



Hornsea Project Four

Statement of Common Ground between Hornsea Project Four and Natural England: Other Offshore Matters

Deadline: 3, Date: 21 April 2022

Document Reference: G1.10

Revision: 02

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G1.10
Revision 02

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Revision History

Date	Revision	
11/02/2022	01	Initial draft for Natural England Review and submission at Deadline 1.
21/04/2022	02	Second draft for submission at Deadline 3.
	03	

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Glossary

Term	Definition
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Projects (NSIP).
Hornsea Project Four Offshore Wind Farm	The term covers all elements of the project (i.e. both the offshore and onshore). Hornsea Four infrastructure will include offshore generating stations (wind turbines), electrical export cables to landfall, and connection to the electricity transmission network. Hereafter referred to as Hornsea Four.
Orsted Hornsea Project Four Ltd	The Applicant for the proposed Hornsea Project Four Offshore Wind Farm Development Consent Order (DCO).

Acronyms

Acronym	Definition
CEA	Cumulative Effects Assessment
DMLs	Deemed Marine Licences
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
LSE	Likely Significant Effect
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
PEIR	Preliminary Environmental Information Report
PINS	The Planning Inspectorate
SNCB	Statutory Nature Conservation Body
SoCG	Statement of Common Ground

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1 Introduction

1.1 Reason for this document

1.1.1.1 This Statement of Common Ground (SoCG) has been prepared between Orsted Hornsea Project Four Limited ('the Applicant') and Natural England to set out the areas of agreement and disagreement between the two parties in relation to the Development Consent Order (DCO) application for the Hornsea Project Four offshore wind farm (hereafter referred to as 'Hornsea Four').

1.1.1.2 This SoCG covers other offshore matters which includes the topics of:

- Marine Geology, Oceanography and Physical Processes;
- Benthic and Intertidal Ecology;
- Fish and Shellfish Ecology;
- Marine Mammals;
- Seascape, Landscape and Visual Resources; and
- Other Plans and Documents.

1.1.1.3 This SoCG covers offshore matters only, which for the purposes of this document, are defined as matters below Mean High Water Springs (MHWS).

1.1.1.4 Due to the nature and complexities of offshore ornithology and the Derogations Case, separate SoCGs have been developed with Natural England to address these topics as set out in [Table 1](#) below.

Table 1: Summary of all SoCGs sought with Natural England.

SoCG's sought with Natural England	Document Reference
SoCG between Hornsea Project Four and Natural England: Offshore and Intertidal Ornithology	G1.9
SoCG between Hornsea Project Four and Natural England: Onshore Matters	Pending ref.
SoCG between Hornsea Project Four and Natural England: Derogation and Compensation	Pending ref.

1.1.1.5 The need for a SoCG between the Applicant and Natural England is set out within the Rule 6 letter issued by the Planning Inspectorate (PINS) on 24 January 2022.

1.1.1.6 Following detailed discussions undertaken through the Evidence Plan Process, the Applicant and Natural England have sought to progress a SoCG. It is the intention that this document will provide the PINS with a clear overview of the level of common ground between both parties. This document will facilitate further discussions between the Applicant and Natural England and the SoCG will be updated as discussions progress during the Hornsea Four examination process.

1.2 Approach to SoCG

1.2.1.1 The Applicant took the decision at an early stage to adopt a proportionate approach to Environmental Impact Assessment (EIA) for Hornsea Four which is detailed and integrated throughout the DCO application. The Impacts Register (see [Volume A4, Annex 5.1: Impacts](#)

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Register) is a key tool that details all potential impacts identified for Hornsea Four and sets the scope of the EIA at various stages of the project (Scoping, PEIR and DCO). In line with the Applicant's approach to proportionality, only Likely Significant Effects (LSE) were included within the individual topic assessments within the relevant chapters of the Environmental Statement (ES). This SoCG seeks to set out the agreements reached with Natural England on the proportionate approach to EIA in addition to other matters such as (but not limited to) the adequacy of baseline data collection, the assessment methodology and conclusions reached (**Section 3.7**).

1.2.1.2 The structure of this SoCG is as follows:

- **Section 1:** Introduction;
- **Section 2:** Consultation;
- **Section 3:** Agreement Logs; and
- **Section 4:** Summary.

1.3 Application elements under Natural England's remit

1.3.1.1 The elements of Hornsea Four which may affect the interests of Natural England are Work Numbers 1 to 10, covering both onshore and offshore works. These are detailed in Part 1 (Authorised Development) of Schedule 1 (Authorised Project) of the draft DCO (**Volume C1.1: Draft DCO**).

1.4 Overview of Hornsea Four

1.4.1.1 Hornsea Four is an offshore wind farm which will be located approximately 69 km offshore the East Riding of Yorkshire in the Southern North Sea and will be the fourth project to be developed in the former Hornsea Zone. Hornsea Four will include both offshore and onshore infrastructure and consists of:

- **Hornsea Four array area:** This is where the offshore wind generating station will be located which will include the turbines, array cables, offshore accommodation platforms and a range of offshore substations as well as offshore interconnector cables and export cables;
- **Hornsea Four offshore export cable corridor:** This is where the permanent offshore electrical infrastructure (offshore export cables, as well as the HVAC booster station (if required), will be located;
- **Hornsea Four intertidal area:** This is the area between MHWS and Mean Low Water Springs (MLWS) through which all of the offshore export cables will be installed;
- **Hornsea Four onshore export cable corridor:** This is where the permanent onshore electrical cable infrastructure will be located; and
- **Hornsea Four onshore substation including energy balancing infrastructure:** This is where the permanent onshore electrical substation infrastructure (onshore HVDC converter/HVAC substation, energy balancing infrastructure and connections to the National Grid) will be located.

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2 Consultation

2.1 Summary of consultation with Natural England

2.1.1.1 **Table 2** below summarises the consultation that the Applicant has undertaken with Natural England relevant to Other Offshore Matters during the pre-application phase.

Table 2: Summary of pre-application consultation with Natural England.

Date	Form of consultation	Statutory/Non Statutory	Summary
07/08/2018	Meeting	Non Statutory	Evidence Plan Steering Group Meeting 1 Introduction to the proposed project and project teams and summary, reflections, agreement and sign off on the Terms of Reference.
12/09/2018	Meeting	Non Statutory	Marine Processes & Ecology Evidence Plan Technical Panel Meeting 1 Meeting to introduce Hornsea Four, the consenting programme, evidence plan process and the proportionate approach to EIA. An overview of work undertaken to date was provided, including scoping and approach to baseline.
13/09/2018	Meeting	Non Statutory	Marine Mammals Evidence Plan Technical Panel Meeting 1 Introduction to the project. Introduction to the TP, the EP process and the proportionate approach to EIA; and Discussion on key position papers.
03/10/2018	Meeting	Non Statutory	Marine Mammals Evidence Plan Technical Panel Meeting 2 Introduction to the project. Introduction to the TP, the EP process and the proportionate approach to EIA; and Discussion on key position papers.
15/10/2018	Consultation	Statutory	Hornsea Four Scoping Report
26/11/2018	Consultation	Statutory	Scoping Opinion Consultation response on the Scoping Report from Natural England.
12/12/2018	Meeting	Non Statutory	Evidence Plan Steering Group Meeting 2 Update on the project development activities. Review of the Scoping Opinion responses and discussion on the next steps in relation to seeking agreement with key stakeholders on the data to be included in the PEIR and ES.
12/12/2018	Meeting	Non Statutory	Marine Processes & Ecology Evidence Plan Technical Panel Meeting 2 Meeting to provide Hornsea Four update, recap of the EIA scoping report and approach to EIA proportionality. Scoping opinions received were discussed, and necessary next steps, including survey and assessment work.
14/01/2019	Meeting	Non Statutory	Marine Mammals Evidence Plan Technical Panel Meeting 3 Project updates, review of responses received during the Scoping process. Discuss the next steps in relation to seeking agreement with stakeholders on the data and information to be included in the PEIR and ES.

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Date	Form of consultation	Statutory/Non Statutory	Summary
06/03/2019	Consultation	Non Statutory	Responses to Benthic and Intertidal Technical Note.
30/04/2019	Meeting	Non Statutory	Marine Processes & Ecology Evidence Plan Technical Panel Meeting 3 Meeting to provide Hornsea Four update since receipt of Scoping Opinion. Review of responses to both the Scoping Report and the HRA Screening Report, and the approach to the RIAA. Discussion on the next steps to seeking agreement in relation to data to be included in the PEIR and ES. Discussion on Biodiversity Net Gain.
30/04/2019	Meeting	Non Statutory	Marine Mammals Evidence Plan Technical Panel Meeting 4 Meeting to provide a Hornsea Four update and updates on ongoing baseline surveys. Section 42 comments received were discussed (including the provision of necessary further information or evidence, and /or the Applicant's proposed response). Consensus was sought on the proposed approach to ES (impacts to be covered in detail in the ES chapter) and what additional evidence or information is required. Comments on the Noise modelling methodology and RIAA.
25/06/2019	Meeting	Non Statutory	Evidence Plan Steering Group Meeting 3 Update on project information, local information events, onshore and offshore Technical Panels and non-Evidence Plan consultation.
26/06/2019	Meeting	Non Statutory	Marine Mammals Evidence Plan Technical Panel meeting 5 Project updates and discussion around the scope of the PEIR and ES. Review of the impacts register and discussion on next steps to seeking agreement with stakeholders on the data and information to be included in the PEIR and ES.
13/08/2019	Consultation	Statutory	Hornsea Four PEIR Published for statutory Section 42 consultation.
23/09/2019	Consultation response	Statutory	Natural England letter response to PEIR Providing comments on the PEIR.
06/11/2019	Meeting	Non Statutory	Evidence Plan Steering Group Meeting 4 Update on project information and overview of the programme to DCO application. Update to Terms of Reference to reflect Historic England joining Steering Group. Updates to the Impacts Register and Commitments Register. Discussion on the Draft DCO and DMLs.
06/11/2019	Meeting	Non Statutory	Marine Mammals Technical Panel Meeting 6 Data collection and description of the baseline environment and the inclusion of bottlenose dolphin in the baseline; impact assessment methodology in response to Section 42 comments regarding simultaneous piling, ramp-up hammer energy scenarios and Unexploded Ordnance (UXO); and the RIAA.
13/11/2019	Meeting	Non Statutory	Marine Processes & Ecology Evidence Plan Technical Panel Meeting 4 Meeting to provide a Hornsea Four update and updates on ongoing baseline surveys. Section 42 comments received were

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Date	Form of consultation	Statutory/Non Statutory	Summary
			discussed (including the provision of necessary further information or evidence, and /or the Applicant's proposed response). Consensus was sought on the proposed approach to ES (impacts to be covered in detail in the ES chapter) and what additional evidence or information is required. New commitments in relation to the Dogger Bank Creyke Beck cable crossing and Smithic Bank.
17/12/2019	Meeting	Non Statutory	Marine Mammals Technical Panel Meeting 7 Project and programme updates; and updates to the Impacts Register.
16/03/2020	Meeting	Non Statutory	Evidence Plan Steering Group Meeting 5 Review of draft ES documents by the relevant Technical Panels. Overview of planned seabed investigations. Project updates and updates to the Impacts Register, Commitments Register, Draft DCO and DMLs.
06/06/2020	Meeting	Non Statutory	Marine Mammals Technical Panel Meeting 8 Discussion on the draft ES documents provided for review prior to the meeting; Presentation of updated HRA screening for marine mammals; Discussion on the approach to the UXO assessment; and Presentation of grey seal information that will form part of the RIAA.
10/05/2021	Meeting	Non Statutory	Marine Mammals Technical Panel Meeting 9 Project updates including the reduction in the developable area and the change to the project programme; Discussion on the bottlenose dolphin Management Unit and assessment; presentation of approach to the cumulative assessment in relation to seismic surveys, disturbance impacts, simultaneous piling and a new form of result presentation; and updates required to the modelling as a result of the change to Order Limits.
21/10/2020	Meeting	Non Statutory	Evidence Plan Steering Group Meeting 6 Review of draft ES documents by the relevant Technical Panels. Project updates on change to Hornsea Four Order Limits. DCO application submission programme, SoCGs and Project Seabird and Derogation. Overview of Design Vision Statement and planned seabed investigations.
11/05/2021	Meeting	Non Statutory	Marine Ecology and Processes Technical Panel Meeting 5C – Fish and Shellfish Ecology Project updates including the reduction in the developable area. Discussion on key issues raised in the consultee comments (spawning timings for Banks herring and the conclusions of assessments); and updates required to the draft ES documents as a result of the change to Order Limits.
13/05/2021	Meeting	Non Statutory	Marine Ecology and Processes Technical Panel Meeting 5A – Marine Processes

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Date	Form of consultation	Statutory/Non Statutory	Summary
			Project updates including the reduction in the developable area and the change to the project programme. Review of consultee comments on the draft ES Chapter and Technical Report and the key issues identified; and updates required to the modelling as a result of the change to Order Limits.
13/05/2021	Meeting	Non Statutory	Marine Ecology and Processes Technical Panel Meeting 5B – Benthic and Intertidal Ecology Project updates including the reduction in the developable area and the change to the project programme. General agreements from consultee comments on the draft ES Chapter and Technical Report. Discussion on key issues raised in the consultee comments; and updates required to the draft ES documents as a result of the change to Order Limits.
29/07/2021	Meeting	Non Statutory	Evidence Plan Steering Group Meeting 7 Project updates on change to DCO application submission programme, SoCGs and non-statutory compensation consultation. Overview of geophysical and geotechnical investigations.
17/08/2021	Meeting	Non Statutory	Outline Marine Monitoring Plan Meeting To discuss consultee comments on the Outline Marine Monitoring Plan document provided for consultation to Natural England and the MMO in consultation with Cefas.

3 Agreement Logs

3.1 Overview

3.1.1.1 The following sections of this SoCG set out the level of agreement between the parties for each relevant component of the application (as identified in [paragraph 1.3.1.1](#)) seaward of MHWS.

3.1.1.2 In order to easily identify whether a matter is 'agreed', 'not agreed' or an 'ongoing point of discussion', the colour coding system set out in [Table 3](#) below is used within the 'position' column of the following sections of this document.

Table 3: Position Status Key.

Position Status	Position Colour Coding
Agreed The matter is considered to be agreed between the parties	Agreed
Not Agreed – no material impact The matter is not agreed between the parties, however the outcome of the approach taken by either the Applicant or Natural England is not considered to result in a material impact to the assessment conclusions.	Not Agreed – no material impact
Not Agreed – material impact	Not Agreed – material impact

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Position Status	Position Colour Coding
The matter is not agreed between the parties and the outcome of the approach taken by either the Applicant or Natural England is considered to result in a materially different impact to the assessment conclusions.	
Ongoing point of discussion The matter is neither 'agreed' nor 'not agreed' and is a matter where further discussion is required between the parties (e.g. where documents are yet to be shared with Natural England).	Ongoing point of discussion

3.2 Marine Geology, Oceanography and Physical Processes

Table 4: Agreement Log - Marine Geology, Oceanography and Physical Processes.

ID	Hornsea Four Position	Natural England Position	Position Summary
Environmental Impact Assessment			
NE-MPOFF-01	Existing and project-specific survey data is sufficient to inform the assessment.	The Marine Geology, Oceanography and Physical Processes chapter and technical report provide an extensive range of information and evidence. However, we consider there to be a number of gaps in the baseline characterisation and therefore, we do not consider the baseline characterisation to be complete at this stage.	Ongoing point of discussion
NE-MPOFF-02	The impact assessment methodologies used for the EIA provide an appropriate approach to assessing potential impacts of Hornsea Four.	<p>Natural England has outstanding concerns relating to the EIA assessment methodology</p> <p>Natural England does not agree that appropriate marine process receptors have been identified for assessment and considers that the "study areas" are too narrow in scope. Additional receptors to be considered;</p> <ul style="list-style-type: none"> • Holderness Inshore MCZ • Holderness Offshore MCZ • Flamborough and Filey Coast SPA • Flamborough SSSI • Humber Estuary SAC, SPA, SSSI and Ramsar • Greater Wash SPA • Southern North Sea SAC • Holderness Coast (high environmental Value) • Smithic bank (high environmental value) • Flamborough Front (high sensitivity) • The Hills • Outer silver pit (geological feature) 	Ongoing point of discussion
NE-MPOFF-03	The maximum design scenario (MDS) presented in the assessment is appropriate.	Natural England note that there are a number of instances whereby the MDS is based on conservative assumptions resulting in a larger project envelope rather than being underpinned and refined by survey data.	Ongoing point of discussion
NE-MPOFF-04	The Worst Case Scenario (WCS) of impact to this receptor which could occur within the parameters of the MDS has been assessed.	Natural England has highlighted a number of marine geology oceanography and physical process receptors that are missing from the assessments (see NE-	Ongoing point of discussion

ID	Hornsea Four Position	Natural England Position	Position Summary
		MPOFF – 02). Therefore, we do not agree that the worst-case scenario has been assessed in all cases.	
NE-MPOFF-05	The conclusions of the assessment of impacts for construction, operation and decommissioning are appropriate.	<p>Given our concerns relating to the identification of receptors, data gaps and incomplete assessments, we are unable to agree with the conclusions of the ES at this time.</p> <p>Furthermore, we would highlight that impacts on marine geology oceanography and physical process may give rise to impacts on intertidal and benthic ecology as well as species impacts. We may therefore need to revisit our comments on other ES chapters as additional data and assessment becomes available.</p>	Ongoing point of discussion
NE-MPOFF-06	The conclusions of the assessment of cumulative impacts are appropriate.	<p>We would advise that the Viking Link interconnector cable should be screened into the marine processes cumulative assessment.</p> <p>It should be noted that Eastern Green Link and the Northern Endurance Partnership should now be considered in Tier 2.</p> <p>Certain impacts assessed for the project alone are not considered in the cumulative assessment as they are assessed as ‘not significant’ on a project alone basis. Natural England believe these should be carried forward to the CEA or the Applicant needs to provide further detail to justify the exclusion of these potential cumulative impacts.</p> <p>It should also be noted that the CEA is likely to need to be updated pending updates to the ‘project alone’ assessments</p> <p>Further consideration needs to be given to the multiple projects all proposing cable crossings at Smithic Bank in terms of potential impacts to the form and function of the sandbank and in relation to nearshore sediment pathways.</p>	Ongoing point of discussion
NE-MPOFF-07	Given the impacts of the project, the proposed Commitments outlined in Volume A4, Annex 5.2: Commitments Register are appropriate.	<p>CO189 - Natural England notes and welcomes that the Dogger Bank cable crossing will be positioned east of Smithic Bank and seaward of the 20m depth contour. However, it still needs to be demonstrated that this location is sufficiently seaward as to avoid alterations to the local wave/current regime, sediment transport regime and morphology of the sandbank</p> <p>Natural England expect to request further commitments are made in the commitment register as we progress through examination</p>	Ongoing point of discussion

ID	Hornsea Four Position	Natural England Position	Position Summary
Draft DCO and Deemed Marine Licences			
<p>NE-MPOFF-08</p>	<p>The wording of the following requirements and conditions pertaining to marine geology, oceanography and physical processes are appropriate and adequate:</p> <ul style="list-style-type: none"> • Part 2 - Condition 13(1(c) of DCO Schedules 11 and 12 with reference to a Construction Method Statement; • Part 2 - Condition 13(1)(e) of DCO Schedules 11 and 12, Part 2 - Condition 13(1)(e) with reference to the development of a Scour Protection Management Plan; • Part 2 - Condition 13(1)(h) of DCO Schedules 11 and 12 with reference to a Cable Specification and Installation Plan; • Part 1(6) of DCO Schedules 11 and 12 with reference to a decommissioning plan; • Paragraph 2(a) of Part 1 of DCO Schedules 11 and 12 with reference to the maximum volumes of material to be disposed seaward of Mean High Water Springs (MHWS) within the Hornsea Four Order Limits. 	<p>Natural England expect to review and request additional amendments to the DCO as appropriate, as we move through examination.</p>	<p>Ongoing point of discussion</p>
Report to Inform Appropriate Assessment			
<p>NE-MPOFF-09</p>	<p>LSE Screening - The RIAA has identified all relevant features of the designated sites (in relation to marine processes) that may be sensitive to changes as a result of the proposed activities.</p>	<p>Based on the information currently available, we consider that Flamborough Head SAC should also be screened in for further assessment of changes to physical processes during construction and decommissioning and beyond the operational lifetime of the project, as well as for potential changes to the hydrodynamic regime (arising as a result of potential impacts to the Flamborough Front). Flamborough and Filey Coast SPA should also be screened in for the same impacts.</p> <p>We also consider that the Humber Estuary SAC/SPA/Ramsar should also be screened in for further assessment of changes to physical processes throughout all stages of the project, and that the Southern North Sea SAC</p>	<p>Ongoing point of discussion</p>

ID	Hornsea Four Position	Natural England Position	Position Summary
		should be screened in for changes to hydrodynamic regime (Flamborough Front) and sediment transport regime.	
NE-MPOFF-10	Outcomes of the RIAA - Conclusion of no AEoI at any sites is appropriate in relation to marine processes, either alone or in-combination as a result of the proposed activities.	As a result of Natural England's concerns relating to the LSE Screening and evidence gaps within the Environmental Statement, we are currently unable to exclude beyond reasonable scientific doubt the potential for impacts to Flamborough Head SAC, Flamborough and Filey Coast SPA, Humber Estuary SAC/SPA/Ramsar and Southern North Sea SAC. Additional measures to avoid/reduce/mitigate potential impacts may need to be explored.	Ongoing point of discussion
Marine Conservation Zone Assessment			
NE-MPOFF-10	Screening – The MCZ assessment has identified all relevant MCZs that may be sensitive to changes as a result of the proposed activities and the associated impacts.	In light of our comments on the ES chapter, we advise that potentially impacts to physical process attributes are also assessed for MCZs. For habitat features this includes: <ul style="list-style-type: none"> Supporting processes – energy exposure Supporting processes – sediment movement and hydrodynamic regime For the Spurn Head Geological feature of Holderness Inshore this includes: <ul style="list-style-type: none"> Extent of supporting geomorphological processes and associated sediments Sediment transport pathways and connectivity to wider environment Extent and distribution. 	Ongoing point of discussion
NE-MPOFF-11	Assessment Conclusion – Conclusion of no potential for significant impacts to Holderness Inshore MCZ and Holderness Offshore MCZ is appropriate.	As a result of Natural England's concerns relating to the screening of potential impact pathways, and the evidence gaps within the ES, we are currently unable to exclude beyond reasonable scientific doubt, the potential for significant impacts to Holderness Inshore MCZ and Holderness Offshore MCZ. Additional measures to avoid/reduce/mitigate potential impacts may need to be explored.	Ongoing point of discussion
Other Matters			
NE-MPOFF-12	Monitoring – Appropriate monitoring requirements have been identified and presented in F2.7: Outline Marine Monitoring Plan .	Natural England expect the project to require some additional monitoring commitments to be made to assess Marine Processes during construction and operation of Hornsea 4.	Ongoing point of discussion

3.3 Benthic and Intertidal Ecology

Table 5: Agreement Log – Benthic and Intertidal Ecology.

ID	Hornsea Four Position	Natural England Position	Position Summary
Environmental Impact Assessment			
NE-BEOFF-01	Existing and project-specific survey data is sufficient to inform the assessment.	Natural England are generally satisfied with the project specific baseline data collected including the method and consider the sampling frequency within the order area to be adequate.	Agreed
		It is unclear how the benthic environment as characterised within the benthic study area has been used to inform impacts outside the order limits where habitats may be different, therefore our confidence in this area of the assessment is lower. Clarification on this matter would be useful.	Not Agreed – No material impact
		Natural England wish to see additional raw data relating to the classification of Stony Reef to confirm it is in fact of 'low' reefiness. We also request a more precautionary approach is taken in any reef assessments conducted during pre-construction surveys.	Ongoing point of discussion
NE-BEOFF-02	The impact assessment methodologies used for the EIA provide an appropriate approach to assessing potential impacts of Hornsea Four.	Natural England has outstanding concerns relating to the EIA assessment methodology.	Ongoing point of discussion
NE-BEOFF-03	The maximum design scenario (MDS) presented in the assessment is appropriate.	Natural England note that there are a number of instances whereby the MDS is based on conservative assumptions resulting in a larger project envelope rather than being underpinned and refined by survey data. There is no MDS presented for the area which will be affected by disposal of spoil material. This should be provided so that the impacts can be fully assessed. Location of the HDD exit pits should be clarified and fully assessed.	Ongoing point of discussion
NE-BEOFF-04	The conclusions of the assessment of impacts for construction, operation and decommissioning are appropriate.	As NE have outstanding concerns relating to the assessment methodology, we cannot fully support all of the assessment conclusions.	Ongoing point of discussion
		The impact of drill arisings being deposited on the seabed should be fully assessed.	Ongoing point of discussion
		The impact of the disturbance of contaminated sediments should also be fully assessed.	Ongoing point of discussion
NE-BEOFF-05	The conclusions of the assessment of cumulative impacts are appropriate.	It should be noted that Eastern Green Link 2 and the Northern Endurance Partnership should now be considered in Tier 2.	Ongoing point of discussion

ID	Hornsea Four Position	Natural England Position	Position Summary
		<p>Certain impacts assessed for the project alone are not considered in the cumulative assessment, as they are assessed as 'not significant' on a project alone basis. Natural England believe these should be carried forward to the CEA or the Applicant needs to provide further detail to justify the exclusion of these potential cumulative impacts.</p>	Ongoing point of discussion
		<p>It should also be noted that the CEA may need to be updated following adjustments to the 'project alone' assessments.</p>	Ongoing point of discussion
NE-BEOFF-06	<p>Given the impacts of the project, the proposed Commitments outlined in Volume A4, Annex 5.2: Commitments Register are appropriate.</p>	<p>Natural England may request additional mitigation throughout the course of the examination in order to address some of our outstanding concerns. We also remain unclear as to the status of the Commitments Register and how this document links to the DCO/DML i.e. whether the inclusion of something on the commitments register negates the need for it to be incorporated as a separate condition. Further clarification on this point from Orsted and the regulators would be welcome.</p>	Ongoing point of discussion
Report to Inform Appropriate Assessment			
NE-BEOFF-07	<p>LSE Screening - The RIAA has identified all relevant features of the designated sites (in relation to benthic and intertidal ecology) that may be sensitive to changes as a result of the proposed activities.</p>	<p>There are a number of indirect impact pathways described in Appendix E of RR (Marine geology, oceanography and physical processes) of our response which require further consideration.</p>	Ongoing point of discussion
NE-BEOFF-08	<p>Outcomes of the RIAA - Conclusion of no AEoI at any sites is appropriate in relation to benthic and intertidal ecology, either alone or in-combination as a result of the proposed activities.</p>	<p>Natural England notes that there is no information provided in relation to the likely disposal locations within their order limits for the disposal of material removed during site preparation and installation works and would welcome clarification on this point to support the assumptions made within the assessment. Based on our comments in Appendix E of RR, we are unable to exclude the potential for impacts to a number of designated benthic sites.</p>	Ongoing point of discussion
MCZ Assessment			
NE-BEOFF-09	<p>Screening – In relation to benthic and intertidal ecology, the MCZ assessment has identified all relevant MCZs that may be sensitive to changes as a result of the</p>	<p>There are a number of indirect impact pathways described in Appendix E of RR of our response which require further consideration.</p>	Ongoing point of discussion

ID	Hornsea Four Position	Natural England Position	Position Summary
	proposed activities and the associated impacts.		
NE-BEOFF-10	Assessment Conclusion – In relation to benthic and intertidal ecology, the conclusion of no potential for significant impacts to Holderness Inshore MCZ and Holderness Offshore MCZ is appropriate.	Natural England notes that there is no information provided in relation to the likely disposal locations of material removed during site preparation and installation works and would welcome clarification on this point to support the assumptions made within the assessment. Based on our comments in Appendix E of RR, we are unable to exclude the potential for impacts to a number of designated sites. Please see Appendix E for further details.	As above
Draft DCO and Deemed Marine Licences			
NE-BEOFF-11	<p>The wording of the following requirements and conditions pertaining to benthic and intertidal ecology are appropriate and adequate:</p> <ul style="list-style-type: none"> • Part 2 - Condition 13(1)(a) of DCO Schedules 11 and 12 with reference to a Design Plan; • Part 2 - Condition 13(1)(c) of DCO Schedules 11 and 12 with reference to a Construction Method Statement; • Part 2 - Condition 13(1)(d) of DCO Schedules 11 and 12 with reference to a Construction Project Environmental Management and Monitoring Plan; • Part 2 - Condition 13(1)(e) of DCO Schedules 11 and 12, Part 2 - Condition 13(1)(e) with reference to the development of a Scour Protection Management Plan; • Part 2 - Condition 13(1)(h) of DCO Schedules 11 and 12 with reference to a Cable Specification and Installation Plan; and 	Natural England expect to review and request additional amendments to the DCO as necessary as we move through examination.	Ongoing point of discussion

ID	Hornsea Four Position	Natural England Position	Position Summary
	<ul style="list-style-type: none"> Part 1(6) of DCO Schedules 11 and 12 with reference to a decommissioning plan. 		
Other Matters			
NE-BEOFF-12	Monitoring – Appropriate monitoring requirements have been identified and presented in F2.7: Outline Marine Monitoring Plan .	Depending on the outcome of the ongoing discussions highlighted above, there may be a requirement for additional monitoring.	Ongoing point of discussion

3.4 Fish and Shellfish Ecology

Table 6: Agreement Log – Fish and Shellfish Ecology.

ID	Hornsea Four Position	Natural England Position	Position Summary
Environmental Impact Assessment			
NE-FSEOFF-01	Existing and project-specific survey data is sufficient to inform the assessment.	Natural England is broadly satisfied with data collected and baseline characterisation, although note that some of the data are old (overall 10 years) and would have liked the assessment to have been completed on up-to-date information. Overall, we would defer to Cefas regarding the suitability of data. Natural England agree with the identification of herring and sandeel as key species of concern that require species-specific assessments, owing to their close affiliation with seabed sediments within the project boundary.	Not Agreed – No material impact
NE-FSEOFF-02	The impact assessment methodologies used for the EIA provide an appropriate approach to assessing potential impacts of Hornsea Four.	Natural England has outstanding concerns relating to the EIA assessment methodology.	Ongoing point of discussion
NE-FSEOFF-03	The maximum design scenario (MDS) presented in the assessment is appropriate.	Natural England note that there are a number of instances whereby the MDS is based on conservative assumptions resulting in a larger project envelope rather than being underpinned and refined by survey data.	Ongoing point of discussion
NE-FSEOFF-04	The conclusions of the assessment of impacts for construction, operation and decommissioning are appropriate.	As NE have outstanding concerns relating to the assessment methodology, we cannot fully support all of the assessment conclusions.	Ongoing point of discussion
		The impact of habitat loss due to drill arising also needs to be assessed.	Ongoing point of discussion
		We have outstanding concerns around the predicted 'peak' Herring spawning season and the duration of the commitment to limit piling noise.	Ongoing point of discussion
		New evidence has been published on the impacts of EMF on Shellfish therefore NE now advise this is scoped in for assessment.	Ongoing point of discussion
NE-FSEOFF-05	The conclusions of the assessment of cumulative impacts are agreed.	It should be noted that Eastern Green Link and the Northern Endurance Partnership should now be considered in Tier 2. It should also be noted that CEA may require updating, pending the outcome of some of the updated 'project alone' assessments.	Ongoing point of discussion

ID	Hornsea Four Position	Natural England Position	Position Summary
		<p>Certain impacts assessed for the project alone are not considered in the cumulative assessment as they are assessed as 'negligible' on a project alone basis, or 'highly localised nature of impact'. Natural England believe these should be carried forward to the CEA or the Applicant needs to provide further detail to justify the exclusion of these potential cumulative impacts.</p>	Ongoing point of discussion
NE-FSEOFF-06	<p>Given the impacts of the project, the proposed Commitments outlined in Volume A4, Annex 5.2: Commitments Register are appropriate.</p>	<p>Natural England may request additional mitigation throughout the course of the examination in order to address some of our outstanding concerns. We also remain unclear as to the status of the Commitments Register and how this document links to the DCO/DML i.e. whether the inclusion of something on the commitments register negates the need for it to be incorporated as a separate condition. Further clarification on this point from Orsted and the regulators would be welcome.</p>	Ongoing point of discussion
Report to Inform Appropriate Assessment			
NE-FSEOFF-07	<p>LSE Screening - The RIAA has identified all relevant features of the designated sites (in relation to migratory fish) that may be sensitive to changes as a result of the proposed activities.</p>	<p>Natural England would have expected to see the migratory fish features of the Humber Estuary considered in the LSE assessment. Natural England still have concerns relating to the availability of prey items which will have consequences for protected features such as birds & marine mammals. Indirect affects assessments being submitted at a later deadline.</p>	Ongoing point of discussion
NE-FSEOFF-08	<p>Outcomes of the RIAA - Conclusion of no AEol at any sites is appropriate in relation to migratory fish, either alone or in-combination as a result of the proposed activities.</p>	<p>Natural England does not consider it possible to carry out a meaningful assessment of impacts to migrating lamprey as there are so many unknowns, however, given the distance from the associated designated sites to the project area we would anticipate the risk to thee features to be low.</p>	Not agreed – No material impact

ID	Hornsea Four Position	Natural England Position	Position Summary
Draft DCO and Deemed Marine Licences			
NE-FSEOFF-09	<p>The wording of the following requirements and conditions pertaining to fish and shellfish ecology are appropriate and adequate:</p> <ul style="list-style-type: none"> • Part 2 - Condition 13(1(a) of DCO Schedules 11 and 12 with reference to a Design Plan; • Part 2 - Condition 13(1(c) of DCO Schedules 11 and 12 with reference to a Construction Method Statement; • Part 2 - Condition 13(1(d) of DCO Schedules 11 and 12 with reference to a Construction Project Environmental Management and Monitoring Plan; • Part 2 - Condition 13(1(e) of DCO Schedules 11 and 12, Part 2 - Condition 13(1(e) with reference to the development of a Scour Protection Management Plan; • Part 2 - Condition 13(1(g) of DCO Schedules 11 and 12 with reference to a Marine Mammal Mitigation Protocol • Part 2 - Condition 13(1(h) of DCO Schedules 11 and 12 with reference to a Cable Specification and Installation Plan; and • Part 1(6) of DCO Schedules 11 and 12 with reference to a decommissioning plan. 	Natural England expect to review and request additional amendments to the DCO as necessary as we move through examination.	Ongoing point of discussion
NE-FSEOFF-10	<p>The wording of the following requirements and conditions pertaining to Fish and Shellfish Ecology are appropriate and adequate:</p> <ul style="list-style-type: none"> • Part 2 - Condition 18(2)(b) of DCO Schedules 11 and 12 with reference to construction noise monitoring is appropriate. 	Natural England expect to review and request additional amendments to the DCO as necessary as we move through examination.	Ongoing point of discussion
NE-FSEOFF-11	The wording of the following requirements and conditions pertaining to Fish and Shellfish Ecology are appropriate and adequate:	We have outstanding concerns around the predicted 'peak' Herring spawning season and the duration of the commitment to limit piling noise.	Ongoing point of discussion

ID	Hornsea Four Position	Natural England Position	Position Summary
	<ul style="list-style-type: none">Condition 23 of DCO Schedule 12 with reference to a piling restriction between 1st September and 16th October is appropriate.		
Other Matters			
NE-FSEOFF-12	Monitoring – Appropriate monitoring requirements have been identified and presented in F2.7: Outline Marine Monitoring Plan .		Ongoing point of discussion

3.5 Marine Mammals

Table 7: Agreement Log – Marine Mammals.

ID	Hornsea Four Position	Natural England Position	Position Summary
Environmental Impact Assessment			
NE-MMOFF-01	Existing and project-specific survey data is sufficient to inform the assessment.	We consider the data collected, when used in conjunction with other available data, is sufficient. We welcome the inclusion of the latest publications.	Agreed
NE-MMOFF-02	The impact assessment methodologies used for the EIA provide an appropriate approach to assessing potential impacts of Hornsea Four.	Natural England has outstanding concerns relating to the EIA assessment methodology.	Ongoing point of discussion
NE-MMOFF-03	The maximum design scenario (MDS) presented in the assessment is appropriate.	Natural England note that there are a number of instances whereby the MDS is based on conservative assumptions resulting in a larger project envelope rather than being underpinned and refined by survey data.	Ongoing point of discussion
NE-MMOFF-04	The Worst Case Scenario (WCS) of impact to this receptor which could occur within the parameters of the MDS has been assessed.	Natural England agrees that the WCS has been assessed.	Agreed
NE-MMOFF-05	The conclusions of the assessment of impacts for construction, operation and decommissioning are agreed.	Natural England broadly agrees with the assessment outcomes.	Agreed
NE-MMOFF-06	The conclusions of the assessment of cumulative impacts are agreed.	The list of projects screened into the CEA seems appropriate, however this should be reviewed before the agreed cut-off date. It should be noted that Eastern Green Link and the Northern Endurance Partnership should now be considered in Tier 2. The Applicant has not provided sufficient justification to scope out vessel collision risk and vessel disturbance for specific marine mammals. Further justification should be provided and/or the pathways screened in.	Ongoing point of discussion
NE-MMOFF-07	Given the impacts of the project, the proposed Commitments outlined in Volume A4, Annex 5.2: Commitments Register are appropriate.	Natural England may request additional mitigation throughout the course of the examination in order to address some of our outstanding concerns. We also remain unclear as to the status of the Commitments Register and how this document links to the DCO/DML i.e. whether the inclusion of something on the commitments register negates the need for it to be incorporated as a separate condition. Further clarification on this point from Orsted and the regulators would be welcome.	Ongoing point of discussion

ID	Hornsea Four Position	Natural England Position	Position Summary
Report to Inform Appropriate Assessment			
NE-MMOFF-08	The results of the HRA Screening in relation to marine mammals are agreed.	We consider that all relevant sites and receptors have been identified, however insufficient information has been provided to demonstrate no LSE to harbour seal in The Wash and North Norfolk Coast SAC from vessel collision risk.	Ongoing point of discussion
NE-MMOFF-09	The conclusions of the assessment of adverse effect alone in relation to marine mammals are agreed.	Further information on vessel movements is required to demonstrate no likely significant effect (LSE) on the harbour seal feature of The Wash and North Norfolk Coast SAC as a result of vessel collision risk.	Ongoing point of discussion
		Assessment of concurrent piling submitted at Deadline 1 has increased the number of individuals at risk of PTS. The current mitigation proposed will not mitigate the full PTS zone as set out in the new assessment and should be revisited.	Ongoing point of discussion
NE-MMOFF-10	The conclusions of the assessment of adverse effect in-combination in relation to marine mammals are agreed.	Natural England have outstanding concerns with the conclusions of the assessment of adverse effect in-combination in relation to marine mammals, including: <ul style="list-style-type: none"> • Different tiers being used between the RiAA and CEA in the ES • Seismic surveys have not been included. 	Ongoing point of discussion
		There is an over-reliance on the SIP process to manage in-combination impacts to the SNS SAC.	Not agreed – Material impact
Draft DCO and Deemed Marine Licences			
NE-MMOFF-11	The wording of the following requirements and conditions pertaining to marine mammals are appropriate and adequate: <ul style="list-style-type: none"> • Part 2 - Condition 13(1(c) of DCO Schedules 11 and 12 with reference to a Construction Method Statement; • Part 2 - Condition 13(1(d) of DCO Schedules 11 and 12 with reference to a Construction Project Environmental Management and Monitoring Plan; • Part 2 - Condition 13(1)(d)(v) of DCO Schedules 11 and 12 with reference to a Vessel Management Plan; and 	Natural England expect to review and request additional amendments as necessary to the DCO as we move through examination.	Ongoing point of discussion

ID	Hornsea Four Position	Natural England Position	Position Summary
	<ul style="list-style-type: none"> Part 1(6) of DCO Schedules 11 and 12 with reference to a decommissioning plan. 		
NE-MMOFF-12	<p>The wording of the following requirements and conditions pertaining to marine mammals are appropriate and adequate:</p> <ul style="list-style-type: none"> Part 2 - Condition 13(j) of DCO Schedules 11 and 12 with reference to a site integrity plan is appropriate. 	<p>This condition secures the use of a Site Integrity Plan so that in combination projects and the project alone do not have an adverse effect on the integrity of the Southern North Sea Special Area of Conservation (SNS SAC). This condition is linked to condition 14 which requires the document to be produced no later than 4 months prior to commencement. We consider that it should be restricted to a requirement of no sooner than 9 months and no later than 6 months prior to commencement.</p>	Ongoing point of discussion
NE-MMOFF-13	<p>The wording of the following requirements and conditions pertaining to marine mammals are appropriate and adequate:</p> <ul style="list-style-type: none"> Part 2 - Condition 13(1)(g) of DCO Schedules 11 and 12 with reference to a Marine Mammal Mitigation Protocol is appropriate. 	<p>Natural England expect to request additional amendments to the DCO as we move through examination.</p>	Ongoing point of discussion
NE-MMOFF-14	<p>The wording of the following requirements and conditions pertaining to marine mammals are appropriate and adequate:</p> <ul style="list-style-type: none"> Part 2 - Condition 18(2)(b) of DCO Schedules 11 and 12 with reference to construction noise monitoring is appropriate. 	<p>Natural England expect to request additional amendments to the DCO as we move through examination.</p>	Ongoing point of discussion
Other Matters			
NE-MMOFF-15	<p>Monitoring – Appropriate monitoring requirements have been identified and presented in F2.7: Outline Marine Monitoring Plan.</p>		Ongoing point of discussion

3.6 Seascape, Landscape and Visual Resources

Table 8: Agreement Log – Seascape, Landscape and Visual Resources.

ID	Hornsea Four Position	Natural England Position	Position Summary
Environmental Impact Assessment			
NE-SVROFF-01	The scoping out of seascape, landscape and visual resources impacts in relation to the array area is agreed, including the cumulative assessment.	Natural England considers that the development does not have the potential to impact on the special character of the Flamborough Head Heritage Coast (FHHC) and its seascape setting.	Agreed
NE-SVROFF-02	The scoping out of seascape, landscape and visual resources impacts in relation to the HVAC booster station(s) is agreed, including the cumulative assessment.	Natural England considers that the development does not have the potential to impact on the special character of the Flamborough Head Heritage Coast (FHHC) and its seascape setting.	Agreed
Draft DCO and Deemed Marine Licences			
NE-SVROFF-03	The wording of the following requirements and conditions pertaining to Seascape, Landscape and Visual Resources are appropriate and adequate: <ul style="list-style-type: none"> Part 2 - Condition 22 of DCO Schedule 12 with reference to a HVAC booster station lighting plan is appropriate. 	Agreed.	Agreed

3.7 Other Documents and Plans

Table 9: Agreement Log – Other Documents and Plans.

ID	Hornsea Four Position	Natural England Position	Position Summary
Outline Marine Mammal Mitigation Protocol			
NE-OTHEROFF-01	<p>F2.5 Outline Marine Mammal Mitigation Protocol provides an appropriate framework for securing marine mammal mitigation measures in agreement with Statutory Nature Conservation Bodies (SNCBs) and the MMO prior to construction.</p>	<p>The Outline Marine Mammal Mitigation Protocol (OMMMP) includes an appropriate range of mitigation measures, however further discussion is needed with regards to Acoustic Deterrence Device (ADD) duration and the use of bubble curtains and noise abatement systems. We also suggest the Applicant consider the use of Passive Acoustic Monitoring (PAM). Further, none of these mitigation measures have currently been committed to.</p>	Ongoing point of discussion
Outline Marine Monitoring Plan			
NE-OTHEROFF-02	<p>F2.7 Outline Marine Monitoring Plan provides an appropriate framework to agree monitoring with SNCBs and the MMO prior to construction.</p>	<p>Aspects of the OMMP remain extremely short and lacking in detail. There has been no consideration of the areas of the assessment where assumptions have been made and where the project could contribute to filling knowledge gaps (for example, with regards to operational WTC noise levels, or the assumed distribution of bottlenose dolphin close to the coast). We recommend that the OMMP is kept live during examination so an updated, final version can be provided capturing the results of further discussion.</p>	Ongoing point of discussion
Outline Southern North Sea Special Area of Conservation Site Integrity Plan			
NE-OTHEROFF-03	<p>F2.11 Outline Southern North Sea Special Area of Conservation Site Integrity Plan provides an appropriate framework to agree mitigation measures for effects on the Southern North Sea SAC with SNCBs and the MMO prior to construction.</p>	<p>The Applicant proposes that mitigation commitments will be managed post-consent via the implementation of the SIP prior to construction. Natural England have significant concerns over the feasibility of adding mitigation at this late stage when decisions around cost, equipment type etc. have already been made. We consider that mitigation should be committed to at this</p>	Not agreed – Material impact

ID	Hornsea Four Position	Natural England Position	Position Summary
		stage within the SIP and MMMP to allow resource to be planned for. We consider there to be an over-reliance on the SIP process to manage in-combination impacts to the SNS SAC.	
HVAC Booster Station Lighting Plan			
NE-OTHEROFF-04	F2.17 HVAC Booster Station Lighting Plan provides an appropriate framework to secure the lighting requirements for the HVAC booster station(s) to ensure that the night-time effects on the setting of the Flamborough Head Heritage Coast will not be significantly adverse.	Agreed.	Agreed

Hornsea 4

4 Summary

- 4.1.1.1 This SoCG has outlined the consultation that has taken place between the Applicant and Natural England during the pre-application phase. The agreement logs present the positions reached between Hornsea Four and Natural England in relation to relevant other offshore matters.
- 4.1.1.2 This SoCG will be updated as discussions progress and made available to PINS as requested through the DCO examination phase.