Hornsea Offshore Wind Farm

Project Two

Summary of Oral Case – Issue Specific Hearing on 27 October 2015

Appendix G to the Response submitted for Deadline V

Application Reference: EN010053

12 November 2015

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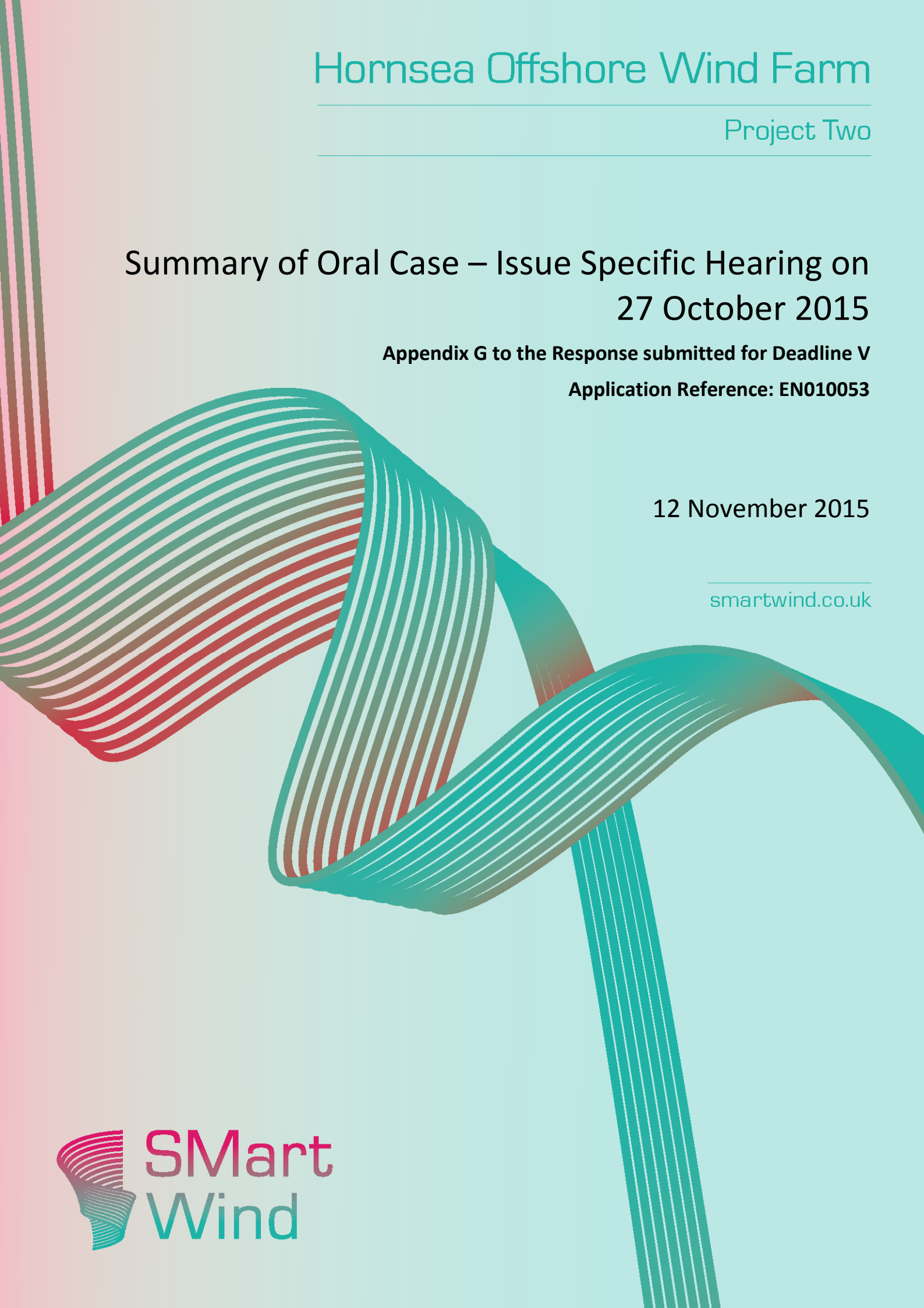

SUMMARY OF ISSUE SPECIFIC HEARING HELD ON 27th OCTOBER 2015
SUBMITTED FOR DEADLINE V

1.	Welcome

1.1 Following an introduction from the Ex. A, the Applicant, along with other parties in attendance, introduced its representatives.

2.	General

2.1 Updates on overview documents on: consents, Statements of Common Ground (SoCGs), chronological listing of documents, environmental signposting, mitigation/monitoring/management (including organogram)

Consents Management Plan

2.1 The Applicant confirmed it had provided at Appendix K of the Applicant's response to Deadline IV a further update to the Consents Management Plan (Doc ref No 12.10), which provides an update on the Applicant's progress towards securing the consents that are required for the construction, operation and maintenance of the Project.

2.2 The Applicant noted that no substantive updates have been made since the version submitted at Appendix H of the Applicant's response to Deadline I and confirmed that it considered that progress towards the granting of all other consents has been made as far as is possible within the Examination process, prior to any grant of the DCO.

Status of Statements of Common Ground

2.3 The Applicant confirmed it had provided an update on the status of SoCGs at Appendix L of its response to question G6 at Deadline IV.

2.4 The Ex. A queried whether the issues noted as matters of disagreement within the Historic England SoCG had now been resolved. The Applicant stated they remain matters of disagreement as detailed further in Section 6 of this Summary.

2.5 The Ex. A then queried as to progress with the Wildlife Trusts. The Applicant confirmed that it does not anticipate any further progress prior to close of examination on the residual points of disagreement.

Chronological Listing of Documents

2.6 The Applicant confirmed it had provided at Appendix M of the Applicant's response to Deadline IV a table which sets out, under the main topic areas, a list of those Application documents which have been updated, giving details of those updates in chronological order.

Environmental Information Signposting Document

2.7 The Applicant confirmed it had provided an update to the Environmental Information Signposting Document (Version 4) at Appendix J of the Applicant's response to Deadline IV.

2.8 Within Version 4 of this Signposted Document, the Applicant signposted additional pieces of clarification information provided as part of the Applicant's responses to Deadline IIA, III and IV respectively.

2.9 The Applicant has provided a further update to this document at Appendix S of the response to Deadline V to ensure that a link is provided to all the referenced documents published on the Planning Inspectorate webpage.

Mitigation/monitoring/management (including organogram)

2.10 The Applicant noted it had provided at Appendix N of the Applicant's response to Deadline IV a further update (Version 3) to the Project's Enhancement Mitigation and Monitoring Commitments (being an update to Volume 4, Annex 4.5.5: Enhancement Mitigation and Monitoring Commitments of the ES (Doc ref No 7.4.5.5)).

2.11 The Ex. A noted it would be helpful to have a comparison copy of Version 3 of this document against the previous version to isolate the changes. The Applicant has provided such a comparison at Appendix DD of its response to Deadline V.

2.2 Response to the Applicant's proposed amendments to the Order

2.12 The Applicant referred to its response to G10 at Deadline IV, which set out the details of the proposed amendments to the Order limits (and in relation to the onshore aspect, the Order land).

2.13 The Ex. A noted it was prepared to accept the onshore amendment into the examination as a non-material amendment and intended to issue a procedural decision to that effect. The Ex. A then queried the rationale for the proposed offshore amendment. The Applicant clarified that the proposed amendment concerned the reduction in the Order limits of Work Nos 4A and 4B to remove one export cable route option from the Project's envelope which previously ran through the Hornsea Project One wind farm array (see Appendix B (Works Plans – Offshore) of the Applicant's response to Deadline III). The Applicant confirmed this reduction was prompted by confirmation from the Hornsea Project One Companies that they would be very unlikely to accommodate this proposed route within their wind farm array area. The Applicant noted that:

- the amendments do not increase the worst case scenarios presented within the Project's ES and HRA, nor alter the assessment conclusions contained therein (see Appendix O of the response to Deadline IV for a composite confirmation of the same in tabular format);
- represented a reduction to the Project's design envelope; and
- were agreed upon request by and in consultation with the Hornsea Project One Companies.

2.14 The Applicant stated on that basis it considered the changes to be non-material.

2.15 The Ex. A queried whether the Applicant was satisfied that it remained feasible to route the Project's export cables through the remaining area within the proposed reduced Order limits.

2.16 The Applicant stated that a route through the Hornsea Project One wind farm array was only ever one option, and confirmed that the remaining route is valid and sufficient and so is content to offer the proposed reduction.

3.	Construction Onshore and Inter-tidal

3.1 Update on sub-station/convertor station plans, access routes and cable connections to the National Grid (NG) sub-station, including potential four-way SoCG

3.1 The Ex. A referred to the Applicant's response to CL21 at Deadline IV and the responses to the same question from National Grid, Hornsea Project One and C.GEN. The Ex. A noted that these submissions suggested that all parties appeared comfortable that the proposed grid connections into the National Grid Killingholme Substation can be facilitated. The Applicant confirmed that it understood all parties are comfortable that the proposed connections for the respective projects can be facilitated and that their interests are adequately protected.

3.2 The Ex. A queried whether the connections can be facilitated regardless of the order the projects come forward in. The Applicant confirmed this was correct at the protections in place regulate the interface irrespective of the order the projects are brought forward.

3.2 Update on the inclusion of the Local Planning Authorities in the onshore co-operation agreement in relation to transmission works (Development Consent Order (DCO) Requirement 26)

3.3 The Applicant confirmed that proposed additional text within Requirement 26 of the draft DCO had been provided in Version 5 to provide the Local Planning Authorities (LPA) with the ability to call liaison meetings between the undertakers.

3.4 The Ex. A noted this text and queried whether the LPAs were content with the Requirement as drafted. Each of East Lindsey District Council (ELDC), North East Lincolnshire Council (NELC) and North Lincolnshire Council (NLC) confirmed they were happy with the drafting.

3.3 Update on a more informative Compound Works Table

3.5 The Ex. A queried why it was not possible for the Applicant to provide the anticipated traffic numbers on per compound basis, as opposed to a route section basis as is currently provided for within the Applicant's revised Compound Works Table submitted as Appendix T of its response to Deadline IV.

3.6 The Applicant clarified that for the purposes of Environmental Impact Assessment, traffic and HGV flows on road links are used to assess the effect upon sensitive receptors along each road link. This information is presented within Table 10 of Annex 6.8.1 of Volume 6: Transport Assessment of the ES (Dec ref No 7.6.8.1) and Table 8.14 of Volume 3, Chapter 8: Traffic and Transport of the ES (Doc ref No 7.3.8). This approach is consistent with the approach taken on other similar DCOs, including Hornsea Project One.

3.7 The Applicant noted that in many cases there are a number of compounds adjacent or in very close proximity served by one road link. Where there are multiple compounds served by one road link, the traffic flows for each compound have not been broken-down per compound. Doing so would not provide any further information in terms of EIA because:

- With the exception of trenchless crossings and setup of compounds themselves (such as surfacing and delivery of welfare), the length of each cable route section gives rise to the overall level of traffic generated, including the number of vehicles required to provide for trenching, ducting, cable laying, fencing, haul road construction etc.;
- The traffic flows on each road link are needed for the purposes of Environmental Impact Assessment in order to consider the effect on sensitive receptors; and
- Where compounds are adjacent or in very close proximity, it would be down to the end contractor constructing the project to determine exactly how different adjacent compounds are used and which vehicles are allocated to them. Accordingly, splitting traffic flows down to this level at EIA stage would present the traffic flows in an artificial way compared to the actual compound use in practice.

3.8 Accordingly, the Applicant considers that an assessment undertaken on a route section and road link basis presents sufficient information to the Ex. A to identify the predicted worst case impact on sensitive receptors and presenting this information per compound would not provide any additional information on the impact on sensitive receptors than the methodology already presented.

3.9 The Ex. A noted it understood this approach, but sought clarification on whether the assessment had considered both Projects A and B sequentially, as well as in parallel. The Applicant can confirm that in carrying out the assessment consideration was given as to what would constitute the worst case from a temporal and spatial/traffic volume perspective. The Applicant would refer to Table 8.8 of Volume 3, Chapter 8: Traffic and Transport of the ES (Doc ref No 7.3.8) for confirmation on this point.

3.10 The Ex. A subsequently requested clarification on what a compound would mean in practice for a local community and the Applicant would refer to Appendix BB of its response to Deadline V for information on this point.

3.4 Update on the Intertidal Access Management Plan

3.11 The Applicant noted it had provided an update on this matter in response to CL25 of its response to Deadline IV. The Applicant confirmed it had provided a new Requirement 27 in Version 5 of the draft DCO, which stated that the Applicant must provide an Intertidal Access

Management Plan for approval by the LPA, in consultation with Natural England, prior to commencement of the works.

3.12 Natural England confirmed they were in agreement with the Applicant on this matter.

3.13 ELDC queried whether it was expected that the Applicant would agree the plan with Natural England prior to submission to the LPA. The Applicant confirmed that it would consult with Natural England on the content and aim to agree the detail prior to submission to ELDC. In response to ELDC's concern about the approval timescale, the Applicant can confirm that it has updated the wording within the DCO to reflect a two month approval timescale (in line with that afforded to the Environment Agency under Requirement 16 of the DCO).

3.14 The Applicant confirmed in response to a query from the RSPB that the Intertidal Access Management Plan would be drafted post consent, prior to the commencement of works in line with the other pre-commencement plans required under the draft DCO and DMLs.

4.	Construction Offshore

4.1 Update on the progress on the 'In Principle Monitoring Plan', including inclusion in the draft DCO

4.1 The Applicant referred to its response to CS17 at Deadline IV and the draft IPMP which was provided at Appendix P to that response. The Applicant confirmed it has agreed the content of the IPMP with both Natural England and the MMO. The only outstanding matters in relation to the IPMP are associated with ornithology, where the content is agreed but the status has been kept 'open' to accommodate any changes that may be required following completion of discussions on the outstanding matters relating to this topic.

4.2 The Ex. A queried whether the IPMP included vessel traffic monitoring for fishing vessels. The Applicant can confirm that fishing vessels are captured within the proposed monitoring.

4.3 The Ex. A also queried why there was no proposal for ornithology monitoring during the construction period, and whether disturbance monitoring post-construction considered both displacement and collision. The Applicant confirms that when defining any post-construction monitoring plan consideration will be given to both displacement and collision related effects. The Applicant can confirm that it has not proposed any construction monitoring within the IPMP. This is in line with the principles of the IPMP (as set out in Section 2.3 of the document). As outlined by the Applicant at the hearing, it has sought to focus the monitoring on validating the uncertainties around questions relating to key effects (namely, displacement and collision), which are experienced during the operation phase of the project. The Applicant believes this to be in line with standard industry practice.

4.4 The MMO identified at the hearing that it had a number of additional comments on the IPMP content. The MMO provided these to the Applicant following the hearing and the Applicant has addressed these and agreed the content of the updates with the MMO through further post hearing discussions. For the Ex. A's benefit the minor clarifications raised by the MMO related to the following aspects:

- Definition of "seabed morphology";
- Post construction cable burial surveys;
- Scour protection;
- Noise monitoring; and
- Coverage of AIS surveys.

4.5 The updated IPMP is submitted at Appendix EE to the Applicant's response to Deadline V.

4.2 Update on including both Hornsea Projects 1 and 2 in the DCO Schedule A, Part 3, Requirement 21

4.6 In view of the MMO's continuing request on this matter, the Ex. A queried why it was not possible to include provision for cooperation with the Hornsea Project One Companies within this Requirement.

4.7 The Applicant confirmed that it remains its position that it does not consider it would be appropriate to seek to impose obligations on Hornsea Project One within the confines of the Project's DCO and questions the merit of putting unilateral obligations on the Project's undertaker(s) only to consult with the Hornsea Project One Companies in the alternative. The Applicant would note that whilst both the Project and Hornsea Project One are under common DONG Energy ownership, they remain separate and distinct commercial projects.

4.8 Despite the position of the Applicant noted above, in order to reach agreement with the MMO on this point, the Applicant proposed some new wording for inclusion in Condition 12 of DMLs A2 and B2 to require the undertaker to notify the MMO of the consultation that has been carried out with Hornsea Project One and to provide the MMO with any comments received from Hornsea Project One as a result of that consultation. This wording has been agreed with the MMO and the MMO has confirmed that the proposed text addresses its concerns about co-operation with Hornsea Project One (see Appendix A of the Applicant's response to Deadline V for confirmation of the new wording).

4.3 Update on the programme timetable for the early onshore and offshore construction activities for Hornsea Project 1

4.9 The Ex. A noted that no representatives from the Hornsea Project One were in attendance, but queried the Applicant as to whether they would expect to share results from Hornsea Project One's survey corridor.

4.10 The Applicant stated that it would clearly depend on the scope of the Hornsea Project One survey corridor, but if considered relevant to the Project, then the Applicant considers it likely that this information will be shared if requested.

4.4 Update on progress on resolving issues between the Applicant and E.ON E&P Ltd

4.11 The Applicant has set out below a summary of the policy considerations surrounding the potential interaction between its interests and those of E.ON E&P Ltd (E.ON E&P). Further information regarding this potential interaction, including further detail on the information provided at the Hearing by Dr Emily Wood, has been provided at Appendix J of the Applicant's response to Deadline V. The Applicant has also provided a response to the points raised by E.ON E&P at the Hearing at Appendix K of the response to Deadline V.

4.12 As confirmed by E.ON E&P at the Hearing, the Applicant has prepared a draft Statement of Common Ground (SoCG) and provided that to E.ON E&P for comment. Comments on that SoCG are still awaited from E.ON E&P (who have indicated that they are focussing on the pursuit of a commercial agreement and on the preparation of their representations into the Examination rather than the draft SoCG). The Applicant will continue to seek to progress a SoCG but hopes that the below summary (and any submission by E.ON E&P) clarifies the current level of agreement between the parties.

Governance of interaction of offshore wind and oil/gas developments

4.13 There are various discreet but complementary policies and mechanisms governing the interrelationship of offshore wind and oil/gas developments including: the National Policy Statements (NPSs); the oil and gas clause in The Crown Estate's Agreements for Lease and Leases; the Ministerial Statement to Parliament given on 12 July 2012 (the Ministerial Statement); and the Department of Energy and Climate Change's published guidance on Oil and Gas Clauses in Crown Estate leases (June 2014) (the DECC Guidance).

E.ON E&P's Interests

4.14 As further expanded upon at Appendix J of the Applicant's response to Deadline V, the Applicant considers that E.ON E&P's activities or proposals, which have the theoretical potential to overlap with the Project, can be divided into three categories:

- Category One: Existing activities and the reasonably foreseen future activities within Block 48/3, which were known at the time of the ES submission (January 2015);
- Category Two: The proposed future activities within Block 48/3 associated with the known prospects Newton, Joly, Dodgson and Newton Deep, as presented in E.ON E&P's Written Representation (July 2015); and
- Category Three: Unknown future activities associated with unknown prospects in Block 48/3, as presented in E.ON E&P's Written Representation (July 2015).

Interaction of Hornsea Project Two and E.ON E&P's interests

Category One Interests

4.15 These interests have been assessed in Volume 2, Chapter 11: Infrastructure and Other Users of the ES (Doc ref No 7.2.11) (see paragraph 11.6.91, 11.6.103, 11.6.202 and 11.6.213).

4.16 Certain criticisms were raised by E.ON at the hearings in respect of the assessment undertaken in the ES. The Applicant's response to these points is included at Appendix K of the response to Deadline V. In summary the Environmental Impact Assessment concludes that with the mitigation measures proposed there are no likely residual significant effects on E.ON E&P's Category One interests.

Category Two Interests

4.17 In the event that E.ON E&P obtain the remaining consents they require to develop their "Category Two" prospects the Applicant considers that there is a potential requirement for some level of co-operation to achieve a workable co-existence. The level of co-operation and the degree of necessary interaction is very dependent on the way in which E.ON chooses to develop out their prospects. This is not known at present and the Applicant understands from E.ON E&P that this will not be known for a number of years.

4.18 It remains possible that there will be no physical or temporal overlap between the respective developments and no or limited interaction. It is also possible however that the development of these Category Two interests proceeds in a way which is inconsistent with the Applicant's existing rights under their Agreement for Lease with the Crown Estate and which requires the determination of a part of that Agreement for Lease or Lease. The degree of interaction and precise methods of co-existence can only therefore be defined as and when E.ON E&P have completed their technical appraisals and obtained all of the consents required for the development of the Category Two prospects they have chosen to proceed with (which may or may not have entailed the determination of part of the Applicant's Agreement for Lease or Lease).

4.19 Whilst E.ON E&P do not yet have all of the consents in place that they will require to develop out these Category Two prospects the Applicant considers that the possibility they may do so in the future is sufficiently foreseeable so as to give these prospects some relevance in this Development Consent Order application process (See the National Policy Statement for Renewable Energy Infrastructure (EN-3) paragraphs 2.6.182 to 2.6.188). However, given the degree of uncertainty in relation to these Category Two interests (e.g. the outcome of technical appraisals) and given the other processes which E.ON still have to go through prior to being in a position to exploit these interests (e.g. obtaining other necessary consents), this relevance should not be overstated and the existence of uncertainty should be taken into account when deciding the amount of weight to give to any relevant remaining objections.

Category Three Interests

4.20 The Applicant considers that the prospect of the development of other areas of Licence Block 48/3 (Category Three) are so speculative that they cannot be scoped sufficiently to allow an

assessment of impact and cannot in the Applicant's submission carry any weight in this DCO decision making process.

E.ON E&P's Future Consent Applications

4.21 In the event that E.ON E&P wish to develop out Licence Block 48/3 in a way which is inconsistent with the Applicant's existing rights (under its Agreement for Lease with the Crown Estate) then, in lieu of a bi-lateral commercial agreement, E.ON E&P can seek to engage the oil and gas clause referred to above as part of the process to obtain the consents they require for their development. That involves E.ON E&P making an application to the Secretary of State (SoS) requesting that the SoS makes a request to The Crown Estate for a determination of all or part of the Project's Agreement for Lease (or Lease).

4.22 In deciding whether to make such a request and sanction a determination, the SoS will take a number of factors into account. As listed at paragraph 13 of the DECC Guidance these factors include:

- The UK's legally binding 2020 renewable energy target;
- Any relevant longer term decarbonisation goals or targets;
- Maximising the economic recovery of the United Kingdom Continental Shelf's indigenous oil and gas resources;
- The Government's energy policies;
- The Government's wider objectives;
- Consumer bills;
- Third parties;
- The Crown Estate;
- Investor confidence; and
- The offshore renewable supply chain.

4.23 If the SoS finds that the determination request is so justified, the Ministerial Statement confirms that, the SoS will not consent to oil and gas works if parties are not able to reach a deal on compensation payable to the offshore wind interest. The DECC guidance was finally issued in 2014 confirming that if parties cannot agree on compensation, the oil and gas developer may apply to the Secretary of State for the appointment of an independent valuer. Crucially, the Ministerial Statement confirms:

"For clarity, I reiterate that in the absence of either a commercial agreement between the parties, or of the provision of independently assessed compensation for the renewables leaseholder, I would not be prepared to request the determination in whole or in part of any renewables lease or agreement for lease, or to grant consent to the proposed oil and gas development. The lease holder would remain free to take forward his project as previously envisaged."

4.24 The Ministerial Statement also confirms that licence applicants for oil and gas licences:

"will have access to up to date information on consented development, and on areas leased or zoned for other types of development, so that their acceptance of any licence can be based on an up-to-date understanding of potentially conflicting development intentions in the area in question."

4.25 That was certainly the case when E.ON accepted the licence for Licence Block 48/3.

4.26 The Ministerial Statement recognises that the award of a licence in itself is not inconsistent with the rights of offshore wind interests and the payment of compensation, as other consents for the oil and gas interests are necessary:

"I should add that I do not see these issues as impacting on the granting of oil and gas licences, as these do not convey any consent for development."

4.27 E.ON made submissions at the Hearing to the effect that the safeguards in place on the operation of the oil and gas clause via the Ministerial Statement would lead to an "unfair" result. The Applicant disagrees with this contention and submits that it cannot be fair and cannot reflect the intention of Government policy to utilise this development consent order

process to subvert other policy safeguards which are in place and which were always intended to sit alongside and independently from the Nationally Significant Infrastructure Project consenting process. The suite of policy documents in this area is intended to operate together to achieve the balance which the Government considers appropriate.

The Pragmatic Solution in this DCO Application Process

4.28 Whilst both the Applicant and E.ON have sought to pursue a commercial agreement which could regulate interactions and co-existence within the different regimes set out above, completion of such an agreement has not yet proven possible at this time. The Applicant has therefore taken the pragmatic approach of offering protective provisions which secure protection for E.ON E&P's development of its Category Two interests (as and when they receive the consents needed to do so) and also includes protection for the existing Babbage platform (which is included for completeness although no significant impact or interaction was predicted by the Applicant's assessment). These draft protective provisions were sent to E.ON E&P on 5 November 2015 and comments are awaited. In the event that commercial agreement is not reached in the near future, the Applicant will submit a copy of those draft protective provisions into the Examination.

4.29 The Applicant considers that the protective provisions offer secure co-existence in so far as the exercise of powers under any consented Hornsea Project Two DCO is concerned, fully protecting E.ON E&P's known proposals, but also preserving the integrity of the other consenting and policy processes.

4.30 In short the Applicant's position is that this offshore wind proposal was well known to E.ON E&P at the time of their application for Licence Block 48/3; secondly, the weight to be given to any interaction with E.ON E&P proposals should be based on how much is known about the activity. In so far as we know what E.ON E&P is doing a consideration as to co-existence has been given and, where appropriate, protective provisions offered to E.ON E&P (should it not be possible to reach commercial agreement within the Examination timetable). There is no need to fail to approve this DCO on the basis of E.ON E&P's existing or future proposals as there are appropriate controls available both under the protective provisions proposed and the other mechanisms described above.

Other examples of interactions between Offshore Wind Farms and Oil & Gas Operators

4.31 In addition, the Applicant notes the Ex. A queried whether there were any examples under the NSIP/DCO regime of interactions between Offshore Wind Farm and Oil & Gas operators. The Applicant observes that there are such. For instance, in the Dogger Bank Creyke Beck application, the Applicant understands representations were received on the interface of that proposed offshore wind farm with the Parkmead Group and Bridge Energy. Similarly, DONG Energy also have experience of co-existing with an oil and gas developer in the area of its Walney Extension offshore wind farm. In both of these examples, the Applicant notes that co-existence arrangements were dealt with outside of the Development Consent Order process (and in the case of Dogger Bank, post consent of the DCO).

Compulsory Acquisition

4.32 Finally, as E.ON E&P were not able to attend the subsequent Compulsory Acquisition Hearing, questions relating to the parties respective responses to question CA28 of Deadline IV were briefly considered.

4.33 The Applicant noted E.ON E&P UK Ltd's (E.ON E&P) response to this question which stated that on the provision that the Applicant is not proposing to compulsorily acquire E.ON E&P's interests then s127 would not apply. The Applicant confirmed that it was not proposing to compulsory acquire E.ON E&P's interest at the Hearing.

4.34 The Applicant has sought to provide further comfort on this matter by removing reference to plots CL1 and CL2 from Part 4 of the Book of Reference. This proposed amendment will be

reflected in the final version of the Book of Reference to be submitted at Deadline VII on 10 December 2015, as well as updates to the Offshore – Crown Plans to reflect the same. The Applicant considers this removes any residual ambiguity on the matter and has no further comment to make at this stage.

5.	Socio-economics

5.1 The Applicant provided an initial update on a number of key areas that were previously discussed at the first Issue Specific Hearing on 15th September 2015, specifically that:

- The Applicant is likely to establish an operations and maintenance base in the vicinity of the Project area. This means that for the operation and maintenance phase of the Project, the Applicant is able to commit to a medium scenario, as described in paragraphs 11.6.55 to 11.6.59 of Volume 3, Chapter 11: Socio-economics of the ES (Doc ref No 7.3.11).
- The Applicant can draw upon its extensive experience on several offshore wind projects that are already operational. For example, the Westermost Rough Offshore Wind Farm, which has an operation and maintenance base in Grimsby. Operation and maintenance activity at this base employs 22 people, 20 of which are locally based. The Applicant intends to adopt a similar local employment approach for the Project and aspires to match or exceed the local employment figure at Westermost Rough Offshore Wind Farm operation and maintenance base for the Project operation and maintenance base.
- The Applicant has been working on an outline Employment and Skills Plan, incorporating the commitments made in paragraphs 4.1.1 and 4.1.2 above. This is appended at Appendix T of Applicant's response to Deadline V. The Outline Employment and Skills plan includes commitments such as advertising locally vacancies in relation to the Project operation and maintenance area, holding local supply chain events to encourage principal contractor involvement and interfacing them with the local procurement and support opportunities (often supported and endorsed by local LEPs), and engaging further with local colleges and higher education establishments.
- Additionally, the Applicant highlighted its commitment to the local area and confirmed that a report has been commissioned to focus on past and potential future benefits that DONG Energy has brought to the Humber region as a result of the continued growth and development of the offshore wind farm industry in the region. This report was completed as an aside to the Application currently being examined, but underlines DONG Energy's long term commitment to the local area. The report has been commissioned to showcase the numerous benefits of offshore wind to the Humber area for local MPs, members of government and other interested stakeholders. The report focusses on the positive impacts that projects which have been developed/constructed/operated by DONG Energy have had on both the local and national economy, in addition to those immediately forthcoming. The report is to be presented at a Breakfast Meeting, hosted by Melanie Onn MP (MP for Greater Grimsby) during the Westminster Offshore Wind Week in the week commencing 16th November 2015. The Applicant notes that the intended content of this report should provide information to the Ex. A in assisting with greater clarity on the actual socio-economic impacts as a result of existing Projects in addition to predicted future benefits to the local economy, including as a result of Hornsea Project One and the Project. The Applicant has provided a copy of the report at Appendix Z of its response to Deadline V.
- The Applicant noted that there is an intention to explore the potential role for apprenticeships (during the operation and maintenance phase) as part of the development of the Employment and Skills Plan. In addition, the Applicant highlighted that in several of DONG Energy's past projects, principle contractors

have previously employed apprenticeships on contracts that DONG Energy has let and DONG Energy supports this approach.

- The requirement for particular activities aimed at disadvantaged groups will also be considered as part of the preparation of the Employment and Skills plan, which is presented in outline form at Appendix T of response to Deadline V. The Applicant would like to highlight to the Ex. A that it has already engaged with activities aimed at disadvantaged groups including working with Scunthorpe and Grimsby job centres, and presenting Job Centre staff with information and opportunities in the offshore wind sector. This naturally engages with residents who are disadvantaged in the labour market. The Applicant also confirmed that many of the organisations that DONG Energy is working with (including Humber University Technical College (UTC) and Hull College) have within their broader remit a commitment to work with disadvantaged groups.
- The Applicant recognises the potential benefits associated with provisions to monitor the scale and nature of local economic impacts. The Applicant is proposing to monitor the scale and type of local economic benefits secured through the construction and operation and maintenance of the Project. The outline Employment and Skills Plan (provided at Appendix T of the response to Deadline V) sets out the proposed approach to monitoring. The monitoring approach is expected to have two elements:

  (i) Use of DONG Energy's supply chain and employment records to capture direct employment and supply chain impacts; and

  (ii) Collection of additional supply chain and employment information from Tier 1 and Tier 2 supply chain companies to provide information on the geography of the first three tiers of the construction and operation and maintenance supply chain.

  This information could be used as the basis for a periodic analysis of the local economic impacts supported by the Project.

5.2 The Examining Authority asked if it was possible to provide further certainty in relation to the percentage of jobs under the medium impact scenario that would go to local people. The Applicant outlined the difficulty in doing this for both the construction and operation phases.

5.3 For the construction phase, the medium scenario estimates the likely employment impacts if local ports are used during construction. It assumes that there is a greater amount of local supply chain sourcing given:

- The range of close to port activities that would take place in the Local Impact Area (LIA) (these include activities such as storage of components, stevedoring, transport, charter of non-specialist vessels etc); and
- The proximity advantages that local suppliers will have for some of these activities.

5.4 Under the medium scenario, the Applicant estimates that construction activities taking place in the LIA will support in the region of 880 direct and indirect jobs. The activities that support this employment impact could be undertaken by a mixture of:

- Companies which are located outside the LIA and which base themselves locally (on a temporary basis) to fulfil the requirements of contracts they have secured. Here, the extent to which local employment opportunities arise depends on whether or not these companies need to draw upon local labour. This depends on various factors including the nature of the activities undertaken, the duration of on-site time required and the particular recruitment practices of firms;
- Companies which set up a more permanent base in the LIA to respond to opportunities. Local employment impacts are more likely to be associated with this group, although this clearly depends on the scale of the base; and
- Companies which have an existing base in the LIA. Employment opportunities here are more likely to be available to local people. But it is important to note that new employment opportunities will only be created if the revenue associated with

contracts support expansion. In some instances the revenue associated with contracts will support the existing workforce.

5.5 To respond to the question, it is necessary to make assumptions about:

- How supply chain expenditure is distributed between these three groups of companies; and
- The particular factors which influence outcomes for each of the groups.

5.6 The ex-post evidence base in respect of these two factors is weak and does not provide a strong basis to inform a quantitative assessment of what proportion of construction related employment could be taken up by residents of the LIA.

5.7 In light of these limitations in the evidence base, it is not possible to provide a quantitative assessment of the proportion of construction employment that could be taken up by local people. However, there are many reasons to be positive about the potential for local people should to access opportunities that arise in the LIA.

5.8 It is however, possible to bring more clarity in relation to local employment impacts which could occur during the operation and maintenance phase. Under the medium impact operation and maintenance scenario there is an operation and maintenance base located in the impact area. As the Applicant has now confirmed that it is likely that there will be a local operation and maintenance base in the LIA, the Applicant can now confirm that medium impact operation and maintenance scenario will arise, due to the greater certainty about the selection of an operation and maintenance port in the LIA.

5.9 Under the medium impact operation and maintenance scenario, the estimated employment impact in the LIA is 450 jobs. This is a mixture of staff directly employed at an operation and maintenance base, subcontractors working onsite and wider supply chain spend.

5.10 It is possible to provide a little more clarity in respect of the direct operation and maintenance employment. There is clearly uncertainty; however, as noted above, the Applicant can draw upon its extensive experience on offshore wind projects that are already operational. For example, the Westermost Rough Offshore Wind Farm, which has an operation and maintenance base in Grimsby, which employs 20 Full Time Equivalent (FTEs) on a permanent basis (all from within the local area). The number of FTEs fluctuates in line with operational requirements and during busy operation and maintenance periods can support employment for in the region of 100 FTEs. As also noted above, the Applicant aspires to match or exceed the local employment figure at the Westermost Rough Offshore Wind Farm operation and maintenance base for the Project and aims to ensure that all direct operation and maintenance employees are based within, and ideally recruited from, the LIA.

5.11 The Applicant is proposing a variety of measures to support this aspiration. The development of a structured Employment and Skills Plan to guide how the Applicant will work with the Humber Local Enterprise Partnership (LEP) and other relevant agencies will be central to achieving this aspiration.

5.12 The Ex. A also asked the Applicant to confirm whether it was possible to narrow the range of scenarios for the construction phase in the way that had been done for the operation and maintenance phase. The Applicant confirmed that it is not possible to narrow the range of scenarios for the construction phase given the uncertainty that still exists over the selection of ports for construction and the impact that this is likely to have on the geography of the construction supply chain.

5.13 The Ex. A asked about the potential role of the development in providing information to inform local stakeholders (including businesses and training and skills providers) about the skills and supply chain demands likely to be associated with the development. The Applicant confirmed that the Employment and Skills plan, included at Appendix T of the response to Deadline V, sets out further detail on how the Applicant is proposing to work with stakeholders to provide demand signals and wider information to assist with planning.

5.14 The Outline Employment and Skills plan sets out the approach in respect of:

- How the applicant proposes to work with the Humber LEP and other stakeholders to maximise local economic impact;

- The nature of information on employment and supply chain opportunities that the Applicant will provide, and to which audiences; and
- Details of how employment and supply chain opportunities will be advertised during the construction, and operation and maintenance phases of the Project.

6.	Landscape and Heritage

6.1 To receive any further submissions from the Applicant and the local authorities in respect of disagreements over the need for and timing of further archaeological trial trenching in the light of the response to Questions LH15 and LH16 of the ExA's second round written questions

6.1 The Applicant noted that a great deal of survey work had been undertaken to inform the baseline characterisation of Volume 3, Chapter 6: Historic Environment of the ES (Doc ref No 7.3.6), as illustrated in Appendix S of the Applicant's response to Deadline IV.

6.2 The Ex. A queried why the survey work was not completed and why it cannot be completed at this stage.

6.3 The Applicant noted that its position remains unchanged from that stated at the first Issue Specific Hearing (on 15th September 2015) and detailed in the Applicant's response to Deadline III and Deadline IV.

6.4 The Applicant stated that a significant amount of survey work has been undertaken to inform the baseline characterisation of the Project. The Applicant noted that the scope of work undertaken is greater than that undertaken to inform the determination of similar planning/DCO applications (a summary of which is provided in Table 1 below). In addition, significant controls to safeguard heritage are included in the draft DCO, specifically Requirement 6 of the draft DCO which requires no part of the authorised development, landward of Mean Low Water Spring (MLWS), is to commence until a written scheme for the investigation of areas of archaeological interest has been submitted to and approved the local planning authority. The scheme for the investigation of archaeology will identify areas where field work and/or a watching brief are required, and the measures to be taken to protect, record or preserve any significant archaeological remains that may be found.

Table 1: Review of the extent of baseline characterisation of the historic environment in other Project Environmental Statements.

Project Description	Historic Environment Assessment
Burbo Bank Extension	
The underground onshore cable route will continue southwards for approximately 12 km of buried cable largely running through arable land, crossing Network Rail property, several roads and the River Clwyd to site of the new onshore substation site (Chapter 6: Project Description, paragraph 6.27 (DONG Energy, 2013)).	The cable route was assessed through desk assessment and geophysical survey (Chapter 29: Onshore Archaeology and Cultural Heritage, Table 29.3 (DONG Energy, 2013)). The geophysical survey report (Annex 29: Onshore Archaeology and Cultural Heritage Annexes (DONG Energy, 2013)) indicates that large parts of the cable route corridor were not surveyed and are marked as 'inaccessible'. These areas are generally arable or pasture land and would almost certainly be suitable for geophysical survey for part of the year. The Applicant notes that the project was consented in September 2014.
East Anglia One Offshore Wind Farm	

Project Description	Historic Environment Assessment
The route for the onshore cables is approximately 37 km long (Chapter 4: Description of Development (Vattenfall, 2012))).	The assessment was based upon desk-based research (Volume 5, Appendix 25.1) and field reconnaissance survey (Volume 5, Appendix 25.2), and aerial photograph survey (Volume 5, Appendix 25.4) (Vattenfall, 2012). The Applicant notes that the project was consented in June 2014.
Hornsea Project One Offshore Wind Farm	
The route for the onshore cables covers a distance of approximately 40 km (Chapter 3: Project Description (SMart Wind, 2013).	No trial trenching was completed to the north of Chase Hill Road. The Applicant notes that the project was consented in December 2014.

6.5 The Applicant confirmed that the survey work was not completed for two reasons:

- Firstly, the archaeology of the Project area was fully and adequately characterised and therefore the baseline was fully understood; and
- Secondly, access to undertake the remaining field work was very difficult (due to landowner issues related to ongoing agricultural practices within those fields). The Applicant noted that it took a very long time to undertake the trial trenching and it was becoming disproportionally difficult to undertake further work.

6.6 The Ex. A queried whether there is any evidence that a nationally important site might be identified during further excavation in the Project area.

6.7 The Applicant noted that as a great deal of archaeological survey and assessment has been undertaken to characterise the onshore cable route corridor it was unlikely that there would be any survival of remains of national significance within those areas where the trial trenching did not occur,. The Applicant confirmed that no part of the route has escaped some level of characterisation. Notwithstanding the above, in the unlikely event that such remains are uncovered, the Applicant considers the mitigation already in place (pursuant to Requirement 6 of the draft DCO) is sufficient to protect and preserve such remains.

6.8 The total onshore project site covers 245 ha. That part of the Project area the survey effect in respect of which remains a matter not agreed with North Lincolnshire Council (NLC), as set out in the Local Impact Report (LIR), covers approximately 22 ha (the area to the east of Habrough road covers approximately 9 ha, while the area north of Chase Hill Road covers approximately 13 ha).

6.9 With respect to the area east of Habrough Road, the Applicant noted that archaeological works, including monitoring of large scale soil stripping in connection with the A160 improvements, found few archaeological remains in this area.

6.10 In addition, archaeological fieldwork, in the form of geophysical survey and trial trenching has been undertaken for other projects in the immediate vicinity:

- At the URSA Glass Wool Plant (Planning Application PA/2008/0988) (located to the northeast of the of the proposed Compensation Compound 27-C5 2, 3; Temporary Construction Compound 27-C1 2, 3 and the southwest edge of the Converter/Substation site (together the area in question); see Figure 5.3 of Volume 1, Chapter 5: Environmental Impact Assessment Methodology of the ES (Doc ref No 7.1.5)), geophysical survey and trial trenching was undertaken both over the location of the main plant and along the access road. This field evaluation was located both to the west and north of the area in question. In the northwestern part of the main area of the URSA Glass Wool Plant, Iron Age ditches and gullies that

may form round houses and an enclosure were identified. In the northeastern corner of the main area of the URSA Glass Wool Plant, features associated with a 2nd-3rd century 'ladder' settlement, previously identified by geophysical survey and excavation were identified. Of the trenches excavated in connection with the URSA Glass Wool Plant closest to the area in question (i.e., within a maximum of approximately 250 m), Trenches 1, 2 and 49, located to the northeast and west of the area in question respectively, were blank, To the northwest and north of the area in question, Trench 50 contained a small posthole and a gully, Trench 51 contained a probable natural feature and Trench 52, located immediately west of the proposed compound contained a gully. The features found in Trenches 50 and 52 were undated (see Appendix AA of the Applicant's response to Deadline V for a copy of the URSA Trial Trench Plan for completeness). In addition, topographical survey was undertaken in three fields, one of which, Plot 133, is crossed by the Project onshore cable route corridor.

- At the Able Humber Ports Facility (see Appendix H of the Applicant's response to Deadline IIA), which at its closest lies immediately north of and adjacent to the area in question, a geophysical survey was undertaken. In the field immediately north of the area in question no archaeological features were revealed. In addition, a trench (Trench 1) was excavated some 350 m north of the area in question. This trench was blank.

6.11 Both of these developments were approved. On this basis it is considered that the archaeology in the area in question to the north of Chase Hill Road has been characterised, both through desk-based and field assessment for other projects and through the work undertaken by the Applicant to inform the Project baseline environment. Further trial trenching, is therefore not necessary to characterise the area. Trial trenching would merely determine the level of mitigation by fieldwork to follow.

6.12 It is noted that Table 6.22, Volume 3, Chapter 6 of the ES proposes trial trenching followed by further mitigation, as appropriate, in Plots 121, 127, 134 and 141, to the north of Chase Hill Road.

6.13 The Ex. A further queried whether any of the fieldwork undertaken for Hornsea Project One could be used to inform the baseline characterisation for the Project.

6.14 The Applicant noted that there is no need to rely upon any further work undertaken for Hornsea Project One, as the work completed to inform the baseline characterisation of the Project's onshore cable route corridor is sufficient and adequate to inform the baseline and to allow for an assessment of the potential effects of the proposed development on heritage assets.

6.15 Furthermore, the Applicant notes that no remains of particular significance have been revealed through the pre-construction fieldwork undertaken for Hornsea Project One.

6.2 To receive any further submissions from the Applicant, Historic England and the local authorities in respect of the worst case scenario visual impact of the proposed HVDC electrical transmission stations at Works 8A and 8B in the light of the responses to Questions LH17 and LH18 of the ExA's second round written questions.

6.16 The Ex. A asked whether consideration has been given to a different form of substation that would remove the need for a structure up to 40 m in height.

6.17 The Applicant confirmed that the scale of substation has been assessed within a realistic design envelope. Whilst it is possible that the Project's final substation design may lead to a smaller substation, this cannot be committed to at this stage and so the current design parameters must be retained to ensure that the Project can be delivered in due course.

6.18 The Ex. A queried whether additional planting, out with the order limits, to screen the visual impact from the Project substation on heritage assets, could be achieved through working with the Humber INCA.

6.19 In summary, the Applicant's position on this matter is that the baseline (described in Volume 6, Annex 6.6.8: Designated Assets Baseline of the ES (Doc ref No 7.3.6)) and the assessment (presented at paragraphs 6.6.145 to 6.6.156 and 6.6.168 to 6.6.175 in Volume 3, Chapter 6 of the ES), is robust. The overall effect of the Project on Thornton Abbey and Manor Farm moated site is assessed to be non-significant.

6.20 The landscape of the HVDC converter/HVAC substation is an industrial landscape. The landscape will remain industrial if the Project is consented and will not alter the significance of the assets in any way. The effect of the proposal on designated assets is predicted to be not significant in EIA terms.

6.21 On this basis, the Applicant considers that off-site planting is not justifiable. Further the Applicant noted that it will not be effective; if undertaken close to the proposed converter station it will not provide screening and if close to the designated assets it would tend to obscure their setting.

6.22 The Applicant has, on the basis of advice from NLC, discussed off site planting proposals with Humber INCA. While discussions were cordial no positive response was received, as the primary purpose of Humber INCA is to enhance the ecology of the area, rather than to provide heritage landscape improvements.

6.23 The Ex. A also asked whether any consideration has been given to the effect of the Able Logistics Park, which will be located between the Project HVDC converter/HVAC substation and the Manor Farm Moated Site and Thornton Abbey, and whether this would mitigate the visual impact of the Project HVDC converter/HVAC substation on heritage assets.

6.24 The Applicant confirmed that, while the presence of the Able Logistics Park had in no way been relied upon when reaching the conclusion for the impact assessment for the Project (see Section 6.6 of Volume 3, Chapter 6 of the ES), the cumulative effect of the Able Logistics Park, together with the Project, has been considered (see Section 6.7 of Volume 3, Chapter 6 of the ES). Should the Able Logistics Park development go ahead, then the Applicant considers that, in terms of the setting of Manor Farm Moated site and Thornton Abbey, the existing industrial landscape would be significantly extended.

To receive any further submissions from the Applicant and local authorities in respect of hedgerows in the light of the responses to Question LH20 of the ExA's second round written questions

6.25 The Ex. A requested whether there was any further update on matters relating to hedgerows.

6.26 The Applicant noted that the latest position with regards to use of the Hornsea Project One hedgerow surveys is included in the Applicant's response to the Ex. A's second written question LH20, submitted at Deadline IV (dated 20th October 2015).

6.27 The Applicant noted that the latest position with regards to a protocol on the relevant criteria for hedgerow removal and which hedgerows are to be removed is included in the Applicant's response to the Ex. A's first written question DC11, submitted at Deadline I (dated 15th July 2015), and as described by the Applicant at the first Issue Specific Hearing (Appendix I of the Applicant's response to Deadline III).

7.	Fishing, Navigation and Aviation

7.1 Update on SoCG between the Applicant and the fisheries organisations

7.1 The Ex. A requested an update regarding the position between the fisheries organisations and the Applicant.

7.2 Within the updated SoCG, submitted at Appendix V of the Applicant's response to Deadline IV (dated 20th October 2015), between the Applicant and NFFO, VisNed and HFIG, the Applicant noted that monitoring is now a matter not agreed. This matter is now contained within Section 4.8 of the SoCG. The Applicant confirmed that no other changes were made to

the SoCG, which was previously submitted to the Ex. A in the Applicant's response at Deadline I (Appendix QQ, dated 15th July 2015).

7.3 The Applicant's position on matters not agreed are set out within the SoCG (as presented in Section 4.8 of the SoCG), the detail of which is not repeated within this submission for the avoidance of repetition.

7.4 At the Hearing, the Ex. A sought further clarifications from the Applicant in relation to the following points:

- An explanation as to why the Applicant considers that fishing will continue within the array during construction (with specific regard to the types and number of vessels);
- An explanation from the Applicant as to why it thinks the NFFO and VisNed do not accept its position with regard to the adequacy of geophysical surveys to monitor and if necessary mitigate potential trawl hazards as oppose to using post completion trawl surveys;
- Whether a commitment to a Fisheries Liaison and Coexistence Plan had been made; and
- What fish monitoring had been committed to.

7.5 The Applicant has sought to provide further clarification on these points and has addressed each in turn below.

Continued fishing within the array during construction

7.6 Exclusion from the whole subzone during construction is not envisaged. Subzone 2 plus a 1km buffer will be subject to an advisory safety zone (but this will not prohibit fishing activity taking place within the zone). Formal safety zones (up to 500m around structures during their construction) may be sought within the Subzone 2 and these will exclude fishing activity. The detail of the advisory safety zone and formal safety zones is provided within paragraphs 3.2.215 to 3.2.224 of Volume 1, Chapter 3 Project Description of the ES (Doc ref No 7.1.3).

7.7 It is important to note that although (as detailed above) the Applicant does not anticipate fishing activity will be excluded in practice from Subzone 2 during construction (with the exception of the presence of any formal safety zones), for the purposes of carrying out the Environmental Impact Assessment the Applicant has assumed as a worst case scenario that no fishing will take place from the entirety of Subzone 2 throughout the six year offshore construction period (i.e., that fishing will not continue across Subzone 2 during the offshore construction phase).

7.8 The assessment concluded that the magnitude of impact would be negligible to low (paragraphs 6.6.20 to 6.6.31 of Volume 2, Chapter 6 of the ES), the sensitivities of the receptors are low (paragraph 6.6.34 of Volume 2, Chapter 6 of the ES) and the significance of effect would therefore be of minor adverse significance, which is not significant in EIA terms (paragraph 6.6.36 of Volume 2, Chapter 6 of the ES).

7.9 With regard to types of activity, as described in paragraph 6.6.11 of Volume 2, Chapter 6 of the ES, commercial fisheries impacts have been assessed on a fleet-by-fleet basis where a fleet is defined by gear type and nationality for vessels known to be operating within the area of development. For example, the UK potting fleet operating within Subzone 2 constitutes approximately five vessels, while the UK potting fleet operating across the offshore cable route corridor constitutes six vessels. It is the impact to this specific number of vessels that is assessed, rather than dispersing the impact across all potting vessels in this region (e.g., HFIG has 70 members in total).

7.10 With regard to numbers of vessels, the assessment has been undertaken based on approximately 121 vessels potentially operating across the regional study area and potentially fishing within Subzone 2 (based on 30 UK demersal otter trawls (that predominately target Nephrops outside and to the north of Subzone 2), 5 UK registered Dutch owned beam trawlers, 19 Dutch beam trawlers, 40 Danish demersal and semi-pelagic otter trawlers, 22 French otter trawlers and 5 UK potters). These numbers of vessels have been informed by consultation with the fishing industry.

7.11 In determining the sensitivity of these specific receptors, consideration was given to; annual fishing effort, value of the fishery and the operating range of vessels.

Trawl hazard monitoring and mitigation

7.12 As noted in Appendix I of the Applicant's response to Deadline III, pre and post-construction monitoring of the seabed within the Project is proposed on technical and safety grounds. This is likely to comprise swathe bathymetry and side scan sonar surveys, as set out in the draft DCO, Schedules H, I, J and K (deemed Marine Licences), Part 2, Conditions 15 and 17.

7.13 It is noted that industry standard sonar has a typical resolution of 200 mm and as such is expected to be able to determine the presence of any project related construction debris. In addition, these survey methodologies are non-intrusive and cover a wider area compared to the discrete area of seabed that would be covered by a trawl survey and are therefore the most effective while having the least environmental consequence. Any such debris detected will be removed where necessary and/or possible with the aim of minimising the likelihood of gear snagging, pursuant to Schedules H, I, J and K, Part 2, Condition 8 of the draft DCO.

7.14 Therefore, it is the Applicant's position that there are sufficient control measures in place to identify, and where appropriate, remove any risk to trawled gear. The Applicant does not consider that a post completion trawl survey would offer the level of certainty that a high resolution geophysical survey can achieve.

7.15 As provided for within Schedules H, I, J and K, Part 2, Conditions 15 and 17 of the draft DCO, the specific requirements for seabed monitoring will be developed and agreed with the MMO.

7.16 Notwithstanding paragraphs 2.14 and 2.15 above, there remains disagreement between the Applicant and NFFO, Visned and HFIG with regard to the need for a post installation trawl survey to verify a lack of significant snagging hazards.

Fisheries Liaison and Coexistence Plan

7.17 As noted in Appendix I of the Applicant's response to Deadline III, the Applicant notes that a Project Environmental Management and Monitoring Plan, pursuant to Schedules H and J, Condition 10(2)(c)(vii) and Schedules I and K, Condition 10(2)(c)(viii) of the draft DCO, will include details of the appointment and responsibilities of a Fisheries Liaison Officer (FLO).

7.18 If consent is granted, the FLO will develop a Fisheries Liaison Plan, which will include a coexistence plan, to ensure that the relevant fishing fleets are notified of planned and ongoing works throughout the pre-construction, construction, operational and decommissioning phases of the Project.

7.19 Furthermore, the Applicant notes that the MMO responded at Deadline III, confirming that "the MMO would be able to consult with any parties it sees fit, and should it require advice on such issues, it may choose to consult with the NFFO prior to discharge of these plans".

Monitoring

7.20 Appendix I of the Applicant's response to Deadline III, sets outs its position with regards to commercial fisheries monitoring.

7.21 The Applicant notes that the MMO confirmed during the hearings on 27th October 2015 that they are content with the monitoring that has been proposed.

7.2 Update on Action Plan between the Applicant and Conoco Phillips

7.22 The Applicant referred to its response to FNA26 at Deadline IV and noted that discussions between the parties are progressing and they are continuing to work together to progress a private commercial agreement. The Applicant has provided an agreed Position Statement with ConocoPhillips (U.K) Limited on the interface between the parties at Appendix FF of the response to Deadline V for the Ex. A's ease of reference.

7.3 Progress on Marine Traffic Validation

7.23 The Applicant referred to its response to FNA27 at Deadline IV. The Applicant confirmed that the marine traffic validation exercise had been completed and had confirmed that the traffic data used within Volume 5, Annex 5.7.1: Subzone 2 and Offshore Cable Route Navigational Risk Assessment (NRA) of the ES (Doc ref No 7.5.7.1) was still valid.

7.24 The Applicant confirms that it has discussed the outputs of this exercise with Trinity House and the MCA. The Applicant confirms that, in summary, the outcomes of the NRA and therefore, the ES remain valid.

8.	Ecology Offshore – Ornithology

8.1- Update on HRA matrices, including for a) Flamborough Head and Bempton Cliffs (FHBC) SPA; and b) for the Greater Wash dSPA

8.1 The Applicant confirmed that updated RIES matrices were provided in Appendix BB of the Applicant's response to Deadline IV. The Applicant confirmed that the updated RIES also includes a screening matrix for the possible Greater Wash SPA. The Applicant considers there is no potential for a likely significant effect (LSE) on the possible Greater Wash SPA, but awaits confirmation from Natural England.

8.2 The Applicant noted the RSPB's comments that they had not yet seen the data upon which the screening assessment had been based. It is the Applicant's understanding that this material has now been provided to the RSPB by Natural England.

8.3 The 'shadow' screening report for a potential Greater Wash SPA has identified that there is no indication of any Likely Significant Effect on the potential SPA (based on the information available at this early stage of the designation process). The Applicant understands that Natural England agrees with the outcome of the Screening Report subject to a definition of "Best Practice" with respect to the mitigation of disturbance effects on red-throated diver. The Applicant considers that best practice in this context includes measures successfully adopted at other offshore wind farms located in coastal areas where red-throated divers are known to aggregate, for example, vessel traffic management, to reduce disturbance of wintering aggregations of red-throated diver during the period October to March. Natural England and the Applicant are working towards agreement on the appropriate level of information to include in the screening assessment, bearing in mind the status of the site. An updated version of the HRA Screening Report will be submitted at Deadline VI, along with agreed positions.

8.4 As noted at the Hearing the Applicant and Natural England agree that this matter is only relevant in the event that the Greater Wash is formally classified as an SPA and that the Competent Authority determines that at that stage a review of existing consents is required. However, on the basis of the Screening Report the Ex. A can have confidence that should such a review be required there are no effects which are likely to be significant.

8.2 Clarification of final (?) position agreed between Natural England (NE) and the Applicant on the effects of Hornsea Project 2 on Special Protection Areas (SPA and 4 pSPA) populations of gannet, guillemot, razorbill and puffin, for the project alone and in combination

8.5 The Applicant has reached agreement with Natural England on the potential effects of the Project on the populations of gannet, guillemot and razorbill from the FFC pSPA and the puffin component of the seabird assemblage. In each case the conclusion is no adverse effect on integrity of the FH&BC SPA / FFC pSPA alone or in-combination.

8.3 Update on latest (final?) position agreed between NE and the Applicant on the effects of Hornsea Project 2 on the Special Protection Areas (SPA and pSPA) population of kittiwake, and assemblage features, with particular reference to recent areas of disagreement

8.6 Since the first ISH (September), the Applicant has undertaken additional analyses of the potential collision risk to kittiwake and submitted these to Natural England for comment. These analyses included:

- A review of the evidence underpinning the **apportioning** of adult kittiwakes observed at the Project site during the breeding season to the FH&BC SPA / FFC pSPA;
- Use of **Option 1** of the Band (2012) collision risk model, which in turn relies on the calculation of a proportion of kittiwakes flying at Potential Collision Height (PCH) and, therefore, a further review of the flight height distribution of kittiwakes recorded at the Project site was undertaken;
- A review of the information leading to the **definition of the "Breeding Season"** for kittiwake at FH&BC SPA / FFC pSPA;
- A review of the information leading to the choice of **appropriate avoidance rate** for use with Basic versions of the Band (2012) collision risk model for kittiwake;
- Further exploration of the applicability of the **extended version of the Band (2012) collision risk model** to kittiwake; and
- **A review of in-combination effects**, including the development of a new approach to the tiering of Hornsea Project 2 and other projects based on the confidence with which a connection with the FH&BC SPA / FFC pSPA can be assumed.

8.7 Since the 2nd ISH (October) the Applicant and Natural England have had further discussions and have reached agreement on the effects of the Project alone on the kittiwake population of the Flamborough and Filey Coast pSPA. Appendix CC of the Applicant's response to Deadline V provides an updated SoCG between the Applicant and Natural England, where it is agreed subject to the mitigation presented it can be concluded no adverse effect on the kittiwake feature of the Flamborough and Filey Coast pSPA (and the former designation Flamborough Head and Bempton Cliffs).

8.8 With regard to the in-combination collision effects on the kittiwake feature of the FFC pSPA, this matter is still under discussion with Natural England. Both parties will provide an update to their position and an updated SoCG at Deadline VI. However, it is the Applicant's position that in previous applications for offshore wind farms, Natural England have advised that impacts of this magnitude predicted by Natural England would be tolerable by the breeding kittiwake population of FH&BC SPA / FFC pSPA (500 adult birds) and would further refer to the Appendix EE of the Applicant's response to Deadline IV for the Applicant's more detailed submissions in this respect.

8.9 Finally, to clarify, the investigation of kittiwake flight heights at projects other than the Project as undertaken within Stage 2 of Appendix DD (submitted at Deadline IV), was designed to investigate the assertion made in the first ISH that the results were 'odd' or an outlier when compared with other data.

8.10 The review identified boat-based PCH data from 26 projects for which comparisons could be made (Table 1.5 of Appendix DD). Whilst no claim was made that the data gathered was exhaustive in including all kittiwake data that may be available from UK projects, it is considered that it provides a fully representative sample showing the variety of results that have been reported.

8.11 Appendix DD clearly demonstrates that the results for kittiwake at the Project are not unusual, with several data sets reporting similar or lower PCH values. The absence of data points as suggested by RSPB for higher PCH values does not dilute the conclusions in any way and indeed PCH values mentioned by RSPB do themselves fall outside of the confidence intervals reported in Johnston *et al.*, (2014).

8.12 Notwithstanding, the reiteration of the validity of the conclusions on this issue as presented in Appendix DD, it is worth highlighting that the projects considered absent from the analysis by RSPB, PCH values for East Anglia ONE were collected by aerial survey methods and therefore excluded. Comparative data within Table 1.5 of Appendix DD were obtained using boat-based survey methods (with the exception of Blyth Demonstration offshore wind farm

where aerial data were presented alongside PCH values calculated from boat-based and vantage point surveys). The Applicant is not aware of an available data set on kittiwake PCH from the yet to be submitted East Anglia THREE, although it is thought likely that any PCH values derived for this project will be again, derived from aerial surveys.

8.13 Finally, RSPB also list Seagreen Alpha and Bravo as being missing from the analysis. However, PCH values from surveys were not used within collision risk modelling for these projects. Generic data from Cook *et al.* (2011) was used instead and therefore any data from these projects were omitted.

8.4 Update on progress and extent of agreed positions, between RSPB and the Applicant, on the effects of Hornsea Project 2 on Special Protection Areas (SPA and pSPA) populations of gannet, kittiwake, guillemot, razorbill and puffin, for the project alone and in combination. RSPB differences from NE analysis and conclusions should also be clarified

8.14 To date the RSPB have only restated their position with regard to the effects of the Project on the populations of gannet, kittiwake, guillemot, razorbill or puffin.

8.15 The Applicant noted the RSPB's comments during the ISH that the kittiwake population at the SPA is in decline. The Applicant disagrees with the RSPB and Natural England on this matter, as stated in the Applicant's response to EOO16 at Deadline IV.

8.5 Views of Applicant, NE and RSPB on recent research study on potential impacts of offshore wind farms on gannet populations (Journal of Applied Ecology,2015, DOI: 1111/1365-2664.12529)

8.16 The Applicant notes that the Cleasby et al. (2015) paper published in the Journal of Applied Ecology is an interesting and useful contribution to the scientific literature relating to the prediction of collision risk at offshore wind farms. However, there are a number of issues that raise questions as to the validity of the claim that the predicted collision risk mortality for gannet using data that informs the paper is six to twelve times higher than that predicted using generic data.

8.17 The sample sizes used in the study for flight height estimation are extremely small. Across the study period, 16 birds were fitted with pressure loggers to enable the calculation of flight height. Of these 16 birds, only 11 entered the wind farm areas of interest in the paper. When this is contextualized in terms of the total population of gannets at Bass Rock (150,518 individuals in 2014) it is questionable as to whether a representative sample of birds at Bass Rock has been achieved. This level of sampling should also be considered in terms of the level of sampling undertaken for Hornsea Project Two and the sample sizes associated with the generic data (Johnston *et al,* 2014). Flight height data for Hornsea Project Two was recorded for a total of 17,150 gannet during surveys of Project Two and the Hornsea Zone of which 1,268 records were used to calculate the proportion of birds at collision height (PCH) value and flight height distribution used to inform Options 1 and 4 of Band (2012), respectively. For the generic data (Johnston *et al.,* 2014), 44,851 records were used to calculate flight height distributions. It is also worth noting that the sample size in Cleasby *et al.* (2015) is considerably lower than the sample size recommended by Natural England in previous offshore wind farm applications (100 birds) to calculate a PCH value from site-specific data. The limited sample size also has implications for the calculation of bird density which alongside, flight height distribution, is an important component of collision risk modelling.

8.18 Data collection was undertaken between mid-June and mid-August in three successive breeding seasons, representing the chick-rearing period for gannets. The results obtained in the paper are then extrapolated out across the entire breeding season for gannet (April to September). The foraging behaviour of gannets is known to change across the breeding season with this demonstrated by at sea population estimates presented in the Offshore Ornithology Technical Report (Doc Ref 7.2.2.5) for the Project. Based on at sea surveys, the density of gannet is highest during the mid-summer period and therefore the extrapolation of data collected between mid-June to mid-August to the remainder of the breeding season may result in an overestimate of resulting collision risk. This is acknowledged in the discussion section of Cleasby *et al.* (2015).

8.19 Differences in foraging behaviour and therefore flight height may exist between different age classes and male and female birds. Cleasby *et al.* (2015) acknowledges that this may result in asymmetry in male-female collision risk. Cleasby *et al.* (2015) also indicates that there was significant variation in the flight heights of individual birds which may lead to considerable differences in the collision risk for individual birds. Taking into account the restricted sample size that underpins the assertions made in the paper (n=16 of which only 11 interacted with the proposed wind farm areas) such variation between individual birds suggests that a much larger sample size is required before such assertions are made. Cleasby *et al.* (2015) does highlight this limitation of the approach used: *"Further data are needed on all these factors in order to make a full assessment of the collision risks posed to gannets…".*

8.20 A further factor that introduces uncertainty associated with the conclusions drawn in the paper is the influence of independence within the data. The data collected represent repeated samples over time from a small sample of birds. These data are therefore likely to be temporally correlated, a factor which does not appear to have been taken into account within the paper. Such repeated samples may result in the conclusion of significant results where no such significance exists.

8.21 The collision risk window used to determine those flights at risk of collision does not appear to be consistent with that for the two wind farm projects considered in the paper. This is important as in order to conclude that collision risk estimates at the wind farm sites may be six to twelve times higher than previously predicted, comparisons should be made using equivalent parameters. Further to this the density data used by Cleasby *et al.* (2015) to represent the collision risk estimates obtained by previous assessments are not equivalent to those used for the two wind farm sites of interest in the paper. The paper represents a relative comparison and not an actual comparison which would incorporate identical data. It does not appear possible to replicate the collision risk estimates presented in the paper. This does not indicate that the estimates in the paper are incorrect but does highlight that important information required for the calculation of collision risk estimates is absent and that there is an associated lack of clarity throughout the paper.

8.22 The paper indicates that the density of gannet is lower in offshore areas. This has implications for projects such as Hornsea Project Two which is much further offshore than the two wind farms considered in the paper. It is therefore possible that the assertion that collision risk estimates are likely to be six to twelve times higher than predicted would not hold true for a project located much further offshore, regardless of any possible under estimation of flight height distribution.

8.23 In conclusion the Applicant believes that the paper suffers from an over extension of the proposed scope and a lack of clarity, with the focus primarily on tracking birds followed by rather broad assumptions leading to a calculation of collision risk and resulting conclusions for offshore wind farms. The paper attempts to provide a large amount of information including validation of the technologies and methodologies employed, a comparison of flight heights under different behavioural conditions, flight height distributions and calculation of collision risk estimates using the dataset obtained. Unfortunately, due to the number of elements that the authors have attempted to include, the level of detail in the paper is limited. The uncertainties highlighted here also raise questions as to the validity of applying the conclusions drawn in the paper to the assessments made at any offshore wind farm project.

8.6 Update on the positions reached in SoCG on the effects of Hornsea Project 2 on EIA species

8.24 The Applicant has clarified the assessment for EIA species in Appendix CC of their submission at Deadline IV. Following a meeting with Natural England on the 5th November it is the Applicant's understanding that Natural England are in the process of formulating their conclusions with regard to EIA species and will provide an update on their position at Deadline VI with an updated SoCG submitted in parallel.

8.7 Update on positions reached on migratory modelling

8.25 Since the ISH the Applicant and Natural England have reached agreement on the migratory modelling. It has been agreed the predicted collision impact on the migratory species listed in

Appendix V of the Applicant's response to Deadline V from the Project alone are of minor significance and therefore not significant in EIA terms, notwithstanding Natural England's preference to use alternative population figures (see the updated SoCG in Appendix CC of the Applicant's response to Deadline V).

8.8 Nature and inclusion in the DCO/Deemed Marine Licences (DMLs) of the details for the monitoring of offshore ornithological impacts.

8.26 The Applicant and Natural England have agreed that the Applicant's approach to ornithological monitoring as secured by Conditions 10(2)(k), 15(2)(b) and 17(2)(a) of DMLs A2 and B2 is appropriate and satisfactory. This agreement is detailed in paragraph 3.2.12 of the SoCG between the Applicant and Natural England, Appendix Y of the Applicant's submission at Deadline III. These Conditions require an ornithological monitoring plan (OMP) setting out the circumstances in which ornithological monitoring will be required and the monitoring to be carried out in such circumstances to be submitted to the MMO for approval in consultation with Natural England and for any ornithological monitoring required by the OMP pre and post construction to be carried out in accordance with the OMP is appropriate. It is necessary and appropriate to retain a degree of flexibility as to the detail of this plan so as to allow it to be targeted according to the final project design, final consent and industry knowledge/knowledge gaps at the time of approval (prior to construction). The Applicant has provided further detail on the potential approach to monitoring that will be considered at the appropriate juncture within the In Principle Monitoring Plan (submitted at Appendix EE to the response to Deadline V).

8.27 The Applicant concurs with the position as set out in the RSPB's response to the Examining Authority's second round of written questions and requests for information (October 2015) that sensible monitoring will:

- Be focused and make efficient use of limited resources, involving a tailored approach to address key issues and species, rather than generic monitoring across all receptors; and
- Ensure any change can be detected, through appropriate methodological design of surveys and analysis.

8.28 Strategic monitoring could play a role, where there are issues and questions that could benefit from a coordinated approach across multiple sites. This ideal may not always be easy to implement, however, particularly if projects are moving forward on different timescales.

8.29 At this stage, the key issues that could form the focus for monitoring at Hornsea Project 2 will be the potential impacts on species of concern in the context of HRA, being auks, gannet and kittiwake. There has been extensive monitoring of auks at offshore wind farms in the UK due to the ubiquity, particularly of guillemot and razorbill, in British waters and further monitoring of these species is less of a priority than understanding the collision risk to species such as gannet and kittiwake.

8.30 Collision risk is an issue only during the operational phase of the wind farm and, therefore, at this stage, construction monitoring of collision risk to key species, including gannet and kittiwake should not be considered to be the priority.

8.31 The Applicant's position is that specific monitoring, including any opportunities for strategically coordinated approaches, should be agreed with Natural England and the MMO. To ensure that monitoring is focussed and efficient, the objectives and methods should be agreed closer to the point of implementation. This will allow the findings from other monitoring programmes being undertaken (or considered) at other sites in the North Sea and in light of the results of strategic monitoring and research, most notably the ORJIP study on bird collision and avoidance which includes gannet and kittiwake as target species.

9.	Ecology Onshore and Inter-tidal

9.1 Update on inter-tidal issues related to:

the applicable tide height above chart datum (CD) at Grimsby and working tide height at the cable landfall area;

9.1 The Applicant has agreed with Natural England that disturbance can be minimised by reducing activities that occur within 500m of the seawall on high tides greater than 6.5m CD. The parties have agreed on the following wording:

The undertaker must not construct or install those licensable activities comprised in Work Nos. [4A/4B] and [5A/5B] in the intertidal area within 500 metres seaward of the seawall during the period of time commencing two hours before a high tide predicted to be greater than 6.5 metres Chart Datum and ending two hours after a high tide predicted to be greater than 6.5 metres Chart Datum between 1 April and 31 May (inclusive) and 1 August to 30 September (inclusive), unless provided for in the construction and monitoring programme submitted and approved under Condition 10(2)(a) or the construction method statement submitted and approved under Condition 10(2)(b) or unless otherwise agreed in writing by the MMO, in consultation with Natural England.

9.2 The Applicant would refer to Appendix T (SoCG with Natural England – Intertidal Matters) for confirmation on this point.

the length of the summer construction working window;

9.3 With regard to the construction window and the RSPB's previous comments that this should be reduced to June, July and August, this matter is still under discussion and the Applicant is working with the RSPB. It is the Applicant's position, however, that a further reduction to the construction working window is not required, and would refer to the Applicant's response to EL19 at Deadline IV for elaboration on this matter.

the tailpiece on Condition 20(3) of DML A2/B2, which allows winter working with the agreement from the MMO and NE;

9.4 The Applicant noted it had responded on this matter at EL17 of Deadline IV. In particular, the Applicant noted that Natural England confirmed during the ISH on the 15th of September that they are content with the current wording of Condition 20(3). The MMO also confirmed they are content with the current wording of Condition 20(3) in their respective submissions at Deadline III.

assessment of the effects on the intertidal zone from carrying out ducting over three years

9.5 The Applicant noted it had responded on this matter at EL18 of Deadline IV and it was confirmed that there were no remaining objections to this point.

9.2 Update on NE/Applicant position on the effects of Hornsea Project 2, (i) alone and (ii) in combination, on features of: a) the Humber Estuary SPA; b) the Humber Estuary Ramsar site; and c) the Humber Estuary SAC.

Humber Estuary SPA

9.6 The Applicant cross refers the Ex. A to the Intertidal SoCG with Natural England as submitted at Appendix Y to the Applicant's response to Deadline V.

Humber Estuary Ramsar site

9.7 The Applicant cross refers the Ex. A to the Intertidal SoCG with Natural England as submitted at Appendix Y to the Applicant's response to Deadline V.

Humber Estuary SAC

9.8 The Applicant and Natural England confirmed that the parties are in agreement that there is no potential adverse effect from the Project alone, or in-combination with other projects on the features of the Humber Estuary SAC.

10.	Ecology Offshore – Marine Mammals

10.1 The Applicant confirmed that to the Applicant's knowledge, formal consultation has not yet commenced on the possible designation of a SAC for harbour porpoise. The Applicant deferred to Natural England for an update as to the latest estimated timescales in that respect and they confirmed that formal consultation had yet to commence.

10.2 For the avoidance of doubt, the Applicant remains committed to working with Natural England once that material is released.