From:	Dominika Phillips
To:	Hornsea Project Three; Kay Sully; KJ Johansson
Cc:	Andrew Guyton; Stuart Livesey
Subject:	Hornsea Project Three (UK) Ltd response to Deadline 3 (Part1)
Date:	14 December 2018 20:45:56
Attachments:	image003.png D3_HOW03_Cover_Letter.pdf D3_HOW03_IP_WR.pdf D3_HOW03_ISH1.pdf D3_HOW03_ISH2.pdf D3_HOW03_ISH3.pdf D3_HOW03_ISH4.pdf D3_HOW03_SoCG_RSPB_Dec_signed.pdf D3_HOW03_SoComm.pdf HOW03 Guide to the application.pdf

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Dear Kay, K-J

We are pleased to enclose Ørsted Hornsea Project Three (UK) Ltd ("the Applicant") response to Deadline 3, Friday 14 December 2018. These documents have been prepared by the Applicant and have been produced in response to the Examining Authority's (ExA) letter of 9 October 2018 ("the Rule 8 letter") as well as the Hearings (03-07 December 2018). The documents are pursuant to Rules 10(1) and (2) of the Infrastructure Planning (Examination Procedure) Rules 2010 and are in connection with the Development Consent Order application for the proposed Hornsea Project Three Offshore Wind Farm (hereafter referred to as "Hornsea Three").

These documents are being issued over a series of emails, each email containing a pdf file or files. The **last** email to be issued by the Applicant will contain a supporting file tracking sheet – to help the ExA ensure that it has received each email transmission.

Please acknowledge safe receipt of these documents. If we can be of any assistance in that regard, please do not hesitate to contact myself or Andrew Guyton.

Best regards,
Dr Dominika Chalder PIEMA
Environment and Consent Manager

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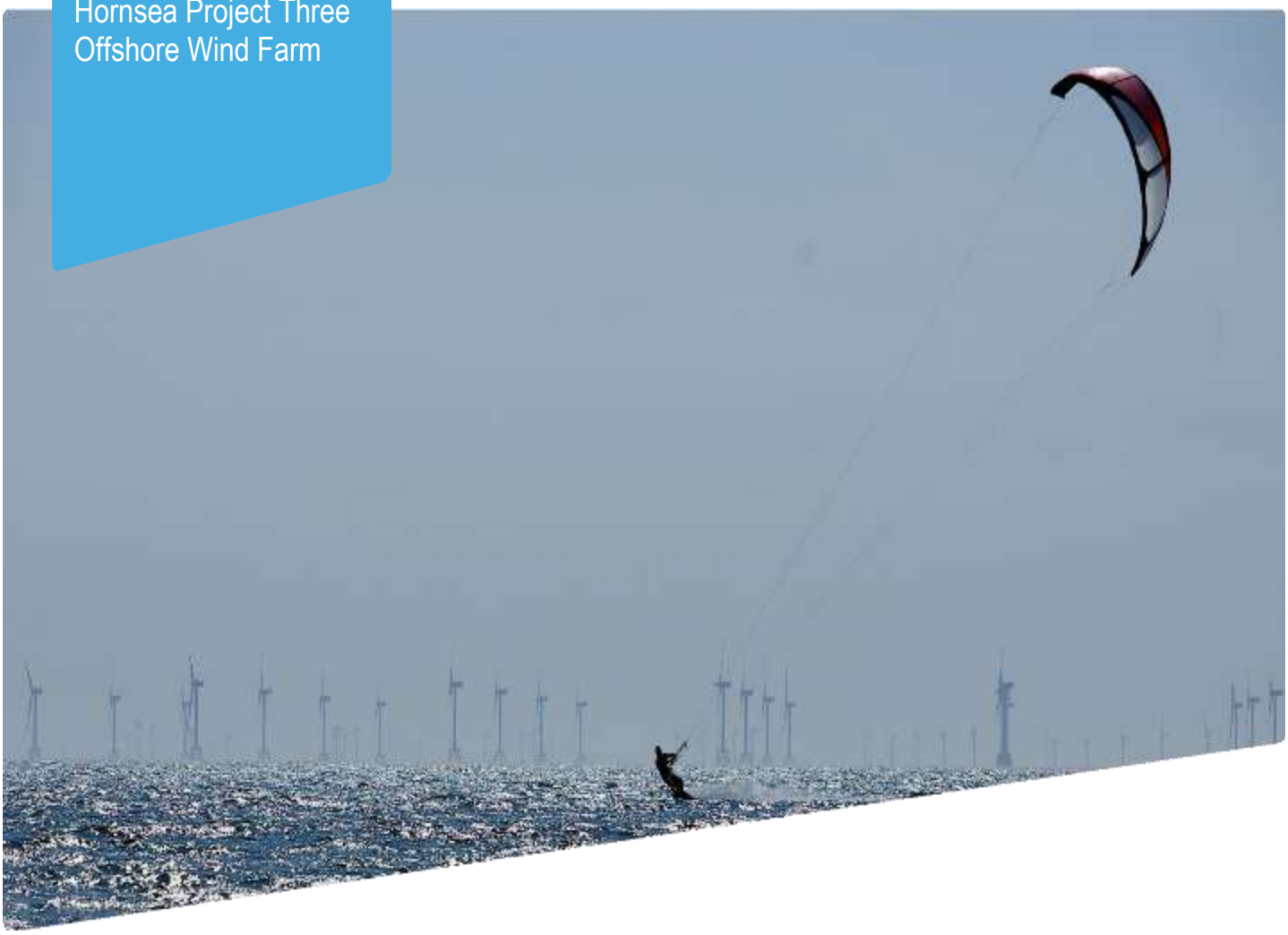
Hornsea Project Three
Offshore Wind Farm



Hornsea Project Three

Offshore Wind Farm

Applicant's Responses to Additional Submissions by Interested Party at Deadline 1 and 2

Date: 14th December 2018

Hornsea 3
Offshore Wind Farm

Ørsted

Document Control			
Document Properties			
Organisation	Ørsted Hornsea Project Three		
Checked by	Pinsent Masons		
Approved by	Andrew Guyton		
Title	Applicant's Responses to Additional Submissions by Interested Party at Deadline 1 and 2		
PINS Document Number	n/a		
Version History			
Date	Version	Status	Description / Changes
14/12/2018	A	Final	Submission at Deadline 3 (14th Dec 2018)

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Front cover picture: Kite surfer near a UK offshore wind farm © Ørsted Hornsea Project Three (UK) Ltd., 2018.

Table of Contents

1. Introduction

1.1 Following further submissions of Written Representations by Interested Parties at Deadline 1 and 2, the Applicant has taken the opportunity to review each of the Written Representations received by the Planning Inspectorate. Details of the Applicant's responses to each of those representations are set out within this document in subsequent sections below.

2. Applicant's Comments on Written Representations

The Royal Society for the Protection of Birds (RSPB)

Summary

Having reviewed the documents, the RSPBs outstanding concerns are summarised as follows:

- Baseline characterisation and inadequate survey effort
- Collision risk modelling, in particular the use of model options and avoidance rates
- Phenology and the definitions of breeding season
- Apportioning of impacts to pSPA
- The interpretation of population model outputs
- The assessment of cumulative impacts and "corrections" applied

Response to RSBP

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Comments on documents submitted by Ørsted at Deadline 1. Due to the number of documents produced by Ørsted that the RSPB wish to comment on we have grouped them into 3 sections: • Application documents – covering the Development Consent Order, Outline Code of Construction Practice, outline ecological management plan, In-Principle Monitoring Plan and the Habitats Regulations Assessment and Screening and Integrity Matrices; • Examination documents – covering Ørsted's Responses to Relevant Representations; and • Ornithological documents – drawing together the assorted supporting documents that were shared with the RSPB prior to and/or submitted at Deadline 1.	This is acknowledged by the Applicant.
Application Documents	
Revised Development Consent Order: The RSPB has reviewed this document. We note that none of the changes to the document affect our representations upon the previous version. We welcome the decision of the Applicant to make the document available in a tracked change format. The RSPB note that the approach to defining the rotor swept area	This is acknowledged by the Applicant.

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has removed the reference to rotor diameter and replaced it with reference to "a total rotor swept area of 9 km2" (Schedule 1 – Authorised Project, Part 3 – Requirements, 2(1) and Schedule 11 – Deemed Marine Licence – Generation Assets, Part 2- Conditions, condition 1(1)). This does not alter the way in which the collision risk modelling is undertaken, so our previous comments remain unaffected.	
The RSPB welcomes the new provision in Schedule 1, part 3, 10(2) in relation to the Ecological Management Plan which stipulates that it must accord with outline ecological management plan. We consider that this gives greater security to mitigation measures agreed during the course of the Examination Process in relation to the transition of the document from a "live" to a "fixed" version.	This is acknowledged by the Applicant.
The RSPB notes the introduction of reference to an ornithological monitoring plan into Schedule 11, Part 2, 13(1)(l) and 17(2)(c), but is not aware that such a document has yet been produced. We consider it is important that a version of this is submitted to the Examination.	The Applicant has committed to Ornithological monitoring as outlined in the In-Principle Monitoring Plan (Version 2 of which was submitted at Deadline 1 (REP1-180)).
Revised Outline Code of Construction Practice (APP-179) (Appendix 44): The RSPB has reviewed this document. We note that none of the changes to the document affect our representations upon the previous version. We welcome the decision of the Applicant to make the document available in a tracked change format.	This is acknowledged and should any further updates be required to the In-principle Monitoring Plan these can be made in tracked changes.
Revised Outline Ecological Management Plan (APP-180) (Appendix 46): The RSPB has reviewed this document. We note that none of the changes to the document affect our representations upon the previous version. We welcome the decision of the Applicant to make the document available in a tracked change format.	This is acknowledged by the Applicant.
In-Principle Monitoring Plan v2.0 (APP-182) (Appendix 2) The RSPB has reviewed this document. We note that none of the changes to the document affect our representations upon the previous version. We are disappointed that the Applicant has not made the document available in a tracked change format and request that future versions are.	This is acknowledged by the Applicant.
Applicant's Comments on Relevant Representations	
Annex 7 – Full response to Natural England [RR-097] The RSPB note the Applicant's response in relation to a Pink-footed Goose Mitigation Plan.	This is acknowledged by the Applicant and is the subject of ongoing discussion between the Applicant and the RSPB through the SoCG process.
Annex 9 – Full response to Royal Society for the Protection of Birds [RR-113] The RSPB note the Applicant's response in relation to a Pink-footed Goose Management Plan. We continue to discuss ways to address our concerns. (We also note that in its response to Natural England the Applicant referred to it as a "Mitigation" Plan.)	This is acknowledged by the Applicant.

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Ornithological documents	
Appendix 3: Age Class Data Clarification Note The RSPB welcome this clarification note which was produced in response to questions from Natural England, and welcome the inclusion of breeding seasons as defined by Furness (2015), (and note that these are virtually identical to those based on site specific data). However, the presentation of data is incomplete in three ways: 1. The data are for gannet, kittiwake and puffin only. No data are presented for guillemot or razorbill. These data would be informative for considering the appropriate apportionment of non-breeders and particularly juveniles of these species in the assessment. 2. The date are from the historical boat based surveys only and do not include data from the far more recent aerial surveys. 3. The data are for the whole of the former Hornsea zone only. It would be informative to have the data for the Hornsea Three subset of data extracted and presented as well, in particular the more recent aerial survey data. For these reasons, we do not think that the document provides sufficient detail to fully resolve the issues highlighted by Natural England.	The Applicant notes that RSPB welcome the age class data provided by the Applicant at Deadline 1 (REP1-169) in response to comments received from Natural England. In response to the individual points raised by the RSPB: 1. Guillemot and razorbill cannot be aged during any surveys (with the exception of juvenile birds which would not be used in the apportioning approach; applied by the Applicant) and therefore it is not possible to provide these data. It is noted that RSPB indicate it would be informative rather than necessary to have this information. 2. The Applicant used apportioning values calculated using boat-based data and therefore it was not necessary to provide age class data associated with aerial surveys. Notwithstanding this, puffin cannot be aged during aerial surveys and therefore the only data that exists for this species is from boat-based surveys; and 3. The data presented are those that support the calculation of the apportioning values used by the Applicant, as requested by Natural England. As a result, the data provided for gannet and kittiwake are those data that overlap Hornsea Three whereas those for puffin are from subzone and Hornsea Zone transects and therefore cover the former Hornsea Zone. It is noted that RSPB indicate it would be informative rather than necessary to have this information.
Appendix 4: Analysis of precaution in cumulative and in-combination assessments – as-built scenarios – Clarification Note Appendix 4 presents revised collision mortalities based on either the correction factors presented in Trinder (2017) (see below for further comments on this report) or the applicant's own calculations. Both are unacceptable. These simplified corrections do not take into account changes in turbine specification, as they are based simply on turbine numbers. Hub and lower tip height are key drivers of the scale of predicted collision impacts and these are omitted from the calculation and turbine rotor speed, which tends to be greater in more modern turbines is also an important determinant of risk. If an approach to recalculating cumulative collision risk is to be untaken the collision risk modelling for each wind farm should be redone, not an overly simplistic and arbitrary correction factor. The RSPB also note that the Applicant states that the reduced turbine numbers for several developments have been legally secured by Section 36 consent variations. We would be grateful for details of these agreements as we have been unable to find any other further information.	The differences between the impacts assumed for projects in their relevant applications (based on worst cases that are not often constructed) and those that actually arise from the project as constructed can be considerable and is a significant source of uncertainty in cumulative impact assessment. Trinder (2017) was a useful attempt to correct for these errors. The methodology applied by Trinder (2017) (and the Applicant in Appendix 4 of the Applicant's submission at Deadline 1 (REP1-148)) utilises all relevant information on turbine specifications to provide an updated collision risk estimate and does not simply reflect changes in turbine number. This is clearly explained in Trinder (2017), the spreadsheet accompanying Trinder (2017) and Appendix 4 of the Applicant's submission at Deadline 1 (REP1-148). Appendix 4 of the Applicant's submission at Deadline 1 (REP1-148) is considered to provide a precautionary approach that highlights the significant over-estimation of cumulative and in-combination collision risk estimates that occurs when using assessed turbine scenarios. The approach applied, is considered a proportionate way to illustrate the inherent over-estimation in general terms, and it is not reasonable to expect an applicant to redo the

The RSPB Deadline 2 Submission Comment	Applicant's Response
	primary assessments from other wind farms for the purposes of cumulative impact assessment.
Appendix 7: Alternative approach to sourcing cumulative and in-combination collision risk estimates – Clarification Note Appendix 7 presents the predicted cumulative mortalities amended using the corrections described in Appendix 4. It then applies further correction derived from the arguments presented in Appendix 10. The RSPB disagrees with this approach for reasons detailed under the headings for each of these appendices and therefore does not accept the conclusion of Appendix 7.	Appendix 7 of the Applicant's submission at Deadline 1 (REP1-139) provides collision risk estimates with and without the corrections discussed in Appendix 4 of the Applicant's submission at Deadline 1 (REP1-148). The Section 36 consent variations referred to by the Applicant in Appendix 4 to the Applicant's submission at Deadline 1 (REP1-148) can be found on the Marine Licensing section of the Scottish Government website, the PINS website or through the BEIS Energy Infrastructure database. It should be noted that the suite of projects for which this refers to were agreed through consultation with Natural England during the examination of the Hornsea Project Two offshore wind farm.
Appendix 8: Baseline Characterisation Sensitivity Testing Clarification Note From the outset of Hornsea Project Three the RSPB and NE have been consistently clear that 20 months of survey effect is inadequate and that 24 months is an absolute minimum. However, with the Applicant and Natural England, the RSPB have been trying to explore approaches that can come up with a solution to the problems presented by an incomplete survey. We supported the meta-analysis work, the primary aim of which was to assess whether 20 months survey would be adequate to account for variability in bird density through examination of the historical data set. Regrettably, the analysis was unable to provide this assurance. In defence of this incomplete survey effort, the Applicant includes a list of other projects that had incomplete data (Table 1.3). None of these, with the exception of Moray West has as many missing *consecutive* months. Moray West is not consented, and during the application both SNH and RSPB objected on the grounds of insufficient survey effort. In table 1.4 the Applicant seeks to describe the importance of the missing four months in terms of breeding seasons. However they are using an incorrect definition of breeding season, not those defined by site specific data or from Furness (2015). We do not accept the results of the sensitivity testing to determine whether inter-annual variability would be significant. The analysis is carried out by setting the results against the Applicant's own test for significance, which the RSPB disagree with. Variability in density will have both a spatial and temporal component. As a means of addressing the spatial variability the RSPB agree with NE that including the data from the additional 2 cameras will help to properly characterise the degree of variability by increasing survey coverage from 10% to 20% of the project area. The applicant in their answer to Q1.2.40 also agree that this will improve the precision of the estimated density. The RSPB are supportive of NE's position with regards to this; we do not accept that the historical boat-based survey data can be used as part of the impact assessment. The meta-analysis carried out was in part to explore this possibility and from that analysis it	The overall approach that was set out at the commencement of the Evidence Plan process was to maximise use of existing data, information, evidence and agreed assumptions, taking a lead from the recently examined and approved Hornsea Project Two. Hornsea Three is located in a relatively well understood area having been surveyed in the context of a zonal approach to planning since 2010 and there having been 2 previous Round 3 DCO applications. Initially it was proposed that there would be 12 months of DAS, but this was extended to 2x breeding seasons and eventually 20 months. The DAS method and the approach to analysing available data for Hornsea Three were discussed in the ornithology Expert Working Group (EWG) from the outset. In this context, and whilst the RSPB made clear their preference for a full 2 years of DAS data, a 'meta-analysis' of existing zonal survey data was undertaken. The agreed objectives of this analysis being • will 12-months of data be sufficient to inform the HOW03 assessment? • if not how can we integrate the existing dataset into the data collected for HOW03? In practice, the residual concerns about baseline data revolve around whether there are sufficient data to provide a reasonable characterization of the period December to March for the purposes of impact assessment. There are DAS data available for this period but it is acknowledged that they provide less information about the variability in bird densities that can be expected for these months than would be the case if a second survey had been conducted. The meta-analysis provides a comprehensive analysis of the existing data available for the zone and Hornsea Three area with a view to characterising the variability in the densities of key species observed in surveys undertaken between 2010 and 2017. The hierarchical methodology sets out a set of rules and a process for identifying an

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could not be concluded that the use of such data was appropriate. While the presentation of the results of an alternative hierarchical method are of some contextual interest, the note, like the previous meta-analysis, does not provide sufficient evidence to overcome the argument that 20 months is an adequate survey period.	appropriate density for use in baseline characterisation. It is The Applicant's position that there is a sufficient and representative baseline for the purposes of impact assessment. The exercise undertaken in Appendix 8 of the Applicant's submission at Deadline 1 (REP1-141) clearly highlights that survey effort of 24 months has not been reached at numerous consented offshore wind farms. For example, the consented Galloper offshore wind farm lacked four consecutive months of data (January to April 2005) and the consented Burbo Bank Extension offshore wind farm relied upon only twelve months of site specific data. The Applicant understands that having only one month of data for the period December to March will increase the uncertainty associated with assessments incorporating these months and has explored and tested this uncertainty to understand the implications for the assessment. The months for which two surveys have not been conducted fall outside of the breeding season for all but one of the key species in the assessment. Outside of the breeding season, seabird populations are more mixed and impacts on local breeding colonies are therefore diluted. This is illustrated by the apportioning values used for relevant species, with these not above 10% meaning that considerably higher densities of birds (i.e. higher than those in the breeding season) would need to be present at the Hornsea Three site in order for a significant impact to occur. In addition, and evidenced through contextual data, variability in non-breeding periods is lower than during the breeding season. The analysis undertaken in Appendix 8 of the Applicant's submission at Deadline 1 (REP1-141) does not indicate that a different conclusion would be reached were alternative assumptions made about the densities of key species in the months of December to March. Notwithstanding this the Applicant remains open to explore any reasonable proposed approach from the RSPB that would help to aid their understanding in relation to this point. The boat-based survey data provide an important baseline dataset that, regardless of the positions of the Applicant, Natural England and the RSPB in relation to the use of the data as part of assessments, provides important contextual data to inform assessments (either qualitatively or quantitatively). The Hornsea Zone is one of the most surveyed areas of the UK offshore environment and the data collected as part of these boat-based surveys can provide a considerable amount of information to inform the assessments undertaken for Hornsea Three. It should be noted that these boat-based data were the baseline data used to inform EIA and HRA for Hornsea Projects One and Two.
Appendix 9: Population Viability Analysis The RSPB welcome the inclusion of this report and in particular the inclusion in the outputs of the RSPB preferred metric, the	The Applicant notes the comments made by the RSPB in relation to Appendix 9 of the Applicant's submission at Deadline 1 (REP1-135) and has no further comment to

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Counterfactual of Population Size (Green *et al.* (2016) and subsequently endorsed by Cook & Robinson (2017) and Jithal *et al.* (2017)). We also welcome the use of the matched runs approach as recommended by Cook & Robinson (2017) and Jithal *et al.* (2017). However we note that the models used are based on those carried out in 2012 as part of the Hornsea Project One Examination and this approach assumes that there have been no changes in population sizes or productivity in the intervening years. This is of particular concern for kittiwake whose productivity has been in decline at the pSPA since 2009 (Aitken *et al.* 2018). As such we can only have a limited amount of confidence in the conclusions for this species. We recommend that the models are re-run using the most up-to-date population data available. Furthermore we disagree with how the conclusions of adverse effect on the site integrity of FFC pSPA have been drawn in 3.5, 3.9 and 3.15. These presume there is no adverse effect if population does not decline over the 35 years of wind farm operation. This is to misunderstand the nature of PVA and the counterfactual outputs. The counter-factual of population size approach advocated by the RSPB and the SNCBs identifies the relative impact that the scheme would have upon the population. It is not possible to give an absolute prediction of the population size or trajectory, such as is suggested by the applicant in their conclusion of no adverse effect, because of the long timespan of the potential operation and the large number of confounding variables (e.g. climate change and changes in fishing discard policy) that would need to be included in the modelling approach. We also note that under 3.9 and 3.15, which refer to kittiwake and guillemot respectively the applicant says there is no "likelihood of the *gannet* population at FFC pSPA declining over a period of 35 years". We presume this is an error and should read kittiwake and guillemot respectively. Nonetheless, we disagree with the conclusion. As such we would ask that the PVA are rerun using up to date demographic rates and with proper interpretation of the output metrics.	provide at this stage.
Appendix 10: Collision Risk Modelling - Updates to Species-Specific Parameters – Clarification Note This clarification note seeks to update the input parameters of the Band model used in collision risk modelling. The suggested use of empirically derived parameters of greater precision is to be welcomed, but the RSPB is concerned that the focus has been entirely on those parameters that can reduce collision estimates and that there is an over reliance on non-peer-reviewed studies. The key papers are the final report of the ORJIP Bird Collision Avoidance project (Skov *et al.,* 2018) and Furness *et al.* (2018) paper on gannet nocturnal activity rates, although other developer commissioned reports on nocturnal activity are included. The ORJIP Bird Collision Avoidance study used a number of largely novel technologies to record bird behaviour at and around a small number of turbines at the edge of Thanet wind farm, located 12km off the coast of Margate, Kent, in the UK. Data were collected between July 2014 to April 2016 and the final project report was published on Thursday 19th April 2018. Whilst, as the report	The Applicant notes that RSPB welcome the use of empirically derived parameters of greater precision. However, it is not correct that Appendix 10 of the Applicant's submission at Deadline 1 (REP1-188) only concentrates on those parameters that would reduce collision risk estimates. For example, the use of the nocturnal activity factors for gannet from Furness *et al.* (2018) would increase the collision risk for this species. Notwithstanding this, it is widely accepted that most parameters used for collision risk modelling have been conservatively estimated in the first instance and over-estimate the collision risk calculated by CRM. An improved understanding of these parameters is therefore more likely to reduce collision risk estimates. The Applicant is aware of the limitations of Skov *et al.* (2018) however, these limitations do not prevent data from Skov *et al.* (2018) being used to inform collision risk modelling especially for certain parameters which are

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acknowledges, there were considerable limitations to the collected data, it did use a novel approach to shed new light on seabird avoidance behaviours in and around offshore wind turbines. A key limitation of the study was that it was located distant from SPA breeding colonies, approximately 300 km from the nearest UK SPA colonies for gannet and kittiwake at Flamborough and Filey Coast pSPA, and therefore the results have limited applicability to breeding birds whose behaviour will be markedly different to those of non-breeding birds because of the constraints described by central place foraging (where by an animals movements are constrained by the need to return to a fixed location, in this case the nest). Another important limitation of the study is the lack of pre-construction data in the analysis, particular as it relates to the calculation of macro-avoidance.	unlikely to change regardless of the proximity of the study wind farm to breeding colonies (e.g. flight speed). The limitations highlighted by the RSPB are applicable to all data sources, however, the data presented by Skov *et al.* (2018) are, in some cases, considered to represent the best available evidence having been collected in the offshore environment at an operational offshore wind farm and reduce, considerably, some of the uncertainty associated with certain parameters. The Applicant has provided further information on this point in Appendix 10 of the Applicant's submission at Deadline 1 (REP1-188).It should be noted, that the Applicant has not argued that the avoidance rates derived by Skov *et al.* (2018) should be used for collision risk modelling at Hornsea Three as explained in Appendix 10 of the Applicant's submission at Deadline 1 (REP1-188). The flight behaviour of birds at an operational wind farm will be affected by the presence of the wind farm. This has implications for the Band (2012) CRM not least in relation to the avoidance rate to apply to collision risk estimates and these potential implications are not well understood. Skov et al. (2018) do not present flight height data outside of the wind farm at which the study was conducted, which could potentially avoid the aforementioned implications, in a format which can be used in collision risk modelling. In addition, no statistical analysis has been undertaken by Skov et al. (2018) to assess for flight height variation with distance to the wind farm. Until such time as the flight height data is processed and a dataset made available that is agreed to be representative of flight height distribution for species in the absence of a wind farm, the findings of Skov et al. (2018) are not available to be incorporated into collision risk modelling. The Applicant refers the RSPB to Appendix 6 of the Applicant's submission at Deadline 2 which provides the results of Lidar surveys undertaken at Hornsea Three which provide the most accurate and precise flight height data collected in this region. The results of these surveys correspond with the flight height data collected during boat-based surveys and therefore it is considered appropriate to use these data for collision risk modelling. The RSPB also discuss the discrepancy between the pColl values calculated by Band (2012) and that derived by data collected (but not analysed) by Skov *et al.* (2018). It is important to note (as done by the RSPB) that the pColl derived from Skov *et al.* (2018) is supported by a very small sample size and is again representative of bird behaviour at an operational wind farm. The pColl value at an operational value therefore needs to be considered against the empirical avoidance rates calculated by Skov *et al.* (2018) which are significantly higher than those applied when using the Band (2012) CRM.
Flight speed The RSPB welcome the incorporation of more accurate flight speed figures. The lack of precision in flight speed estimates is an issue	It is noted that RSPB consider the flight speed figures provided to be more accurate that previously used for offshore projects, which reduces uncertainty. Flight speed

The RSPB Deadline 2 Submission Comment	Applicant's Response
that has been highlighted repeatedly by the RSPB, notably during the Hornsea Project Two Examination. However it is important to note that the flight speeds presented are from a single site during the non-breeding season. Such data may not be directly transferable to other sites or to the breeding season due to potential differences in bird behaviour. Until the issue around the transferability of these data are resolved, or until site-specific flight speeds can be produced, it is not acceptable that these data are directly used in the CRM for a different site, during the breeding season.	is now a parameter that is better understood and Skov et al. (2018) provides a larger, higher quality evidence base for use in CRM than was previously available. Prior to Skov et al. (2018) CRM relied on flight speed estimates quoted in Alerstam *et al.* (2007) and Pennycuick *et al.* (1987) which are based on very small sample sizes or that were collected using wind tunnels. The flight speed data presented by Skov *et al.* (2018) were collected throughout the year and are therefore not solely for the non-breeding season as suggested. It could be argued that, for some species, breeding birds may not occur at the site at which the flight speed data were collected. However, given the distance between Hornsea Three and the nearest breeding colony, it is not considered that this represents a significant limitation to the use of the data. It should also be noted that this issue is also associated with the flight speed data from Alerstam *et al.* (2007) and Pennycuick *et al.* (1987). It is not considered appropriate to dismiss the data from Skov *et al.* (2018) in the hope that, at some point, a method that allows for site-specific data collection is developed when the data from Skov *et al.* (2018) represents the best available evidence in relation to flight speed data especially when considered against the data previously used for collision risk modelling (i.e. Alerstam (2007) and Pennycuick *et al.* (1987)).
Nocturnal Activity The current Nocturnal Activity Factors recommended in Band (2012) are derived from the expert opinion collected by Garthe and Huppop (2004). A review of seabird vulnerability to offshore wind farms (Furness *et al.,* 2013) recommended that no changes be made to the nocturnal activity scores for these species, and an update, including the same authors (Wade *et al*., 2016) maintained this recommendation. Furness *et al*. (2018) recommends changes to the gannet nocturnal activity factor, although the suggested change is different from that the same authors proposed elsewhere (MacArthur Green, 2015, MacArthur Green 2018). While we welcome the Furness *et al*. (2018) review, we are concerned that the mortalities predicted using revised nocturnal activity rates for gannet (and this is applicable to other species) are potentially underestimated because they do not account for the potential interaction between survey timing and diurnal behavioural patterns, whereby peaks in foraging activity at first and last light (see Fig. 3 in Furness *et al.* 2018) will not be accounted for in the assessment if these did not coincide with surveys (the timings of which are currently unknown, but likely to be midday if aerial), and the survey may have been carried out at a time of much lower activity. Thereby the application of the revised nocturnal activity factor recommended by Furness *et al*. (2018) could result in inaccurate underestimates of collision risk.	See the Applicant's response to Q1.2.60 above
Avoidance rate Avoidance Rate accounts for the discrepancy between predicted collision mortality and actual collision mortality. Such discrepancy arises because of natural variability and uncertainty in the input	It should be noted that the Applicant has not advocated that the avoidance rates derived by Skov et al. (2018) should be used in the collision risk modelling for Hornsea Three and the limitations of the Skov et al. (2018) are discussed in Appendix 10 to the Applicant's submission at Deadline 1

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parameters, such as flight height and bird density, errors in the modelling process, errors in the model itself as well as any avoidance behaviour of the birds in response to the turbines. As such, "Avoidance Rate" is a misnomer; it is not exclusively related to avoidance behaviour *per se.* A number of studies have shown that Avoidance Rate has a disproportionate influence on the number of mortalities predicted by Collision Risk Modelling and there has been considerable debate around what its actual value should be (it is largely estimated) and how it could be better measured and refined. Improving understanding of the true value of the correction factor termed "Avoidance Rate" would allow us to predict collision mortality with greater confidence in the accuracy of models. However the empirically derived avoidance rates presented in Skov *et al.* (2018) are functionally different from the Avoidance Rates used in the Band (2012) model, as the later incorporate error and variability in relation to both the data used and the model itself (Cook *et al*., 2014), which means that Band model Avoidances Rates will be lower than empirically derived avoidance rates. Indeed the Applicant argues elsewhere that uncertainties around the manner in which peaks in activity are be captured in the modelling process should form part of Avoidance Rate. Debate is ongoing as to how to apply the EARs into the Band model and so it is not clear how, if at all, predicted mortalities would be different if the Skov *et al.* rates were considered. It is also important to highlight that there are difficulties in the manner in which Skov *et al.* (2018) calculated the Empirical Avoidance Rates, particularly for macro-avoidance. As there were no pre-construction data available for this calculation, the study estimated macro-avoidance by comparing the density of bird tracks within the wind farm to the density of bird tracks in a 3 km buffer around the wind farm. However this calculation assumed that there is no attraction by birds to the wind farm area. Other research has suggested that birds may be attracted to wind farm sites e.g. Vanermen et al (2015). Birds may also be attracted to birds funnelling or otherwise aggregating outside the wind farm. Furthermore it appears that fishing vessels were frequently recorded in the wind farm buffer which would increase the attraction to birds. Previous studies (Krijgsveld et al. 2011) noted gulls being attracted to fishing vessels on the edge of a wind farm and observers noted a similar effect as part of the ORJIP BCA study. In such circumstances, birds will be responding to the fishing vessels rather than the turbines and this will strongly bias the results. As such little confidence can be placed in this calculation.	(REP1-188).
Flight height Given the emphasis put on the results of Skov *et al*. (2018) elsewhere by the applicant, it is perhaps surprising that the flight height data used for the assessment is not derived from this report or referenced anywhere in the documentation. Flight heights in Skov *et al*., were measured using laser rangefinders to a high level of accuracy. Conversely the flight heights used for the collision risk model in the assessment were from surveys where boat based surveyors estimated the heights of birds and allocated them into height bands. For Options 2 and 3 the generic data from Johnston	The flight behaviour of birds at an operational wind farm will be affected by the presence of the wind farm. This has implications for the Band (2012) CRM not least in relation to the avoidance rate to apply to collision risk estimates and these potential implications are less well understood. Skov et al. (2018) do not present flight height data outside of the wind farm at which the study was conducted, which could potentially avoid the aforementioned implications, in a format which can be used in collision risk modelling. In addition, no statistical analysis has been undertaken by Skov et al. (2018) to assess for flight height variation with

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et al. (2014) was used. These aggregated data are based almost entirely on boat based estimates, and while the manner in which they were analysed by Johnston *et al*., was statistically robust and the paper that presented them was an important step forward, there was still a reliance on observers ability to estimate the height of a flying bird; a wholly questionable proposition. The ORJIP BCA study has generated the most extensive dataset of observations of seabird behaviour in and around an operational offshore wind farm that is currently available. This includes species-specific data on flight height as measured using laser rangefinders. The use of these data in collision risk modelling would result in greater predicted mortalities, as higher numbers of birds were measured at collision risk height than either the historical boat based surveys estimates from the Hornsea zone or the modelled data from Johnston *et al*. (2014). The lack of validation for collision risk models has been a key problem for some time (Masden & Cook 2016) and there is some evidence that modelled predictions may be a poor match for observed collision rates (Ferrer et al. 2012; de Lucas et al. 2008). A key calculation underpinning the Band CRM is that of *pColl*, the probability of collision. This estimates the number of birds at risk of collision by predicting the number of birds passing through the turbine rotor-swept area that will be struck by a rotating blade (Band 2012). The figures presented by Skov *et al.* (2018) allow for the first time a validation of this calculation to be made and suggests that the Band CRM may grossly underestimate the probability of a bird passing through a turbine colliding with the blades. If the site-specific data are used for this calculation, *pColl* will be estimated at between 0.07 – 0.12, depending on the species and approach used. However, the data collected as part of the ORJIP BCA showed six of the 15 birds that crossed the rotor swept area collided, implying a greater *pColl* of 0.4. While this must be caveated with the fact it is a small sample size, it indicates that the Band model may *underestimate* the collision mortalities by a factor of around four. Therefore until further data are available validating the calculation of *pColl* any mortalities calculated by the model must be interpreted with a high degree of caution and the minor adjustments of input parameters to lower predictions is likely to be a distraction from this larger issue.	distance to the wind farm. Until such time as the flight height data is processed and a dataset made available that is agreed to be representative of flight height distribution for species in the absence of a wind farm, the findings of Skov et al. (2018) are not available to be incorporated into collision risk modelling. The Applicant refers the RSPB to Appendix 6 of the Applicant's submission at Deadline 2 (REP2-018) which provides the results of Lidar surveys undertaken at Hornsea Three which provide the most accurate and precise flight height data collected in this region. The results of these surveys correspond with the flight height data collected during boat-based surveys and therefore it is considered appropriate to use these data for collision risk modelling. It is important to note (as done by the RSPB) that the pColl derived from Skov *et al.* (2018) is supported by a very small sample size and is again representative of bird behaviour at an operational wind farm. The pColl value at an operational value therefore needs to be considered against the empirical avoidance rates calculated by Skov *et al.* (2018) which are significantly higher than those applied when using the Band (2012) CRM.
Appendix 12: Collision risk modelling – herring gull – Clarification Note The RSPB welcome this clarification note.	This is acknowledged by the Applicant.
Appendix 40: Paper by Furness R.W et. Al. (Environmental Impact Assessment Review 73, 2018, 1-6) (Nocturnal flight activity of northern gannet Morus bassanus and Implications for Modelling Collision Risk at Offshore Wind Farms) Please see our comments under Appendix 10 above.	This is acknowledged by the Applicant.
Appendix 41: Paper by Skov H. et al. (ORJIP Bird Collision and Avoidance Study Final report – April 2018) Please see our comments under Appendix 10 above.	This is acknowledged by the Applicant.

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Appendix 42: Paper by Cleasby I.R. et al. (RSPB Research Report no. 63.) (Combining Habitat Modelling and Hotspot Analysis to Reveal the Location of High Density Seabird Areas Across the UK) The RSPB has no comment on this document.	
Appendix 43: Paper by Trinder M. (The Crown Estate 2017) (Estimates of Ornithological Headroom in Offshore Wind Farm Collision Mortality) This paper was produced initially as an internal discussion note by the Crown Estate, but subsequently received wider circulation. Whilst the RSPB appreciate the value of an accurate understanding of "as-built" turbine / wind farm parameters, we also highlight that the approach taken in the report has fundamental limitations as follows: 1. The approach taken in the report is counter, in our view, to the relevant conservation objectives for the affected sites and their species as well as the broader legal conservation requirements and the principles of sustainable development. The industry should be aiming to achieve maximum capacity for least environmental effect, not simply looking to fully exploit the "available" environmental capacity. The report implies the calculated "headroom" for each species is simply expendable. A more appropriate approach would be to simply present the re-established cumulative/in-combination totals, without referring to the available headroom. It is for the decision-maker to make the decision as to whether predicted impacts of any future proposals are acceptable. 2. The report is limited as it does not take account of potential impacts from displacement and emerging concerns regarding barrier effects on migratory birds that are largely unexplored but which are becoming increasingly important due to the scale of development that has and is planned to be deployed. 3. The report assumes that predicted impacts of consented development were acceptable and still are acceptable and uses the consented impacts as thresholds. They should not be used for this purpose. Assessment methodologies and improvements in understanding of seabird ecology are developing all the time whilst new marine protected areas are in development. This new knowledge and understanding is not accommodated within the report. For instance there is no clarity on the accuracy of the underlying baseline data sets, uncertainties within the modelling and expression of confidence intervals for the outputs, as well as the other potential impacts identified above. Perhaps most importantly a number of assumptions are stated throughout the report in a discursive manner, the majority or all stating that existing methodologies of assessment are precautionary and that impacts are likely to be smaller. Taking these two points together there exists the risk of raising expectations amongst the intended audience, in the absence of any evidence, and which could be unfounded. This report simply emphasises the point that adequate monitoring is required to provide an evidence base to inform future assessment and	The Applicant welcomes that the RSPB appreciate the value of an accurate understanding of "as-built" turbine / wind farm parameters . The Applicant notes that the RSPB have not raised any concerns in relation to the underlying approach applied by Trinder (2017). It should also be noted that many of the concerns raised by the RSPB have been taken into account in Appendix 4 of the Applicant's submission at Deadline 1 (REP1-148) or are not applicable to the approach taken by the Applicant: 1. The Applicant has considered the changes to collision risk estimates as a result of differences between turbine scenarios using agreed assessment methodologies; 2. Not applicable to the Applicant's approach or resulting assessment; 3. As described for Point 1; 4. Not applicable to the Applicant's approach or resulting assessment; and 5. This has been considered by the Applicant in paragraphs 1.71 onwards in Appendix 4 of the Applicant's submission at Deadline 1 (REP1-148) with any projects at which further development could technically occur discounted in resulting impact quantification.

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consideration of cumulative/in-combination impacts. 5. Finally, as recognised in the Report (page 2) theoretically a developer could build out to consented capacity sometime after initial construction if they had not reached that capacity, especially where there has been no change in conditions associated with their consent restricting the use of particular turbines. However clearly in situations where fewer turbines have been used but the consented capacity has been reached, or other consent restrictions mean that a new consent would need to be applied for if further turbines are to be built, this is not an issue. Therefore, if the spreadsheet does not already include this, it might be sensible to add columns for the consented capacity, as-built capacity, and the potential further build (consented minus as-built – this would be 0 in cases where the consented capacity has been reached, or could be noted as irrelevant where other consent conditions mean that no further turbines can be built without a new application). Given these limitations of the MacArthur Green report the RSPB strongly advise that projects do not seek to rely upon it when undertaking cumulative/ in-combination assessments. The report itself notes (on page 3) that for the most recently consented wind farms (those with the highest predicted mortalities) their calculations are indicative only. However, the RSPB would welcome an approach that allows for standardisation in the assessment procedure.	

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Q1.2.38 The RSPB note, and agree with, Natural England's answer to this question (the duration of the ornithological survey required). The RSPB also note the MMO's response. We support their point that "some important periods are only surveyed once and therefore the results may not be representative of the overall use of the site."	The Applicant requests that the RSPB identify those periods it considers represent important periods for seabirds at Hornsea Three that have only been surveyed once (during the digital aerial survey campaign) and the evidence which exists to support the contention that such periods are important.
Q1.2.40 The RSPB and NE have been consistently clear that 20 months of survey effect is inadequate and that 24 months is an absolute minimum. However, the RSPB have been trying to explore approaches that can come up with a solution to the problem of incomplete survey. We supported the meta-analysis, the primary aim of which was to assess whether 20 months survey would be adequate to account for variability in bird density through examination of the historical data set. The analysis was unable to provide this assurance. Variability in density will have both a special and temporal component. As a means of addressing the spatial variability the RSPB agree with NE that including the data from the additional 2 cameras will help to properly characterise the degree of variability by increasing survey coverage from 10% to 20% of the project area. The applicant in their answer also agree that this will improve	The level of survey coverage and the precision associated with density and population estimates for key species is consistent with that achieved at other consented wind farm projects and therefore the request by the RSPB (and Natural England) to analyse additional data has no foundation in terms of the assessments conducted (i.e.. the level of precision achieved allows for assessments to be conducted without a significant level of uncertainty). The request is also inconsistent with the approaches applied at other consented offshore wind farm projects where the level of precision associated with abundance metrics (some of which is higher than obtained during the aerial surveys for Hornsea Three) has not been questioned.

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the precision of the estimated density.	
Q1.2.42 The RSPB are supportive of NE's position with regards to this; we do not accept that the historical boat-based survey data can be used as part of the impact assessment. The meta-analysis carried out was in part to explore this possibility and from that analysis it could not be concluded that the use of such data was appropriate.	The Applicant has responded to the points made in this response in Appendix 8 to the Applicant's submission at Deadline 1 (REP1-141), as part of the Applicant's responses to Natural England's relevant representation (RR-097) and the RSPB's relevant representation (RR-113) and the Applicant's response to the Examining Authorities questions (REP1-122) and has nothing further to add at this stage.
Q1.2.50 The RSPB note the Applicant's response but prefer the use of colony specific data on phenology where available.	The Applicant has provided a response to this point as part of the Applicant's response to the Examining Authorities questions (REP1-122) and has nothing further to add at this stage.
Q1.2.51 Please see our answer to Q 1.2.50 above. The RSPB agree with Natural England's response to this question.	The Applicant has provided a response to this point as part of the Applicant's response to the Examining Authorities questions (REP1-122) and has nothing further to add at this stage.
Q1.2.52 The RSPB disagreed with herring gull being screened out of the EIA. Herring gull is currently red listed in Birds of Conservation Concern 4. Numbers in the breeding season are relatively high (221 in June 2017) and therefore asked for further consideration to be made in the assessment. The RSPB acknowledges a Clarification Note on herring gull provided by the Applicant which conducts this assessment.	The Applicant welcomes the RSPB's acknowledgement of the clarification note (Appendix 12 of the Applicant's submission at Deadline 1 (REP1-189)) submitted at Deadline 1.
Q1.2.53 Following discussion with the Applicant, the RSPB can now acknowledge that we consider the approach taken to be acceptable.	The Applicant welcomes this acknowledgement from the RSPB.
Q1.2.54 The RSPB welcome the inclusion of some elements of uncertainty in the collision risk assessment arising from variability in density, flight height and avoidance rate. However this is not a complete consideration of uncertainty in the modelling process. Uncertainty in CRM arise from variability in all the input variables and as through observer and model error. All these aspects have not been fully considered, neither has the interaction between these sources of variability. A more robust manner of doing this would be via the recent stochastic Collision Risk model, produced by MacGregor *et al.* (2018). We agree with the answer of NE to this question with regard to displacement effects.	The Applicant has provided a response to this point as part of the Applicant's response to the Examining Authorities questions (REP1-122) and has nothing further to add at this stage.
Q1.2.56 Please see our response to Q1.2.54 above. The RSPB agree with Natural England's response to this question.	The Applicant has provided a response to this point as part of the Applicant's comments on responses to the Examining Authority's Written Questions submitted by Interested Parties at Deadline 1 (REP2-005) and has nothing further to add at this stage.
Q1.2.57 We disagree with the applicant's answer that "There is no statistically robust way in which these confidence intervals could be combined". Such a method has been described by Masden's (2015) 'proof of concept' stochastic formulation of the Band model. Subsequently, a statistically robust method of carrying out the modelling process incorporating variability in all model parameters	The way in which uncertainty has been considered by the Applicant is different to the approach taken by MacGregor *et al.* (2018) and as such the answer by the Applicant is correct. The answer provided is also consistent with the advice provided by Natural England in paragraph 3.20 of Annex C of Natural England's Written Representation (REP1-211).

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had been developed, overseen by a scientific steering group, and published. This is the Marine Scotland Science funded Stochastic Collision Risk model, MacGregor *et al*. (2018).	The Applicant has explored, within the CRM work undertaken to support the application, uncertainty associated with densities of flying birds, flight heights and avoidance rates individually as recommended by Natural England (see paragraph 3.21 in Annex C of Natural England's Written Representation (REP1-211)). The Stochastic Collision Risk model, MacGregor *et al*. (2018) was not published at the time the methodology was discussed through the EWG or at the point of submission of the application. Consideration of uncertainty by MacGregor *et al.* (2018) is conducted as part of the modelling process (using an approach that is not possible using the Band (2012) CRM in isolation) and not post-hoc as would have to be done if the approach by the Applicant is applied.
Q1.2.59 Please see our response to Q1.2.60 below.	See response to Q1.2.60 below
Q1.2.60 The RSPB do not agree with the changes in Nocturnal Activity Factor for kittiwake and gannet. The supporting analysis does not include all available data and does not account for the distinction between the definition of daylight as used in the Band Model and the official concept of 'twilight' and 'night', including civil, astronomical and nautical twilight. Nor does it account for the potential interaction between survey timing and diurnal behavioural patterns. Seabird foraging activity often peaks at first and last light. There is a danger that these peaks are not accounted for in the assessment either because they have been removed from the analysis by and overly simplified definition of day and night or because the survey was carried out at a time of much lower activity. The evidence presented by the applicant for changes in NAFs is inconsistent. For example, three different gannet NAFs are suggested in the three documents cited (MacArthur Green, 2015, Macarthur Green 2018, and Furness *et al.,* 2018, (only the latter of which is peer reviewed)) despite them being by the same authors. This is indicative of the high level of uncertainty in the calculation of NAFs. The RSPB acknowledge that they accepted a NAF of 2 for kittiwake in the Forth and Tay scoping Advice produced by Marine Scotland, however this was prior to our understanding of the distinctions in the definition of daylight and the degree of uncertainty inherent in the process. For this reason we prefer that alongside a NAF of 2, the results for kittiwake are also presented with a NAF of 3, until such a time as a more realistic range of values can be incorporated into a stochastic CRM. The RSPB do not accept the Applicant's answer that uncertainty in how well peaks in activity are be captured in the modelling process should form part of the correction factor known as "Avoidance Rate". This simply diverts focus away from the issue rather than providing empirical evidence. The first stage of providing empirical evidence would be for the applicant to publish the timings of the aerial surveys carried out to characterise the site and contrast these with the diel activity patterns described by tracking data. We would	It is considered that the nocturnal activity factors proposed by the Applicant for use in collision risk modelling better reflect the available evidence about the activity of key species at night than the generic recommendation in Band (2012). The list of papers listed by the RSPB (MacArthur Green, 2015, Macarthur Green 2018, and Furness *et al.,* 2018) is indicative of a developing understanding of nocturnal activity factors driven by emerging evidence. This is a standard scientific approach with updated studies being published in response to emerging evidence and does not represent a high level of uncertainty rather it represents an attempt to reduce associated uncertainty. The Applicant highlights the advice provided by the RSPB in relation to a change in the nocturnal activity factor for gannet as proposed by SNH in their scoping advice to the Forth and Tay projects: "*We do not accept the suggested change for breeding gannet (rate of 1 which equates to 0%), unless a detailed breakdown of the timing of surveys is presented. This is because including a proportion of birds flying at night compensates for the likely under-recording of birds associated with peaks in foraging activity outwith the survey timings."* It is worth noting that in response to the RSPB's rejection of a change to the nocturnal activity for gannet, Marine Scotland provided the following response: "*the justification* [provided by the RSPB] *for this appears to conflate nocturnal activity with colony attendance, foraging activity and timing of at-sea surveys without an adequate empirical basis."* It is therefore still not clear to the Applicant why there is a disparity on a common point of methodology between the advice provided by the RSPB for the two separate projects. Notwithstanding this the nocturnal activity factors provided by Furness *et al.* (2018) account for the definitions of daytime

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highlight figure 3 of Furness *et al*. (2018) which demonstrates peaks in foraging activity of gannets and highlights the risk that brief snapshots surveys may miss considerable amount of activity and therefore seriously underestimate modelled mortalities. As this figure is for diving birds only (i.e. foraging birds) we would also note that these are the birds most at risk of collision (Cleasby *et al.,* 2015).	and night time with these scores having been specifically derived for use in the Band (2012) CRM.
Q1.2.62 The RSPB refer back to our Deadline 1 response to this question, notably in regard to Skov *et al.,* as included by the applicant as Appendix 41.	The Applicant has provided a response to this point at Deadline 1 (see the Applicant's response to the Examining Authorities questions (REP1-122) and Appendix 40 and 41 to the Applicant's submission at Deadline 1 (REP1-143 and REP1-149)) and has nothing further to add at this stage.
Q1.2.72 The RSPB agree with NE's position on mean seasonal peaks, in that the seasons have not been correctly defined and that there is incomplete survey coverage.	The Applicant has provided a response to this point as part of Appendix 8 to the Applicant's submission at Deadline 1 (REP1-141), as part of the Applicant's responses to Natural England's relevant representation (RR-097) and the RSPB's relevant representation (RR-113), the Applicant's response to the Examining Authorities questions (REP1-122) and the Applicant's response to Natural England's Written Representation (REP1-211) and has nothing further to add at this stage.
Q1.2.75 Please note the correction to the RSPB's answer to this response at the top of this document: the maximum foraging distance for kittiwake should have been reported as 324km. This was for a successful breeding bird in 2017. In further evidence of this foraging range the RSPB would like to add a citation, Wischnewski *et al.* (2018) Seabird tracking at the Flamborough & Filey Coast: Assessing the impacts of offshore wind turbines (copy attached to this response).	The availability of tracking data is a welcome addition to the evidence base for bird foraging behaviour. That some birds apparently forage over very large distances and that there is connectivity between FFC SPA and the Hornsea Three site are not matters that are in dispute between the Applicant and the RSPB. However, it should be noted that assumptions about connectivity are not typically made on the basis of extreme maximum distances recorded by individuals that may exhibit aberrant behaviour, particularly birds that have failed to breed and that are not subject to the same energetic constraints as those birds that are required to regularly provision young. The RSPB have indicated that this observation was associated with a 'successful breeding bird'. The Applicant has requested that the RSPB provide the definition of a 'successful breeding bird' as has been applied in this case as this can have significant implications for how this information is used as part of any assessment. Notwithstanding this point, it is still considered that this pattern of behaviour is unlikely to represent the majority or even a sizeable minority of foraging birds from the FFC SPA due to the high energetic cost it would entail and the corresponding impact this would have on breeding success.
Q1.2.80 While acknowledging the uncertainty in assessment, the RSPB consider that the probability of a non-breeding bird being associated with a particular colony will be higher the closer to the colony the bird is and that this probability is also higher in proportion to the size of the colony. As such, a relatively simple	The Applicant welcomes the proposal by the RSPB to utilise the SNH apportioning approach and will investigate the use of this tool for immature birds, noting that the original approach was defined for breeding adult birds.

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apportioning calculation, broadly similar to that used in the SNH Apportioning Tool, with a distance-density function could be used to calculate the proportion of non-breeders associated with each SPA and pSPA, such as those identified for razorbill in Annex 3 of HRA report, set against the appropriate biologically defined population.	
Q1.2.81 See response to *Appendix 7: Alternative approach to sourcing cumulative and in-combination collision risk estimates - Clarification Note* below.	See the response provided below in relation to the RSPB comments on Appendix 7 of the Applicant's response to Deadline 1 (REP1-139).
Q1.2.115 See response to *Appendix 3: Age Class Data Clarification Note* below.	See the response provided below in relation to the RSPB comments on Appendix 3 of the Applicant's submission at Deadline 1 (REP1-169).
Q1.2.117 See response to *Appendix 9: Population Viability Analysis* below.	See the response provided below in relation to the RSPB comments on Appendix 9 of the Applicant's response to Deadline 1 (REP1-135).
Q1.4.20 The RSPB notes the Applicant's response and its proposed means of addressing the potential impacts upon pink-footed geese. We continue to discuss the matter with the Applicant.	The Applicant, following discussion with the RSPB, will update the outline CoCP and EMP to reflect the proposed measures outlined and broadly agreed through the SoCG process.
Q1.15.6 The RSPB notes the Applicant's response in relation to the Outline Code of Construction Practice (OCOCP). We note that at the point of determination of the DCO that the OCOCP will be fixed and no longer "living". Provided that the mitigation measures secured during the Examination Process are present in the "fixed" version of the OCOCP the RSPB considers that this should address our concerns about the security of the mitigation measures within the document.	This is acknowledged by the Applicant.
Q1.15.7 The RSPB notes the Applicant's response in relation to the Outline Ecological Management Plan (OEMP). We note that at the point of determination of the DCO that the OEMP will be fixed and no longer "living". Provided that the mitigation measures secured during the Examination Process are present in the "fixed" version of the OEMP the RSPB considers that this should address our concerns about the security of the mitigation measures within the document.	This is acknowledged by the Applicant.

Helen and Chris Monk (AS-012)

Summary

Helen and Chris Monk have submitted a written representation on 22 November 2018 (AS-012) expressing their concerns about the impacts of Hornsea Three on Cawston village. Helen and Chris Monk are concerned about impacts of construction traffic that will be using the B1145 and the subsequent noise and vibration and air quality impacts. They have raised concerns about the width of the existing roads and the proximity of sensitive receptors such as residential properties and a school.

The Applicant has responded to specific points raised within Helen and Chris Monk's Written Representation (AS-012) below, confirming that the impacts of construction traffic on the road link at Cawston have been assessed to have a minor adverse effect (as reported in Volume 3, Chapter 7: Traffic and Transport of the Environmental Statement (APP-079)). Noise changes as a result of construction traffic and air quality emissions have also been assessed (Volume 3, Chapter 8: Noise and Vibration (APP-080) and Chapter 9: Air Quality (APP-081)) and the effects are predicted to be negligible. To address the concerns of Cawston residents, the Applicant is undertaking profiling of the traffic flows through Cawston to identify appropriate construction traffic management measures and also work to understand the existing vibration levels at properties adjacent to the main road through the village (see the Applicant's response to the Relevant Representation of Andrew Hellewell (RR-065) in their Deadline 1 submission (REP1-131)).

Response to Helen and Chris Monk

Interested Party's Written Representation	Applicant's Response
We are writing to express our concerns over this proposal. We live in Cawston and our house fronts onto the B1145, very close to the traffic. We realise that the 7th November deadline has passed, however the first time our attention was brought to the direct impact of this scheme on us was a letter from Ørsted dated 5th November. Thus we had no time to research and respond by the deadline. The letter was described as an "update", but, on querying this, Ørsted's response was that we had not been sent previous newsletters, etc, as "Cawston Village is not directly on our cable route". We feel that this is unacceptable when Cawston is clearly a key site for traffic issues. We have now engaged with them and told them that we would be interested in finding out about participating in their noise and vibration testing process. In principle we are strongly in favour of schemes such as renewable energy which serve to protect and improve the environment, but we do feel that the philosophy of protecting the wider environment should not rest on destroying some local environments, which is what will happen if this proposal goes ahead in its current form.	The Applicant can confirm that Cawston Parish Council has been included in the consultation process for the DCO application and consultation post submission. Notwithstanding this, the Applicant welcomes the opportunity to respond to comments raised by Helen and Chris Monk. The roads to be used by Hornsea Three construction traffic were identified in Volume 3, Chapter 7: Traffic and Transport of the Environmental Statement (APP-079): traffic flows were provided (both base traffic flows and construction traffic flows) for Link 89 and Link 90 to represent Cawston. Volume 6, Annex 7.2: Description of Network Links and Sensitivity of the Environmental Statement (APP-160) defines Link 89 (through Cawston) as medium sensitivity and paragraph 7.9.2.3 of Volume 3, Chapter 7: Traffic and Transport of the Environmental Statement (APP-079) sets out that such classifications are deemed as not being sensitive, in accordance with the IEMA thresholds. Paragraphs 7.11.2.7 and 7.11.2.8 of Volume 3, Chapter 7: Traffic and Transport of the Environmental Statement (APP-079) set out that the effects of the construction of Hornsea Three on these links would result in, at worst, a minor effect, which is not significant in environmental impact assessment terms. Noise changes as a result of construction traffic and air quality emissions have also been assessed (Volume 3, Chapter 8: Noise and Vibration (APP-080) and Chapter 9: Air Quality (APP-081)) and the predicted effects are assessed to be negligible. Notwithstanding the above, the Applicant would note that ongoing work in respect to HGV movement refinement and development of the Outline CTMP will have implications on the village of Cawston. These are described in more detail below.
The B1145 and other roads in this area are simply unsuitable for the types and volumes of traffic proposed. The levels of noise and vibration in the centre of the village will be intolerable and there are real safety concerns.	The Applicant notes the concerns of Helen and Chris Monk regarding the narrow width and limited visibility along the B1145, the weight bearing capacity of the old railway bridge and the proximity of sensitive receptors. The Applicant would direct the ExA to the Applicant's response

this is a twisty B road, unsuitable for HGVs, narrow and impossible in many places for two large vehicles to pass one another safely. in the village there are narrow pavements and several blind junctions, where traffic on the side road has to creep into the main road to see what is coming the old railway bridge near the village hall is on a blind bend. We also wonder whether it has sufficient weight bearing capacity. a double bend between Cawston and Salle is exceptionally tight, you often need to stop and back up to allow a non HGV lorry to get round. there is a village junior school, buses, school buses collecting senior pupils, shops, pub and houses close to the narrow road - a constant need for pedestrians to cross the road throughout the day. air quality in the centre of the village is another concern, as is light pollution. We get no sense that factors like these have been considered in the proposal. We hope that you are able to include these views in your assessments, and look forward to hearing from you. Kind regards Helen & Chris Monk	to the Relevant Representation of Andrew Hellewell (RR-065) in their Deadline 1 submission (REP1-131). The Applicant notes that based on peak movements the capacity of the B1145 through Cawston may be exceeded individually by Hornsea Three or cumulatively as a result of shared road links during construction Hornsea Three and Norfolk Vanguard (including along the B1145 through Cawston). To address this, the Applicant is currently undertaking profiling of traffic flows through the construction period and continuing to work with the applicant for the Norfolk Vanguard to ensure alignment of highway threshold levels applied by each project, i.e. traffic capacity of each road link before significant impacts are expected, and alignment as to the scope of appropriate traffic management measures that may be required as thresholds are reached. If traffic management measures are required, then they will be captured in a revised Outline CTMP prior to the end of the examination period. The risk of structural damage from vibration as a result of the HGVs from Hornsea Three is low (as explained in Applicant's response to the Relevant Representation of Andrew Hellewell (RR-065) in their Deadline 1 submission (REP1-131)). However, the Applicant is engaging with a working group set up with Cawston Parish Council in order to better understand existing baseline vibration levels at residential properties immediately adjacent to the main road through Cawston, to inform the need and nature of any traffic management measures to be developed as part of the detailed CTMP post-consent. The Applicant is committed to continued engagement with NCC in respect to constraints within Cawston, and is confident that a position can be reached whereby the need and nature of management measures are identified in principle within the outline CTMP.

Highways England (REP2-029)

Summary

Highways England has submitted a written representation at Deadline 2 comprises a summary letter and accompanying technical notes which identify outstanding concerns regarding the potential for impacts from Hornsea Three on the Strategic Highway Network. Concerns focus on the following three areas:

- A47/Taverham Road east of Honingham Junction;
- A47/A140 and A47/ A1074 Junctions; and
- A140/B1113 Junction.

The Applicant has responded to the matters raised by Highways England's written representation, with work ongoing to respond to the specific points raised within the technical notes. The Applicant is committed to continued engagement with Highways England to seek to address outstanding matters and will will provide an update on this ongoing work as part of the updated Statement of Common Ground between Hornsea Project Three and Highways England to be submitted at Deadline 4.

Response to Highways England

Interested Party's Written Representation	Applicant's Response
For the attention of: Mr David Prentis Dear Sir Hornsea Project Three Offshore Wind Farm (EN010080): Written Statement I refer to the previous submission by Highways England in the form of a written statement dated and submitted on the 7 November 2018 regarding the above. This letter provides an update to our Written Statement and also to the Statement of Common Ground (SoCG) between the Applicant and Highways England dated 6 November 2018. On 2 November 2018, we received a response from the Applicant, entitled 'Applicant's Response to Highways England Briefing Note 01a', dated November 2018, which was acknowledged in the SoCG. A copy of the applicant's response is attached. This letter should be read in conjunction with the Briefing Notes BN02 and BN03 (both are dated 19 November 2018), prepared by our Spatial Planning Consultant, AECOM, attached with this letter. As mentioned in our Written Statement and in the SoCG, the following issues are still outstanding:	Noted. The Applicant has responded to each of the points made by Highways England summary letter below. Given the technical and detailed nature of the matters raised within the technical notes, the Applicant has committed to providing an update on these points at Deadline 4 following continued discussions with Highways England and Norfolk County Council.
A47/Taverham Road east of Honingham Junction · After reviewing the 'Applicant's Response to Highways England Briefing Note 01a', we remain concerned that there is a serious risk to the safe and free flow of traffic on the A47 Trunk Road from the use of the A47 / Taverham Road junction as a means of access to construction sites 17 (B) and 18 (B). · BN02 attached identifies a number of issues with the layout and geometry of the junction and the potential consequences of up to 66 additional Heavy Goods Vehicles (HGVs) turning into and out of Taverham Road for the duration of the works at those sites. · BN03 identifies a cluster of Personal Injury Accidents (PIAs) (a total of six in five years) associated with the use of the A47 / Taverham Road junction of which four involved stationary vehicles waiting to make the right turn into Taverham Road, being hit from behind by vehicles approaching along the A47 from the east. · BN02 suggests a number of potential mitigation measures and recommendations for alternative access arrangements to promote the safe and free flow of traffic at this junction, which we requested the applicant to consider in consultation with ourselves and with the Local Highway Authority, Norfolk County Council. · In the absence of any other consideration, Highways England's preferred solution would be that no HGVs accessing or leaving the construction sites should join or leave the A47 at the A47 / Taverham Road junction. However, we recognise that this may not be practicable in relation to its impact on the Local Road Network and therefore request that the Construction Traffic Management Plan for the sites in question should ban HGVs from making any turns into and right turns out of Taverham Road and require them to use Taverham Road in one direction only. This should be supplemented by clearance of foliage	**A47 / Taverham Road east of Honingham Junction** The Applicant has reviewed the comments made by Highways England and the points raised are noted and in discussion with both Highway England and Norfolk County Council. The Applicant has confirmed in correspondence that the Applicant wish to retain access to Sites 17(B) and 18(B) via Taverham Road and as such are seeking to identify an appropriate solution to address the concerns raised. In separate correspondence Norfolk County Council have confirmed the use of Church Lane at the Easton Roundabout to access Sites 17(B) and 18(B) is not acceptable and would not be supported. As a result, the Applicant has confirmed to Highways England that in the absence of Church Lane, access to Taverham Road is required. The Applicant notes that Highways England have defined a potential cluster of accidents, however, there is no acceptance that this is an accident cluster of sufficient magnitude for Highway England to introduced a safety invention scheme themselves. The Applicant is therefore in agreement with Highways England to identify a scheme of temporary safety intervention measures to be implemented during the construction phase when access 17(B) and 18(B) was required. In discussion with Norfolk County Council, the Applicant has therefore agreed to prepare and submit to Highways England and the Highways Authority, the following by

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within the westbound highway verge and the use of temporary traffic signs to advise drivers using the A47 of the risk of HGVs turning ahead and of the risk of encountering stationary vehicles in the carriageway.	Deadline 5; • Detailed A47 / Taverham Road accident investigation assessment and existing Safety Audit junction review; • Identification of appropriate A47 / Taverham Roads scheme of temporary safety intervention measures, the principles of which will ultimately be secured through the Outline CTMP; and • Stage 1 safety audit for the planned intervention measures to demonstrate their suitability.
A47/A140 and A47/ A1074 Junctions · The SoCG between the Applicant and ourselves refers to a sensitivity test to be undertaken in respect of the number of anticipated construction vehicles through these junctions and the time of day this flow will occur in relation to the peak traffic flows using these junctions. This analysis has still to be undertaken and was not included in the Applicant's Response to Highways England Briefing Note 01a. A140/B1113 Junction · Highways England remain concerned about the effect of construction traffic on this junction and the risk of a queue of traffic tailing back to and affecting the operation of the A47/ A140 junction. We understand that the applicant is liaising with Norfolk County Council (NCC) in respect of their impact on this junction. However, we have not yet heard from either the Applicant or NCC that the assessment of the A140/ B1113 junction has been accepted as satisfactory. In light of the above we would recommend the DCO only be confirmed once these issues have been satisfactorily resolved. Yours faithfully Shamsul Hoque	**A47/A140 and A47/A1074 Junctions** The Applicant notes the comments from Highways England. The Applicant confirms the Technical Response Note to Highways England did include preliminary traffic information to consider the peak traffic flows against Hornsea Three construction traffic flows, which is also contained in Appendix 31 to Deadline I submission – Transport Assessment [REP1-162], Table 1.2 and Appendix B and C. Paragraph 2.1.4.2 of the Outline CTMP (REP1-146) highlights planned operating hours to allow flexibility with travel to access locations, specifically; *For the Hornsea Three onshore cable corridor and substation core working hours are 07.00 to 18.00 on weekdays and 07.00 to 13.00 on Saturdays. Up to one hour before and after for mobilisation ("mobilisation period"), i.e. 06:00 to 19:00 weekdays and 06:00 to 14:00 Saturdays; and Maintenance period 13:00 to 17:00 Saturdays.* The Applicant therefore has the flexibility to maximise the project traffic flows associated with the construction of Hornsea Three which occur outside of the conventional AM (0800-0900hrs) and PM (1700-1800hrs) background peak periods. The Applicant has agreed to supply supporting information to assess Hornsea Three's impact against off-peak traffic flows to ensure the construction flows in conjunction with existing background off-peak traffic flows will not exceed those of the conventional peak periods. The Applicant has discussed this with Highways England and understand this to be an acceptable approach. The collection of baseline data to support this assessment has been undertaken and will be submitted to the examination, along with the assessment work to Highways England and Norfolk County Council. The Applicant would then anticipate submitting the information into examination at Deadline 4.

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	A140/B1113 Junction The Applicant has discussed the B1113 / A140 Technical submission [REP1-157- Appendix 33 to Deadline I] with Norfolk County Council and understand the position within the Applicants position is acceptable. As such, the Applicant considers this to address Highways England concerns.
Briefing Note 02: Introduction 1. AECOM have undertaken a technical review on behalf of Highways England in respect of the 'Applicant's Response to Highways England Briefing Note 01A' (the "Applicant's Response") dated November 2018, prepared by Create Consulting Engineers Ltd. Appendix B of the Response Note presents a geometric swept path analysis illustrated as Drawing No. 1554/03/301 'Taverham Road Low Loader Tracking', dated 26th October 2018. 2. Specifically, this Briefing Note (BN02) addresses a number of issues relating to the proposed use by site traffic of the A47 Junction with Taverham Road east of Honingham, which were identified as potentially problematic by Highways England following advice received from AECOM in Briefing Note 01. This BN02 should be read in conjunction with the AECOM BN03 (PIA Review), which comments on the collision record at the junction. 3. The A47/ Taverham Road junction is a simple priority T-junction, which forms a left-right aligned staggered junction with Blind Lane opposite. It does not provide right turning lane facilities for vehicles waiting to turn right into the minor arms of the junction. From an examination of Google street view imagery, Taverham Road appears to be of limited width, with corner radii that may not be suitable for use by large numbers of heavy goods vehicles (HGVs). The junction is on the outside of a large radius bend and visibility for A47 westbound through traffic appears to be sub¬standard.	1-9. The Applicant notes Highways England comments and considers the steps outlined in the summary above will address these matters.
4. It is proposed that Taverham Road should serve as the primary access to two of the three site accesses serving the section of cable run between Ringland and the A47, with the third access via Church Lane, off the A47 Easton roundabout. Transport Assessment (TA) Table 1.5 and Figure 1.2 of Annex 7.8 of the Environmental Statement refer. 5. The advice contained in AECOM Briefing Note 01 in respect of this junction can be summarised as follows: In the event that the Wind Farm construction precedes the opening of the RIS scheme, AECOM recommend that, in the TA, this junction should be assessed in the following ways: · An assessment of the current junction layout against the requirements of DMRB design standard TD42; · An assessment of the collision record of this junction; · If the traffic flow increases are sufficient to warrant it, a PICADY model to determine any capacity problems associated with this junction;	

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· Consideration should be given to geometric improvements to facilitate the use of this junction by larger numbers of HGVs; · Alternatively, consideration should be given to banning the right turns into and out of Taverham Road for construction vehicles, making use of the roundabouts at the east end of Honingham bypass and at Easton to facilitate the resulting U-turn movements.	
6. Having reviewed the Environmental Statement and supporting documents, including the Transport Assessment (TA), AECOM updated their advice as follows in Briefing Note 01a: No assessments of this nature are included in the TA or its supporting documentation. Table 1.5 of the TA lists two construction site accesses as being accessed via the A47/ Taverham Road junction. These are listed as sites 16 (B) and 17 (B) although on the plan at Sheet 7 of ES Annex 7.8, it would seem more logical to serve sites 17 (B) and 18 (B) from Taverham Road and 16 (B) from Church Lane, Easton. Appendix A shows the total traffic generated by sites 16 (A), 17 (B) and 18 (B) as being 31 two-way light vehicle and 99 two-way HGV movements per day. It would be reasonable to assume that this traffic will be split equally across the three access points, therefore the A47/ Taverham Road junction would have to accommodate up to 66 two-way HGV movements per day. This is unlikely to require a junction capacity model. However, the underlying suitability of this older-style priority junction needs to be questioned for the reasons stated at para 24 above. An assessment of the junction's layout against DMRB standards and the provision of HGV swept path plots to demonstrate its adequacy to accommodate an influx of larger vehicles, together with an assessment of the collision record here would be advisable. It is of note that a collision analysis was undertaken for the A47 to the west of Easton (TA paras 1.4.2.16 – 1.4.2.23) but this covered a section some 2-3km to the west of here and did not include this junction. Further assessments as recommended above would be beneficial. Alternatively, from the perspective of the safe and free flow of traffic on the Trunk Road, it might be preferable to serve all three access points 16(B) 17(B) and 18(B) from the A47/ Easton roundabout via Church Lane (highway link 126) rather than from Taverham Road (link 125).	
7. The Applicant's response to these issues is contained in the document 'Applicant's response to Highways England Briefing Note 01a' ('the Applicant's Response') dated November 2018. Sections 2.15 – 2.27 and Appendices B and C of the Applicant's Response address the problems of this junction. 8. Appendix B of the Applicant's Response comprises a drawing (Create Consulting Engineers Ltd drawing no 1554/03/301 dated 26th October 2018), which shows the junction as it currently exists, indicating features relating to its DMRB design compliance and the swept paths of a design heavy goods vehicle (the Design Vehicle) manoeuvring into and out of the minor arm of the junction. 9. Appendix C of the Applicant's Response provides collision data at and	

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in the vicinity of the junction.	
DMRB Design Compliance 10. The A47/ Taverham Road junction, as shown on Drawing 1554/03/301, broadly resembles a junction designed to DMRB Design Standard TD42, which is the appropriate standard for a junction of this type. However, there are a number of features of the current layout which give cause for concern. 11. The A47 is not provided with a central 'ghost island' lane to accommodate vehicles waiting to turn right into the minor arm of the junction. At very low levels of traffic flow, this would not be problematic. However, as traffic flows increase, the risk increases of a queue of stationary traffic forming behind a would-be right turning vehicle waiting for a gap in the opposite direction of flow, a situation exacerbated by the left-right alignment of the stagger between Taverham Road and Blind Lane.	10-13. The Applicant notes Highways England comments and considers the steps outlined in the summary above will address these matters.
12. The A47 at this location is heavily trafficked for a single carriageway road, with the annual average daily traffic (AADT) being 27,245 with a HGV content of 10% (source: ES Vol 6 Annex 7.3 – Base Traffic Flows). This is significantly above the design capacity of a two-lane single carriageway road of 13,000 (DMRB TA46/97 Table 2.1) and the level at which a ghost island junction would be the preferred option (TD42/95 Figure 2/2) subject to minor arm flow. 13. Highways England has accepted that there is no requirement for a PICADY model of this junction, on the basis of the relatively low additional flow being added to Taverham Road. Neither the TA nor any of the supporting material includes data on the current usage of Taverham Road and in its absence a PICADY model could not be run. There is, however, at this level of flow on the A47, a high risk that vehicles turning into and out of the minor arm of the junction will have to wait a considerable time for a suitable gap in the flow on the A47 to make their turn.	
14. The carriageway of Taverham Road scales at 5.0m wide. TD42 does not specify the width of the minor arm of the junction. However, it is based on a 'nominal' minor road width of 7.3m. Any features of the design that are suitable for a 7.3m wide minor road may result in a constrained layout where the minor arm is only 5m wide. This is reflected in our comments on the swept path plots below.  	14-16. The Applicant notes Highways England comments and considers the steps outlined in the summary above will address these matters.
15. The corner radii leading into and out of the minor arm are acceptable at nominally 15m and the tapers provided onto and off the	

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A47 exceed the requirements of the design standard. However, there is no exit taper into the minor arm of the junction, as required by TD42 para 7.7 (b) and its absence is reflected in the swept path plots, which show the Design Vehicle taking up the whole width of the minor arm when turning left from the A47 into Taverham Road. 16. The approach and emerging visibility shown on Drawing 1554/03/301 is acceptable. However, forward visibility for A47 westbound through traffic is below standard and visibility to oncoming traffic for vehicles wishing to turn right into Taverham Road is partially obstructed by foliage in the nearside verge. 	
Heavy Goods Vehicle (HGV) swept path plots 17. Drawing 1554/03/301 illustrates the swept path of a 16.5 metre long articulated low loader (the Design Vehicle) turning into and out of Taverham Road at its junction with the A47. 18. It appears from this drawing that the Design Vehicle can complete left and right turns into and out of the minor arm without encroaching on the kerb or onto the wrong side of the A47. However, it encroaches on to the wrong side of the minor arm in order to complete right turns into and out of Taverham Road and requires the whole width of the minor arm to complete a left-turn into Taverham Road. 19. Taverham Road itself is unlikely to be wide enough, at 5.0m, for two Design Vehicles to pass each other on the straight section on the approach to the junction (vehicle width 2.5m, typically increasing to 3.1m with wing mirrors: the construction plant itself can be wider than the low loader) and would not be sufficiently wide for them to pass elsewhere. The Design Vehicle could pass a car or small van with care on the route but would not be able to enter the minor arm of the junction if a car or small van were waiting to emerge on to the A47. Similarly, a car or small van wishing to enter Taverham Road would have to wait within the bell mouth of the junction for a Design Vehicle to emerge from the minor arm.	17-19. The Applicant notes Highways England comments and considers the steps outlined in the summary above will address these matters.

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Consequences 20. Since the A47 at this location is heavily trafficked and the geometry of the A47/ Taverham Road junction is of a low standard of provision with a narrow minor arm and no central right turn lane, there is already a high risk of vehicles wishing to turn right into Taverham Road having to wait within the westbound running lane of the A47 before they can make their turn. 21. High friction surfacing and 'SLOW' markings present on the A47 westbound approach to the junction indicate that this has been seen as a problem in the past. 22. With the limitations of this layout, the increase in heavy vehicle traffic into and out of Taverham Road would give rise to an increased risk of vehicles becoming stationary within the A47 in both eastbound and westbound directions whilst they wait for a suitable gap in the traffic flow to turn into Taverham Road, or whilst they wait for a vehicle to emerge from Taverham Road onto the A47. 23. In the case of two Design Vehicles attempting to use the junction simultaneously, there is a risk that this wait could be for an extended period. As the road narrows, there is also the risk that Taverham Road itself could be blocked away from the junction with vehicle queues extending back to the junction. 24. There is also a risk that vehicles emerging from Blind Lane intending to carry on straight ahead into Taverham Road would not be able to see an approaching vehicle in Taverham Road and would turn into the A47, immediately having to stop to let such a vehicle emerge from Taverham Road. 25. Each of these scenarios brings an increased risk of drivers on the A47 encountering stationary traffic at this location, which they may not be expecting to encounter. 26. This is reflected in the pattern identified in the collision data supplied by Norfolk County Council for this junction (see AECOM BN03).	20-26. The Applicant notes Highways England comments and considers the steps outlined in the summary above will address these matters.
Potential Mitigation 27. A number of steps could be taken to mitigate the potential impact of the use of Taverham Road by construction traffic. These include the following. · As a very minimum, the traffic management plan for the construction sites accessed off Taverham Road must prevent two site-related heavy vehicles from attempting to use this junction simultaneously; · Clearance of foliage within the westbound highway verge should be undertaken to maximise forward visibility for traffic westbound on the A47; · Temporary (black-on-yellow) traffic signs may be needed to warn drivers on the A47 of HGVs turning ahead and of the risk of encountering stationary vehicles in the carriageway; · In may be appropriate to deploy vehicle-actuated variable message signs to enhance these warnings; · Consideration should be given to banning right turns by construction traffic into and out of Taverham Road at this junction and making drivers go to the Easton and Honingham roundabouts to make	Noted. The Applicant is committed to the idenitification of appropriate temporary safety intervention measures for the A47 / Taverham Road, the principles of which will ultimately be secured through the Outline CTMP. The Applicant will continue to engage with Highways England and Norfolk County Council to agree measures which are acceptable to both parties.

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the U-turns that would consequently be required in both the inbound and outbound directions; · Consideration should be given to making Taverham Road one-way for site traffic (either inbound or outbound) with vehicles in the opposite direction directed to use Church Lane and the Easton Roundabout; · Consideration should be given to forbidding site-related HGVs from using Taverham Road as an access point to the site from the A47 and directing all such traffic to the Easton Roundabout, Church Lane and Ringland Road (highway links 126 and 127).	
Conclusions 28. AECOM do not consider the unrestricted use of Taverham Road and its junction with the A47 as a satisfactory means of access to construction sites to the north of the A47. 29. Whilst the junction between the A47 and Taverham Road resembles a layout designed to DMRB Design Standard TD42, it has a number of limitations, which would create a high risk of vehicles turning into Taverham Road having to wait within the running lane of the A47 before they are able to make their turn. This will result in stationary traffic on the A47 at this location, which other drivers using the A47 will not necessarily expect to encounter. The analysis of the collision data supplied by Norfolk County Council shows that there is already an accident pattern associated with right turns into Taverham Road at this location.	
30. The increase in HGV traffic associated with the Hornsea Three Wind Farm would increase the risk of drivers on the A47 encountering stationary traffic at this location and, consequently, of the type of collision already present at this junction. 31. A number of mitigation measures are available to minimise this risk whilst facilitating access to construction sites to the north of the A47. 32. AECOM recommend that consideration should be given to banning HGV traffic accessing the Hornsea Three Wind Farm construction sites from using the A47/ Taverham Road junction, directing them instead to use the A47 Easton roundabout, Church Lane and Ringland Road. Failing this, it is strongly recommended that the construction management routing plan bans HGVs from making turns into and right turns out of Taverham Road and requires them to use Taverham Road in one direction only. 33. If, following this review, it is decided that the A47/ Taverham Road junction can be used by HGVs accessing the site, the traffic management plan for the construction sites accessed off Taverham Road should contain the following provisions: · A situation in which two site-related heavy vehicles (one inbound, one outbound) attempt to use this junction simultaneously must be prevented; · Clearance of foliage within the westbound highway verge should be undertaken to maximise forward visibility for traffic westbound on the A47; · Temporary (black-on-yellow) traffic signs should be used to warn drivers on the A47 of HGVs turning ahead and of the risk of	The Applicant notes Highways England comments and considers the steps outlined above will address these matters. The Applicant is committed to continuing enagegment with Highways England and the Local Highways Authority in respect to the A47/Taverham junction, and is confident that a position can be reached which satisfies Highways England as well as Norfolk County Council.

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encountering stationary vehicles in the carriageway; · It may also be appropriate to deploy vehicle-actuated variable message signs to enhance these warnings.	
Briefing Note 03: Introduction 1. AECOM have been invited to document a review of the Response Note (RN), dated November 2018, presented via email by Create Consulting Ltd in response to AECOMs BN01A (dated 17th October 2018). The RN was received on 2nd November 2018 in support of the Hornsea Project Three Wind Farm development. 2. This Briefing Note (BN03) details the Personal Injury Accident (PIA) review undertaken by AECOM in respect of the A47/ Taverham Road junction. It should be read in conjunction with AECOM Briefing Note BN02, which comprises a review of the DMRB design compliance of the junction and the swept paths of heavy goods vehicles (HGVs). 3. The collision review is set out within para 2.20-2.26 of the Response note (RN). The PIA data was acquired from Crashmap.co.uk for the last three years, between the end of 2014 to end of 2017, and from Norfolk County Council (NCC) for the five year period between September 2013 and August 2018. The NCC PIA interpretation listing and collision plot which have been used to inform this review are held within Appendix C of the RN.	1- 17. The Applicant notes Highways England comments and considers the steps outlined in the summary above will address these matters.
4. For the purpose of this assessment an collision cluster is considered to be a specific location (either a junction including up to 50m of the approaches / exits) where five or more PIAs were recorded within the five year study period (representing an collision rate of at least 1.0 PIA per year). Collison patterns have also been identified where several collisions appear to have occurred under similar circumstances, for example in terms of causation or user type. This review summarises the total number of PIAs throughout the A47/ Taverham Rd junction and the A47/ Blind Lane junction, before examining these by area and setting out the key findings in relation to any identified collision clusters or patterns.	
Crashmap PIA Data Review 5. Paragraphs 2.20 – 2.24 and Figure 2.1 of the RN suggest that a total of eight PIAs were recorded across the study area from the information provided by crashmap.co.uk, with seven resulting in slight injuries and one in serious injuries. No PIAs recorded within the last three years (up to the end of 2017) resulted in a fatality. AECOM have undertaken an independent review using Crashmap and note that a total of ten collisions were recorded across the study area during the study period. Therefore, two collisions, recorded as slight in severity, have been omitted, bringing the total collisions in the study area to ten over the three year period. One of these collisions occurred approximately 35m west of the A47/ Taverham Rd junction and the other at the junction of A47/ Blind Lane. Given the RN is dated November 2018, there doesn't appear to be a logical explanation as to why these two collisions have been omitted. 6. AECOM agree with conclusions drawn in para 2.21 and 2.22, however AECOM disagree with para 2.23 that states 'the next closest collision to the A47/Taverham Road junction was recorded on 4th May 2018, approximately 50m to the west on the A47, as a collision recorded	

Interested Party's Written Representation	Applicant's Response
as slight in severity involving two vehicles and resulting in one casualty occurred on 08/11/17 approximately 35m west of the A47/ Taverham Rd junction. Additionally, AECOM disagree with the conclusion drawn in para 2.24 as given the limited information provided via the free to access crashmap.co.uk, there is insufficient information for these conclusions to be drawn. 7. AECOM have reviewed the crashmap.co.uk information and given that six PIAs have been recorded within 50m of the A47/ Taverham Rd junction in the last three years (up to the end of 2017) this represents a collision rate of 2.0 per year in the immediate vicinity of the junction and highlights a collision cluster at this location.	
NCC PIA Data Review 8. A total of 11 PIAs were recorded across the study area from the information provided by NCC, with 10 PIAs involving slight injuries and one involving serious injuries. No PIAs recorded within the last five years (up to the end of August 2018) resulted in a fatality. A total of six PIAs (ref: NC97244, 204706, 203892, 211179, 241345, 248124) were recorded within 50m of the A47/ Taverham Rd junction and appear to be associated in some way with the A47/ Taverham Rd junction. 9. The RN did not detail any analysis of the NCC data nor did it refer to the number of PIAs that occurred each year within 50m of the A47/ Taverham Rd junction and associated in some way with the A47/ Taverham Rd junction. AECOM has provided this information as part of this review. The results are presented below in Table 1. Table 1: Number of PIAs that occurred each year within the study area Year Period | Number of Recorded PIAs 01/09/2013 - 31/08/2014 | 1 01/09/2014 - 31/08/2015 | 2 01/09/2015 - 31/08/2016 | 1 01/09/2016 - 31/08/2017 | 5 01/09/2017 - 31/08/2018 | 2 Total PIAs | 11 Average PIAs Per Year (overall period) | 2.2	
10. The results in Table 1 indicate that the collision rates in the vicinity of the A47/ Tavern Rd junction were considerably higher than the overall average during the fourth year (01/09/2016 – 31/08/2017) of the study period, and subsequently fell to below the average collision rate during the most recent three year period. However the overall collision rate throughout the five year period is greater than 1.0 and therefore overall does raise concerns relating to the recent collision record at this location. 11. As mentioned above in para 8 above, although a total of 11 PIAs were recorded in the study area, only six PIAs were recorded within 50m of the A47/ Taverham Rd junction and associated in some way with the A47/ Taverham Rd junction. Therefore AECOM has undertaken detailed analysis of the PIA data relating to these six collisions as part of this review.	
12. Five of the PIAs were classified as slight in severity and one PIA was recorded as serious in severity. The PIA recorded as serious in severity (ref: 211179) occurred during day light hours when the road surface was dry in July 2017. The collision resulted in a rear end shunt when vehicle two slowed and stopped to turn right into Taverham Road (from the east) and vehicle one failed to stop. In addition, three other	

Interested Party's Written Representation	Applicant's Response
PIAs (ref: NC97244, 204706, 203892) occurred as a result of rear end shunt collisions when vehicles travelling in an east to west direction, then stopping to turn right into Taverham Road, were hit by vehicles approaching from the east and failing to stop. 13. Of the four above mentioned rear end shunt type collisions at this location, three occurred during the hours of daylight in fine and dry conditions, therefore there appears to be no further contributing factors to those collisions.	
14. Given that four collisions occurred under similar circumstances (in terms of location, direction and collision type), it is considered that this constitutes a collision pattern at this location. Given the increase in long/HGV vehicles expected as a result of the Hornsea Project Three Wind Farm, AECOM recommend that the collision pattern at this location is reviewed more thoroughly to determine the reason why these collisions are occurring; and that suitable mitigation is put in place; or that alternative access arrangements are sought. 15. AECOM Briefing Note BN02, comprising a review of the DMRB design compliance of the junction and the swept paths of HGVs, provides a list of potential mitigation measures and possible alternative access arrangements. 16. PIA ref: 248124 involved a car and a good vehicle (of unknown weight) and resulted in one casualty. This PIA occurred as a result of a rear end shunt collision, when a vehicle travelling west to east along the A47, failed to stop and collided with a stationary vehicle that had just emerged (turned left) from Taverham Road. 17. PIA ref:241345 involved two cars with one casualty and occurred as a result of a side swipe collision, when a vehicle travelling southbound along Taverham Rd turning right onto the A47 westbound, failed to stop and collided with an approaching westbound A47 mainline vehicle.	
Conclusion 18. Given that six PIAs occurred within 50m of the junction during the last five year study period, AECOM consider that this is a collision cluster. In addition, four collisions were rear end shunt collisions when vehicles travelling in an east to west direction, then stopping to turn right into Taverham Road, were hit by vehicles approaching from the east and failing to stop. Because these collisions occurred under similar circumstances (in terms of location, direction and collision type), it is considered that this constitutes a collision pattern at this location. As a result AECOM do not agree with the conclusion drawn in para 2.26 of the RN. 19. It is recommended that the collision pattern at this location is reviewed more thoroughly to determine the reason why these collisions are occurring; and that suitable mitigation is put in place; or that alternative access arrangements are sought to prevent exacerbating the current collision rate at the A47/ Taverham and A47/ Blind Lane junctions specifically with regards to the access and egress movements associated with HGVs as part of the Hornsea Project Three Wind Farm development.	The Applicant notes Highways England comments and considers the steps outlined above will address these matters. The Applicant is committed to continuing enagegment with Highways England and the Local Highways Authority, and is confident that a position can be reached which satisfies Highways England as well as Norfolk County Council.

Honingham Thorpe Farms (REP1-069)

Summary

Honingham Thorpe Farm have submitted a written representation dated November 2018 and published on 29 November 2018 (REP1-069) referencing a Food Enterprise Zone allocated by DEFRA in 2015, the first 19 hectares of which was given planning approval as a Food Hub and related development under an LDO in 2017, as well as call for sites put forward by landowners/promoters in the initial stages of the Greater Norwich Local Plan process. Within the written representation, Honingham Thorpe Farm have raised concerns regarding the proposed routing of the proposed onshore cable corridor route through what is considered to be potential development land.

The Applicant has responded to to specific points raised within Honingham Thorpe Farm's Written Representation [REP1-069] below, concluding that any development plans the landowner currently has are considered aspirational and would need to overcome a number of constraints in order to achieve planning permission or an LDO. The Applicant would refer to the South Norfolk's response to the Examiners First Written Questions (Q.1.9.1) which confirms the position that the call for sites put forward by landowners/promoters in the initial stages of the Greater Norwich Local Plan process have no status in planning terms and will be subject to further assessment to confirm their potential suitability before being included in the draft Regulation 18 plan for consultation in autumn 2019.

Notwithstanding this, the Applicant has sought to engage with the relevant landowner to discuss a voluntary agreement. In the event that it is not possible to enter into a voluntary agreement with relevant landowners, compensation will be payable in accordance with the statutory compensation code.

Response to Honingham Thorpe Farms

Interested Party's Written Representation	Applicant's Response
1.0 Introduction 1.1 This statement is our response, submitted on behalf of our clients Honingham Thorpe Farms and the associated landowning and trading entities, to the underground cable route proposed as part of the Hornsea Project Three Offshore Wind Farm. Honingham Thorpe Farm is an agriculturally-based business that has significantly diversified to become a centre for a range of farming related businesses, commercial and agri-business development, including the Food Enterprise Park Ltd, a 40 hectare Food Hub allocated under as a Food Enterprise Zone by DEFRA in 2015 and the first 19 hectares of which was given planning approval as a Food Hub and related development under an LDO in 2017. 1.2 It is our belief that the proposed route for the underground cable submitted, and the likely protective zone, will frustrate intended development by our clients. The following gives background information on intended proposals for this part of our client's land.	The Applicant notes that the land owned by Food Enterprise Park Ltd is located within the Greater Norwich Food Enterprise Zone (FEZ). The location of the Hornsea Three onshore cable corridor affects land parcel 26-013 and 26-014, as shown in the Onshore Land Plan (APP-011), which are located within the eastern section of the wider FEZ. The Applicant's response to specific points raised within Honingham Thorpe Farm's Written Representation [REP1-069] is set out below. To assist the reader, a map showing the boudnaries of the respective policy areas is provided in Annex A to this response.
2.0 Background Food Enterprise Zone 2.1 The land forms part of the Greater Norwich Food Enterprise Zone (FEZ), which is one of 17 designated by Department of Food, Environment and Rural Affairs (DEFRA) and the only one in Norfolk. Food Enterprise Zones are a Government Initiative introduced by the DEFRA, the aim is to: a. enhance rural development through the growth of food businesses in a particular location, be it producers, processors, retailers and/or manufacturers; b. encourage greater collaboration between food and farming businesses, and even encourage links to research and education institutions, in order to develop the domestic food and farming sector; c. allow local decision making, particularly for planning a development; and, d. attract inward investment. Located close to Norwich, the Greater Norwich FEZ is located on the strategic road network at the centre of the largest agricultural county in the UK. The site has excellent road connectivity to London (A11), Midlands (A47, A11/A14) and to the east coast ports at Felixstowe, Great Yarmouth and Kings Lynn. The site is also close to Norwich Research Park, the University of East Anglia, the Norfolk Showground and Easton & Otley College. A plan identifying the area accompanies this statement as Appendix 1.	2.1 The Applicant notes the background information provided by Honingham Thorpe Farm on the Greater Norwich FEZ. The Greater Norwich FEZ was designated in March 2015 during the second tranche of designations and extends eastwards beyond the boundary of the Food Enterprise Park Ltd land, up to and including the Royal Norfolk Showground. The Applicant would note that Greater Norwich FEZ spans the districts of Broadland and South Norfolk. The Applicant considers that there are opportunities for other food and agriculture developments within the FEZ but outside the boundary of the Food Enterprise Limited.
2.2 The Greater Norwich FEZ is supported by the Development Plan, including Policy 5 of the Joint Core Strategy (JCS) for Broadland, Norwich and South Norfolk (adopted in March 2011 with amendments adopted in January 2014). Policy 5 refers to the need to encourage opportunities for innovation, skills and	2.2 The Applicant notes that the Joint Core Strategy (JCS) for Broadland, Norwich and South Norfolk (adopted 2011, amendments adopted 2014) acknowledges the importance of providing a food and farming hub as one of several means of supporting the rural economy and diversification. The JCS

Interested Party's Written Representation	Applicant's Response
training to be expanded through: 'the development of a flagship food and farming hub serving the needs of Norfolk and supporting the agri-food sector in and around greater Norwich.' 2.3 The FEZ designation is also referenced in the Norfolk & Suffolk Economic Strategy as published by the New Anglia LEP. This identifies Easton as a location for the Food Enterprise Zone. A copy of this document accompanies this statement as Appendix 2.	does not specifically refer to the Greater Norwich FEZ as the designation was confirmed after the amendments to the JCS had been adopted. 2.3 The Applicant notes that the Norfolk and Suffolk Economic Strategy 2017 makes reference to the wider FEZ at Easton, although no specific mention is made to the Food Enterprise Park Ltd land.
Food Enterprise Park 2.4 In addition to the FEZ, the proposed cable route would affect a 40 hectare area being promoted as the Greater Norwich Food Enterprise Park. The Food Enterprise Park is intended to provide a central cluster of food-related businesses by attracting local, regional, national and international companies. An indicative layout for the Park shows plots being available to buy or lease to accommodate facilities of 500 square metres to 50,000 square metres. The promotion of the land for this purpose is illustrated in promotional material which accompanies this statement as Appendix 3. 2.5 The first 19 hectares of the Park is subject to a Local Development Order, which was approved by Broadland District Council on 31st October 2017. The purpose of the LDO is to encourage growth, employment and added value in the Agri-tech, agri-food and food and drink processing sectors. It will also allow development to occur without the need to obtain planning permission for certain types of development. A copy of the designated Local Development Order accompanies this statement as Appendix 4. 2.6 The initial first development of the LDO for a Milling Tower building and storage hopper silos together with associated offices has been given planning permission by Broadland District Council in October 2018. Permission was needed, in this instance, as some of the development extended above the height parameters set by the LDO. Construction work will commence shortly on site.	2.4 – 2.6 The Applicant notes that the location of Food Enterprise Park Ltd land is located within the wider FEZ. The Applicant notes that a Local Development Order (LDO) was granted in October 2017 for part of the Food Enterprise Ltd land (Greater Norwich Food Enterprise Zone LDO), which specified the type of development that would be permitted. The Hornsea Three onshore cable corridor is located approximately 300 m from the closest boundary of the granted LDO. The LDO was included in the screening of potential cumulative developments (see Volume 4, Annex 5.2: Cumulative Effects Screening Matrix of the Environmental Statement (APP-097)) and potential cumulative impacts with the use of this area have been assessed in the onshore chapters of the Environmental Statement. The location of the Hornsea Three onshore cable corridor is in the eastern section of the Food Enterprise Park Ltd ownership boundaries, affecting land parcels 26-013 and 26-014, as shown in the Onshore Land Plan (APP-011). The Applicant notes that this land is not subject to a planning application or Local Development Order. The Applicant would note that the maximum permanent easement width being sought within plot 26-013 is an area of approximately 2.6 hectares (6.4 acres). Restrictions on that land would not exclude all uses (as noted below). Plot 26-014 is required for temporary use only and extends to approximately 0.7 hectares (1.92 acres). In any event, in the context of a nationally significant infrastructure projects, whilst local policy is a material consideration, applications are to be determined in accordance with National Planning Policy Statements, which are supportive of the proposals.
Proposed new settlement 2.7 Lastly, the land through which the underground cable is proposed to routed is being promoted for development as a new settlement through the emerging Greater Norwich Local Plan. The site forms part of a wider proposal for a sustainable settlement known as Honingham Thorpe, which would deliver the following: · Minimum of 3,900 homes over the next 20 years, with the potential for a further 3,800 over the following 15 years · 72 hectares of employment space	The Greater Norwich Local Plan includes several sites within Honingham Thorpe. These sites were submitted under the call for sites by landowners/promoters in the initial stages of the Local Plan process. It is worth noting that the sites have no status in planning terms and will be subject to further assessment to confirm their potential suitability before being included in the draft Regulation 18 plan for consultation in autumn 2019. Following this, any planned development on these sites would be subject to an application for planning permission in order to proceed. The Applicant would refer to the South Norfolk's response to the Examiners First Written

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· 81 hectares of country park · 3.5 hectares of nature reserve As can be seen from the attached masterplan, the area where the proposed underground cable is proposed to be routed through our client's land is currently identified for employment use. The routing of the cable through this section of our client's proposals would severely compromise our ability to deliver this element of the development.	Questions (Q.1.9.1) which confirms this position. Notwithstanding the above, it is noted that the Hornsea Three onshore cable corridor is located away from the majority of these sites and would not affect the proposed settlement of Honingham Thorpe. The Hornsea Three onshore cable corridor would however cross the eastern section of GNLP0415-C as identified within the Greater Norwich Local Plan (which overlaps with the eastern most area of the Food Enterprise Park, which is not subject to a planning application or LDO). The Applicant would note that there are existing constraints which may affect any future development potential of this section of the FEZ by the Food Enterprise Park. These include: • the presence of existing overhead power line which cross the proposed onshore cable corridor route from west to east, with an associated pylon located immediately south of the proposed secondary construction compound; • the setting of the Grade I listed Saint Peter's Church to the east of the proposed onshore cable corridor route, in respect to which the open landscape outlook is referenced within the South Norfolk Local Plan Site Specific Allocations and Policies DPD; • the presence of existing woodland adjacent to the A47, which is within and to both sides of the onshore cable corridor route (and will be crossed by Hornsea Three using HDD to avoid direct impacts); • the southern undeveloped approaches policy identified in Policy DM 4.6: The Landscape Setting of Norwich of SNC's Development Management Policies document which applies to the section of the A47 from the Dereham Road junction to the boundary with Broadland District Council. These approaches have been identified for their distinctive rural character that affords views across the surrounding countryside and to Norwich; and • potential cumulative impacts with the housing development at Easton/Costessey (as identified in the DPD). This was identified as a consideration in the EIA screening assessment undertaken to support the LDO application. Whilst the LDO "*bears an acceptable relationship to the housing development at Easton*" it is likely that cumulative impacts would be more of a concern for development of the eastern section of the Food Enterprise Park. On the basis of the above, the Applicant considers that any development plans the landowner currently has are aspirational and have no weight in the decision making

Interested Party's Written Representation	Applicant's Response
	process for the Secretary of State. Notwithstanding the above, the Applicant would note that should an application for planning permission or an LDO on land parcels 26-013 and 26-014 be submitted in the future, the presence of the onshore export cables within this land would not preclude all potential development uses. Although potential uses would be restricted to avoid interaction with the onshore export cables, uses such as car parking, landscaping and other compatible uses could ultimately be proposed. Areas surrounding the onshore cable corridor route could be developed without restriction subject to planning permission.
2.8 The draft Local Plan has gone through a 'Call for Sites' and is currently having a second Regulation 18 consultation. The remaining programme to produce the Greater Norwich Local Plan is set out below: **Regulation 18 Consultation on New, Revised and Small Sites (current stage)** — **October-December 2018** Regulation 18 Draft Plan Consultation — September-October 2019 Regulation 19 Publication — February-March 2020 Submission of the GNLP to the Secretary of State for the Environment — June 2020 Public Examination — January 2021 Adoption — September 2021	The Applicant notes that sites were submitted under the call for sites by landowners/promoters in the initial stages of the Local Plan process. It is worth noting that the sites have no status in planning terms and will be subject to further assessment to confirm their potential suitability before being included in the draft Regulation 18 plan for consultation in autumn 2019. The Applicant would refer to the South Norfolk's response to the Examiners First Written Questions (Q.1.9.1) which confirms this position. The position of this plan was also considered in the Applicant's Planning Statement submitted with its application [APP-177].
3.0 Conclusion 3.1 It is our client's belief that the Orsted proposals fail to consider the development proposals that are intended for this part of Greater Norwich. It will significantly impact on the client's ability to deliver existing and proposed development related to the Greater Norwich Food Enterprise Park and Honingham Thorpe. We believe that the cable route will potentially sterilise important development areas and compromise proposed layouts. 3.2 Our client respectfully requests that the points contained in this statement are fully considered within the examination process. Our intention is to submit a full written representation in due course and, if required, request that we can make oral representations if necessary.	The Applicant would refer to individual responses provided above. The Applicant has sought to engage with the relevant landowner to discuss a voluntary agreement. In the event that it is not possible to enter into a voluntary agreement with relevant landowners, compensation will be payable in accordance with the statutory compensation code. Further information is set out in paragraph 11.2 of the Statement of Reasons [APP-032].

Longman Software (AS-013)

Summary

Longmans Software have submitted a written representation which was published on 04 December 2018 (AS-013). This representation raises concerns regarding the potential interaction between Hornsea Three and Norfolk Vanguard/Norfolk Boreas and whether this has been sufficiently taken into consideration in the design of the projects, and their respective applications.

The Applicant has responded to the representation submitted by Longmans Software (AS-013), confirming that the Applicant is fully aware of the proposed interaction with Norfolk Vanguard and Norfolk Boreas and is in regular contact with Norfolk Vanguard and Boreas promoters, Vattenfall, at all levels of the project and has sought to share information where necessary and appropriate to do so, including at the potential cable crossing point at Reepham. The Applicant has referred the respondent to the Statement of Common Ground between Hornsea Project Three and Norfolk Vanguard Ltd and Norfolk Boreas Ltd (REP1-222) which summarises the agreed position between the parties.

Response to Longman Software

Interested Party's Written Representation	Applicant's Response
When you are considering planning applications, do you cross refer to other planning applications for the same physical space that have come from independent parties? In particular, I have been looking at the Vattenfall wind farm applications for Norfolk Vanguard and Norfolk Boreas, comparing these applications against Orsted Hornsea 3 wind farm application. There seems to be a fundamental flaw in the plans which does not appear to be addressed in any of the applications as far as I can see which would make the plans impossible to do. Orsted Hornsea 3 intend to run the huge power cable underground from where it hits land at Kelling, then runs south to connect to the National Grid at Swardeston. Vattenfall intend to run the huge power cable(s) underground from land at Happisburg running west to Necton to join the national grid. At just east of the town Reepham, Norfolk, there is going to be a massive problem, which neither applicant has taken into account, nor does it seem any of the registered interested parties. The two cables are going to cross over each other, this is just not going to work. Not only is it physically near impossible to pass, it will not conform with any of the accepted standards for the cable laying procedures either intend to use. I attach the two maps taken from the respective projects. Please let me know what happens here as I do not know which planning project to inform of the fundamental problem.	The Applicant is fully aware of the proposed crossing of the cables and has taken the crossing into account in its Application. The Applicant is in regular contact with Norfolk Vanguard and Boreas promoters, Vattenfall, at all levels of the project and has sought to share information where necessary and appropriate to do so, including at the potential cable crossing point at Reepham. The Applicant would refer the respondent to the Statement of Common Ground between Hornsea Project Three and Norfolk Vanguard Ltd and Norfolk Boreas Ltd (REP1-222) which summarises the agreed position between the parties. The proposed Vattenfall onshore cable corridor is shown in Figure 3.1 of Volume 4, Annex 5.3: Location of Cumulative Schemes [APP-098] of the Environmental Statement, and has been considered where appropriate throughout the Environmental Statement as part of a Cumulative Effects Assessment presented in each topic specific chapter. It is common for underground high voltage cables to cross one another, for example the proposed onshore cable route for Hornsea Three will also cross the onshore export cable for Dudgeon offshore windfarm (see the updated Onshore Crossing Schedule, submitted as Appendix 3 at Deadline 3). Protective provisions have been included in Schedule 9 of the draft DCO [REP1-133] for the benefit of the owners of other high voltage cables to ensure that plans and methodologies for the cable crossing are provided in advance of construction. The detailed design for the crossing point will be developed once contractors are in place and there is more certainty on the construction programme for each project.
	

Oulton Parish Council (REP2-027)

Summary

Oulton Parish Council has submitted a written representation at Deadline 2 (REP2-027) which identifies outstanding concerns regarding the operation and use of the main construction compound.

The Applicant has responded to the specific points raised within Oulton Parish Council's written representation, referring to Appendix 20, submitted at Deadline 1 (REP1-176) and updated at Deadline 3 where appropriate. The Applicant will continue to engage with Oulton Parish Council to seek to address outstanding matters.

Response to Oulton Parish Council

Interested Party's Written Representation	Applicant's Response
1) We welcome the applicant's submission of Appendix 20: Briefing Note on the Main Construction Compound. This is our first sight of a detailed description of how the compound will operate, and our study of the implications of this document is still a work in progress. Several observations on the contents of the Appendix are contained in points made below, but we may submit further comments on this document in due course.	Noted. The Applicant has responded to each of the points made by Oulton Parish Council below. To assist in the reader, the Applicant has provided Annex E of the updated Appendix 20 presented as Appendix 2 to the Applicant's submission at Deadline 3, which provides a map of the access options under consideration for the main construction compound. This should be read alongside the responses provided below for clarity.
2) Notwithstanding the applicant's current preference for Option 1 as an access route to the compound, OPC has had further email discussion with Orsted since Deadline 1 regarding Option R: i.e. the creation of their own dedicated access route directly off the B1149 Holt Road. The applicant has requested and received from us our basic maps with some suggested routes for such an access, and we understand that Option R will form part of a discussion that Orsted will be having with NCC Highways on December 5th. OPC acknowledges that serious consideration of Option R is inconvenient for the applicant at this stage, but we are obliged to point out that the parish has been requesting discussions of our concerns about traffic and transport issues since November 2017 (Appendix 20, p.19), but no detailed discussions were forthcoming until many months later. OPC would like to confirm here that, for the reasons stated in our response to Deadline 1, and in the event of DCO being granted, Option R is the least worst option for the residents of Oulton parish as a solution to the issue of a safe access route to the construction compound.	The Applicant would note that Option 1: Passing Places (as presented in Annex A of Appendix 20 to the Applicant's submission at Deadline 1, REP1-176), is an acceptable and workable solution. This is reflected in the Statement of Common Ground between Hornsea Project Three and Norfolk County Council (REP1-232). The Applicant continues to engage with NCC in respect to details regarding pavement construction makeup. These results will feed into the detailed design of Option 1: Passing Places to accommodate the axle loading predicted. This detailed design will be progressed post-consent as part of the detailed CTMP, but the principles will be incorporated within an updated version of the outline CTMP to be submitted at Deadline 4. Notwithstanding this, the Applicant notes the proposed Option 'R' referred to in this representation and clarified in an email to the Applicant (see relevant extract provided in Annex B in this document) on 12th November 2018. This email identified three potential options, referred to hereafter as Option A, Option B and Option C. These have been evaluated by the Applicant's Traffic and Transport Consultant, with the Applicant agreeing with OPC's position that Option B should be discounted due to lack of visibility and the number of mature tree specimens which would need to be removed to move towards this location being a safe and usable access. The Applicant's evaluation identified two variants of Option C, hereafter referred to Option C1 and Option C2, with the key difference being the proposed location of the new junction on the B1113. Three variants of Option R (Option A, Option C1 and Option C2) have therefore been taken forward for further consideration by the Applicant. These options have been presented to

Interested Party's Written Representation	Applicant's Response
	Norfolk County Council, Broadland District Council and Oulton Parish Council for review and comment, accompanied by Stage 1 Safety Audits for each. This information is presented in the updated Appendix 20 (Annex C) presented as Appendix 2 to Deadline 3. The Applicant has also sought to make contact with the landowners affected by each of the Option R variants, and can provide the following update: • The Applicant has contacted all of the landowners represented by Option R and has received responses from all of them. At this stage negotiations in respect of a potential access road are in progress and the Applicant wishes at this stage to keep those negotiations and the landowners' respective positions confidential. The Applicant will continue discussions with landowners in respect of potential options until a conclusion can be reached on the viability of all Option R variants from a land availability perspective. Although the Applicant has demonstrated a willingness to consider alternative feasible and deliverable options, it is noted that: • Option R 'A' – This option would maintain the use of the junction between the B1149 and The Street, thus requiring junction improvements, and at least one passing bay to be installed at the southern end of the Street. The access point is proposed a short distance from the B1149 access, avoiding the vast majority of the existing trees along The Street and seeking to maximise distance from the Old Railway Gatehouse. However, the visibility requirements at this location would result in substantial trimming and, in some instances, loss of Important Hedgerow along The Street. • Option R C1 and C2 provide direct access to the B1149. These options would require a new right turn lane on the B1149 to accommodate the movements which are planned and visibility to meet the design speeds observed at this location. Such measures are not necessary at the existing Street junction which is an existing junction and has already been subject to a Stage 1 safety audit with the previous scheme options (presented in REP1-176). In both Option R 'C1' and 'C2', the removal of mature trees and vegetation will be unavoidable to accommodate the access design provision adopted. In respect to all Option R variants, the route of the compound access road would be subject to discussions with the landowner; however, Hornsea Three would seek to follow field boundaries where possible as well as maximise distance from sensitive residential receptors. Furthermore, the potential implications of the cumulative scenario with Norfolk Vanguard requires additional consideration and is subject to ongoing discussions with the parties.

Interested Party's Written Representation	Applicant's Response
	Notwithstanding the position identified above, the Applicant maintains its position that a solution that is acceptable to NCC as the local highway authority for use of The Street has been reached.
3) Whether Option R is adopted or not, OPC requests that, in due course, the applicant should enter into a legally binding undertaking that NO traffic associated with the compound should come through the settlement of Oulton Street. As well as HGVs, this must include staff vehicles and all traffic generated by sub-contractors. OPC is aware of significant problems with sub-contractors at Holton le Clay, the Main Construction Compound for Hornsea 1/2. The PC notes that NCC Highways has made a statement on the issue of traffic through the village, in its response to Deadline 1, citing the risks to pedestrian safety.	The Applicant would refer to the newly created paragraph 2.1.3.8 of the Outline CoCP which will be submitted at Deadline 4 (new text shown in underline): *"2.1.3.8 No traffic movements associated with Hornsea Three will be permitted along the northern, residential section of Oulton Street, and thus a right hand turn only, for all construction traffic exiting the main construction compound (HGVs and staff vehicles), will be enforced at the access point to the main construction compound along The Street."* As is the case with all measures identified in the Outline CoCP, this limitation will be applicable to main and sub-contractors on Hornsea Three.
4) OPC notes that the core working hours for the compound as stated in Appendix 20 (p.14) are unreasonably long and would result in unacceptable adverse impacts on the quality of life of local residents. This is especially likely as it is stated that the compound will also need a one-hour "mobilization period" to be added to the beginning and end of each working day, such that traffic would be generated from 06:00 - 19:00 for six days of every week. (The Saturday hours include an afternoon period for "maintenance".) OPC concurs with BDC's remarks at Q1.12.6 re: core working hours, viz: *"Standard construction working hours should be used which recommends a start time of 8.00 am Monday – Saturday and there should be no working during Bank Holidays and national holidays."* These restrictions need to explicitly include maintenance, and operations carried out by sub-contractors and third parties. Similarly, the Parish Council agrees with the statement made by BDC that continuous working would have unacceptable impacts on the quality of life of residents and should only be allowed in an emergency situation.	The Applicants response to Q1.12.6 to the ExA's First Written Questions (see REP1-122) advises why it considers a start time of 07:00am plus 1 hour mobilisation period to be appropriate. The Applicant notes that a work start time of 07:00AM is consistent with other local Nationally Significant Infrastructure Projects such as The Norfolk County Council (Norwich Northern Distributor Road (A1067 to A47(T))) Order 2015. On the second issue, of preventing or limiting working during Bank Holidays or national public holidays - as noted in the Applicant's response to Q.12.6, consent is required from the relevant authority EHO officer in consultation with relevant planning authority to work during these periods. This is secured through the Outline CoCP (paragraph 4.1.1.8, REP1-142). BDC therefore retains discretion if they choose to permit such working. Whilst requesting to undertake works on a public holiday is a last resort, prohibiting working outright on public holidays at this consenting stage may hinder the timely delivery of specific elements, even where it is to the benefit of wider stakeholders, for example it may facilitate the completion of a complex activity, or where it aligns with other works (for example railways line closures).
5) OPC notes with great concern that reference is made in Appendix 20 (p11) to the possibility of portable generators "which could run on a 24-hour basis." This rural, dark skies area is entirely silent at night, and such noise would have a severe impact on living conditions for residents both of the settlement of Oulton Street (downwind of the site) and of dwellings very close to the compound to the immediate northwest.	In accordance with paragraph 6.2.1.3 of the Outline CoCP (REP1-142) *"Construction works will be undertaken in accordance with the best practicable means (as defined in Section 72 of the Control of Pollution Act 1974), to minimise noise and vibration effects."* Thus, where generators are required to run on a 24hr basis, the contractor is to deploy best practicable means to silence their operations.
6) Cumulative impact: NCC Highways states in its response to Q. 1.11.1: "The developers still need to confirm any cumulative impacts arising from all three wind farm projects utilising the same access route to the main compound at Oulton." (our emphasis) OPC has to take issue with the references made in Appendix 20 (e.g. p.23) to a situation where "both parties continue to work	The Applicant would refer to the Statement of Common Ground between Hornsea Project Three and Norfolk Vangaurd Ltd and Norfolk Boreas Ltd (REP1-222), as well as the Applicant's response to Q1.11.12 This sets out the regular communication between both parties, including monthly meetings specific to traffic and transport since August 2018, as well as how cumulative traffic and transport impacts have been addressed.

Interested Party's Written Representation	Applicant's Response
together", implying that much work has already been done. In fact, OPC is well aware from its own contacts with Vattenfall (Norfolk Vanguard/Boreas) that such work is only just beginning. We invited Vattenfall to attend a recent PC meeting (for a second time) and it is clear from that discussion that the cumulative effect created by the combined traffic on the southern end of Oulton Street will have severe impacts on highway function and safety. We are gravely concerned that a detailed cumulative impact assessment is being left to such a late stage in the examination process.	This includes the consideration of Norfolk Vanguard as a cumulative scheme within the Environmental Impact Assessment, with potential cumulative effects reported in the relevant topic chapters of the Environmental Statement. The work set out in Section 7 of Appendix 1 to the Applicant's response to Deadline 3, is ongoing with material headway made and both projects confident that agreement can be reached in the short term. The Applicant will continue to engage with OPC in respect to the potential for cumulative effects as a result of Hornsea Three and Norfolk Vanguard/Norfolk Boreas.
7) OPC supports the submission of the National Trust to Deadline 1 and would like to underline the central and ongoing historical significance of the RAF Oulton site both to the residents of this parish and to continually returning veterans and their families.	The Applicant would refer to the response to the relevant representation made by National Trust at Deadline 1 (RR-056).
8) Finally, OPC notes in BDC's response to Q1.10.7 at Deadline 1: *"The proposed construction period for a two phase build is estimated to be 8 years, this extended development period is a concern, however it is assumed that except for around the main construction compound, the impact will be transitory as the development moves along the cable corridor."* Although the above statement was made with particular reference to economic effects, OPC urges the Panel to be constantly mindful of the fact that all adverse impacts of this project will affect residential amenity and highway dysfunction for the entire 8 – 10 years of this project in the area surrounding the Main Construction Compound, unlike the more transitory impacts along the cable corridor. For this reason, as well as for the benefit of all those living along the cable corridor, and near the proposed booster station at Edgefield/Little Barningham, OPC cannot stress too highly its concern that Orsted has not given appropriate consideration to the use of HVDC and the ducting method.	The Applicant would refer to its response to relevant representation RR-064, and paragraph 3.15 of Appendix 20: Main Construction Compound Briefing Note both of which were submitted at Deadline 1 and set out the duration of active use of the Main Construction Compound. The Applicant has estimated that activities at the main construction compound associated with Hornsea Three would occur within the onshore eight-year construction window; however, the active use of the main construction compound would be limited to up to 30 months, excluding mobilisation and demobilisation. This could be across a single construction phase, or two construction phases. Should Hornsea Three be delivered across two phases, the main construction compound would be demobilised and not in active use during the 'gap', unless otherwise agreed with the local planning authority (as set in Section 3.8 of Volume 1, Chapter 3: Project Description of the Environmental Statement). In respect to OPC's reference to HVDC technology, the Applicant would refer to Apppendix 22: Transmission System (HVAC/HVDC) Briefing Note submitted at Deadline 1 (REP1-164). In respect to the reference to ducting, the Applicant would refer to the Applicant's Comments on Relevant Representations (RR-006) submitted at Deadline 1 (REP1-131).

Richard Bacon MP

Summary

Richard Bacon has submitted a written representation which was published on 12 December 2018, expressing concerns about the parameters of the onshore HVDC converter/HVAC substation, and the associated impacts on heritage, visual and residential amenity receptors within South Norfolk.

The Applicant has responded to specific points raised within the written representation below, cross-referencing where appropriate to the Applicant's Comments on the Relevant Representations submitted at Deadline 1, RR-054 (REP1-131); and Comments to South Norfolk Council Local Impact Report submitted at Deadline 2 (REP2-009).

Response to Richard Bacon MP

Interested Party's Written Representation	Applicant's Response
To Whom It May Concern, I met recently with local Swardeston Parish Councillors to listen to their concerns regarding the Orsted Hornsea 3 National Infrastructure application. As I understand it, South Norfolk District Council, Norfolk County Council, Broadland District Council and North Norfolk District Council (as Host Authorities), have already submitted relevant representations to the Planning Inspectorate which sets out their general view. The Local Impact reports, Statement of Common Ground and answers to the Examination Bodies questions were submitted on 7th November 2018. The Specific Hearings start next week on 3rd December 2018, when Council Officers including the Senior Planning Officer, Landscape Architect and Senior Conservation and Design Officer will be representing South Norfolk Council. The main concern for South Norfolk Council and local residents is the size and scale of the substation/converter due to its impact on heritage assets; the visual and residential amenities of this part of South Norfolk.	The Applicant notes the summary provided. As noted, a Statement of Common Ground between Hornsea Project Three and South Norfolk Council was submitted at Deadline 1 (REP1-223), which reported on ongoing discussions and identified outstanding matters of concern to South Norfolk Council. In respect to the matters raised, namely impacts from the HVDC converter/HVAC substation, the Applicant would refer to the following documents: • Applicant's Comments on the Relevant Representations submitted at Deadline 1, RR-054 (REP1-131); and • Comments to South Norfolk Council Local Impact Report submitted at Deadline 2 (REP2-009).
Whilst the detailed design and materials of the substation/converter do not form part of the application, they do give the maximum design parameters that have been provided. The scale of the building is dependent on the electricity current selected. The HVAC scenario: main building is 220m if a single building, - and if multiple buildings, no more than 150m in length, maximum width 75m but with a reduced height of 15m. In contrast, the HVDC scenario; 220m by 75m with a height of 25m is a significant increase on the maximum parameters of the building provided under the PIER consultation, which was 150m by 30m by 25m in height. South Norfolk Council has urged through its submissions, that the substation is constructed using technologies that would allow for its height to be kept as low as possible. There is a significant difference between HVDC height of 25m and HVAC height of 15m. It would be difficult to mitigate against the impact of a 25m high substation due to its sheer scale in terms of landscaping. I fully support my constituents in this matter and would urge you in the strongest possible terms to take these comments into account. Richard Bacon	The Applicant notes the preference for HVAC transmission technology in respect to the implications for the onshore HVDC converter/HVAC substation. Additional information relating to the transmission technology for the project is provided in Appendix 22: Transmission System (HVDC/HVAC) Briefing Note submitted at Deadline 1 (REP1-164). In respect to the concerns raised, the Applicant would refer to the following documents: • Applicant's Comments on the Relevant Representations submitted at Deadline 1, RR-029 and RR-054 (REP1-131); and • Comments to South Norfolk Council Local Impact Report submitted at Deadline 2 (REP2-009). Within these reponses, the Applicant notes that, under Requirement 7 of the draft DCO [APP-027] (and as updated at Deadline 1 (REP1-133)), details including the layout, scale, finished ground levels, external appearance, materials, access and circulation areas, and timetables for the landscaping works at the HVDC converter/HVAC substation must be submitted to and approved by the relevant planning authority prior to commencement of construction. In respect to the landscape mitigation proposals, details are provided in the Outline Landscape Management Plan (Outline LMP) [REP1-145] and shown in Sheet 3 of 3 of the Onshore Limits of Deviation Plan [APP-026]. Implementation of these mitigation measures is secured by Requirements 8: Provision of Landscaping and Requirement 9: Implementation and Maintenance of landscaping of the dDCO. The Applicant would also refer to RR-001 of the Applicant's Comments on the

Interested Party's Written Representation	Applicant's Response
	Relevant Representations submitted at Deadline 1 (REP1-131) which confirms that since the point of application, the Applicant has committed to planting sections of the landscape planting at the commencement of works at the onshore HVDC converter/HVAC substation, which could be up to three years ahead of the planned completion of construction works, in order to maximise the screening provided during the construction and early years of operation. This commitment is secured through paragraphs 3.1.3.4-3.1.3.5 of the Outline LMP (REP1-145).

Mr Robin Buxton (Trustees of the J G Steward Trust) (REP1-051)

Summary

Brown and Co on behalf of Mr Robin Buxton (Trustees of the J G Steward Trust) has submitted a written representation dated November 2018 and published on 29 November 2018 (REP1-051) referencing the Norfolk Minerals and Waste Development Plan, within which part of their land is allocated as site MIN 79. Within the written representation, Brown and Co has raised concerns regarding the proposed routing of the proposed onshore cable corridor route through their client's land and the consideration that this would frustrate future minerals extraction.

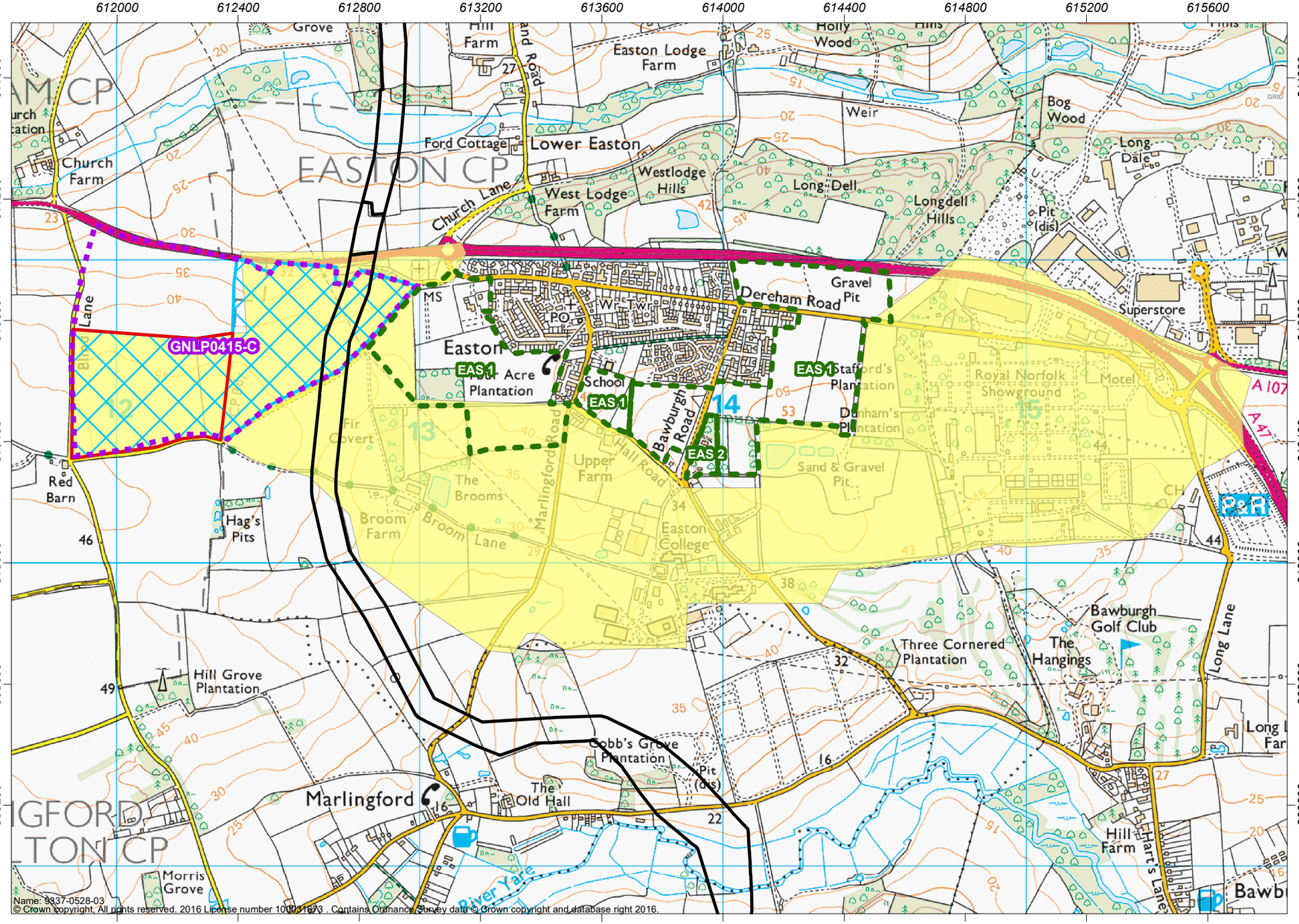
The Applicant has responded to specific points raised within within Mr Buxton's Written Representation [REP1-051] below, concluding that any plans in relation to minerals extraction that the landowner currently has still need to overcome a number of constraints in order to achieve planning permission. The Applicant does not agree that the proposed cable route sterilises all of the potential minerals development land. Notwithstanding this, the Applicant has sought to engage with the relevant landowner to discuss a voluntary agreement. In the event that it is not possible to enter into a voluntary agreement with relevant landowners, compensation will be payable in accordance with the statutory compensation code.

Response to Mr Robin Buxton

Interested Party's Written Representation	Applicant's Response
1.0 Introduction 1.1 This statement is our response, submitted on behalf of our client to the underground cable route proposed as part of the Hornsea Project Three Offshore Wind Farm. The Trustees hold land to the south of Norwich as part of a long-held property portfolio. 1.2 It is our belief that the proposed route for the underground cable, and the associated protective zone, will frustrate future minerals extraction potential on our client's property. The following gives background information on intended proposals for this part of our client's land.	The Applicant's response to specific points raised within Mr Buxton's Written Representation [REP1-051] is set out below.
2.0 Background Planning Context 2.1 Within the existing Norfolk Minerals and Waste Development Plan, which is under review, part of our client's land is allocated as site MIN 79 – land North of Hickling Lane, Swardeston. 2.2 The site is 38.6 hectares and has an estimated sand and gravel resource of 1,750,000 tonnes. It is close to an active mineral extraction site, has good access to transport networks and is not the highest value agricultural land. It is therefore a sustainable site. 2.3 The site is a proposed extension of the existing Mangreen Quarry and the presence of an operational facility in the vicinity significantly increases the viability of working the site.	The Applicant notes the allocation of site MIN079 includes this land, along with a wider area. The Applicant believes that it is worth noting that, despite the allocation the site will still be subject to further assessment to confirm its potential suitability and would be subject to an application for planning permission in order to proceed. The Applicant requests evidence that the site is a proposed extension of the existing Mangreen Quarry, as it has not been provided with such evidence.
Impact of the Proposed Cable Route for MIN 79 2.4 The current Orsted cable route as submitted would result in sterilisation of the minerals resource. 2.5 The resource can only be protected by avoiding the site altogether and selecting an alternative connection to the Grid.	The Applicant does not agree that the entire minerals resource would be sterilised by the presence of the cable. Although the Applicant would seek to protect the cable from potential damage through restrictive provisions this would not sterilise the entire resource and therefore the Applicant does not agree that the minerals resource can only protected by seeking an alternative grid connection.
3.0 Conclusion 3.1 It is our client's belief that the Orsted proposals fail to consider the minerals extraction potential on our client's property. We believe that the cable route will the resource. 3.2 Our client respectfully requests that the points contained in this statement are fully considered within the examination process. Our intention is to submit a full written representation in due course and, if required, request that we can make oral representations if necessary.	The Applicant is in discussion with the Interested Party and is seeking to enter into a voluntary agreement for the rights to lay the cable. In the event that it is not possible to enter into a voluntary agreement with the landowner, compensation will be payable in accordance with the statutory compensation code.

3. Annexes

Annex A – Food Enterprise Zone Map (Honingham Thorpe Farm)



Hornsea Three onshore cable corridor

Greater Norwich Food Enterprise Zone LDO

Greater Norwich Local Plan Sites

Easton Norwich Policy Area

Greater Norwich Food Enterprise Zone

Food Enterprise Park Limited Ownership Boundary

Reference System : OSGB36
Projection : BNG

Scale@A3:1:15,000
Vertical reference: Newlyn

0 0.5 Kilometres

REV	REMARK	DATE
00	Initial Issue	02/03/2018

Hornsea Project Three
Food Enterprise Zone

Doc no: RPS-9337-0528-03
Created by: BF
Checked by: JK
Approved by: MF

RPS Ørsted

Annex B – Extract from OPC Working Group email sent on 12th November 2018

From: Paul Killingback <killingback@btinternet.com>
Sent: 12 November 2018 21:07
To: Sarah Drljaca <SARCR@orsted.co.uk>
Cc: Emily Woolfenden <EMWOO@orsted.co.uk>; Susan Mather <matherhome@btopenworld.com>; Alison/jon Shaw/Pearce <hodgesrow1@btinternet.com>; Owen Saward <XOWES@orsted.co.uk>
Subject: Re: Oulton - Traffic and Transport Update

"Dear Sarah

Thank you for your reply of 7 November and I note your comments.

….

I assume that you will by now have seen OPC's response to PINS Deadline 1 but to ensure transparency and completeness I attach a copy to this e-mail and scanned copies of two maps showing Option R. Hopefully this will be clear enough for you to see the 3 suggested routes within it.

- *On Map 1 there are Routes A,B,C*
  - *'A' takes a route from the B1149 into Oulton Street from the existing (improved) junction. Then immediately left into a field, following the field boundaries and well behind The Old Railway Gatehouse onto the airfield site.*
  - *'B' takes a route immediately from the B1149 to the west of the Bluestone Plantation woods. (There is also an old disused track opposite the Heydon Road that goes part way towards the airfield – the remains of a road that was never reinstated after the war – but we have discounted this, as the exit onto the B1149 would be dangerous within the woods).*
  - *'C' is another direct route off the B1149 further west to link with a trackway/route of connection that was used when the solar farm was built on the airfield.*

Map 2 shows the Airfield site in more detail and where the above routes might access it.

Of these routes I would suggest that Route A could be more straightforward as the land is owned by Christopher Harrold (EF Harrold Street/Docking Farm) and adjoins land next to the airfield owned by Michael Harrold (Saltcarr Farms).

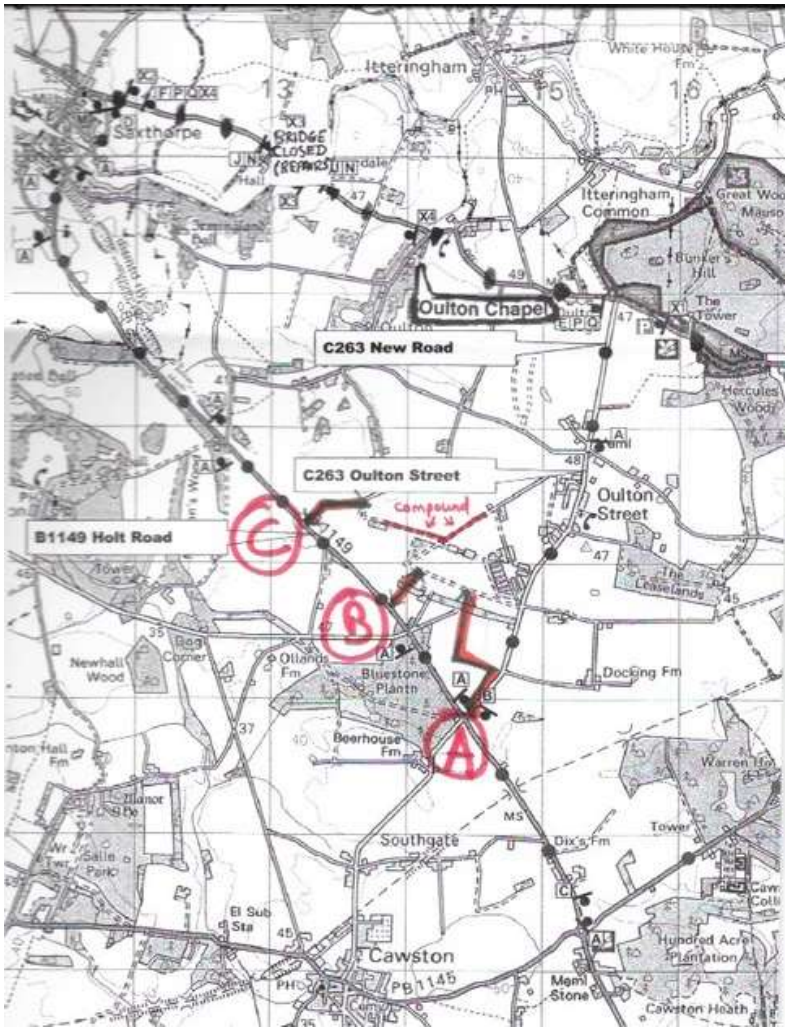
Michael's son Oliver and Christopher Harrold were both at our PC meeting and, as already reported, did not raise any significant objections and were 'open to negotiation'.

I hope you find this of some help in seriously exploring Option R, and that this can be discussed at the next Working Party. The week commencing 26 November is fine with us (except Monday and Thursday). Please confirm what suits you best.

Regards,

Paul

OPTION R - Map 1



OPTION R - Map 2