully microsite around Annex I <i>S.spinulosa</i> reef. The best available data shows that the Applicant would be able to microsite around Annex I reef. Natural England consider that fisheries

¹ http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=UK0030369





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	management measures proposed within the HHW SAC, such as Area 36 which has been proposed within the Norfolk Boreas offshore cable corridor (see the Applicant's clarification note [REP4-022] on Optimising cable routing within the HHW SAC) will reduce fishing pressure which could lead to a significant increase in the extent of Annex I reef. Natural England have concerns that this could occur to such an extent that the Applicant would not be able to successfully microsite around Annex I reef, which is one of the key mitigation measures. The Applicant does not consider that the fisheries management measures will have such an effect, and this is because the current level of fishing is very low and therefore its restriction will have a very limited effect. The Eastern IFCAs description here and elsewhere in their Deadline 10 submission adds further weight to the Applicant's position.
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Compensatory measure proposals considered but not carried forward within the draft DCO

Establish an Annex 1 reef at a location outside the HHW SAC

Eastern IFCA would in principle be supportive of appropriate proposals to introduce native mussels or oysters into areas of the North East Norfolk coast, or within another offshore wind farm area, however, would need further information to provide formal comments on any proposals. Despite the current consideration that oyster beds are not an Annex 1 habitat feature, Eastern IFCA consider that supporting the establishment of a native oyster bed could provide similar environmental benefit to Sabellaria reef, supporting valuable ecosystem services (e.g. water filtration, habitat provision for forage fish, invertebrates and other shellfish, and at large scales shoreline protection, wave buffering). Oyster beds are also considered a feature of conservation importance in some Marine Conservation Zones on the east coast. If this option were being considered to be taken forward, Eastern IFCA would require further details of the fisheries implications of any such proposal, including whether introduced beds would be fished (within appropriate parameters) and whether such a proposal would require management of towed-demersal fishing gear within the 0-6 nautical mile area.

The Applicant welcomes the Eastern IFCA's potential support for this option, however, as previously stated [REP7-027] Natural England advised that oyster beds would not deliver coherence of the Natura 2000 network and therefore this was ruled out as an option for providing appropriate compensation.

Removal of disused anthropogenic infrastructure and litter

In principle, Eastern IFCA would be supportive of the removal of disused anthropogenic infrastructure and litter. However, more information would be needed to support a litter removal proposal. Considerations would need to include the extent

The Applicant welcomes the Eastern IFCA's advice and potential support for this option, however, as previously stated [REP7-027] there is no certainty in locating enough disused anthropogenic infrastructure and litter within the HHW SAC to provide the correct level of compensation. The Applicant notes that the Eastern IFCA are not aware of any 'hot spot' areas which could be targeted for





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of marine litter footprint, and the location of any disused anthropogenic infrastructure and litter. Eastern IFCA advise that we are not aware of any specific 'hotspots' for lost fishing gear in the area, and that we do not know how likely it is that these occur considering the low level of fishing activity in the inshore area. We advise discussing options with the fishing industry, Natural England and NGOs.	removal of fishing gear and this information is included within the document [REP7-028]. The Applicant has consulted with Natural England (as well as the Eastern IFCA) on this option and it has been ruled out due to uncertainties associated with the practicality of finding and removing infrastructure and litter.
Eastern IFCA do not consider it equitable to penalise inshore fishery stakeholders (by introducing additional spatial closures) for environmental damage caused by the offshore renewables industry. Eastern IFCA will not support compensatory measures that increase restrictions on fishing activities, particularly where those activities have been assessed and found to be compatible with conservation objectives for the designated site. Fisheries are already subject to assessment under the Habitats Regulations, and measures have been put in place (or are in development) to ensure fisheries do not have an adverse effect on designated sites. Once in force, Eastern IFCA's Marine Protected Areas Byelaw 2019 will close areas within the HHW SAC agreed with Natural England as requiring closure to towed-demersal fishing to protect Annex 1 reef. Further work will be undertaken by Eastern IFCA to assess the impact of fishing on the sandbanks features within 0-6nm; however, at this stage additional closures are considered neither necessary nor proportionate to risk of damage from fishing. Should evidence for additional areas of Sabellaria reef come to light through additional surveys, it would be standard practice under Article 9(1) of The Conservation of Habitats and Species Regulations 2017 (as a function of Part 6 of the Marine and Coastal Access Act 2009) for Eastern IFCA to introduce additional spatial restrictions to protect these from towed-demersal fishing.	The Applicant notes that the Eastern IFCA does not support this option. The Applicant ruled this option out due to uncertainties on what mechanism could be used to deliver such measures [REP7-027].
Eastern IFCA's comments on the proposal for an extension to the Haisborough Hamm	ond and Winterton Special Area of Conservation
4.1.1. The network of MPAs in English waters was completed with the designation of the third tranche of Marine Conservation Zones (MCZs) in 2016. These complement the Natura 2000 network of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) to form the English "Blue Belt". 4.1.2. Over 96% of the Eastern IFCA district (0-6nm coastal waters between the	Noted, the Applicant is aware of this information and it would be duly considered in the final proposals should they be required.
Humber and Harwich) has been designated as a MPA (Figure 1). 4.1.3. Fisheries regulators are responsible for assessing the impacts of licensed fishing activities on MPAs and managing these activities to support the conservation	





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objectives of these sites. The relevant bodies are IFCAs within inshore waters (0-6nm), the Marine Management Organisation (MMO) and Defra (6-200nm). 4.1.4. HHW SAC lies partly in inshore waters but mostly beyond 6nm. Eastern IFCA has agreed to exclude towed demersal fishing from areas of the most sensitive habitat, biogenic reef: Sabellaria within the 0-6nm section of the site under the MPA Byelaw	
2019 (Figure 2). MMO has done the same where the feature occurs in the 0-12nm section of the site. Defra has presented management proposals to prohibit towed demersal fishing from the majority of the SAC beyond 6nm, to protect Sabellaria reef and the other designated feature for this site, subtidal sandbanks	
4.1.5. Eastern IFCA's Byelaw 3 (applicable across the entire 0-6nm area) prohibits fishing for molluscs via any method other than hand working throughout the Eastern IFCA district without prior permission from the Authority; this protects seabed habitats from impacts from dredges. In addition, Byelaw 12 prohibits trawling within 0-3nm by vessels greater than 15.24m; this further protects seabed habitats by limiting the size (and by extension, weight) of fishing gear that can be used. Furthermore, Eastern IFCA's whelk permit byelaw limits the number of whelk pots that can be used from vessels fishing in the 0-6nm area: although designed as a stock sustainability measure, an additional outcome is a limit on the level of interaction between whelk pots and seabed habitats.	
4.2.1. Ecological benefits, if the SAC extension designation is agreed, could include a local increase in abundance and diversity of species within the extension area, if – in order to meet the conservation objectives of the site – anthropogenic activities are restricted. If it is assessed that there is no requirement to restrict anthropogenic activities within the extension area, then no change to the abundance or diversity of species within the extension area would be expected. Given the very low level of fishing in the extension area (see 4.3.5) it is unlikely that fisheries management would be needed, beyond protection of very small reef areas.	Should the site be extended, the area would be managed to prevent any future pressures that would reduce abundance and diversity of species and most importantly damage Annex I habitats. This may include future increases in fishing pressure and also future projects and plans. As noted by the Applicant in it position paper on the HHW SAC [REP5-057] there is currently very low fishing effort within the Eastern IFCAs proposed fisheries byelaw area (Area 36) which is being proposed in order to protect a priority area of Annex I reef. The Applicant would therefore consider that an extension to the HHW SAC to include further Annex I reef would be implemented with similar aims to that of the Eastern IFCAs current proposals, which are also to designate areas (albeit with specific fisheries management measures) to protect Annex I reef from future pressures.
4.2.2. Eastern IFCA understand that the 10:1 ratio proposed for compensation is based on the experience of the Maasvlakte 2 project. However, we would highlight	As outlined above in the second row of this table, the Figures presented in the document are in principle only and are based on the current worst case





that the decision to take a 10:1 ratio forward was case-specific, based on calculations that found within the Voordelta European Marine Site removing the use of beam trawls could result in an increase in habitat quality of 10%. Therefore, it was considered appropriate for beam trawling to be removed from an area 10 times that of the area to be lost.

4.2.3. Eastern IFCA do not consider that this ratio can be taken directly from one project and applied to another. For the Norfolk Vanguard and Norfolk Boreas projects, further case specific considerations and calculations are required to select an appropriate compensation ratio. The ratio chosen should be calculated based on the specific in-principle measures proposed, the required compensatory outcome, the type and intensity of ongoing activities within HHW SAC (or within any proposed extension), and the best available evidence on the conservation benefits any in-principle measures would have.

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scenario. These are likely to be reduced as further detail on the design of the export cable route becomes available and survey data identifies the location and extent of Annex I habitats along the route. The ratios used in any final case would be agreed with relevant stakeholders post consent as part of the scheme to be submitted for the Secretary of State's approval.

4.2.4. The Applicant has proposed a 120km² area for consideration for extension of HHW SAC to compensate for potential loss of, and or damage to, areas of designated habitat within the existing SAC. Under the Applicant's worst-case scenario that the predicted potential area affected is 0.03km² for Norfolk Boreas alone (including 0.03km² of sandbanks and 0.02km² of Sabellaria reef), the area being considered for extension is 4,000 times greater than the worst-case scenario affected area. Eastern IFCA considers this proposed mitigation is not proportionate. Potential ecological benefits must be considered against potential socioeconomic impacts.

The Applicant notes the Eastern IFCAs concerns regarding the overcompensation of the in principle measures. The 120km² area shown in Figure 4.4 of the document was an indicative extension provided to illustrate that there are large areas within which a potential extension could be designated which would adequately compensate for any effects on the existing HHW SAC. During consultation with Natural England and the MMO it was decided that benefit in extending the HHW SAC by the small area shown in Figure 4.1 and Figure 4.2 of the document would not be proportionate to the investment (effort, funding and time) involved. Therefore, it would be more efficient to secure a larger extension. However, as set out above the precise area and element of overcompensation required would be agreed post consent once it is determined that compensation is required, and the basis on which this is required is known. The final area proposed for extension would be relative to the area affected, as determined by the SoS.

4.3. Socioeconomic impacts of designation

4.3.1. The area to be considered for extension to HHW SAC lies entirely within 0-6nm waters. As such, the relevant fisheries regulator (in relation to MPA assessment and management) would be Eastern IFCA. If the extension is designated, Eastern IFCA would be required to scrutinise feature evidence, assess the impacts of licensed fishing on site features, identify appropriate management (if needed) to ensure fisheries do not hinder achievement of conservation objectives, evaluate the impacts

The Applicant understands that an extension to the HHW SAC such as the indicative one illustrated in Figure 4.4 may increase the scale of Eastern IFCA's duties and would be willing to discuss appropriate levels of support once the scale of extension was agreed.





to fisheries, engage with stakeholders, and undertake formal consultation and legal checks to support submission of a byelaw for Defra sign-off. If measures are agreed, further action would include monitoring of fishing activity, enforcement action for non-compliance with measures, and potentially monitoring of features to assess effectiveness of management. These are significant undertakings and Eastern IFCA would seek to recover associated costs from the Applicant (wind farm developer). Feature monitoring in the marine environment is expensive as it requires resource-intensive vessel based surveys.

- 4.3.2. If designated, it is highly likely that towed-demersal fishing must be prohibited in areas where the Annex I habitat biogenic reef: Sabellaria is found within the extension area. This is a relatively small area of the proposed extension area, but still significantly larger than the affected area.
- 4.3.3. It is possible, but uncertain at this stage, that towed-demersal fishing will also need to be restricted in areas where the designated habitat Sandbanks is found within the site. This is a much larger area of the proposed extension area and would be significantly larger than the existing fishery closure areas agreed by Eastern IFCA in HHW SAC (Figure 2).

4.3.4. If any new fisheries management is required as a result of a new MPA designation, an assessment of costs to fishery stakeholders would be required. There are currently understood to be very low levels of towed demersal fishing within the proposed extension area. However, for those fishery stakeholders affected, impacts must be considered within the context of existing constraints. This could include existing fisheries management restrictions on effort, gear types and spatial activity; and other spatial constraints because of vessel range, other licensed activities (e.g. aggregate extraction, wind farm construction and operation, cable laying), and target species distribution.

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As stated in the document an advantage of this compensation measure is that, once designated, management of the extension could be aligned with the existing management of the HHW SAC; providing long term efficiency. It may be appropriate to provide funding for a proportion of the Common Standards Monitoring and/or initiatives to achieve favourable condition, proportionate to the size of area of habitat loss in comparison to the existing HHW SAC area. Alternatively, the Applicant could extend the proposed post construction monitoring (outlined in the HHW SAC control document, document 8.20) to encompass the extension area. This would be considered as part of the details for the scheme to be approved by the SoS.

The Applicant considers that the potential further restrictions mentioned by the Eastern IFCA would be similar to those being proposed within the existing HHW SAC. These are being proposed to protect top priority sites and not for all areas to be managed as Annex I reef (see Figure 4.4 of the document).

The Applicant is currently unaware of any restrictions being proposed within the site to protect Sandbank features.

As stated below, given the very low levels of damaging fishing methods that are currently practised within the indicative extension area, it is unlikely that fishing restrictions would be required that would limit the majority of current fishing practices, therefore the socio-economic impacts of the in principle plan would be very minimal. It is anticipated that submission of the scheme for the SoS's approval would be supported by a socio-economic assessment which would consider this further.

The Applicant notes the Eastern IFCAs advice, but would like to clarify that the extended area proposed would not in itself automatically restrict existing activities. It should also be noted that fishing and aggregate extraction currently occurs within the existing HHW SAC.





- 4.3.5. The area being considered for an extension to the SAC currently experiences only very low levels of fishing, principally recreational sea angling (rod and line) and commercial potting for whelks and crabs. Angling does not interact with sandbank or Sabellaria features and low level potting has very limited interaction with them. There is also a single fisher, who operates a 14 m beam trawler to target shrimp in the inshore area for part of the year, as well as a small number of similarly-sized vessels that use the area very infrequently (approximately < 10 times a year), and at a very low level, targeting shrimp for personal consumption or to sell at small, local stalls. Demersal trawling at any intensity could damage reef feature (hence the trawling exclusion areas described above at Section 4.1.4) but at low levels is not likely to damage sandbanks. There is no dredging (fishing) within the proposed extension area this activity would only be used to target molluscan shellfish and would require Eastern IFCA authorisation.
- 4.3.6. Vessel range is particularly important for these inshore fishers who typically work within a very limited range from launch sites. As outlined in Paragraph 4.4.5, many in this area are small, beach-launched vessels that can operate only within a few miles from base. Impacts of additional spatial restrictions on fishing activities are likely to be much greater for inshore fishing vessels than for larger, nomadic fishing vessels. For this reason, Eastern IFCA would suggest that, if an extension to the HHW SAC is decided to be the best option for compensation for potential damage from Norfolk Boreas' activities, the extension is located much further offshore than the current proposed area.
- 4.3.7. Even so, costs to offshore fishers could be significant if further spatial closures result and must be fully considered before decisions are made about this proposal. Whether inshore or offshore, costs to fisheries resulting from any wind farm compensatory measure should be met by the Applicant. Impacts of displacement of fishing effort into other areas would also need to be considered, as there could be indirect effects for these other areas.
- 4.3.8. Eastern IFCA would encourage consideration of East Marine Plan policies with regards to compensatory measures.
- 4.3.9. Policies that require consideration include Policy FISH1 and Policy GOV3. These policies outline that proposals should not prevent access to fishing grounds or

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The Applicant notes the Eastern IFCAs advice which would be considered fully if compensatory measures are required. Given that, as stated here, there is very little fishing within the indicative extension area that would be considered damaging to Annex I reef or Sandbanks; the single 14m beam trawler being the only example, it is unlikely that significant fishing restrictions would be required to protect the designated features from current activities. Any restriction imposed within the HHW SAC extension area would therefore be implemented to protect the designated features from future (not present) activity of pressure. This is analogous to the management measures which the Eastern IFCA has put forward within the existing site such as Area 36 which is within the Norfolk Boreas offshore cable corridor (see the Applicant's clarification note on Optimising cable routeing through the HHW SAC [REP4-022]).

The Applicant has taken into consideration the East Inshore and East Offshore Marine Plans when identifying the preferred compensatory measures and proposing the indicative extension and these would be considered further in any firm proposals, should they be required.

With regard to Policy FISH1; given the very low levels of fishing that currently exist within the indicative extension area it highly unlikely that the any extension would "prevent fishing activities on, or access to, fishing grounds".

With regard to Policy GOV3, the indicative extension area is relatively free of "other existing or authorised (but yet to be implemented) activities" (see Figures 18.1 to 18.3 of the ES, [APP-4.13 to 4.15]) and therefore, with careful management and appropriate consultation, as described below, the extension could be implemented whilst avoiding the displacement of such existing activities.

With regard to Policy PS3, the Applicant does not consider that the proposed extension of the HHW SAC would in anyway limit future opportunity for operation and expansion of ports and harbours in the region. The boundary of the indicative extension area as shown in Figure 4.4 provides significant distance between the offshore area that it would protect and the coast.





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prevent ongoing fishing activity, and that proposals should demonstrate that they will avoid displacement of existing activities. 4.3.10. Due consideration should also be given to Policy PS3. The impacts that extending HHW SAC would have on future opportunity for operation and expansion of ports and harbours in the region, in particular the ports of Great Yarmouth and Lowestoft, should be considered.	Therefore, there is a buffer between the indicative extension area and any ports and harbours including Great Yarmouth. This boundary could be modified to provide a further distance in the final plans if this is required. Given the above the Applicant is of the firm opinion that indicative extension area as presented within REP7-027 would be fully compliant with the Eastern Inshore Marine Plan. The East Inshore and East Offshore Marine Plans would be given further consideration if and when the compensatory measures are developed further.
4.4. Timescales for designation	
4.4.1. It has been suggested that the area covered by the SAC extension should be increased to compensate for being unable to designate the site extension prior to the construction of Norfolk Boreas. Eastern IFCA considers this approach is not appropriate, given that this would have disproportionate impacts on other plans and projects, including inshore fisheries. If further compensation is required to make up for a longer time frame, we would urge the use of other, more quickly implemented conservation projects with similar environmental benefits until the proportionate extension area is designated. For example, it is likely that the use of oyster restoration projects or marine litter removal could be implemented much sooner than an SAC extension and could be used alongside a more proportionate extension to compensate for the time during which the extension is not written in law	As stated above and in the derogation documents [REP7-028] Natural England have advised that oyster beds would not deliver coherence of the Natura 2000 network and therefore this was ruled out as an option for providing appropriate compensation. Furthermore, it has not been possible to identify sufficient marine litter or anthropogenic infrastructure to provide realistic compensatory measures.
4.4.2. Eastern IFCA would also like to clarify the realistic timeframes for the implementation for any fisheries management measures within an extended SAC. Once the SAC is extended, which is likely to take a number of years, Eastern IFCA would have a duty under the Marine and Coastal Access Act 2009 to assess the impacts of commercial fisheries on designated features in the extension area. This process, from initial assessment to regulations coming into force, typically takes at least two years at the very minimum (Figure 3).	As noted by the Applicant in the derogation case [REP7-028], classification as a pSAC would be sufficient to deliver compensation in the short term. Subsequent fisheries closures would then be considered if required once full designation has been completed.
4.5. Engagement	
4.5.1. It is important that regulators including Eastern IFCA, MMO, and Defra are involved in discussions relating to wind farm compensatory measures that could affect fisheries. We do not consider that, to date, that the Applicant has kept us	The Applicant notes the Eastern IFCA's comments regarding engagement, and should compensatory measures be required, the Applicant is willing to engage with Eastern IFCA prior to submission of any scheme to the Secretary of State.

sufficiently informed of proposals. As we are registered as an Interested Party for the

Norfolk Boreas planning examination, we have been able to access documents

To date, the focus has been to consult Natural England as the Statutory Nature

Conservation Body and the MMO, as the overall regulator, to reach in-principle





Summary of Submission Applicant's Comments relating to the proposed extension to the SAC, but we had not been informed by the agreement on the most appropriate compensatory measure to be taken Applicant of the current proposal, nor asked to provide fisheries and conservation forward (if required). A summary of the consultation which was undertaken advice, despite previous discussions regarding inshore fisheries and conservation. jointly by the Applicant and Norfolk Vanguard Limited is provided in Appendix 4 There is also a role for regulators and statutory conservation advisors to engage of the derogation case [REP7-028]. earlier in the process – if necessary, within constraints of commercial confidentiality. The derogation case, including in-principle compensatory measures, was submitted to the Examination on 31 March 2020. Given the compressed timeframes within the Examination it was not possible to conduct a full consultation with all interested parties, however as stated above the Applicant would undertake further consultation in developing any scheme required for compensatory measures prior to its submission to the Secretary of State for approval. 4.5.2. Furthermore, Eastern IFCA considers that fishers, fishing industry As set out above, should derogation be required, and the approved method of representatives and other marine stakeholders should be provided an opportunity to compensatory measures be an extension to the HHW SAC, the Applicant would be involved in discussions about potential compensatory measures at an early stage. undertake further consultation in developing the scheme prior to its submission We have not been aware of discussions between the applicant and fisheries to the Secretary of State for approval. stakeholders (e.g. the National Federation of Fishermen's Organisation and/or smaller local fishing associations) about the proposed extension to the HHW SAC. Although these stakeholders would be able to engage in the development of fisheries management measures required as a result of designation, we argue that they should have a say in designation itself, before planning decisions are taken. Many such stakeholders are not well equipped to engage via the formal planning process; we argue that there is a duty for applicants to demonstrate they have engaged with relevant stakeholders at all appropriate stages of project development. 4.6. National policy 4.6.1. Eastern IFCA considers there is a need for direction from Government in Noted. relation to offshore wind farm compensatory measures and potential impacts for other sectors including fisheries. The growth of the offshore renewable energy sector and of the coverage of MPAs means there is likely to be a growing number of other cases where compensatory measures require consideration. Eastern IFCA holds the view that imposing further restrictions on inshore fisheries – already becoming

increasingly restricted because of MPA requirements – in order to compensate for damage to MPAs by the offshore wind sector is inequitable and fundamentally wrong





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4.6.2. It is critical to be aware that the proposals and decisions made on these projects (Norfolk Vanguard and Norfolk Boreas) will set a precedent for future offshore wind projects that are unable to reach a conclusion of no adverse effect on site integrity. While we understand that all activities and compensatory measures will be considered on a case-by case basis, Eastern IFCA are keen to discourage setting a precedent of compensating for one commercial activity (offshore wind generation) by negatively impacting on another (the inshore fishing industry).

Noted. However, as outlined previously in the summary of fishing activity by the EIFCA, the majority of fishing in the indicative extension area, is low level and is non-intrusive. Therefore, it is unlikely to be excluded from any scheme put forward as a compensatory measure. Furthermore, as listed in response to 4.3.8-4.3.10, the Applicant considers that any such scheme would be compliant with relevant policy. Therefore, the compensation proposed (if required) will have minimal, if any, negative effects on the fishing industry and therefore will set no precedent in that regard.

As outlined 4.6.3. The Applicant has stated that Natural England are supportive of a proposed extension to the SAC, however the area being considered for an extension is far above and beyond the compensation required to offset the environmental impact of this project. Eastern IFCA consider that the in-principle compensatory measures set out at this stage need to be clear on how the Applicant would compensate for the damage caused by their project. If this large extension is being proposed to meet a need at a more strategic level outside the scope of this single project, then we consider this should be done in an open and transparent manner outside of the examination of this project.

As stated above the final area proposed for extension would be relative to the area affected, as determined by the SoS.

4.7. Conclusions and proposals

- 4.7.1. Eastern IFCA consider that insufficient information has been provided to the Secretary of State to make an informed judgement about the impacts of SAC extension on marine ecology and sea users.
- 4.7.2. Eastern IFCA consider it inequitable to compensate for damage caused by the offshore wind industry by negatively impacting on inshore fishery stakeholders (notwithstanding the magnitude of those impacts), whether this is indirectly via an extension to HHW SAC or via direct fisheries regulation.
- 4.7.3. Eastern IFCA request that the Secretary of State takes into consideration the socioeconomic implications of a SAC extension on small-scale inshore fishers and directs the Applicant to present supporting information and demonstrate appropriate engagement with potentially affected stakeholders.
- 4.7.4. Eastern IFCA request that details of alternative areas that were considered for the proposed extension to HHW SAC are made available, alongside the information on why this site was selected and what rationale was applied for rejecting those sites.

As stated above, it is not possible to provide firm proposals on compensatory measures until the Appropriate Assessment has been completed and there has been a determination on the extent of the compensation required, if indeed this is required at all. Therefore, the Applicant has presented in principle compensatory measures, which would be developed further should the SoS determine that these are required. The Applicant considers that an extension to the HHW SAC would not adversely impact on the fishing industry. Fishing is not prohibited across much of the existing HHW SAC and where restrictions are being proposed, this is only for the most damaging fishing methods. Therefore, any extension, if properly managed, could be designated in such a way as to, maximise the potential for increased biodiversity and possibly fish stocks whilst minimising any negative impacts to the fishing industry.

The indicative area presented is based on data provided by Natural England and the JNCC showing areas of Annex I Sandbank and potential areas of *S.spinulosa*





For example, were areas supporting proposed or licensed wind farm cable routes or aggregate extraction areas discounted as being suitable because of these activities? This will help understand the criteria used for selecting the area proposed to be considered for an extension, and whether some socio-economic criteria were weighted more heavily than others.

4.7.5. If an extension to HHW SAC is carried forward as a compensatory measure, Eastern IFCA would consider it far more appropriate to use a proportionate ratio calculated by the Applicant with site-specific rationale (such as the 10:1 ratio put forward in the Maasvlakte 2 project). If further compensation is required because of the slow timeframes in which an extension could be implemented, we would recommend the use of a combination of a proportionate extension and an alternative, more easily implemented compensation project (e.g. habitat restoration projects, marine litter removal, etc.) agreed in consultation with relevant bodies and Interested Parties.

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reef (see Figure 4.4 of REP7-027], which are the two features of the HHW SAC for which compensation may be required. The only area where Annex I Sandbanks extend outside of the HHW SAC is within the indicative extension area.

During the identification of the indicative site extension it was determined that the most efficient method for providing compensatory habitat would be to extend the existing HHW SAC as this would be the most likely way of compensating for the equivalent habitats that would be affected (i.e. environmental conditions would be more similar than if a site or extension was selected in a different area of sea). Extensions to the north were ruled out as the North Norfolk and Saturn Reefs SAC has already been designated in that location. Extensions to the south were ruled out due to the extensive aggregate extraction that occurs in this area which has removed Annex I habitat. Therefore, extensions could only occur in an easterly or westerly direction. As stated by the Eastern IFCA, fishing effort within the indicative extension which is to the west is relatively low, whereas to the east of the site fishing effort is much higher (see Appendices of the Applicant's response to Deadline 9 submissions and other submissions [REP10-033]). Therefore the extension to the west would have far less impact on the fishing industry (especially given that the majority of fishing here is non-intrusive and would be compatible with the conservation objectives of the site), and as stated above Annex I Sandbank and Annex I reef has already been identified in this area. Therefore an extension to the west was considered the most appropriate option.

The Applicant notes the Eastern IFCA's concerns regarding the size of any extension and the ratios used to calculate this and these will be taken into consideration if the proposals are developed further, in consultation with relevant stakeholders.





1.6 REP10-059 Marine Management Organisation Deadline 10 Submission - Cover Letter and update to REP9-036

Summary of Submission	Applicant's Comments
The MMO defers to Natural England (NE) in relation to implications for European Sites and therefore the MMO has no comments to make on this document.	The Applicant notes the MMO's position. The Applicant has responded to Natural England's comments on the RIES at Deadline 10 [REP10-042].
3.1 Within comment 7.4 of REP9-036 the MMO stated: 'The MMO considers that, in accordance with the 2017 UK Conservation of Habitats and Species Regulations ("the Habitats Regulations"), any appropriate compensation measures should be secured prior to consent. Following consultation with NE, the MMO understands that, where sufficient amendments to the Project could not be identified, appropriate compensation measures have not been agreed for all the remaining, potentially impacted, marine protected areas identified by the Secretary of State' 3.2 The MMO understands that NE now agree the principle of the compensation proposals for the Haisborough, Hammond and Winterton Special Area of Conservation and the Alde Ore Estuary Special Protection Area (SPA). The MMO notes that NE has agreed in principle the proposals for the Flamborough and Filey Coast (FFC) SPA.	The Applicant welcomes this update and agrees with the MMO's latest position that the principles of the compensatory measures have been agreed.
 4.1 The MMO provided updates of outstanding issues in REP9-034. A list is provided below and the MMO has no further comments on these issues. Timeframes Arbitration/Appeals Haisborough, Hammond and Winterton Special Area of Conservation Site Integrity Plan 	The Applicant agrees that these are the only outstanding matters on which the Applicant and the MMO have not reached agreement and this is reflected within the SoCG between the Applicant and the MMO [REP9-023]. As agreed by both parties these matters will be determined by the SoS and should be consistent with the rulings made by the SoS for Norfolk Vanguard and Hornsea Project Three expected on the 1st June 2020.





1.7 REP10-065 Natural England's Deadline 10 Submission - Risk and Issues Log

- 2. The Applicant has reviewed Natural England's Risk and Issues log and having done so would advocate that the two Statements of Common Ground between the Applicant and Natural England [REP10-038 and REP10-039] provide a more succinct and balanced representation of the level of agreement and disagreement between the two parties. The Applicant is very grateful for the level of input that Natural England has had to the SoCGs during the last month and is confident that these reflect the final positions of both parties on all matters of nature conservation.
- 3. Whilst the Risk and issues log is useful in showing progress in some areas such as onshore ecology and marine mammals (which have all turned to green) it does not reflect the significant progress in other areas. For example, many of the issues around benthic ecology have not been updated to reflect the agreements made prior to Deadline 10 that cable protection measures must not take the form of rock or gravel dumping in the HHW SAC. This along with the commitment to decommission cable protection has allowed Natural England to agree that impacts can be treated as long term temporary and, in Natural England's view therefore significantly reduces the risk of AEoI to the HHW SAC (as stated in the SoCG, REP-038]. Furthermore, there are a number of impacts that have turned from orange to red without an explanation. For Example:

"The Applicant has committed to having the 'least effect' on priority areas managed as reef, but there is nothing provided to demonstrate how this will be achieved and to what extent."

4. The definition for red is that:

"Natural England considers that unless these issues are resolved it will have to advise that (in relation to any one of them, and as appropriate) it is not possible to ascertain that the project will not affect the integrity of an SAC/SPA and/or comply fully with the Environmental Impact Assessment requirements and/or avoid significant adverse effect on landscape/seascape, unless the following are satisfactorily provided:

new baseline data; significant design changes; and/or significant mitigation;





Natural England feels that issues given Red status are so complex, or require the provision of so much outstanding information, that they are unlikely to be resolved during examination, and respectfully suggests that they be addressed beforehand.

- 5. However, in this example the Applicant has:
 - Submitted significant mitigation:
 - o The Applicant has committed to not placing cable protection within the priority areas to be managed as S. spinulosa reef, and
 - The Applicant has committed to low profile forms of cable protection (which Natural England have acknowledged) by the latest inclusion within the dDCO of Condition 3(1)(g) of the transmission DMLs by excluding rock and gravel dumping.
 - Submitted significant design changes:
 - The Applicant has committed to decommission cable protection within the HHW SAC, which Natural England has agreed will significantly reduce the risk of AEoI to the HHW SAC.
 - Submitted further assessment:
 - The Applicant has submitted Appendix 3 of the HHW SAC Control documents [REP6-011 and REP6-017] and [REP6-019] to demonstrate how having the 'least effect' on priority areas managed as reef, will be achieved and to what extent.
- 6. All of the above have been welcomed by Natural England and therefore the Applicant does not consider that this issue should have changed from orange to red without further explanation. There are many other analogous examples within the log.
- 7. In general the Applicant notes that whilst the Risk and issues log has undoubtedly been helpful throughout the Examination to track issues that were raised in response to the Application, many of these have been superseded as the Examination draws to a close and therefore the Statements of Common Ground, which both parties have contributed to, represent a much more balanced reflection of the final positions reached by both parties at the close of Examination.





1.8 REP10-067 RSPB's Response to the Applicant's In Principle Habitats Regulations Derogation Provision of Evidence submitted at Deadline 7 and other matters.

Summary of Submission

Applicant's Comments

The RSPB's response to the Applicant's In Principle Habitats Regulations Derogation Provision of Evidence submitted at Deadline 7

3. The RSPB has carefully compared Norfolk Boreas' derogation submissions with those submitted by its sister project, Norfolk Vanguard, in response to the recent consultation by the Secretary of State for Business, Energy and Industrial Strategy (BEIS) on that scheme. In essence, the contents of the documents are identical and therefore we consider our response to that consultation can be applied to Norfolk Boreas.

First and foremost, it should not be forgotten that the Applicant's firm position is that the Project has no adverse effect on the integrity (AEoI) of any European site either alone or in-combination with any other plans or projects. Indeed, in the case of offshore ornithological impacts, both Natural England [REP10-039] and the RSPB [REP10-041] have agreed that the Project alone has no AEoI on any European site. Further, Natural England has advised that "...it is recognised that the Project's contribution to the in-combination mortality totals is small, when compared to other projects....." [REP9-045]. Notwithstanding this, a derogation case which includes in-principle compensatory measures has been provided, as requested by the ExA, entirely without prejudice to the Applicant's primary position.

It is correct that the derogation case for Norfolk Boreas is very similar to that submitted for the Norfolk Vanguard project. This is perhaps unsurprising given their strategic co-ordination resulting from their 'sister' nature, and the similar benefits and impacts to be considered as part of a derogation case, as well as opportunities for strategic delivery of in-principle compensatory measures.

4. Therefore, to assist the Examining Authority the RSPB attaches its response to the Secretary of State for BEIS's consultation on possible derogations for the Norfolk Vanguard and Hornsea Three offshore wind farm schemes (see Annex 1). This response sets out the RSPB's combined, detailed response to the BEIS consultations on those offshore wind farm schemes. The RSPB chose to submit a single response to the separate BEIS consultations as the primary concerns in relation to breeding seabirds relate to the in-combination effects of the schemes on breeding seabird Special Protection Areas (SPAs). The same applies in respect of the in-combination effects of the Norfolk Boreas scheme.

It is accepted there are similarities between Norfolk Boreas and Norfolk Vanguard given they are sister projects which have been strategically co-ordinated.

However, neither Norfolk Boreas nor Norfolk Vanguard are comparable with Hornsea Project Three. Hornsea Project Three has been promoted entirely independently of, and examined entirely separately to, both Norfolk Boreas and Norfolk Vanguard. Hornsea Project Three's impacts on offshore ornithology are very different; the mitigation proposed to address those impacts is therefore different; and an entirely separate derogation case has been presented by Hornsea Project Three which proposes quite separate and distinct compensatory





Summary of Submission	Applicant's Comments
	measures to both Norfolk Boreas and Norfolk Vanguard. Indeed, the Secretary of State's request for a derogation case for Hornsea Project Three was also quite separate to, and distinct from, the request to Norfolk Vanguard. The derogation case for Norfolk Vanguard being sought in the alternative to mitigation which could lessen or avoid adverse effects, and with only in-principle compensatory measures. In summary, the approach taken by the RSPB to submit a joint response to Hornsea Project Three and Norfolk Vanguard (and therefore by extension Norfolk Boreas) is both unnecessary and unhelpful in seeking to compare projects with very different impacts, different mitigation, different compensatory measures, and the subject of different requests from the Secretary of State in respect of a derogation case (in the case of Hornsea Project Three) and, primarily, further mitigation measures (in the case of Norfolk Vanguard, and by extension Norfolk Boreas).
Alternative solutions and imperative reasons of overriding public interest	
6. Section 5 in Annex 1 sets out the RSPB's detailed comments on the information presented by Hornsea Three and Norfolk Vanguard to justify their arguments that each scheme can demonstrate there are (i) no alternative solutions and (ii) imperative reasons of overriding public interest (IROPI) in favour of their respective schemes. The RSPB disagrees with these conclusions.	The Applicant does not consider it appropriate to comment on the RSPB's responses which relate to Hornsea Project Three and Norfolk Vanguard. However, with respect to Norfolk Boreas, the Applicant sets out in detail [REP7-024] the case for there being no feasible alternative solutions and also that there are imperative reasons of overriding public interest (IROPI) for the project to proceed, and firmly stands by that case.
7. The RSPB has set out the appropriate way to approach the legal tests that will need to be considered in the event that the Secretary of State agrees it is not possible to conclude that there will be no adverse effects on the integrity of European sites and their habitats and species on the basis of the best available scientific information. Having also considered in detail the main submissions from both Applicants on alternative solutions and IROPI in light of, in our view, the correct application of the legal tests, we do not believe that either have made a sufficiently robust case for there being no alternative solutions to their proposals nor that there is IROPI.	The Applicant has reviewed the RSPB's detailed comments on alternatives and IROPI in the short time available, noting that whilst the Applicant's derogation case was submitted at Deadline 7 on 31 March 2020, the RSPB provided their comments at Deadline 10 on 6 May 2020, one clear working day prior to Deadline 11 on 11 May 2020 and only two clear working days before the close of the Examination on 12 May. As set out above, the RSPB has unhelpfully provided a joint response for Hornsea Project Three, Norfolk Vanguard and Norfolk Boreas, notwithstanding that the Norfolk Vanguard and Norfolk Boreas applications are being promoted entirely





independently of Hornsea Project Three and have very different impacts, mitigation and derogation cases to Hornsea Project Three. The majority of the RSPB's submission in relation to matters concerning alternatives and IROPI refers specifically to the derogation case presented by Hornsea Project Three, and in the Applicant's view is not therefore directly relevant to the derogation case for Norfolk Boreas. The only specific references to Norfolk Vanguard, which the Applicant presumes are intended to be 'read across' to Norfolk Boreas relate to the Applicant's approach to consider only those alternatives that have the potential to meet or deliver the identified need and objectives of the Project, which the RSPB is concerned has restricted the consideration of alternatives to only offshore wind farms. Although not clear from the RSPB submission, it appears that the RSPB is advocating consideration of alternatives including onshore wind and solar schemes, floating offshore wind schemes as well as the introduction of energy efficiency measures that seek to reduce demand. The RSPB states that it fundamentally disagrees with the approach which the Applicant has taken in this regard, yet it is acknowledged by the RSPB that this approach is fully in accordance with the Defra guidance which states that in considering alternative solutions to an offshore wind development the competent authority would normally only need to consider alternative offshore wind developments. This is not at odds, as the RSPB suggests, with Managing Natura 2000 which simply states that alternative solutions 'might involve alternative locations or routes, different scales or designs of development or alternative processes'. In suggesting that the need and objectives of the project can somehow be met by onshore wind and solar schemes; floating offshore wind schemes; or the introduction of energy efficient measures, the RSPB has completely failed to address and completely ignored the fact that the project's need and objectives identify an urgent and immediate need for large scale deployment of new forms of renewable energy. The RSPB says that it does not dispute the urgent need for renewable energy, yet it is quite apparent that new onshore wind and solar schemes; new floating offshore wind schemes and the

introduction of energy efficient measures will not contribute to the significant capacity required in the very short timescales required to be a feasible alternative to meet the need and objectives which the project will meet. If the Secretary of State is minded to disagree with the RSPB's suggested approach, the RSPB seeks

to draw the Secretary of State's attention to a number of consented but





Summary of Submission	Applicant's Comments
	unfunded offshore wind farms which the RSPB says would be capable of providing equivalent energy outputs. However, the RSPB says these projects may only offer valid alternatives if the Secretary of State re-assesses those schemes to determine whether or not they are less damaging alternative solutions. Clearly, a scheme which is already consented (whether or not it is yet to be funded and therefore constructed) is not an alternative to the project, as the need for large scale deployment of renewable energy schemes is unconstrained, and such schemes are needed in addition to, and not as an alternative to, the project to meet the urgent and immediate need for large scale renewable deployment identified as the project's objective. In short, in [REP7-024] the Applicant sets out in detail the case for there being no feasible alternative solutions and also that there are imperative reasons of overriding public interest for the project to proceed, and firmly stands by that case in full. The derogation case presented is fully in accordance with both Defra guidance and Managing Natura 2000, and the RSPB offers no coherent justification for questioning that case.
8. Therefore, the RSPB considers that the Secretary of State has not been provided with the necessary information to reach a conclusion on either part of the requirements and currently cannot consent the proposals on the basis of no alternative solutions and IROPI (and the provision of the required compensatory measures as discussed below).	The Applicant strongly disagrees with the RSPB that the information provided by the Applicant [REP7-024], with respect to Norfolk Boreas, is insufficient for the Secretary of State to reach a conclusion. As set out above, the Applicant's primary position is that there is no AEol and that a derogation case is not required. The Secretary of State requested additional mitigation in the alternative to a derogation case, and that additional mitigation has been provided. In the case of offshore ornithology, Natural England has noted "that the Applicant has taken all reasonable steps to avoid, reduce and mitigate the impacts of the proposed development on both kittiwakes at FFC SPA and LBBG at Alde-Ore Estuary SPA" and "that the Project's contributions to the in-combination mortality totals is small, when compared to other projects" [REP9-045]. The Applicant has submitted a detailed derogation case which confirms that there are no alternatives and that there are imperative reasons of overriding public interest (IROPI) for the Project to proceed, supported by in-principle compensatory measures which have been fully evidenced as feasible and deliverable, and which





Summary of Submission	Applicant's Comments
9. It is the RSPB's view that these conclusions apply equally to the case for alternative solutions and IROPI presented in respect of the Norfolk Boreas scheme.	can be secured in the DCO (to the extent required). Natural England has also agreed that the in-principle compensatory measures proposed by Norfolk Boreas are sufficient to ensure the coherence of the Natura 2000 network [REP9-045]. As such, the Applicant considers that no further information should be required by the Secretary of State. Indeed, no such request for further information has been made at this stage (either by the Secretary of State in the case of Norfolk Vanguard or by the Examining Authority in the case of Norfolk Boreas). The RSPB has given no coherent justification in any respect as to why the information provided by the Applicant is insufficient. As noted above, the Applicant fundamentally disagrees with the RSPB's approach to determining alternative solutions and IROPI and considers that a robust case has been made on both counts.
20. Section 6 in Annex 1 sets out the RSPB's detailed comments on how compensation measures need to be considered and our views on the measures proposed by Hornsea Three and Norfolk Vanguard. For the detailed reasons set out in section 6, the RSPB considers that neither Hornsea Three nor Norfolk Vanguard have put forward compensation measures that can be considered to have a reasonable guarantee of success as required by both Defra and European Commission guidance.	The Applicant does not consider it appropriate to comment on the RSPB's responses with respect to Hornsea Project Three and Norfolk Vanguard. Insofar as this point relates to Norfolk Boreas, the Applicant considers that the inprinciple compensation case presented in REP7-024/025/026 was based on a detailed review of the available evidence and precedent for similar scenarios (e.g. kittiwake colonies on new structures and the improvements in productivity afforded by predator exclusion) and therefore, contrary to the RSPB's statement, the proposed measures can both be considered to have a reasonable guarantee of success. It is also very relevant that Natural England, albeit with request for further details, has agreed that the Applicant's in-principle proposals would secure the coherence of Natura 2000 Network [REP9-041].
11. Based on the RSPB's detailed comments, the RSPB's overall conclusions are that neither Hornsea Three nor Norfolk Vanguard presented compensation measures that: • Have a reasonable guarantee of success based on the best scientific knowledge;	The Applicant does not consider it appropriate to comment on the RSPB's responses with respect to Hornsea Project Three and Norfolk Vanguard. Insofar as this point relates to Norfolk Boreas, the Applicant's proposals [REP7-024/035/026] are based on a thorough review of available evidence and thus can be considered as having a reasonable guarantee of success, would be legally secured through the DCO (should the Secretary of State require compensation to





Summary of Submission	Applicant's Comments
 Would be secured (legally, financially and technically) in advance of consent being granted; Would ensure the overall coherence of the Natura 2000 network was protected. 	be provided by the Applicant) and, as agreed by Natural England [REP9-045], would ensure coherence of the Natura 2000 network.
12. The RSPB considers that any formal proposal for compensation measures must be secured prior to DCO consent being granted.	The Applicant does not consider it appropriate to comment on the RSPB's responses with respect to Hornsea Project Three and Norfolk Vanguard. Insofar as this point relates to Norfolk Boreas, the in-principle compensatory measures proposed by the Applicant can be secured in the DCO (to the extent required) and drafting for inclusion within the DCO has been provided to this effect. Whilst noting that Natural England has made requests for further details and assurances in relation to the compensatory measures, it would only be necessary to provide these post consent (in the event that the Secretary of State could not conclude no adverse effect on integrity) as part of the submission of a detailed scheme for the relevant measures submitted to the Secretary of State for approval.
13. It is the RSPB's view that these conclusions apply equally to the compensation measures presented in respect of the Norfolk Boreas scheme.	See responses to the RSPB's points above (nos. 10-12). The Applicant strongly disagrees with the RSPB's position. It is the Applicant's firmly held position, supported by Natural England [REP9-045] that the proposed compensation meets the requirements provided in both Defra and European Commission guidance.
Additional comments on the Norfolk Boreas documents submitted at Deadline 7	
14. As set out above, the RSPB's detailed comments on the Norfolk Boreas derogation case can be read across from its submission to the Secretary of State for BEIS's consultation in respect of the Hornsea Three and Norfolk Vanguard offshore wind farm schemes. However, we have the following additional comments to make.	The Applicant notes the RSPB's statement that the derogation case for Norfolk Vanguard and Hornsea Project Three can be read across to Norfolk Boreas, however as noted above (e.g. response to point 4) the Applicant considers the approach taken by the RSPB to submit a joint response to Hornsea Project Three and Norfolk Vanguard (and therefore by extension Norfolk Boreas) is both unnecessary and unhelpful in seeking to compare projects with very different impacts, different mitigation, different compensatory measures, and the subject of different requests from the Secretary of State in respect of a derogation case (in the case of Hornsea Project Three) and, primarily, further mitigation measures (in the case of Norfolk Vanguard, and by extension Norfolk Boreas).





15. The RSPB notes that at paragraph 60 of Appendix 21 Norfolk Boreas sets out that the proposed compensation measures for lesser black-backed gull could be taken for Norfolk Boreas alone or jointly with Norfolk Vanguard. In respect of a joint approach, the RSPB accepts that this could be acceptable in principle. However, that remains subject to the requirements for each project to secure (ecologically, legally and financially) compensation measures with a reasonable guarantee of success. As set out above and in detail in Annex 1, it is the RSPB's view that the compensation measures put forward by the Applicant for lesser black-backed gull do not meet those requirements.

Applicant's Comments

The Applicant welcomes the RSPB's comment that a joint approach for Norfolk Boreas and Norfolk Vanguard could be appropriate (subject to the decisions made on both projects). However, the Applicant disagrees with the RSPB's view that the proposed compensation does not meet the relevant requirements. The Applicant's submission [REP7-026] demonstrates in detail how the proposed compensation meets the relevant requirements.

Additional comments on the documents submitted by Natural England at Deadline 9

16. The RSPB notes that at Deadline 9, Natural England submitted its comments on Norfolk Boreas's in principle proposals in respect of compensation measures for the Flamborough and Filey Coast SPA and Alde-Ore Estuary SPA (Natural England's Norfolk Boreas Position Statement Regarding Mitigation and Compensation, REP9-045). The RSPB makes the following brief comments in respect of that submission:

- Kittiwake compensation: Natural England shares similar concerns to the RSPB, including the need for greater confidence with the measure, access to sufficient food resource and greater detail per se;
- LBBG compensation: Natural England agrees with the RSPB that Norfolk Boreas's proposals need to demonstrate additional benefit (additionality).
 For reasons set out in detail in Annex 1, it is the RSPB's view that the preferred option of a predator-fenced area within the Alde-Ore Estuary SPA:
 - Would not be additional to measures already necessary to restore the LBBG population of the SPA to favourable status;
 - Does not offer sufficient scientific certainty as to the effectiveness of the measures. Further research is required to test the efficacy of the most likely measures proposed by Norfolk Boreas (and Norfolk Vanguard);
 - <u>o</u> Lacks the evidence necessary to show how any compensatory measures within the SPA are genuinely additional to site management.

With respect to Natural England's comments on kittiwake compensation [REP9-046], it is first and foremost important to note that Natural England supported the Applicant's compensation proposals. Natural England has requested further details (as noted by the RSPB here), to which the Applicant provided a response in Table 1.16 of REP10-033. In summary, should the Secretary of State require the Applicant to provide compensation for the project's kittiwake collision risks then the Applicant will seek to engage fully with Natural England post consent in order to agree and refine the proposals to achieve the required levels of compensation.

With respect to Natural England's comments on lesser black-backed gull compensation [REP9-047], it is first and foremost important to note that Natural England supported the Applicant's compensation proposals. Natural England has requested further details (as noted by the RSPB here), to which the Applicant provided a response in Table 1.17 of REP10-033. In summary, should the Secretary of State require the Applicant to provide compensation for the project's lesser black-backed gull collision risks then the Applicant will seek to engage fully with Natural England post consent in order to agree and refine the proposals to achieve the required levels of compensation.

As detailed in REP7-026, the Applicant has proposed to undertake a scoping study to explore the best options for lesser black-backed gull compensation, with the specific intention of providing greater scientific certainty prior to determining





 General: in Annex 1, the RSPB also sets out its view on other potential compensation measures considered by the Applicant.

Applicant's Comments

measures to be taken (although it was also noted that predator exclusion was expected to be the most appropriate compensation option). This preliminary work was included in the proposed in-principle compensation following a suggestion that this should be the first step, made by representatives of the RSPB at a meeting with Vattenfall. Therefore the Applicant is surprised that the RSPB has not taken this into consideration when describing the Applicant's proposals as 'not offering sufficient scientific certainty'. Furthermore, it is the Applicant's understanding that the RSPB made this proposal because there is uncertainty about why the population has declined. It therefore follows that at this time it cannot be stated that the proposed predator proof fencing can be considered as a measure which is already necessary for site management.

With respect to Annex 1 of the RSPB's submission [REP10-067] this relates to Norfolk Vanguard and Hornsea Project Three. The Applicant does not consider it appropriate to comment on the RSPB's responses to these applications.

However, with respect to the in-principle compensation proposed for Norfolk Boreas, the Applicant provided details of the other compensation options under consideration and full reasons why these were ultimately not proposed as the most suitable options.

17. In addition, Natural England submitted a further relevant document at Deadline 9, setting out its comments on Norfolk Boreas's Position Statement on Derogation (Natural England's comment on Norfolk Boreas Position Statement on Derogation, REP9-041). The RSPB makes the following brief comments in respect of that submission:

We entirely agree with Natural England's conclusions that there has not been an overly precautionary approach used in the Applicant's assessments.
 As we set out in detail in our combined response to the Secretary of State on Norfolk Vanguard and Hornsea 3, use of a precautionary approach is required at every stage of the assessment due to the lack of robust data underpinning that assessment and the use of modelling as a result.

The Applicant notes the RSPB's position on uncertainty and precaution, but disagrees with the RSPB's statement that 'use of a precautionary approach is required at every stage of the assessment'. This simplistic approach results in precaution being layered upon precaution resulting in over-estimated, over-precautionary outcomes. Furthermore the Applicant has presented several reviews of available evidence [REP2-035] which clearly indicate that the Applicant's approach retains precaution but has avoided over-precaution in both individual elements (e.g. assuming 100% of the kittiwakes recorded on the wind farm during the extended breeding season originate from the Flamborough and Filey Coast SPA, despite the fact that the wind farm is located at the upper end of the species' foraging range and that early and late in the season there will be large numbers of birds from other colonies migrating through the southern North





<u>Summary of Submission</u>

- We also entirely agree with Natural England's position and advice (set out on page 4) that although "headroom" is potentially an important issue, it "is a highly complex one" and "it is important to note that there is not yet an agreed way forward at present". We also support Natural England's concerns as to "Whether consented or as-built scenarios can be considered 'legally secured'" and note that Natural England has not yet advised on the McArthur Green proposed approach for the Crown Estate. We note and support Natural England's conclusion that "Therefore, until the uncertainties highlighted by Natural England are addressed and an industry wide approach is agreed we recommend that the default 'standard' approach is appropriate."
- The RSPB has submitted further comments on the issue of 'headroom' in previous submissions to the Boreas Examination. Please see our most recent comments on the matter in our Deadline 9 submission (section 5c, paras 5.4-5.6 of REP9-052) and in our earlier submissions at Deadline 3 (page 53, REP3-028) and Deadline 7 (para 2.2, AS-041).

Applicant's Comments

Sea), and more importantly in the overall assessment. The Applicant is firmly of the opinion that the aim of impact assessment should be to ensure that precaution is applied to the final decision, but this does not justify applying precaution at every stage.

The Applicant acknowledges the RSPB's comments on the collision risk update method, developed for The Crown Estate. However, [REP6-049] states 'in principle Natural England is of the view that the calculation method is valid'. Furthermore, the method has been presented in detail in reports which are freely available and the Applicant invites the RSPB to undertake its own review of the method and provide comments. Further detailed consideration of headroom was provided by the Applicant in REP4-014 and REP6-021.

RSPB Havergate Island reserve management: further clarification

18. The RSPB recognises that the Applicant has provided a statement to PINS highlighting that they submitted their Information to Inform the Habitats Regulations Assessment with erroneous information regarding the RSPB undertaking measures to limit lesser black-backed gull numbers on Havergate Island (paras 2.1-2.3, AS-001). We are pleased to see that this error has been noted and that "...the Applicant accepts the RSPB's explanation that gull control measures are no longer a part of the management of this reserve. Accordingly, paragraph 134 of the Norfolk Boreas HRA (document reference 5.3) should be disregarded." It is important that repetition of such errors is avoided to reduce the creation of additional uncertainty (see comments in paragraph 17 on precaution).

The Applicant acknowledges the RSPB's comment on this matter (that former management to control gull numbers is no longer undertaken). However, this was discussed and formally clarified prior to the commencement of the project Examination (AS-001; August 2019) and the Applicant does not understand why the RSPB has raised this matter again at this late stage in the Examination.

19. It should, however, be further noted that the RSPB is actively undertaking management measures to encourage lesser black-backed gulls to breed at Havergate Island. Whilst the RSPB's work seeks to make its contribution to meeting the SPA conservation objectives for this species, considerably more site management work is required for this species elsewhere in the SPA if the restore

The Applicant acknowledges the RSPB's comments on this matter. However, the Applicant considers that the RSPB appears to have made contradictory statements. In this comment, the RSPB states it is seeking to undertake management to contribute to restoring the population. However, the RSPB also states that there is uncertainty about why the population declined: "it is not clear





Summary of Submission	Applicant's Comments
objective is to be achieved (see Annex 1, paras 20-29). In this context, any impacts that could limit the ability of the colony to be restored can only be deemed as having an adverse effect on the integrity of the Alde-Ore Estuary SPA.	what actually caused the LBBG breeding population to collapse in the first place, and there is a lack of hard data on the effectiveness of site management measures". It therefore appears that while the RSPB has confidence that the (unspecified) measures it is taking are benefiting the population, at the same time the RSPB is also able to dismiss the Applicant's proposals, even though the initial step is to undertake a review to identify the most appropriate options. Furthermore, the Applicant considers it important to clarify that the RSPB has agreed that AEol could be ruled out for all the species and sites being assessed (including lesser black-backed gull on the Alde-Ore Estuary SPA) for Norfolk Boreas alone [REP10-041].

1.81.9 REP10-068 RSPB Response to Comments on the Report on the Implications for European Sites

Summary of Submission	Applicant's Comments	
2 Overview		
2.5.1 The RSPB agrees that these have been topics for discussion and should be covered in the RIES. Our position on these issues has been set out in our comments at Deadline 2 (REP2-096) and Deadline 5 (REP5-083).	The Applicant has no comment on this.	
3 Stage 1: Likely Significant Effects		
3.5.2 The RSPB has also requested that the seabird assemblage feature from the Flamborough to Filey Coast SPA be assessed fully throughout the examination. We have shared the same position with Natural England regarding the approach to identifying Likely Significant Effects and ensuring this process captures all sites and features where any potential impact pathways exist and would require greater consideration at the Appropriate Assessment stage.	The Applicant provided assessment of the FFC SPA assemblage feature in REP2-035 which concluded there would be no risk of an Adverse Effect on Integrity (AEoI) for the project alone or in-combination with other plans and projects, and Natural England agreed with this conclusion [REP4-040] when Hornsea Projects Three and Four are excluded from the in-combination assessment.	
3 Stage 1: Likely Significant Effects		





4.8.8

The RSPB agrees that this information must be clearly set out in the RIES following inclusion of additional sites that had not been included in the in-combination assessments prior to the updated assessments at Deadlines 5 and 6.

4.8.11

The RSPB and Natural England have both clearly set out why the Applicant's position with respect to consented and built wind farm designs is not appropriate. There is no accurate, peer-reviewed method that can at this time be applied to safely allow any "adjustments" to modelled collision estimates. The RSPB covered this in detail in our Deadline 9 submission (REP9-052) and Natural England have set this out in various of their submissions (summarised in their Deadline 9 submission, REP9-041).

The RSPB and Natural England have also been clear as to why the Applicant's conclusions on its assessment being overly precautionary is also wrong. As the RSPB sets out in detail in our combined response to the Secretary of State on Norfolk Vanguard and Hornsea 3, use of a precautionary approach is required at every stage of the assessment due to the lack of robust data underpinning that assessment and the use modelling as a result.

As previously highlighted, the RSPB disagrees with the Applicant's view that their assessment is over precautionary. As detailed in our earlier submission (Annex 1, REP3-028), precaution is a necessary and proportionate response to uncertainty in assessment. Masden et al., (2015) highlight that such assessment is not just a result of methodological or modelling but can arise through misleading use of language. As such, the Applicant's continual use of erroneous information, for example, the claims that tags used in kittiwake tracking studies were un-streamlined, act to increase uncertainty and thereby decrease the confidence in the competence of their assessment. This consequently increases the need for precaution in examining that assessment.

Applicant's Comments

The Applicant notes that this made no material difference to the assessment, as agreed with Natural England [REP7-047]. Furthermore, the in-combination estimates reported in the RIES did include the additional sites, which were in fact included by the Applicant at an earlier stage in the examination at Deadline 2 [REP2-035] following which, at Deadline 4 Natural England agreed that the list of wind farms included in the cumulative and in-combination assessment was complete [REP4-040].

The Applicant has welcomed Natural England's confirmation that "...there is likely to be some headroom..." [REP9-045] and that "...in principle Natural England is of the view that the calculation method is valid" [REP6-049]. Furthermore, the Applicant notes that while it considers this to be an important issue and one which should be addressed with urgency, the project's assessment only presented collision estimates for other wind farms that were agreed with Natural England (i.e. not updated to as built designs). Therefore, consideration for headroom has made no material difference to the Applicant's assessment and was only included to illustrate this as a source of precaution in the currently advised assessment methodology.

The Applicant notes the RSPB's position on uncertainty and precaution, but disagrees with the RSPB's statement that 'use of a precautionary approach is required at every stage of the assessment'. This simplistic approach results in precaution being layered upon precaution resulting in over-estimated, over-precautionary outcomes. The Applicant has presented several reviews of available evidence [REP2-035] which clearly indicate that the Applicant's approach retains precaution but has avoided over-precaution in both individual elements (e.g. assuming 100% of the kittiwakes recorded on the wind farm during the extended breeding season originate from the Flamborough and Filey Coast SPA, despite the fact that the wind farm is located at the upper end of the species' foraging range and that early and late in the season there will be large numbers of birds from other colonies migrating through the southern North Sea), and more importantly in the overall assessment. The Applicant is firmly of the opinion that the aim of impact assessment should be to ensure that





Notwithstanding the fact that the RSPB disagrees with the Applicant that the assessment is over-precautionary, and that the percentage reductions in mortality suggested by the Applicant are arbitrary and without scientific reinforcement, even if taken into account there would still be unacceptable impacts on the SPA populations. The FFC population of kittiwake would be 6.3% lower than it would be in the absence of in-combination developments, the gannet population would be 15.2% lower (if using the RSPB preferred breeding season avoidance rate, using the Applicant's it would be 9.4% lower), and the Alde-Ore Estuary population of lesser black-backed gull would be 17% lower.

Applicant's Comments

precaution is applied to the final decision, but this is not a justification for applying precaution at every stage.

The Applicant provided a response to the RSPB's comments on kittiwake tags in its Deadline 10 submission (REP10-033, Table 1.20). The key point which the Applicant was making with reference to tags in REP5-060 (kittiwake flight speed review) is that even the most streamlined tag will add drag to a flying bird, and that as a consequence there is a high likelihood the flight speeds obtained from tags studies will be influenced by the tags themselves. This is a statement of fact on which language has no bearing. More importantly, **the updated kittiwake flight speed was not used in the assessment** and the figures were only presented for context at the request of Natural England. Furthermore the Applicant strongly disagrees with the RSPB's statement that the assessment is in any way 'arbitrary and without scientific reinforcement' and considers that the RSPB's comments on this matter are misleading and seek to unnecessarily undermine the Applicant's assessment.

It is not clear to the Applicant how the RSPB has derived the counter factual of population (CPS) values quoted, so it is not possible to comment on their reliability. However, the Applicant notes that these CPS values are up to four times lower than those reported by the RSPB in their previous submissions (e.g. in [REP9-052] the kittiwake CPS was up to 20.5%, the gannet CPS was up to 48.5% and the lesser black-backed gull CPS was 33.1%), thereby illustrating the extent of inflation in impact predictions that result from applying the RSPB's preferred methods.

4.8.31

The RSPB has set out in our Deadline 9 submission (REP9-052) why the Applicant's proposed amendment to the kittiwake flight speed for the purposes of collision risk modelling is inappropriate. Given the variability in flight speeds and the need to understand the local conditions that could affect flight speeds, applying a blanket 10% adjustment to all wind farm collision risk estimates is wholly unjustified and misrepresents the evidence.

The Applicant provided a response to the RSPB's comments on kittiwake tags in its Deadline 10 submission (REP10-033, Table 1.20). The Applicant also notes that the RSPB has stated that adjusting collisions to account for reduced flight speed for all wind farms is unjustified. However, since the standard advice for collision risk modelling for a number of years has been to use a kittiwake flight speed value of 13.1m/s, as an average value with no consideration for variation, if the evidence supports a lower average flight speed to be more suitable (e.g. [REP5-060]) then this would be an entirely appropriate application of evidence





Summary of Submission	Applicant's Comments	
	and would be in keeping with how collision risk modelling has been conducted to date.	
4.8.48 The RSPB supports the comments made by Natural England. These mirror our position which we have set out in our submissions for Issue Specific Hearing 4 (AS-041) and Deadline 9 (REP9-052).	As noted in the Applicant's comment on this point [REP10-042], the Applicant has provided detailed submissions on the presence of over precaution in the assessment (in particular with respect to how individual elements of precaution combine to result in an overall highly precautionary assessment) throughout the examination and has nothing further to add on this matter.	
4.8.54 The RSPB's position remains the same as Natural England's with regard to the application of density dependent models. We set this out in our submission for Issue Specific Hearing 4 (AS-041) and our Deadline 9 submission (REP9-052).	The Applicant provided a response to this point in its Deadline 10 submission [REP10-042] .	
5 Alternatives, compensation and IROPI		
FFC SPA Kittiwake The RSPB position is set out in our comments on the derogation case submitted at Deadline 10 (RSPB Response to the Applicant's In Principle Habitats Regulations Derogation Provision of Evidence submitted at Deadline 7 and other matters).	The Applicant provided detailed consideration of alternative solutions, in- principle compensation and IROPI in [REP7-024 and REP7-025] and the Applicant's comments on the RSPB's responses to these documents are set out in Table 1.7 above.	
Alde-Ore Estuary lesser black-backed gull The RSPB position is set out in our comments on the derogation case submitted at Deadline 10 (RSPB Response to the Applicant's In Principle Habitats Regulations Derogation Provision of Evidence submitted at Deadline 7 and other matters).	The Applicant provided detailed consideration of alternative solutions, in- principle compensation and IROPI in [REP7-024 and REP7-026] and the Applicant's comments on the RSPB's responses to these documents are set out in Table 1.7 above.	
7 Annex 2: Summary of Positions in relation to Adverse Effects on Integrity		
FFC SPA It should also be made clear that the RSPB is not able to conclude no AEOI for kittiwake, gannet or the seabird assemblage in-combination with other projects. This conclusion is made irrespective of whether Hornsea 3 and Hornsea 4 projects are included, as set out in our Deadline 9 submission (REP9-052).	The Applicant disagrees with the RSPB's conclusions on these effects, as set out in detail in [REP2-035]. The Applicant also notes that Natural England disagrees with the RSPB with respect to gannet and the seabird assemblage, for which Natural England has concluded that in-combination AEoI can be ruled out when Hornsea Three and Four are excluded [REP4-040].	





Enhancing Society Together	
Summary of Submission	Applicant's Comments
Alde-Ore Estuary SPA It should also be made clear that the RSPB is not able to conclude no AEOI for the Alde Ore Estuary SPA due to impacts on the lesser black-backed gull population incombination with other projects, as set out in our Deadline 9 submission (REP9-052).	The Applicant disagrees with the RSPB's conclusion on this effect as set out in detail in [REP2-035].
8 Annex 3: Integrity Matrices	
Table 8.1 Alde-Ore Estuary SPA and Ramsar: comment on Lesser black backed gull collision mortality The RSPB has set out further comments on the use of counterfactuals in our Deadline 9 submission (REP9-052). We also clarified our position on the use of counterfactuals and their application in our submission for Issue Specific Hearing 4 (AS-041). The Applicant agreed with our definition of the Counterfactual of Population Size presented in this clarification, so it is unclear why the Applicant has brought it up again. Indeed, this approach, whereby the Applicant seeks to present disagreement where there is in fact consensus serves to increase the uncertainty around the assessment and increase the consequent need for precaution.	The Applicant welcomed the RSPB's clarification of its interpretation of the counterfactual of population size (CPS) and that this was the same as that applied by the Applicant and Natural England (as stated in REP4-043]. However, the RIES report made reference to earlier RSPB statements which the Applicant considered were phrased in a manner which could be misinterpreted, and it was for this reason the Applicant commented and provided clarification. The Applicant is unclear how requesting that the RSPB clarifies statements which were potentially open to mis-interpretation 'serves to increase the uncertainty' and hence increase the 'need for precaution'.
8.2 Flamborough to Filey Coast SPA: Kittiwake collision mortality (in-combination) The RSPB has set out further comments on the use of counterfactuals in our Deadline 9 submission (REP9-052). We also clarified our position on the use of counterfactuals and their application in our submission for Issue Specific Hearing 4 (AS-041). The Applicant agreed with our definition of the Counterfactual of Population Size presented in this clarification, so it is unclear why the Applicant has brought it up again. Indeed, this approach, whereby the Applicant seeks to present disagreement where there is in fact consensus serves to increase the uncertainty around the assessment and increase the consequent need for precaution.	
8.2 Flamborough to Filey Coast SPA: Gannet collision mortality (project alone), Gannet collision mortality (in-combination)	The Applicant has responded to the RSPB's point about interpretation of counterfactuals above.
The RSPB has set out further comments on the use of counterfactuals in our Deadline 9 submission (REP9-052). We also clarified our position on the use of counterfactuals and their application in our submission for Issue Specific Hearing 4 (AS-041). The	With respect to the potential for an AEoI for gannet, the Applicant disagrees with the RSPB's approach to determining AEoI as it is based on an unreasonably high degree of certainty about future events which it is simply not possible to





Applicant agreed with our definition of the Counterfactual of Population Size presented in this clarification, so it is unclear why the Applicant has brought it up again. Indeed, this approach, whereby the Applicant seeks to present disagreement where there is in fact consensus serves to increase the uncertainty around the assessment and increase the consequent need for precaution.

The RSPB agrees with Natural England that the gannet population of Flamborough and Filey Coast SPA appears to be robust. However, given the considerable timescale involved in the wind farm operational period, there is uncertainty as to whether that robustness will remain in the future, regardless of the current population growth rate. As such, the RSPB cannot rule out AEoI, given the scale in the impact shown by the Counterfactual of Population Size.

The RSPB disagrees with the Applicant that our decision is based solely on Collision Risk Modelling using our preferred breeding season Avoidance Rate. In our response to Deadline 9 (REP9-052) we presented the results both for our preferred rate and the Applicant's. Both demonstrate that there will be an extremely large impact on the population of gannet at the Flamborough and Filey Coast SPA arising from incombination impacts.

8.2 Flamborough to Filey Coast SPA: Razorbill operational displacement (incombination) and Guillemot operational displacement (incombination)

While the RSPB agrees with Natural England that 10% mortality arising from displacement is unlikely, we do consider that, given the considerable uncertainty around displacement mortality and the lack of evidence to underpin any mortality estimate, that it is an **entirely possible value** and therefore should be included in the assessment.

Applicant's Comments

provide. Furthermore, the Applicant notes that Natural England has presented their methods for how they have determined if an AEoI can be ruled out or not [e.g. REP4-040]. In contrast, the RSPB, while criticising the Applicant's methods, has simply stated that on the basis of the CPS values they cannot rule out AEoI without providing explanation of the criteria the RSPB has used to arrive at this position.

The Applicant strongly disagrees with the RSPB's conclusion that there will 'be an extremely large impact' on the SPA gannet population. The Applicant set out the basis for its assessment in REP2-035, which demonstrated that the potential in-combination impact on gannet would not result in a population decline and that there would be no AEoI. Natural England [REP4-040] agreed with this conclusion for the project alone and in-combination with other plans and projects, albeit only when Hornsea Projects Three and Four were excluded (due to the uncertainty these projects introduce into the assessment).

The Applicant disagrees with the RSPB on the consequences of displacement and provided a detailed review in support of precautionary rates of displacement mortality of no more than 1% [REP2-024]. However, the Applicant also notes that the assessment presented displacement mortality rates of up to 10% as requested by Natural England. In summary, the Applicant has applied the precautionary value within the assessment, notwithstanding that the Applicant disagrees on the level of precaution this introduces, and has evidenced its position with a detailed review [REP2-035]. In the absence of similar evidence from the RSPB to support the view that the value is 'entirely possible' (whilst at the same time agreeing it is unlikely) it is unclear what purpose the RSPB's response serves.





1.91.10 REP10-072 Colin King Comments on Applicant Deadline 8 Submissions

Summary of Submission	Applicant's Comments
Comments on Applicant Deadline 8 Submissions	
REP10-072 raises further concerns over discrepancies from Viewpoint 3 and Viewpoint 7 as a result of the 3D Model View produced by OS Terrain 5.	The Applicant refers to the following earlier submission where the Applicant has responded to concerns raised regarding LVIA. Particularly REP6-013 which addressed concerns over the accuracy of the visualisations and confirms that all visualisations are produced to SNH guidelines as set out in 'Visual Representation of Wind Farms Version 2.2' (February 2017). Great care has been taken to conform to these standards to ensure the visualisations are as accurate as possible. Terrain 5 DTM is a data source purchased from Ordnance Survey, therefore we cannot rectify any inaccuracies inherent in this data. However, any inaccuracies that do occur in Terrain 5 DTM will not affect the height of the substation as shown in the models or the photomontages. • AS-024 Applicant's comments on Relevant Representations • REP3-007 Applicant's comment on Written Representations and Additional Submissions; • REP4-013 Written Summary of the Applicant's Oral Case at Issue Specific Hearing 3 Onshore effects including the draft Development Consent Order; • REP5-045 Applicant's Responses to the Examining Authority's Further Written Questions; • REP5-051 Applicant's Comments on Deadline 4 Submissions and Additional Submissions; • REP6-013 Applicant's Comments on Deadline 5 Submissions • REP7-016 Applicant's Comments on Deadline 6 Submissions and Other Submissions.
	With regards to the specific concerns raised on Viewpoint 3 and 7:
	In respect of Viewpoint 3, while there may be some degree of discrepancy in respect of the OS Terrain 5 data (as discussed previously) it will not have incorporated 18m high trees into the landform modelling. In respect of any comparisons between the cross-section and the photomontage, it must be remembered that the cross section is a 2 dimensional representation while the photomontage is a 3 dimensional representation. The key difference is that the 2 dimensional cross-section does not





Summary of Submission	Applicant's Comments
	represent the effect of perspective while the photomontage does. With distance from the object (in this case the converter halls), the visual angle decreases such that the object takes up less of the overall field of vision, thus making the object smaller. This explains why less of the converter halls are visible from viewpoint 3 and viewpoint 7 than is possibly anticipated and is why the cross sections and the photomontages are not comparable in this respect.
REP10-072 raises concerns over the operational noise limits of the onshore project substation.	The Applicant refers to the following earlier submission where the Applicant has responded to concerns raised regarding the operational noise of the onshore project substation: REP6-013 Applicant's Comments on Deadline 5 Submissions REP7-016 Applicant's Comments on Deadline 6 Submissions and Other Submissions.
	The Applicant refers to ES Chapter 24 [APP-238] which provides full details on how the operational noise criteria have been derived and assessed in accordance with the British Standard 4142. These limits where conditions set by Breckland Council (secured through Requirement 27 of the dDCO) and the operational onshore project substation will comply with the conditions of Breckland Council which is summarised as not exceeding 35 dB LAeq (5minutes) at any time at a free field location immediately adjacent to any noise sensitive location. A further limit of 32 dB Leq (15minutes) also applies to the 100Hz third octave band. Detailed noise assessments have shown that with proven noise reduction technology or procurement of low noise emitting equipment, this requirement can be readily achieved, and no impacts will occur. All matters in relation to the Noise and Vibration assessment are agreed in the final Statement of Common Ground (Version 2) with Breckland Council [REP9-013].
 REP10-072 has outstanding concerns over: Potential to contaminate the Wissey Chalk Aquifer and groundwater abstractions The HVDC decision Earth bunding for screening for the onshore project substation The total size of the proposed substation complex at Necton, which it is considered has been down played 	 Appropriate control measures for the protection of groundwater and groundwater abstraction are detailed in section 11 of the OCoCP [REP10-012] which has been agreed with the Environment Agency. The Applicant refers the Applicant's Comments on Deadline 8 submissions [REP9-011] and the Applicant's response to the ExA's Fourth written questions Q4.9.2.1 [REP10-34] where it has addressed comments regarding the HVDC decision and impacts at Necton.





Summary of Submission	Applicant's Comments
5. The impact of substation drainage on the stream through Ivy Todd Farm	3. The Applicant refers to the Applicant's response to the ExA's Fourth written questions Q4.9.6.7 [REP10-34] on landscape mitigation and the use of bunding.
	4. The Applicant has been entirely transparent and thorough in its assessment and throughout the application and examination process with regard to the dimensions of the onshore project substation and its relationship with Norfolk Vanguard, in the event of Scenario 1. The cumulative impacts of Norfolk Boreas and Norfolk Vanguard have been identified and assessed throughout the Environmental Statement. Specifically, the worst-case for Scenario 1 within the LVIA and all visualisations for Scenario 1 have included both Norfolk Boreas and Norfolk Vanguard onshore project substations.
	5. The Applicant has designed flood mitigation at the project substation site to ensure that there will be no negative impacts on existing flood risk to the site, or surrounding areas. The onshore project substation and National Grid substation extension drainage strategy will be guided by the principle of Sustainable Urban Drainage Systems (SuDS). The strategy will limit development site surface water run-off to the existing greenfield rate, with sufficient attenuation for rainfall events up to 1 in 100-year probability plus allowance for climate change over the lifetime of the project.

1.101.11 REP10-074 Nicola Banham

Summary of Submission	Applicant's Comments	
Traffic through Cawston		
PRE10-074 objects to the routing of HGVs through the village of Cawston and is concerned that hundreds of HGV traffic movements and lorries will be passing every few minutes potentially from 6am to 11pm.	A number of mitigation measures have been developed to mitigate potential traffic impact through Cawston as detailed and secured through the Outline Traffic Management Plan [REP10-016] including the development of the Highways Intervention Scheme (HIS). This includes a cap on the daily HGV movements to 112 for Norfolk Boreas and managed cumulative traffic demand to no greater than 239 daily HGV movements. The HIS also prohibits HGV deliveries from 6pm to 9am and during school drop off times (3.00pm to 4.00pm) during term times. Monitoring and	





Summary of Submission	Applicant's Comments
	Enforcement is an integral part of the HIS and these measures are detailed within the OTMP [REP10-016].
	As detailed in the Statement of Common Ground (Version 5) with Norfolk County Council [REP9-015], NCC are in agreement that the Highway Intervention Scheme is appropriate to mitigate traffic impacts of the Project, both alone and cumulatively with other projects, to an acceptable level.