DBS Offshore Wind

RWE Renewables UK Dogger Bank South (West) Limited

RWE Renewables UK Dogger Bank South (East) Limited

Dogger Bank South Offshore Wind Farms

The Applicants' Responses to Deadline 4 Documents

Document Date:	May 2025
Document Reference:	15.3
Revision Number:	01
Classification:	Unrestricted

RWE MASDAR

Company:	**RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited**	Asset:	**Development**
Project:	**Dogger Bank South Offshore Wind Farms**	Sub Project/Package	**Consents**
Document Title or Description:	The Applicants' Responses to Deadline 4 Documents		
Document Number:	005874269-01	Contractor Reference Number:	PC2340-RHD-ZZ-ZZ-RP-Z-0210

Rev No.	Date	Status/Reason for Issue	Author	Checked by	Approved by
01	May 2025	Submission for Deadline 5	RHDHV	RWE	RWE

Contents

Tables

Glossary

Term	Definition
Array Areas	The DBS East and DBS West offshore Array Areas, where the wind turbines, offshore platforms and array cables would be located. The Array Areas do not include the Offshore Export Cable Corridor or the Inter-Platform Cable Corridor within which no wind turbines are proposed. Each area is referred to separately as an Array Area.
Baseline	The existing conditions as represented by the latest available survey and other data which is used as a benchmark for making comparisons to assess the impact of the Projects.
Bathymetry	Topography of the seabed.
Bedforms	Features on the seabed (e.g. sand waves, ripples) resulting from the movement of sediment over it.
Clay	Fine-grained sediment with a typical particle size of less than 0.002mm.
Coastal processes	Collective term covering the action of natural forces on the shoreline and nearshore seabed.
Collision Risk Model (CRM)	Quantitative means to estimate the number of predicted collisions between seabirds recorded in the Array Areas and rotating wind turbines.
Concurrent	Installation of monopiles or pin piles happening at the same time at the DBS Projects.
Concurrent Scenario	A potential construction scenario for the Projects where DBS East and DBS West are both constructed at the same time.
Cumulative Effects	The combined effect of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor / resource.
Cumulative Effects Assessment (CEA)	The assessment of the combined effect of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor/resource.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).

Term	Definition
Dogger Bank South (DBS) Offshore Wind Farms	The collective name for the two Projects, DBS East and DBS West.
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the value, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the EIA Directive and EIA Regulations, including the publication of an Environmental Statement (ES).
Environmental Statement (ES)	A document reporting the findings of the EIA and produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations.
Erosion	Wearing away of the land or seabed by natural forces (e.g. wind, waves, currents, chemical weathering).
Glacial till	Poorly sorted, non-stratified and unconsolidated sediment carried or deposited by a glacier.
Gravel	Loose, rounded fragments of rock larger than sand but smaller than cobbles. Sediment larger than 2mm (as classified by the Wentworth scale used in sedimentology).
Habitats Regulations Assessment (HRA)	The process that determines whether or not a plan or project may have an adverse effect on the integrity of a European Site or European Offshore Marine Site.
Haul Road	The track along the Onshore Export Cable Corridor used by traffic to access different sections of the onshore export cable route for construction.
Horizontal Directional Drill (HDD)	HDD is a trenchless technique to bring the offshore cables ashore at the landfall and can be used for crossing other obstacles such as roads, railways and watercourses onshore.
Impact	Used to describe a change resulting from an activity via the Projects, i.e. increased suspended sediments / increased noise.
In Isolation Scenario	A potential construction scenario for one Project which includes either the DBS East or DBS West array, associated offshore and onshore cabling and only the eastern Onshore Converter Station within the Onshore Substation

Term	Definition
	Zone and only the northern route of the onward cable route to the proposed Birkhill Wood National Grid Substation.
Inter-Platform Cables	Buried offshore cables which link offshore platforms.
Jointing Bays	Underground structures constructed at regular intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts.
Landfall	The point on the coastline at which the Offshore Export Cables are brought onshore, connecting to the onshore cables at the Transition Joint Bay (TJB) above mean high water.
Main River	Main Rivers are usually large rivers or streams that are designated under the Water Resources Act (1991) and are shown on the statutory Main River Map. They are managed by the Environment Agency, who carry out construction, maintenance and improvement works to manage flood risk.
Mean Low Water Springs (MLWS)	MLWS is the average of the heights of two successive low waters during a 24 hour period.
National Policy Statement (NPS)	A document setting out national policy against which proposals for NSIPs will be assessed and decided upon.
Navigational Risk Assessment (NRA)	A document which assesses the hazards to shipping and navigation of a proposed Offshore Renewable Energy Installation based upon Formal Safety Assessment.
Nearshore	The zone which extends from the swash zone to the position marking the start of the offshore zone (~20m).
Offshore Development Area	The Offshore Development Area for ES encompasses both the DBS East and West Array Areas, the Inter-Platform Cable Corridor, the Offshore Export Cable Corridor, plus the associated Construction Buffer Zones.
Offshore Export Cables	The cables which would bring electricity from the offshore platforms to the Transition Joint Bays (TJBs).
Onshore Development Area	The Onshore Development Area for ES is the boundary within which all onshore infrastructure required for the Projects would be located including Landfall Zone, Onshore Export Cable Corridor, accesses, Temporary Construction Compounds and Onshore Converter Stations.

Term	Definition
Onshore Export Cable Corridor	This is the area which includes cable trenches, haul roads, spoil storage areas, and limits of deviation for micro-siting. For assessment purposes, the cable corridor does not include the Onshore Converter Stations, Transition Joint Bays or temporary access routes; but includes Temporary Construction Compounds (purely for the cable route).
Onshore Export Cables	Onshore Export Cables take the electric from the Transition Joint Bay to the Onshore Converter Stations.
Onward Cable Connection	Area of 400kV HVAC onshore export cable from the Onshore Converter Stations to the Proposed Birkhill Wood National Grid Substation.
Onshore Converter Stations	A compound containing electrical equipment required to transform HVDC and stabilise electricity generated by the Projects so that it can be connected to the electricity transmission network as HVAC. There will be one Onshore Converter Station for each Project.
Onshore Substation Zone	Parcel of land within the Onshore Development Area where the Onshore Converter Station infrastructure (including the haul roads, Temporary Construction Compounds and associated cable routeing) would be located.
Order Limits	The limits within which the Projects may be carried.
Ordinary watercourse	Rivers which are not Main Rivers are called 'ordinary watercourses'. Lead local flood authorities, district councils and internal drainage boards carry out flood risk management work on ordinary watercourses.
Outline Onshore Written Scheme of Investigation (WSI)	Project specific document forming the agreement between the Applicants, the appointed archaeologists, contractors and the relevant stakeholders landward of MHWS. The document sets out the methods to mitigate the effects on all the known and potential archaeological receptors within the Hornsea Four onshore Order Limits.
Preliminary Environmental Information Report (PEIR)	Defined in the EIA Regulations as information referred to in part 1, Schedule 4 (information for inclusion in environmental statements) which has been compiled by the applicants and is reasonably required to assess the environmental effects of the development.
Principal Contractor	A contractor appointed under Regulation 5(1) (b) of the Construction (Design and Management) Regulations 2015. They have control over the construction phase of a project with several contractors.
Projects Design (or Rochdale) Envelope	A concept that ensures the EIA is based on assessing the realistic worst-case scenario where flexibility or a range of options is sought as part of the consent application.

Term	Definition
Receptor	A distinct part of the environment on which effects could occur and can be the subject of specific assessments. Examples of Receptors include species (or groups) of animals, plants, people (often categorised further such as 'residential' or those using areas for amenity or recreation), watercourses etc.
Sand	Sediment particles, mainly of quartz with a diameter of between 0.063mm and 2mm. Sand is generally classified as fine, medium or coarse.
Sand wave	Bedforms with wavelengths of 10 to 100m, with amplitudes of 1 to 10m.
Scour protection	Protective materials to avoid sediment erosion from the base of the wind turbine foundations and offshore substation platform foundations due to water flow.
Seabed features	Features seen on the seafloor in the sidescan sonar or multibeam bathymetry data which are interpreted to represent heritage assets, or potential heritage assets. Also includes magnetic anomalies which may represent shallow buried ferrous material of archaeological interest.
Sediment	Particulate matter derived from rock, minerals or bioclastic matter.
Sediment transport	The movement of a mass of sediment by the forces of currents and waves.
Sequential Scenario	A potential construction scenario for the Projects where DBS East and DBS West are constructed with a lag between the commencement of construction activities. Either Project could be built first.
Special Area of Conservation (SAC)	Strictly protected sites designated pursuant to Article 3 of the Habitats Directive (via the Habitats Regulations) for habitats listed on Annex I and species listed on Annex II of the Directive.
Special Protection Area (SPA)	Strictly protected sites designated pursuant to Article 4 of the Birds Directive (via the Habitats Regulations) for species listed on Annex I of the Directive and for regularly occurring migratory species.
Statutory Nature Conservation Bodies (SNCBs)	Comprised of JNCC, Natural Resources Wales, Department of Agriculture, Environment and Rural Affairs/Northern Ireland Environment Agency, Natural England and Scottish Natural Heritage, these agencies provide advice in relation to nature conservation to government.
Suspended sediment	The sediment moving in suspension in a fluid kept up by the upward components of the turbulent currents or by the colloidal suspension.
Tidal current	The alternating horizontal movement of water associated with the rise and fall of the tide.

Term	Definition
The Applicants	The Applicants for the Projects are RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited. The Applicants are themselves jointly owned by the RWE Group of companies (51% stake) and Masdar (49% stake).
The Projects	DBS East and DBS West (collectively referred to as the Dogger Bank South Offshore Wind Farms).
Wind turbine	Power generating device that is driven by the kinetic energy of the wind.

Acronyms

Term	Definition
AEoI	Adverse Effect on Integrity
ALC	Agricultural Land Classification
ALO	Agricultural Liaison Officer
ANS	Artificial Nest Structures
BGS	British Geological Survey
BNH	Beverley and North Holderness
BTO	British Trust for Ornithology
CAA	Civil Aviation Authority
CBRA	Cable Burial Risk Assessment
CBS	Cement Bound Sand
CIMP	Compensation Implementation and Monitoring Plan
CO	Conservation Objective
COWSC	Collaboration on Offshore Wind Strategic Compensation
CRM	Collision Risk Modelling
DAS	Design and Access Statement
dB	Decibel
DBS	Dogger Bank South
DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DML	Deemed Marine Licence
DoG	Deed of Grant
EA	Environment Agency

Term	Definition
ECC	Export Cable Corridor
ECoW	Ecological Clerk of Works
EDR	Effective Disturbance Radius
EIA	Environmental Impact Assessment
ERYC	East Riding of Yorkshire Council
ES	Environmental Statement
ETG	Expert Topic Group
ExA	Examining Authority
FCS	Favourable Conservation Status
FFC	Flamborough and Filey Coast
FRA	Flood Risk Assessments
GBS	Gravity Base Structures
HAR	Habitat Assessment and Restoration Ltd
HAT	Highest Astronomical Tide
HDD	Horizontal Directional Drill
HER	Humber Historic Environment Record
HoT	Heads of Terms
HRA	Habitats Regulations Assessment
ICAO	International Civil Aviation Organisation
IDB	Internal Drainage Board
iPCoD	Interim Population Consequence of Disturbance
IPMP	In Principle Monitoring Plan
IQ	Institute of Quarrying

Term	Definition
ISH	Issue Specific Hearing
ITT	Invitation to Tender
JNCC	Joint Nature Conservation Committee
K	Potassium
LiG	Land Interest Group
LLFA	Lead Local Flood Authority
LWS	Local Wildlife Site
MCA	Maritime and Coastguard Agency
MCZ	Marine Conservation Zone
MDS	Maximum Design Scenario
MEEB	Measures of Equivalent Environmental Benefit
Mg	Magnesium
MLWS	Mean Low Water Springs
MMO	Marine Management Organisation
MMMP	Marine Mammal Mitigation Protocol
MRF	Marine Recovery Fund
NAS	Noise Abatement System
NFFO	National Federation of Fishermen's Organisation
NFU	National Farmers' Union
NGET	National Grid Electricity Transmission plc
NGT	National Gas Transmission Plc
NHLE	National Heritage List for England
NMS	Noise Mitigation System

Term	Definition
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRA	Navigational Risk Assessment
NRW	Natural Resource Wales
NSIP	Nationally Significant Infrastructure Project
NSSS	North Sea Sandeel Survey
OCoCP	Outline Code of Construction Practice
OCPRP	Outline Communications and Public Relations Procedure
OCTMP	Outline Construction Traffic Management Plan
OEMP	Outline Ecological Management Plan
OFTO	Offshore Transmission Owner
OM	Organic Matter
OOOMP	Offshore Operations and Maintenance Plan
OPPP	Outline Pollution Prevention Plan
OSMP	Outline Soil Management Plan
OWF	Offshore Wind Farm
OWIC	Offshore Wind Industry Council
P	Phosphorous
PEIR	Preliminary Environmental Information Report
pH	Potential of Hydrogen
PP	Protective Provisions
PTS	Permanent Threshold Shift
PVA	Population Viability Assessment

Term	Definition
RAL	Reichs-Ausschuss für Lieferbedingungen
RIAA	Report to Inform Appropriate Assessment
RIGS	Regionally Important Geological Sites
RLB	Red Line Boundary
RoFRS	Risk of Flood from Rivers and Sea
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SD	Standard Deviation
SEP & DEP	Sheringham and Dudgeon Extension Projects
SFRA	Strategic Flood Risk Assessment
SIP	Site Integrity Plan
SNCBs	Statutory Nature Conservation Bodies
SNS	Southern North Sea
SoCG	Statement of Common Ground
SPA	Special Protection Area
SSE	Scottish and Southern Energy plc
SSSI	Site of Special Scientific Interest
SWMP	Surface Water Management Plan
TCC	Temporary Construction Compound
TCE	The Crown Estate
TCPA	Town and Country Planning Association
TJB	Transition Joint Bay
TPP	Tree Protection Plan

Term	Definition
TTS	Temporary Threshold Shift
UCL	Upper Confidence Limit
UU	Unilateral Undertaking
UXO	Unexploded Ordnance
WCS	Worst Case Scenario
WSI	Written Scheme of Investigation
ZoI	Zone of Influence

1 Introduction

1. This document presents the Applicants' responses to Deadline 4 documents received from Interested Parties (IPs) following submissions to the Examining Authority at Deadline 4 of the Dogger Bank South Examination. Submissions commented upon to include responses to the Examining Authority's Action Points [EV7-002, EV8-010, EV9-002 and EV10-002], First Written Questions [PD-014] and Rule 17 Request [PD-018], as well as other documents provided unilaterally by interested parties.

2. For ease of referencing and to facilitate future cross-referencing, the Applicants have used the existing Planning Inspectorate reference (e.g. REP3-001) and created a unique identifier for each response by itemising the document into paragraphs or sections (e.g. REP3-001:1.1). The ID numbers can be found in the first column of each table.

3. The Applicants note that the document provided by the National Federation of Fishermen's Organisations [REP4-105] is not included in this document as it is a replicate of a document submitted at Deadline 3 [AS-172]. The Applicants' responses to this document can be found in Table 2-8 of **The Applicants' Comments on the Responses to ExQ1** [REP4-087].

2 Responses to Deadline 4 Documents

4. The Applicants' responses to documents received from IPs at Deadline 4 are provided in this section.

2.1 Albanwise Ltd and Albanwise Synergy Ltd

Table 2-1 – The Applicants' comments on Albanwise Ltd and Albanwise Synergy Ltd [REP4-106] responses to Action Points, ExQ1 and Rule 17

I.D.	Question	Albanwise Response	Applicants' Response
REP4-106: LUA.1.6	**Question LUA 1.6: Sterilised and impractical land** Please identify the locations which you believe would become sterilised or impractical to farm, and have not been included within the Applicants' assessment, as referred to in your Relevant Representations [RR-001], [RR-002] and [RR-054] and Written Representations [REP1-068] and [REP1-069]. Your answer should include: a plan identifying the location; the quantum area of land affected; a Land Plot reference number (or nearby Land Plot reference number) from the submitted Land Plans (revision 2) [PDA-004]; and appropriate justification to explain the aforementioned effects.	With respect to the ground affected by the buried cables, we are satisfied that, should the development proceed as proposed—observing the protections outlined in the application and those currently being negotiated with the Applicant as part of the draft land agreements—farming will be able to return to the affected areas. Our experience elsewhere with similar projects is however poor with land affected unfarmable for several years and significant impediments to our other land rights and activities. However, as noted by Mr. Tom Watson, representing Albanwise in Compulsory Acquisition Hearing 2 held on 7 April 2025, the land agreements with the Applicant have not been agreed. As a result, we do not have confidence that: • Impacts during installation will be minimised, • There will be no subsequent sterilisation and • There will be no diminution of farming ability on the affected ground until those agreements are finalised. Regarding the above-ground works, the intrinsic sterilisation of the land on which the assets and ancillary works are to be located is clearcut. We remain concerned about the potential broader sterilisation effect the proposed development may have on the potential for further development on land surrounding the project. Given its proximity to nationally significant electrical infrastructure, our property has been subject to numerous NSIP and TCPA-consented and proposed developments (e.g. Orsted's Hornsea 3 Offshore Wind Farm, NGET's proposed Birkhill and Wanless Beck substations, the North Humber to High Marnham 400kV overhead line, SSE/Equinor's Dogger Bank D Offshore Wind Farm, and our selfdeveloped Creyke Beck Solar Farm, to name a few). Given that the Applicant has not agreed how to compensate or mitigate their project's impact on these schemes on our property it is essential that: • Rights already agreed upon with other parties are respected, • Rights proposed by the Applicant align with those being negotiated in other proposed developments and • The broader development potential of the remainder of our land holdings is not unduly sterilised, by the proposal or the rights being sought by the Applicant.	As per the response to REP1-068:5 in **The Applicants Responses to Written Representations** [REP2-057], at Deadline 2. The Applicants' Land Agent has been having productive discussions with Albanwise Ltd agent and the Applicants have reached an agreement to mutually acceptable commercial terms for an Option to Lease, subject to finalising the agreement structure. The Option and Deed of Grant for the Onshore Export Cable Corridor is in agreed form awaiting legal completion. The Applicants Land Agents have been in regular contact with the Agents acting on behalf of Albanwise Ltd and have provided all relevant technical details regarding the installation of the Onshore Export Cable Corridor, Onward Cable Connection and the proposed changes to the Onshore Substation Zone. The Projects Onshore Export Cable Corridor, Onshore Substation Zone and Onward Cable Connection to the proposed Birkhill Wood substation have been carefully developed considering design constraints such as engineering, ecological and heritage, as well as proximity to residential property and designated landscapes, as set out in **Chapter 4 Site Selection and Assessment of Alternatives (Revision 2)** [AS-017]. The Applicants have undertaken a thorough Environmental Impact Assessment (EIA) and provided several outline management plans which include measures to manage construction impacts, these are set out in the **Outline Code of Construction Practice (OCoCP) (Revision 4)** [REP4-040] which is secured by Requirement 19 of the **Draft Development Consent Order (DCO) (Revision 8)** [document reference 3.1]. **Appendix A** of the **OCoCP (Revision 4)** [REP4-040] includes an **Outline Soil Management Plan (OSMP) (Revision 2),** which includes detailed measures for soil management and reinstatement. With the control measures outlined in the application in place, including the restoration of land where temporary construction is taking place and the ability for all agricultural operations to resume, the Applicants believe that impacts during installation are minimised and there would be no subsequent sterilisation or diminution of farming ability. As discussed above, the Option to Easement for the Onshore Export Cable Corridor is in agreed form awaiting legal completion. With respect to the points raised regarding the future development potential of remaining land belonging to Albanwise; the Applicants submitted the **Project Change Request 2 – Onshore Substation Zone** [AS-152] on January 10th 2025 and this was accepted by the Examining Authority (ExA) on the 21st January 2025. As detailed in REP1-068:4 this

I.D.	Question	Albanwise Response	Applicants' Response
		Whilst we can pinpoint specific land areas that may be subject to sterilisation you will be familiar with the location and overlap of the above listed developments on our land. We remain deeply concerned therefore about the reduction in development potential across our remaining land due to factors such as: • Restrictive access rights (to highways or across our land holding), • The location of core above surface infrastructure plus ancillary and as-yet unspecified activities (either temporary or permanent) and • Impacts arising from imposed exclusion areas (e.g. noise, security, clearance restrictions, etc.). Work continues with the Applicant to address our concerns raised above by seeking the necessary protections in the land agreements.	has reduced the Order Limits, as the reduced footprint of the Onshore Converter Stations has allowed the design to be amended to confirm a diversion of the Yorkshire Water Main will not be required. The dimensions of the Onshore Converter Stations set out in the **Project Change Request 2 – Onshore Substation Zone** [AS-152] document are sized to accommodate the revised requirements of the Projects' electrical transmission system, based on the revised grid connection offer. They represent a realistic worst-case scenario. The Projects are seeking 2m x 12m easements within a 75m construction corridor along the Onshore Export Cable Corridor. The length of the Onshore Export Cable Corridor is 32km with a further 2.5km of Onward Cable Connection to the proposed new National Grid Substation at Birkhill Wood. The Easements of the Onward Cable Connection are 2m x 17m. The Onward Cable Corridor splits either side of the INEOS Ethylene Pipeline to avoid this constraint, in line with Health & Safety guidance, as there is insufficient room to safely route both Cable Corridors between the A1079 and the INEOS Pipeline. Further detail of the Design Envelope and maximum parameters for the 'above surface infrastructure' including a description of the Onshore Converter Stations are provided in **Chapter 5 Project Description (Revision 3)** [REP1-009]. The **Works Plan (Onshore) (Revision 4)** [REP2-005], sets out where this infrastructure will be located. The Projects have been designed to try and avoid creating awkward shapes of land. However, this has not always been possible when taking into consideration other constraints. Disruption to farming activities in both the construction and operation phases of the Projects, is taken into consideration as part of the commercial negotiations for the Option and Deed of Grant. Any reasonable loss of business would be assessed and addressed by the Applicants. Access to farming land will be maintained as detailed in the Option and Deed of Grant and **Chapter 21 Land Use (Revision 3)** [document reference 7.21]. This would include any potential temporary access restrictions. Furthermore, the Applicants note that article 23 of the **Draft DCO (Revision 8)** [document reference 3.1] sets out that all private rights over land acquired compulsorily will be extinguished to the extent that their continuance would be inconsistent with the exercise of the right or the burden of the restrictive convenance. The Applicants can confirm there would be no imposed exclusion areas (e.g. noise, security, clearance restrictions, etc). All works will take place within the Order Limits set out on the **Works Plan (Onshore) (Revision 4)** [REP2-005].

I.D.	Question	Albanwise Response	Applicants' Response
			Should any part of the interested parties land be temporarily severed during construction the voluntary Option and Deed of Grant states: '*The Grantee shall use reasonable endeavours to provide the Grantor, with access across or over the Option Area to any severed areas, where reasonably practicable, which are created as a direct result of the Proposed Works or otherwise agree appropriate compensation with the Grantor.*' This is also a commitment in the **Commitments Register (Revision 2)** [REP2-025], see C107 and the section 6.6.2.1 of the **OCoCP (Revision 4)** [REP4-040], secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. The Environmental Statement (ES) has assessed a concurrent, sequential and in-isolation construction scenario where only one Project may be developed. Further detail on the indicative construction programmes and assumptions are included in section 5.8 of the **Chapter 5 Project Description (Revision 3)** [REP1-009]. Where the extent of the application site and rights/powers sought are meant to cover more than one option, only those required for the option going forward will be triggered/used to ensure that the Applicants only take what is necessary to implement the Proposed Development. Requirement 8 (Phases of authorised development) of the **Draft DCO (Revision 8)** [document reference 3.1] prevents either Project from commencing its onshore works until a written scheme setting out the phases of the relevant works is submitted to and approved by the relevant planning authority, thus ensuring that only those elements related to the option chosen to come forward. Hornsea Project Four, Dogger Bank A and B and the National Grid substation projects at Creyke Beck and Birkhill Wood and the Humber to High Marnham Overhead Line Project have been identified as a cumulative development in the cumulative environmental effects assessment, as discussed **in Appendix 6-1 Onshore Cumulative Effects Assessment Methodology (Revision 2)** [REP3-009]. Liaison with other developers is ongoing and will continue throughout the development of the Projects. The Applicants are looking to co-ordinate with other developers and are exploring opportunities to do this, where feasible. The Applicants are engaged with each identified project to discuss a form of protective provisions. If agreement has not been reached by Deadline 7, the Applicants will update the **Draft DCO (Revision 8)** [document reference 3.1] with the Applicants' preferred form of protective provisions in order that the ExA can consider the proposed wording during the Examination. In these circumstances, the Applicants would continue to engage with each Project to seek to agree the form of protective provisions prior to the close of Examination.

I.D.	Question	Albanwise Response	Applicants' Response
			The Applicants are aware of other unconsented developments in the locality, including Dogger Bank D and will continue to engage with developers as their proposals progress. The Environmental Impact Assessment as presented in Volume 7 of the DCO submission application includes a detailed Cumulative Impacts Assessment of the Projects in combination with other Projects screened in for potential cumulative effects. These cumulative effects assessments are reported in the individual ES chapters within the DCO submission. The Applicants acknowledge that the land affected by the Onshore Substation Zone and Onward Cable Connection will be lost to future development opportunities. But as per the above, the Applicants have reduced the area of the Onshore Substation Zone and associated land take for permanent infrastructure, which has enabled a greater area of land to be returned to agriculture than that was previously proposed The Applicants are making every effort to finalise an Option to Lease with Albanwise in order to ensure that they are appropriately mitigated/compensated for disruption during construction and, if relevant, operation. As stated above, the Onward Cable Corridor splits either side of the INEOS Ethylene Pipeline to avoid the constraint in line with Health & Safety guidance, as there is insufficient room to safely route both Cable Corridors between the A1079 and the INEOS Pipeline. If only the 'in isolation' construction scenario is taken forward this area of proposed land take would be reduced. The Applicants have also reached agreement to mutually acceptable commercial terms for an Option to Lease subject to finalising revised land take subject to finalising the agreement structure with the Interested Party regarding the accepted **Project Change Request 2 – Onshore Substation Zone** [AS-152]. These terms include provision for payment terms to increase in line with inflation against the Consumer Price Index, so future proofing the Interested Parties commercial position.
REP4-106: LUA.1.9	**Question LUA 1.9: Restrictive covenants** Do you have any comments related to the rights and restrictive covenants in Schedule 7 of the draft DCO [REP1-004]? In your response, please consider if any restrictive covenants would inhibit continuation of agricultural activities.	The proposed draft covenants are under review by our legal advisors. We may wish to submit comments on the relevant clauses of Schedule 7 at subsequent Deadlines.	No response required.

2.2 Civil Aviation Authority

Table 2-2 – The Applicants' comments on Civil Aviation Authority (CAA) [AS-178] responses to Action Points, ExQ1 and Rule 17

I.D.	Question	CAA Response	Applicants' Response
AS-178: ARMC.1.1	**Colour of offshore structures** The colour requirement for the proposed offshore structures differs between International Civil Aviation Organisation and Trinity House [APP-125, paragraphs 35 and 36]. Condition 11 of Deemed Marine Licence (DML) 1 [REP1-004] states, 'the undertaker must paint all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height as directed by Trinity House. Unless the MMO otherwise directs, the undertaker must paint the remainder of the structures grey (colour code RAL 7035)'.	The International Civil Aviation Organisation (ICAO) publishes colour requirements for wind turbines in its Annex 14, Volume 1 – Aerodromes, to the Chicago Convention Chapter 6.2.4.2 as a recommendation that the rotor blades, nacelle and upper 2/3 of the supporting mast of wind turbines should be painted white, unless otherwise indicated by an aeronautical study. ICAO does not specify a colour of the lower 1/3 of the wind turbine tower and therefore individual countries have discretion to determine this colour scheme. We work closely with the MCA and Trinity House on offshore wind turbine marking schemes and we are content with the Trinity House proposed colour scheme. The CAA requires that the rotor blades, nacelle and upper 2/3 of the supporting mast of wind turbines that are deemed to be an aviation obstruction to be painted white or light grey. Wind turbine manufacturers typically use the RAL Colour Standard, a four-digit code to identify a specific colour of paint. The CAA will accept a white paint colour that is pure white, RAL 9010, or an equivalent through to light grey, RAL 7035. Any shade of white between these two RAL specifications will also be accepted. These colours have been shown to be the most effective method for providing daytime conspicuity to aviators.	No response is required.
AS-178: ARMC.1.2	Are you supportive of the fourteen and five-day notification periods in Condition 12 of DML 1 [REP1-004] and do you have any other comments on the condition as drafted? The ExA notes this condition is repeated in other DMLs and will consider comments received relevant for all instances *REP1-004: Dogger Bank South Offshore Wind Farms Draft Development Consent Order (Revision 05) (Clean) Volume 3, SCHEDULE 10 Deemed Marine Licence 1: DBS East Project Offshore Generation – Work Nos. 1A, 4A and 7A* *Part 2* *Condition 12 - Aviation Safety* *(1) The undertaker must exhibit such lights, with such shape, colour and character as are required in writing by the Air Navigation Order 2016(a) and determined necessary for aviation safety in consultation with the Defence Infrastructure Organisation Safeguarding and as directed by the Civil Aviation Authority.*	We are not supportive of the 14-day notification period in Condition 12(2) and would propose a 56-day notification period. 56 days is consistent with the notification period in Article 225A(5)(a) of the Air Navigation Order 2016. This allows the Civil Aviation Authority sufficient time to ensure the UK aeronautical obstacle database is updated to provide aviators with information on the location of wind turbines and any other construction equipment that may pose a safety risk to low-level flight operations. We interpret "five-day notification periods in Condition 12" to refer to: 'Copies of notifications must be provided to the MMO within 5 days'. We have no comments on this notification period as it does not relate to the Civil Aviation Authority. The question states that the condition is repeated in other DMLs. We are unable to comment on other conditions as they may involve different circumstances.	The Applicants do not agree that 56 days is an appropriate notification period in these circumstances and note that 14 days has been accepted by the Secretary of State on all recently granted offshore wind farms (Rampion 2, Sheringham Shoal and Dudgeon Extensions, Awel y Mor, Hornsea Four, East Anglia One North and East Anglia Two). The Applicants note that the 56-day period referenced from the Air Navigation Order 2016 is not mandatory in that Order, which specifies (in Article 225A(5)(b)) that, as an alternative, notice must be given "as soon as reasonably practicable where there is insufficient time to give 8 weeks' notice". The Applicants are willing to amend the wording of this condition so that the notification must be made "as soon as reasonably practicable and at least 14 days prior to the commencement of the authorised scheme…". The Applicants submit that the suggested amendment would more closely align the condition wording with the provisions of the Air Navigation Order 2016.

I.D.	Question	CAA Response	Applicants' Response
	(2) The undertaker must notify the Defence Infrastructure Organisation Safeguarding, the Civil Aviation Authority and the MMO, at least 14 days prior to the commencement of the authorised scheme, in writing of the following information— *(a) the date of the commencement of construction of the authorised scheme;* *(b) the date any wind turbine generators are to be installed;* *(c) the maximum height of any construction equipment or vessels to be used;* *(d) the maximum height of each wind turbine generator to be constructed;* *(e) the latitude and longitude of each wind turbine generator to be constructed; and the Defence Infrastructure Organisation Safeguarding and the Civil Aviation Authority must be notified of any changes to the information supplied under this paragraph and of the completion of the construction of the authorised scheme.* *Copies of notifications must be provided to the MMO within 5 days.*		

2.3 The Corporation of Trinity House of Deptford Strond

Table 2-3 – The Applicants' comments on The Corporation of Trinity House of Deptford Strond [REP4-103] responses to Action Points, ExQ1 and Rule 17

I.D.	Question	The Corporation of Trinity House of Deptford Strond Response	Applicants' Response
REP4-103: ARMC.1.1	Round of Written Questions issued on 28th February 2025, and the subsequently Rule 17 request for further information letter, issued on 15th April 2025. **Question: - ARMC.1.1** **Colour of Offshore Structures** *The colour requirement for the proposed offshore structures differs between International Civil Aviation Organisation and Trinity House [APP-125, paragraphs 35 and 36]. Condition 11 of Deemed Marine Licence (DML) 1 [REP1-004] states, 'the undertaker must paint all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height as directed by Trinity House. Unless the MMO otherwise directs, the undertaker must paint the remainder of the structures grey (colour code RAL 7035)'.* *Could you comment on the appropriateness of the colour secured in the DML condition, whether the colour requirement inconsistencies are resolvable, and provide appropriate justification?*	Trinity House respectfully highlights the Civil Aviation Authority Document "CAA Policy and Guidelines on Wind Turbines" (CAP764), which, at section 3.21 of Chapter 3, states "The CAA does not typically request specific markings for offshore obstacles." Trinity House courteously requests that offshore turbines are painted in accordance with the International Organization for Marine Aids to Navigation (IALA) Guideline G1162 (The Marking of Offshore Man-Made Structures). Trinity House further submits that its preferred wording of Schedule 10, Part 2, Condition 11 of Deemed Marine Licence (DML) 1 [REP1-004] would read: "**Colouring of structures** 11 (1) Except as otherwise required by Trinity House the undertaker must colour all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height directed by Trinity House or must colour the structure as directed by Trinity House in writing from time to time. (2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs in writing, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035)." The above preferred wording would bring this provision in line with the pre-agreed standard navigation conditions.	The Applicants confirm that the preferred wording of Schedule 10, Part 2, Condition 11 of Deemed Marine Licence (DML) 1 detailed in Trinity House's response was included in the **Draft Development Consent Order (DCO) (Revision 7)** [REP4-005] submitted at Deadline 4. This wording is also repeated in Condition 11 of DML 2 and Condition 9 of DMLs 3 and 4 of the **Draft DCO (Revision 7)** [REP4-005].

2.4 East Yorkshire Concrete Products Limited

Table 2-4 – The Applicants' comments on East Yorkshire Concrete Products Limited [REP4-107] responses to Action Points, ExQ1 and Rule 17

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
REP4-107:1	Compulsory Acquisition Hearing 7th April 2025 Action No 4 We respond as follows to the applicant's response (REP2-057): Rep1-073.5 The applicants have not provided the relevant technical details regarding the installation of the On-shore Export Cable Corridor and in particular have not addressed the following issues raised during the initial Project discussions, through the LiG Group and subsequently: 1. Justification for the extent of the land area identified as 04-17 and 04-19 in the Book of Reference over which temporary possession is required, nor why the boundaries of these areas cannot be amended to create less interference for the landowner. 2. Justification as to why the Order limits shown as 04-024 in the Book of Reference cannot be amended and moved eastwards to run along the field boundary to reduce the impact on the landowner, avoid severing part of the field and avoid sterilising a greater area of the field once the cables have been installed. This request was submitted to Dalcour Maclaren at an early stage, but no response was provided. 3. No information has been provided to justify why cables cannot be installed at a greater depth as has been committed to by similar projects nor why the Project will not commit to maintaining the depth of the cables for the duration of the Project to ensure that they do not interfere with the use of the land in the future. Maintaining the depth of the cables has already been committed to by other similar projects impacting land owned by the directors of East Yorkshire Concrete Products Limited and the applicant's land agents have knowledge of the other projects having acted on the Dogger Bank A and B project and the Hornsea 4 project. 4. No detailed information has been provided by the applicants regarding the installation of suitable land drainage in the Order Limits during and post construction, nor how any impediments to draining adjoining land as a consequence of the cables will be addressed through the construction process or how the land between the cables will be drained if the easements are not contiguous. The applicants have also not responded to confirm who will be responsible for repairing, maintaining and replacing the land drainage installed in the Order Limits for the duration of the Project.	The Applicants' Land Agents have been in regular contact with the Agents acting on behalf of Interested Parties as demonstrated in the **Land Rights Tracker (Revision 5)** [REP3-016] and have provided all relevant technical details regarding the installation of the Onshore Export Cable Corridor through both the Landowner Interest Group (LiG) and via direct communication. Details on the soil management are included in **Appendix A, Outline Soil Management Plan (OSMP) (Revision 2)** of the **Outline Code of Construction Practice (OCoCP) (Revision 4)** [REP1-025] which is secured by Requirement 19 of the **Draft Development Consent Order (DCO) (Revision 8)** [document reference 3.1]. This was submitted with the application and has been referenced in responses to comments raised by East Yorkshire Concrete Products Limited, Mr M W Mewburn and Mr J Mewburn (the Interested Parties) in their relevant and written representations. The following responses are in relation to each numbered comment provided by the interested party: 1. Plot 04-19 is for the temporary Possession of agricultural land and access track (south of Dunnington Lane) and is required to create a Temporary Construction Compound (TCC). The location of the TCC's are presented on **Figure 5-3** of **Chapter 5 Project Description - Figure 5-1 to Figure 5-4** [APP-072]. The construction works require a series of Main and Satellite TCC's that would operate as support bases for the onshore construction works along the Onshore Export Cable Corridor. They may house portable offices, welfare facilities, concrete or Cement Bound Sand (CBS) batching plant, localised stores, as well as acting as staging posts for localised secure storage for equipment and component deliveries. Each Satellite TCC (up to approximately 15 in total) would be approximately 75m x 75m or 5,625 m2 in size with direct access into the construction easement but, this may vary due to site specifics. To minimise disruption to the local road network the Applicants have identified the most suitable accesses to and from the construction compounds and in some cases, this is via the Projects' Haul Road as shown on the **Access to Works Plan** [APP-016] and **Figure 5-3** [APP-072]. Plot 04-19 includes a satellite TCC and is not proposed as a location for a main TCC. Plot 04-017 is required for Temporary Possession of agricultural land (west of Dunnington Lane) to provide continuation of off Haul Road Access Rights to utilise an existing gap in the hedge in plot 04-11 to the east of Dunnington Lane. 2. The Projects Onshore Export Cable Corridor design has been carefully developed considering design constraints such as engineering, ecological and heritage, as well as proximity to residential property and designated landscapes, as set out in **Chapter 4 Site Selection and Assessment of Alternatives (Revision 2)** [AS-017]. The Applicants believe the proposed Project Design Envelope, set out in **Chapter 5 Project Description (Revision 3)** [REP1-009] on balance achieves the optimum design. Taking a holistic approach, the Onshore Export Cable Corridor has been expediently routed to avoid unviable cable bends around each field boundary. Plot 04-024 has not been able to be routed to the eastern boundary for it to link to plots 04-21 – 04-023 to the north in a straight alignment and importantly enabling an area of off Haul Road which targets an existing gap in a hedge in plot 05-002 to the south. Also Engineering commitment to trenchless crossing (likely Horizontal Directional Drill (HDD)) of Dunnington Lane (S1-RX-07) (east of Plot 04-024) has been made based on the Traffic and Transport assessment and therefore appropriate set back distance to the west of the road is required to allow space of trenchless crossing e.g. HDD Compounds.

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		Should any part of the interested parties land be temporarily severed during construction the voluntary Option and Deed of Grant states: 'The Grantee shall use reasonable endeavours to provide the Grantor, with access across or over the Option Area to any severed areas, where reasonably practicable, which are created as a direct result of the Proposed Works or otherwise agree appropriate compensation with the Grantor.' This is also a commitment in the **Commitments Register (Revision 2)** [REP2-025], see C107 and the section 6.6.2.1 of the **OCoCP (Revision 4)** [REP4-040], secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. 3. As detailed in **Chapter 5 Project Description (Revision 3)** [REP1-009], Table 5-27 the indicative cable design depth is 1.6m but there is some flexibility in this figure typically ranging from 1.3-1.7m from surface level to top of cable duct to allow for natural variation in topsoil thickness (0.1-0.5m) along the Onshore Export Cable Corridor. As detailed in **The Applicants' Responses to April 2025 Hearing Action Points** [REP4-096] (ISH4, Action point No.48), at Deadline 4. Where the design depth cannot be achieved, the minimum depth, below agricultural land would be 1.1m between the restored surface and the uppermost part of the proposed cable duct and 0.9m between the restored surface and the protective tile to align with the wording in the Deed of Grant, where constrained. The design and minimum depth of 1.1m, where constrained for agricultural land have been designed to allow agricultural operations to continue above the cable ducts. However, the minimum depth is not currently included in any document submitted with the application. The Applicants have therefore proposed to update Table 4-4 in the **Design and Access Statement (DAS) (Revision 2)** [REP2- 027] and Table 5-27 of **Chapter 5 Project Description (Revision 3)** [REP1-009] to include this detail at Deadline 7 which would be how the minimum depth, where constrained is secured by the DCO as these documents are certified. This will also be added to **the OCoCP (Revision 4)** [REP4-040], at Deadline 7, secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. The Applicants are unable to make the commitment to maintaining the depth of the cables for the duration of the Projects and cannot comment on what other Projects may have committed to. The Applicants would not have control of the surface of the land and what agricultural activities a landowner may undertake which could increase or decrease the level of topsoil in any given section of the Onshore Export Cable Corridor. To account for variations in the thickness of topsoil **the DAS (Revision 2)** [REP2-027] was updated in Table 4-4, at Deadline 2 to clarify that the design burial depth below subsoil level would be 1.2m. This will also be added to the **Chapter 5 Project Description (Revision 3)** [REP1-009] and **OCoCP (Revision 4)** [REP4-040], at Deadline 7. In addition, the Projects will be designed to remain at the depth they are constructed throughout operation, an example was given where a gas pipeline had risen to the surface during operation where there were fluctuations in the amount of gas being transported through the pipeline and specific ground conditions that increase the risk of this effect. The Applicants can confirm that the buoyancy effects of the ducts would be considered alongside a variety of load cases and ground conditions during detailed design (for both construction and operation conditions). Resistance to buoyant forces would typically be provided by the weight of the duct/ cables in the ducts, cable bedding / backfill characteristics and installation methodology including a protective tile over the cable. Given the majority of the Onshore Export Cable Corridor is located within agricultural land, it would not be within the Applicants interest to construct a design which allowed the cables to be exposed to the surface or potential damage from agricultural equipment. The Applicants or the Offshore Transmission Owner (OFTO) would be responsible for maintaining and repairing any defects to any operational infrastructure within the Easement strip, including drainage that they are made aware of from the landowner or from their own routine asset inspections. Further details on the soil management measures can be found in **Appendix A, OSMP (Revision 2)** of the **OCoCP (Revision 4)** [REP4-040] which is secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1].

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		4. The Applicants have instructed Land Drainage Consultancy Ltd to develop conceptual pre- and post-construction drainage plans for each Project that will be shared with the main works Contractor once appointed. These concepts have been developed with landowners and agents affected by this project and the final drainage design will be agreed by private treaty, committed to as part of the voluntary Option and Deed of Grant Agreements. In addition, The **Outline Drainage Strategy (Revision 3)** [REP2-033] states that Pre-construction drainage would be installed to manage water coming from existing underground land drainage pipes which would be affected by the installation of the new Onshore Export Cables. Following installation of the Onshore Export Cables, the post-construction drainage program would commence to ensure that soils affected by the Onshore Export Cable Corridor are left in a condition that enables a return within the affected fields to full agricultural production. Where necessary, post-construction drains may be installed, typically parallel to the Onshore Export Cable Corridor. The final drainage design, considering the conceptual pre- and post-construction drainage plans prepared by Land Drainage Consultancy Ltd will be included in the detailed drainage strategy developed by the Contractor which will be agreed with the relevant Drainage Authority as stated in the **Outline Drainage Strategy (Revision 3)** [REP2-033]. As above the Applicants would be responsible for maintaining and repairing any defects to any operational infrastructure within the Easement strip including drainage that they are made aware of from the landowner or from their own routine asset inspections
REP4-107:2	Rep1 – 073.6 Land owned by East Yorkshire Concrete Products Limited was subject to the compulsory acquisition process under the Dogger Bank A and B project and the applicant's agent, Dalcour Maclaren, acted for the developer. We have referred Dalcour Maclaren to the Unilateral Undertaking ("UU") and draft Deed of Grant relating to the Dogger Bank A and B project implemented after the compulsory acquisition process was invoked. The UU contains a number of safeguards and provisions which protect the landowner from the impact of the project and we have requested that these be included in the Voluntary Agreement for the Dogger Bank South Project. To date the applicants have not responded regarding the provisions in the Dogger Bank A and B UU.	Throughout the negotiations the Applicants have had with East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn (the appointed agent represents, and we assume that his response concerns all of his three clients unless stated otherwise), it has been made clear that the Applicants will not be entering into a Unilateral Undertaking. The Applicants have not seen a copy of the Unilateral Undertaking as it was entered into on a different project and is assumed to be confidential between the parties. However, the Applicants land agents responded to all points raised in written communication with the appointed agent on the 28th February 2025 which can be seen in Appendix A. The Applicants have offered a voluntary Option and Deed of Grant which makes similar commitments to the Option and Deed of Grant documents that other Projects have entered which has been accepted by over 80% of landowners to date. The Applicants are therefore not prepared to offer East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn a Unilateral Undertaking, as the preference is to offer an Option and Deed of Grant. If a voluntary option cannot be agreed, the Applicants would have to rely, as a last resort, in the compulsory powers granted by the order, when made. This would require them to serve a General Vesting Declaration which would vest the rights set out in Schedule of 7 and 9 of the **Draft DCO (Revision 8)** [document reference: 3.1] if the parties failed to reach a voluntary agreement.
REP4-107:3	Rep1-073.7 The applicants did not respond to any of the initial issues raised on behalf of the landowners regarding the route of the Project and the Order Limits. As a consequence, the applicants have failed to address issues which could easily have been resolved at an earlier stage, such as moving the Order Limits to adjoin the eastern edge of the field boundary in land identified as 04-24 in the Book of Reference, to avoid severing the field through the installation of the cables and consequently sterilising a greater area of the field than is necessary. Representations were made to the applicants at an early stage regarding the excessive land take, severance of the land parcels and irregular boundaries in the land identified as 04-017, 04-018 and 04-019 in the Book of Reference. The applicants provided no response the representations.	Applicants disagree with the statements made by the appointed agent of East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn in this representation. The applicants considered the representations the appointed agent made early in the development process and a response stating that moving the Order Limits to adjoin the eastern edge of the field boundary in land identified as 04-24 was not possible, was included in the **Consultation Report Appendix G - Section 42 and 47 Responses and Applicants Regard** [APP-044], submitted with the DCO application in June 2024. The Applicants have designed the Order Limits taking into consideration several factors such as engineering design, technical and environmental constraints and landowner feedback, which has resulted in a preferred route. The Applicants note that this has created a small number of instances where the Onshore Export Cable Corridor has caused severance issues which will be eligible for compensation.

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		Plot 04-024 has not been able to be routed to the eastern boundary for it to link to plots 04-21 – 04-023 to the north in a straight alignment as is set out in the response to REP4-107:1 above. In addition, this route enables an area of off Haul Road which targets an existing gap in a hedge in plot 05-002 to the south. The temporary access routes referring to plots 04-017 and 04-018 have been identified after consultation with East Riding of Yorkshire Councils Highways department to enable continuous use of the public highway without the need for temporary traffic control measures being put in place. The Applicants satellite TCC size in relation to plot 04-019 has been designed to optimise the best location in proximity to the public highway and at proportionate distances along the Onshore Export Cable Corridor.
REP4-107:4	Rep1-73.10 In their submissions, the applicants have only committed to installing the cables to an indicative depth of between 1.3 m and 1.7 m from the restored surface level and referenced an average depth of 1.6 m. No information has been provided to confirm how the average depth has been arrived at or whether it is realistic. Basing the depth on the restored surface level is also misleading, as the restored surface will settle as a consequence of the excavation works leaving the cables at a shallower depth than stated. Our client has direct experience of settlement issues from the Dogger Bank A and B project. Agricultural operations such as mole draining are typically undertaken at a depth of 600 mm below the surface level (and deeper if the land drains are deeper). Based on the range of depths for the cables stipulated by the applicants and the issue of measuring depth from a restored surface, unless installed deeper, the Project could prevent normal agricultural operations from being undertaken. Land drainage (field drains) in this area of East Yorkshire are typically installed at a depth of 900 mm below the surface, with an increased depth needed where fall is required into connected drains or ditches. As proposed by the applicants, the range of depths for the cable could directly interfere with existing or future land drainage schemes, thereby impacting on the productivity of the land and the ability of landowners to utilise their land effectively. To avoid issues with the cables interfering with normal agricultural operations and land drainage, a commitment to install the cables and jointing bays at a minimum depth of 1.6 m from the original surface level of the land to the top of the cable duct is required. The original surface level of the land can be easily assessed by undertaking topographical surveys prior construction works commencing. As noted other projects have committed to maintaining the depth of the cables and we have requested that the applicants provide a similar commitment in the Voluntary Agreement. To date the applicants have not responded on this point nor addressed it in their response to this representation.	The Applicants have provided all relevant technical details regarding the installation of the Onshore Export Cable Corridor in **Chapter 5 Project Description (Revision 3)** [REP1-009]. Further details on the soil management measures can be found in **Appendix A, OSMP (Revision 2)** of the **OCoCP (Revision 4)** [REP4-040] which is secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. To reiterate, the Applicants have confirmed that the design cable depth is 1.6m but there is some flexibility in this figure typically ranging from 1.3-1.7 m from surface level to top of cable duct to allow for natural variation in topsoil thickness (0.1-0.4m) along the cable route, as detailed in Table 5-27 of **Chapter 5 Project Description (Revision 3)** [REP1-009]. The minimum depth, where constrained by environmental or engineering factors is 1.1m which is from surface level to the top of the duct and would be 0.9m from surface level to the protective tile. The design and minimum depth of 1.1m, described above have been designed to allow all agricultural operations to resume following the reinstatement after the completion of the works. As detailed in the Applicants response to REP4-107:1, above, to account for variations in the thickness of topsoil the **DAS (Revision 2)** [REP2-027] was updated in Table 4-4, at Deadline 2 to clarify that the design burial depth below subsoil level would be 1.2m. This will also be added to the **Chapter 5 Project Description (Revision 3)** [REP1-009] and **OCoCP (Revision 4)** [REP4-040], at Deadline 7. By allocating the subsoil interface as the consistent reference point, it removes any ambiguity of the restored or original surface level. The Applicants have proposed to update Table 4-4 in the **DAS (Revision 2)** [REP2- 027] and Table 5-27 of **Chapter 5 Project Description (Revision 3)** [REP1-009] to include this detail at Deadline 7 which would be how the minimum depth is secured by the DCO as these documents are certified. This will also be added to the **OCoCP (Revision 4)** [REP4-040], at Deadline 7, secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. The Applicants are unable to make a commitment to install the cables and Jointing Bays at a minimum depth of 1.6m from the original surface level of the land to the top of the cable duct as in some scenarios achieving 1.6m depth may not be possible due to engineering or environmental reasons, or the depth of the topsoil. The Applicants note that agricultural operations such as mole draining are typically undertaken at a depth of 600mm below the surface level and have stated that, where constrained, a minimum depth of 1.1m will be maintained from surface level to the top of the duct, and 0.9m from surface level to the protective tile, which would allow all agricultural operations to resume following the reinstatement after the completion of the works. An **Outline Drainage Strategy (Revision 3)** [REP2-033] states pre-construction drainage would be installed to manage water coming from existing underground land drainage pipes which would be affected by the installation of the new Onshore Export Cables. Following installation of the Onshore Export Cables, the post-construction drainage program would commence to ensure that soils affected by the Onshore Export Cable Corridor are left in a condition that enables a return within the affected fields to full agricultural production. Where necessary, post-construction drains may be installed, typically

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		parallel to the Onshore Export Cable Corridor, which would remove any obligation on the landowner to install or maintain drainage (field drains) with the Easement strip. Both pre- and post-construction land drains are designed to integrate with and replace existing drainage systems which may otherwise be damaged within the working area, and will be installed at a level which enables subsoiling and all other agricultural practices. If any future drainage works were required by the landowner, they could take place at up to 900mm (minimum depth of the protective tile), any works deeper than this would need to be agreed with the Applicants or the OFTO. The Applicants are unable to make the commitment to maintaining the depth of the cables for the duration of the Projects and cannot comment on what other Projects may have committed to. The Applicants would not have control of the surface of the land and what agricultural activities a landowner may undertake which could increase or decrease the level of topsoil in any given section of the Onshore Cable Corridor. However, the Applicants have mitigated by design by committing to a designed depth of 1.2m below the subsoil interface which has been designed to allow all agricultural operations to resume following the reinstatement after the completion of the works. Land interests will be provided with as built drawings of the Project(s) final design once all construction works are complete. These will accurately record the GPS location and depth at the time of laying. In addition, **Appendix A, OSMP (Revision 2)** of the **OCoCP (Revision 4)** [REP4-040] includes details of all proposed soil management measures and is secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. Section 4.7.9 specifically sets out how the Contractor would be required to reinstate the topsoil; this states that a 'written and photographic record of re-instated topsoil depth is to be made in all enclosures'. Please note, the Soil Resource Assessment Survey Results are included in **Appendix A-1** of the **Appendix A, OSMP (Revision 2)** of the **OCoCP (Revision 4)** [REP4-040] and already include details of soil depth within the Order Limits.
REP4-107:5	Rep1-073.10 Limited contact or information has been received from the applicant's land agent. The detailed assessment undertaken to arrive at the Agricultural Land Classification (ALC) Grade have not been shared by the applicants and cannot therefore be confirmed. The information provided at Rep 01-025 is an assessment instructed by the Project to justify their application. We are familiar with the requirements of ALC Assessments and have recent experience of land initially identified as Grade 3, being reclassified as Grades 1, 2 and 3a when an accurate ALC assessment was undertaken.	The Applicants disagree with the opening statement made by the appointed agent of East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn in this representation, as clearly demonstrated in the **Land Rights Tracker (Revision 5)** [REP3-016] and the fact that the Applicants have provided all relevant technical details regarding the installation of the Onshore Cable Corridor through both the LiG and via direct communication. The Agricultural Land Classification (ALC) results are summarised in **Appendix A, OSMP (Revision 2)** of the **OCoCP (Revision 4)** [REP4-040] which is secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1] and detail is included in Appendix A-1 of this document 'Soil Resource Assessment Survey Results'. This includes the survey methodology and all the detailed lab results. A summary is provided below: A review of published provisional Department for Environment, Food, and Rural Affairs (DEFRA) land quality (at a scale of 1:250,000 and 1:10,000 MAGIC website), shows the land in this area to be mapped as predominantly good or moderate quality agricultural land (ALC Grades 2 and 3), however does not provide further differentiation between ALC subgrade 3a and 3b. Detailed ALC assessments were undertaken by a team of independent surveyors appropriately qualified under the British Society of Soil Science competencies that are highly experienced in ALC assessment across over ~1000Ha+ of agricultural land. Soils were examined using a hand-held Dutch auger and spade every 100m (or 1 Ha) along the DBS construction corridor in line with Natural England Methodology. Information on cropping, relief and characteristics were collected from each soil horizon to a depth of 1.2m unless impenetrable. Characteristics were inclusive of topsoil and subsoil depth, soil texture, stone content (type and size), drainage characteristics (gleying, mottling and identification of slowly permeable layers) were collected at each point. Full detailed results can be viewed in the Appendix A-1 of this document 'Soil Resource Assessment Survey Results in **Appendix A, OSMP (Revision 2)** of the **OCoCP (Revision 4)** [REP4-040]. 'Detailed soil survey

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		information has been combined with other site information, e.g., climate, relief, flood risk, to grade the quality of the land in accordance with the method described in Agricultural Land Classification of England Wales: Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988) to provide the ALC grade within the DBS working corridor. Field survey information and analytical data has been used to characterise the soils found on site into one of five soil type categories to inform proposals for mitigation as part of the construction design. Small hand dug profile pits were excavated in the soil types identified to record more detailed information on profile characteristics. The applicant therefore rejects the statement that the assessment was '*instructed by the Project to justify their application*'.
REP4-107:6	Rep1-073.11 As noted above, the applicant's response to this representation does not address the minimum depth requirements for the able to avoid interference with agricultural operations nor the commitment required to maintain cable depths for the duration of the Project.	Please see response to REP1-073:10.
REP4-107:7	Rep1-073.12 The inclusion of a commitment to maintain the cables at a minimum depth has been requested in the legally binding Option and Deed of Grant. To date the applicants have refused to consider this request despite the Dogger Bank A and B project providing such a commitment and other projects addressing it in their Voluntary Agreements. As noted above, the applicants proposal to provide a vague commitment to installing the cables at an insufficient depth in the proposed Option and Deed of Grant risks the cables interfering which future uses of the land and normal agricultural operations. A commitment to install and maintain the cables at an acceptable depth of **1.6m** from the **original surface level** is required in the legally binding Option and Deed of Grant. To date the applicants have refused this request. The Outline Drainage Strategy (document reference 8.12) only provides vague commitments and fails to address the impact of the cables on the repair, maintenance and replacement of existing land drainage systems, the inability to drain adjoining land in the future as a consequence of the cables once installed and the ability to effectively drain in between the cables if the cable easements are not contiguous. A commitment is needed from the applicants that sufficient land drains will be installed in the Order Limits post construction and the repair, maintenance and replacement of the post construction drains will be undertaken by the applicants (or the Ofto) for the duration of the Project.	Please see response to REP1-073:10.
REP4-107:8	Rep1-073.13 As noted above, the applicants have not addressed the issue in their response to the representation. The legally binding Option and Deed of Grant offered by the applicants through the Voluntary Agreement process does not address the issue. In the absence of the Voluntary Agreement sufficiently protecting landowners on these issue, we sought clarification from the applicants on how the matter will be addressed	The Applicants are endeavouring to seek a voluntary agreement with all Landowners affected by the Projects, including East Yorkshire Concrete Products Limited, Mr M W Mewburn and Mr J Mewburn. Negotiations with the LiG have been extensive and it has been made clear that using any compulsory acquisition rights (if granted) would be used only as a last resort. As part of the negotiations with the LiG the Applicants, as requested, set out in the email dated on 9th May 2024 (extracts provided by the appointed land agent) how the compulsory acquisition strategy would work for this Project. The Applicants have attached in Appendix B a full copy of the email, which concludes by stating:

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
	under the compulsory acquisition process. Via email dated the 9th May 2024 the applicants responded as follows: *"As is commonplace with offshore wind DCO's DBS will be seeking permanent rights in the order for the purposes of construction, installation, operation, maintenance and decommissioning of the authorised projects. The DCO will set out the various rights sought and will be available once it is submitted to PINs at the end of this month.* *However for certainty, if we are unable to reach a voluntary agreement by the time the order is made (if consented circa Q4 2025) then we will look to serve a General Vesting Declaration which will automatically vest a high level number of rights and restrictions in title to enable the OFTO operator to construct, maintain and ultimately decommission the projects.* *If this occurs we will no longer seek a voluntary Deed of Easement and rely on the rights automatically vested under the GVD. This is very different to the Notice to Treat / Notice of Entry you may have had experience of. For clarity a form of Deed of Grant won't be sought under GVD, the rights sought in the DCO will be vested against title as set out in each class of right in the application."* Based on the information submitted to PINS to date, the draft DCO and in particular the proposed compulsory acquisition rights do not address the impact on landowners in respect of cable installation depth and maintaining the cables at a minimum depth nor the other landowner issues and safeguards noted in these representations. The legally binding Unilateral Undertaking provided by the Dogger Bank A and B project addressed these issues and before considering granting compulsory acquisition rights to the applicants similar commitments are needed. The applicants have clearly stated that if compulsory acquisition rights are granted then they will abandon the Voluntary Agreement process and seek to progress the Project with no regard for the impact on landowners.	*"The above of course is a matter of last recourse and we would like to work with your clients to seek a voluntary agreement. We are happy to meet the LiG as required to explain the rights sought in the final HoT and clarify any questions that the LiG may have but we would urge the LiG to instruct their nominated legal representative so the HoT can be review alongside the Option / DoG and provide independent legal advice to the LiG".* Throughout the negotiations the Applicants have had with East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn, it has been made clear that the Applicants will not be entering into a Unilateral Undertaking. The Applicants have offered a voluntary Option and Deed of Grant which makes similar commitments to the Option and Deed of Grant documents that other Projects have entered which has been accepted by over 80% of landowners to date and therefore are not prepared to offer East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn a Unilateral Undertaking as the preference is to offer an Option and Deed of Grant. If a voluntary option cannot be agreed, the Applicants would have to rely, as a last resort, in the compulsory powers granted by the order, when made. This requires them to serve a General Vesting Declaration which would vest the rights set out in Schedule of 7 and 9 of the **Draft DCO (Revision 8)** [document reference: 3.1] as a last resort if the parties failed to reach a voluntary agreement. As detailed in **The Applicants' Responses to April 2025 Hearing Action Points** [REP4-096] (ISH4, Action pint No.48), at Deadline 4. The minimum depth, where constrained below agricultural land would be 1.1m between the restored surface and the uppermost part of the proposed cable duct and 0.9m between the restored surface and the protective tile to align with the wording in the Deed of Grant. The minimum depth for agricultural land of 1.1m where constrained, is not currently included in any document submitted with the application but has been designed to allow ploughing to take place above the cable ducts. The Applicants have therefore proposed to update Table 4-4 in the **DAS (Revision 2)** [REP2- 027] and Table 5-27 of **Chapter 5 Project Description (Revision 3)** [REP1-009] to include this detail at Deadline 7 which would be how the minimum depth is secured by the DCO as these documents are certified. This will also be added to the **OCoCP (Revision 4)** [REP4-040], at Deadline 7, secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. Although a minimum depth is being added to the application documents it is important to note the cable ducts will be installed at the design depth for the majority of the Onshore Export Cable Corridor and Onward Cable Connection. As detailed in the Applicants response to REP4-107:1 and REP4-107:4, above, to account for variations in the thickness of topsoil the **DAS (Revision 2)** [REP2-027] was updated in Table 4-4, at Deadline 2 to clarify that the design burial depth below subsoil level would be 1.2m. This will also be added to the Chapter 5 Project Description (Revision 3) [REP1-009] and **OCoCP (Revision 4)** [REP4-040], at Deadline 7. By allocating the subsoil interface as the consistent reference point, it removes any ambiguity of the restored or original surface level.
REP4-107:9	Rep1-073.14 It will take several years for the nutrients, fertility and organic matter of the disturbed soils to be restored and our clients have direct experience of the negative impact which this can cause to their land from the Dogger Bank A and B project. The Dogger Bank A and B project took an unnecessary long period of time to reinstate the Works Corridor, impacting on the landowners' ability to recommence farming their land. Soil handling was an issue during the Dogger Bank A and B project as the developer did not comply with the code of construction practice and the Agricultural Liaison Officer (ALO) employed by the developer had no ability to address this with the developer or the contractor. On this project soils were mixed and not handled correctly with work undertaken in unfavourable weather conditions. As a consequence, soils have been badly damaged and not restored satisfactorily.	The Applicants cannot comment on the approach taken by Dogger Bank A and B, however, they have made a commitment to undertake the mitigation included in the OSMP which is secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1] to ensure that soils are not mixed and are handled following best practice and the relevant guidance, this includes restricting works in very wet weather to avoid soil damage. Land Drainage Consultancy Ltd have undertaken soil sampling in accordance with the relevant guidance set out in the Appendix A-1 of this document 'Soil Resource Assessment Survey Results' in **Appendix A, OSMP (Revision 2)** of the **OCoCP (Revision 4)** [REP4-040] across the working corridor from each enclosure. Samples were taken pre-construction and analysed for pH, organic matter (OM), phosphorous (P), potassium (K), magnesium (Mg) and soil texture. Post construction laboratory testing of soils will not be undertaken as standard unless there are specific concerns or complaints regarding the reinstatement, after which methods of testing will be determined by the appointed project soil scientist. Further details on the soil management measures can be found in **Appendix A, OSMP (Revision 2)** of the **OCoCP (Revision 4)** REP1-025] which is secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1].

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
	A commitment is needed from the applicants that they take detailed soil tests prior to construction commencing, will restore the Order Limits within 12 months of construction work commencing and will properly compensate landowners for the loss of nutrients, fertility and organic matter in the soils, as well as other relevant heads of claim under the compensation codes. A commitment is also need from the applicants whereby if an issue arises during the construction process which is not satisfactorily addressed by the applicants or the ALO, then it can be promptly referred (by the landowner or occupier) to an independent expert whose decision will be binding.	As detailed in the Applicants response to REP4-107:11 and detailed below, it is not possible for the Applicants to commit to a 12-month reinstatement period at this point in the design process. This would also restrict the ability of the Contractor to reinstate the land at the correct time of year, in appropriate ground conditions, in line with the measures set out in the OSMP. If the Landowner suffers loss of yield in crop because of the project after reinstatement, the Landowner is entitled to submit a compensation claim to the Applicants for any proven losses. This is a far more accurate means of assessing compensation than checking against a nutrient baseline which would require continuous monitoring and would be subject to seasonal weather variations and landowner inputs outside the control of the Applicants. The Applicants have agreed in the voluntary Option and Deed of Grant agreement that a written and photographic, date stamped Pre-Entry Schedule of Condition shall be undertaken by the Applicants and issued to the Landowners for approval. The Agricultural Liaison Officer (ALO) will be appointed to provide an interface between the Contractor and the landowners. The Applicants have agreed in the voluntary Option and Deed of Grant agreements a dispute resolution method, which refers matters where they cannot be settled between the parties to expert determination to either the President of the Royal Institution of Chartered Surveyors or the President of the Central Association of Agricultural Valuers.
REP4-107:10	Rep1-073.15 The applicants have provided no detail to confirm how the Works Corridor will be reinstated, nor how the reinstatement works address the lost fertility, nutrients and organic matter as a consequence of the soils being disturbed. The inclusion of the wording "as soon as reasonably practical" for reinstatement works in the Option and Deed of Grant (as drafted) is vague and provides no firm commitment by the applicants to an acceptable timeframe or acceptable longstop date. As noted, our clients have experienced issues with such wording on the Dogger Bank A and B project, where the developers sought to delay reinstatement and hand-back of the land to landowners in an attempt to secure their agreement to less than adequate compensation. This must be prevented on this Project. We have requested that the applicants include a long-stop date in the Option and Deed of Grant in relation to the reinstatement of the Works Corridor following installation of the cables or the undertaking of any subsequent repair/renewal works. Re-instatement within 12 months and prior to the next cropping season following cable installation has been requested. As drafted the Option and Deed of Grant provide no redress mechanism for landowners to challenge the timeframe for reinstatement and hand-back of the land post construction. Such delays can have a major impact on landowners and the operation of their businesses, for example by frustrating their ability to sell or let their land, plan succession/bequests or secure finance against the land as the value will be negatively impacted until satisfactorily reinstated.	Reinstatement will be conducted in accordance with Best Practice Guidance as adopted from the DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites and the Institute of Quarrying (IQ) guidance for Good Practice Guide for Handling Soils in Mineral Workings and are outlined in **Appendix A, OSMP (Revision 2)** of the **OCoCP (Revision 4)** [REP4-040] , secure by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. The OSMP will be used by the Contractor to develop a detailed soil management plan which will adopt Best Practice guidance and be appropriately tailored for soil handling within a construction of linear construction corridors to mitigate against the risk to soil resources. As detailed in the Applicants response to REP 4-107:9 above; if the Landowner suffers loss of yield in crop because of the Projects after reinstatement, the Landowner is entitled to submit a compensation claim to the Applicants for any proven losses. This is a far more accurate means of assessing compensation than checking against a nutrient baseline which would require continuous monitoring and would be subject to seasonal weather variations and landowner inputs outside the control of the Applicants. Also, as detailed in the Applicants response to REP4-107:11, (see below) it is not possible for the Applicants to commit to a 12-month reinstatement period, at this point in the design process. This would also restrict the ability of the Contractor to reinstate the land at the correct time of year, in appropriate ground conditions, in line with the measures set out in **Appendix A, OSMP (Revision 2)** of the **OCoCP (Revision 4)** [REP4-040], secure by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. The Option agreement commits to completing the Deed of Grant within 7 years of signing, with the ability to extend the period for a further 2 years if reasonably required. The Applicants can also confirm that landowners would be financially compensated for the temporary loss of their land during construction, therefore retaining land for reinstatement and hand-back of the land post construction for up to 6 years is not financially feasible and they would be returned to the landowner as soon as possible or, within 12 months of the completion of works. Requirement 25 of the **Draft DCO (Revision 8)** [document reference 3.1] (Restoration of land used temporarily for construction)', states that land must be reinstated to its former condition, or such condition as the relevant planning authority may approve '*as soon as reasonably practicable and in any event within 12 months of completion of the relevant phase of the onshore works'*.

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
REP4-107:11	Rep1-073.16 Reinstatement of the land in the Works Corridor and hand-back to landowners is easily achievable within twelve months if the Project is planned and implemented effectively. Based on experience from the Dogger Bank A and B project the substantive reinstatement works can be undertaken immediately following the installation of the cable ducts and the top soil restored and returned to agricultural use. It should be possible to do this within 12 months of construction work commencing to mitigate the impact on landowners and occupiers. If an extension to this period is needed it should be agreed with the landowners/occupiers as their preference may be to proceed with reinstatement in a shorter timeframe, despite the season, to enable them to establish a following crop or progress with their business. Retaining 50% of the haul roads between the Jointing Bays and Temporary Construction Compounds (TCCs) is excessive and unnecessary bearing in mind the applicants have already suggested that the land will be reinstated within 2 years and ideally 1 year as noted above. Retaining haul roads for up to 6 years is financially convenient for the Project and an unnecessary burden on landowners/occupiers. Haul roads for the Dogger Bank A and B project were removed within a much shorter period. The circumstances of landowners/occupiers could change dramatically in 6 years such as through death and burdening their land for such a long period is an unnecessarily long impediment.	The Applicants do not agree with the statement '*Reinstatement of the land in the Works Corridor and hand-back to landowners is easily achievable within twelve months if the Project is planned and implemented effectively.*' The Projects have been assessed considering a Project Design Envelope and realistic worst-case parameters to undertake an Environmental Impact Assessment (EIA). The Applicants have built up significant experience of installation of cables for offshore wind projects and can state that the design is not yet detailed enough to confirm exactly how the Contractor would construct the Onshore Export Cable Corridor and how long this would take, therefore a commitment to reinstatement in such short timescales cannot be made. There are also several seasonal constraints that require consideration to ensure the correct handling of soils and reinstatement of habitats, including hedgerows, along the full 34km length of the Onshore Export Cable Corridor and 2.5km Onward Cable Connection. At this stage of design, the Applicants have made the commitment to reinstate the land between Jointing Bays within two years and this would apply to the land owned by East Yorkshire Concrete Products Ltd, Mr M W Mewburn and Mr J Mewburn. The **Commitments Register (Revision 2)** [REP2-025], ref C145 states that: '*Habitats between Jointing Bays will have topsoil and subsoil reinstated within two years from the start of construction i.e. from the point at which habitat is removed from any one area. Areas allocated for Temporary Construction Compounds (TCCs) and Haul Roads will be reinstated when construction has been completed. Permanent habitat loss has been minimised during the site selection and route refinement process of the Projects, with the most sensitive habitats, being avoided where possible*'. The Applicants have offered a voluntary Option and Deed of Grant to financially compensate for the temporary loss of land, payment would be based on the length of time the land is occupied, which will be confirmed at the detailed design stage when the Applicants have selected a Contractor to progress the works. In a sequential construction scenario, although the cable ducts would be installed simultaneously for both Projects, the cables may be pulled up to 21 months later for the second Project, as detailed in section 5.8 of **Chapter 5 Project Description (Revision 3)** [REP1-009]. To install the Jointing Bays and pull the cables for the second Project access will be needed to the Jointing Bays, however at this stage of the design the Applicants cannot confirm their exact location along the Onshore Export Cable Corridor as they may be located every 750 to 1500m. Therefore, an assumption has been made that approximately 50% of the temporary haul road will need to remain in place for future access following the initial installation of the ducts. In addition, for this phase of works a smaller area of TCC would be required therefore it is assumed up to 50% of the TCC could also be reinstated after the initial two-year construction period to install the ducts. The Applicants can confirm that landowners would be financially compensated for the temporary loss of their land during construction, therefore as retaining haul roads for up to 6 years is not financially feasible, they would be returned to the landowner as soon as possible, or within 12 months of the completion of works. Requirement 25 of the **Draft DCO (Revision 8)** [document reference 3.1] (Restoration of land used temporarily for construction)', states that land must be reinstated to its former condition, or such condition as the relevant planning authority may approve '*as soon as reasonably practicable and in any event within 12 months of completion of the relevant phase of the onshore works*'. In addition, under Article 30(3) of the **Draft DCO (Revision 8)** [document reference 3.1], the undertaker must not remain in possession of any land subject to temporary possession for longer than is reasonably necessary and in any event, without the agreement of the landowners, the undertaker may not remain in possession of the land for longer than one year post-completion of the relevant part of the authorised project (unless a notice of entry has been served). As detailed in response to ISH 4, Action No.44 in **The Applicants' Responses to April 2025 Hearing Action Point** [REP4-096] approximately 90% of the land within the Order Limits would be returned to its original use within two years. Therefore, this would only apply to that land which may be required for between 2 and 6 years. The Applicants would seek to keep an open dialogue with the landowners through the ALO and their agents keeping them up to date on when land would be returned.

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		As detailed in the **Outline Communications and Public Relations Procedure (OCPRP)** included in **Appendix B** of the **OCoCP (Revision 4)** [REP4-040]. When the detailed design and construction programme has been developed it will be communicated with the landowner so they are aware of the proposed programme for construction and reinstatement and where there may be a requirement to retain a haul road, working area or TCC for the full duration of the works.
REP4-107:12	Rep1-073.17 The applicants have provided no firm commitment on the timescale for restoring land and returning it back to landowners in their response. There is no longstop date provided for the completion of works. Without amendment, the applicants will be entitled to temporarily occupy land for an undefined land and will have no obligation on them to return land to landowners promptly. Landowners could be denied access to their land for several years which is not acceptable. Based on the proposed construction works (the installation of cable ducts), restoration of the land can be undertaken immediately once the ducts have been installed and there is no genuine reason why the land should remain unrestored for prolonged periods. A commitment is needed from the applicants whereby land will be restored and returned to landowners within 12 months of construction work commencing on their land. Land parcel 04-17 severs a small area of the field and irrespective of whether access is provided into the severed parcel it would not be economic for the landowner to farm this land whilst land parcel 04-17 is occupied by the applicants.	Please see response to REP4-107:11. In addition, land parcel 04-17 is a small area of land severed by a temporary access. As detailed in the Applicants response to Hearing Action 42 at ISH 2 in **The Applicants' Responses to January 2025 Action Points (Revision 2)** [AS-155]. It is acknowledged that in some instances it may not be possible to maintain access to all severed land. These areas include, for example, isolated sections of haul roads shown as loops on the plans of **Works Plan (Onshore) (Revision 3)** [PDA-003], this includes the example in Land parcel 04-17.The impacts to owners / occupiers of these areas will be mitigated as set out in section 21.6.1.2.5 of **Chapter 21 Land Use (Revision 3)** [document reference 7.21], specifically '*Private agreements (or compensation in line with the compulsory purchase completion code) will be sought with relevant landowners / occupier*'. The Applicants are seeking a voluntary agreement with East Yorkshire Concrete Limited to include plots such as 04-017 for temporary possession for construction access, however, if this is not possible the land would be made subject to a temporary possession notice and occupied for the duration of the works, with appropriate compensation paid through this mechanism to the landowner.
REP4-107:13	Rep1-073.18 The reference to 'Completion Notice' in the landowners' representation refers to the legally binding UU provided by the Dogger Bank A and B project. Based on the applicants email response dated 9th May 2024 noted at Rep1-073.13 above, the applicants are seeking to avoid a similar legal commitment. As noted, the current draft of the legally binding Option and Deed of Grant does not address this issue and the applicants have refused to consider the amendments requested. When considering the applicant's request for compulsory acquisition rights, the timeframe for restoring land and handing it back to landowners needs to be considered.	Throughout the negotiations the Applicants have had with East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn, it has been made clear that the Applicants will not be entering into a Unilateral Undertaking. The Applicants have offered a legally binding Option and Deed of Grant which makes similar commitment to the Option and Deed documents that other Projects have entered, which has been accepted by over 80% of landowners. Based on this incredibly high level of mutual agreement, the Applicants do not consider it necessary to make individual concessions based on the appointed agents experience with another project. The documentation has been reviewed by multiple solicitors to an agreeable form on a consistent basis with all but a few landowners and, similarly with the Unilateral Undertaking document, would include provision in the Option to issue a Completion Notice post construction, calling for the parties to enter the Deed of Grant. The Applicants continue to maintain the position that, if a voluntary agreement cannot be reached with East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn, the Applicants will have no alternative but to serve a General Vesting Declaration, which would vest the rights set out in Schedule of 7 and 9 of the **Draft DCO (Revision 8)** [document reference 3.1] prior to construction commencing, as a last resort.
REP4-107:14	Rep1-073.19 The personnel described in the applicants' response to monitor the construction process and reinstatement are all employees or contractors for the applicant, including the ALO. Based on experience from the Dogger Bank A and B project, a mechanism to allow recourse to an independent third party with the power to impose appropriate sanctions or redress on the applicants is needed to the protect the position of landowners/occupiers. Otherwise, genuine issues are not addressed appropriately with a consequential impact on landowners/occupiers.	The Applicants would seek to keep an open dialogue with the landowners through the ALO and their agents keeping them up to date on when land would be returned. This is detailed in the **OCPRP** included in **Appendix B** of **the OCoCP (Revision 4)** [REP4-040]. When the detailed design and construction programme has been developed it will be communicated with the landowner so they are aware of the proposed programme for construction and reinstatement and where there may be a requirement to retain a haul road, working area or TCC for the full duration of the works. The Option and Deed of Grant offers reassurance to landowners that *'following completion of the Proposed Works, the Grantee will reinstate the Option Area to the Pre-Works condition. The Pre-Works conditions is described in the Pre-Entry Schedule of Condition.' It further provides a mechanism of dispute resolution that 'if a dispute cannot be settled between the parties the*

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		matter should be referred to expert determination by an expert agreed by both parties who is approved by the President of the Royal Institution of Chartered Surveyors or by the President of the Central Association of Agricultural Valuers (CAAV). In the absence of agreement, the expert may be nominated by the President of the Royal Institution of Chartered Surveyors or by the President of the Central Association of Agricultural Valuers (CAAV) on the application of either party.' In addition to any provisions privately agreed within the Option and Deed of Grant, Article 47 of the **Draft DCO (Revision 8)** [document reference 3.1] provides the recourse of arbitration in respect of any difference under any provision of the Order. Such disputes must be referred to and settled by arbitration in accordance with the rules in Schedule 16 (Arbitration rules) of the Order.
REP4-107:15	Rep1-073.20 The legally binding UU and deed of grant relating to the Dogger Bank A and B project includes a number of safeguards to protect the interests of landowners and occupiers, in addition to the concerns regarding cable depth and maintaining depth, as noted above. These issues were raised with the applicants through the LiG meetings and subsequently in relation to the proposed Option and Deed of Grant to ensure uniformity with the DBAB Unilateral Undertaking. The issues are summarised below: **Compensation** Preserving the ability for landowners/occupiers to claim for consequential losses as a consequence of the Project in accordance with the compensation code. **Indemnity for the Landowner/Occupier** The provision (by the applicants) of an indemnity for landowners and occupiers against any issues associated with the use of the cables, negligence of the Developer/Operator or breach of covenant to fully indemnify landowners/occupiers against costs, fees, charges etc. involved with pursuing the developer over a breach of their obligations. **Cable Removal** On decommissioning a provision for landowners to request that the cables (and associated apparatus) are removed to avoid any legacy issues which landowners would subsequently become liable for. **Use of the Electric Cables** A limitation on the use of the cables to the Dogger Bank South (East and West) Offshore wind farm only. **Professional Fees** Confirmation that professional fees will not be subject to an 'aggregation' clause to limit the amount payable by the applicants. **Limitation of the Grantor's (Landowner's) Liability** A limitation on the landowner's/occupiers liability to ensure that it is feasible for them to secure insurance to protect them against any liability/risk created as a consequence of the Project. Without this the Project risks putting landowners/occupiers out of business if an	The Applicants believe that the statement "*the applicants have failed to address the issues noted above*" (last paragraph of Rep1-073.20) is incorrect. The Applicants' Land agents first engaged with the appointed agent as part of the LiG in November 2023, where a number of these points were raised by several agents at the meetings and an agreed position was reached on the Heads of Terms with the LiG, of which East Yorkshire Concretes, Mr M W Mewburn and Mr J Mewburn appointed agent was a part of and attended all of the organised LiG meetings. Since the populated Heads of Terms were sent to East Yorkshire Concrete Products Limited, Mr M W Mewburn and Mr J Mewburn on 7th June 2024, the Applicants Land agent has attempted to engage with the appointed agent on several occasions and it was not until January 2025 the appointed land agent again started to engage with the Projects. All the points which have been raised as not responded or refused to consider have been considered and responded to by the Applicants Land agent. The **Land Rights Tracker (Revision 5)** [REP3-016] which the Applicants have been submitting during the examination has set out the level of engagement the Applicants have had with the Appointed land agent. To date the Applicants have not received any response from the appointed agent regarding any further details that were required for the matters raised to be dealt with completely. The individual issues raised by East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn in this response are dealt with below in order and were also provided to the appointed agent via email dated 28th February 2025 copy at Appendix A. **Compensation for consequential losses** – Compensation will be assessed and payable for any reasonable and mitigated loss to the Landowner, which has resulted as a direct consequence of the proposed works and will require supporting evidence to substantiate the amount of any such payment. Indemnity for the Landowner/Occupier -A response was sent to the appointed agent on the 28th February 2025 confirming the indemnity position in the voluntary agreement for the Projects. If no voluntary agreement is reached between the Landowner and the Applicants there will be no indemnity provision provided and each claim will be assessed individually on a case-by-case basis. **Cable Removal** – The Applicants have discussed this point throughout the LiG meetings from November 2023 to June 2024 of which the appointed agent was part of and attended every meeting. Further clarification was given to the appointed agent in an email on the 28th February 2025 which confirmed that the Applicants will decommission or remove the cables by removing any part of the cable which is at a depth of less than 1.1m from the restored surface and undertaking reinstatement to a no worse condition. This will be evidenced by a Schedule of Condition. The Applicants propose to remove the cables from the ducts, subject to confirmation in a decommissioning plan. **Use of Electric Cables** – The Applicants have had several discussions with the LiG during the meetings from November 2023 to June 2024 and during those meetings agreed that all onshore infrastructure and associated works which includes the

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
	issue arises due to the scale of the Project and the quantum of the financial risk/liability it introduces to the land. We have also asked the applicants to address and confirm the following issues: **Schedule of Condition** The Schedule of Condition to be undertaken prior to entry and any intrusive surveys needs to include soil sampling and testing for organic matter (amongst other issues) and a topographical survey is needed for the Works Corridor to establish the surface levels prior to survey or construction works commencing. **Construction** A long-stop date for the construction period as noted. **Surveys, Archaeological Trenches and Trial Pits** A commitment is needed to ensure that if cropping of the land or a particular field is frustrated due to multiple survey trenches/trial pits then crop loss over the whole area/field as the works effectively frustrate the landowners'/occupiers ability to farm the whole field. This is needed to address issues already experienced on the land close to land-fall when initial surveys for the Project were undertaken. **Abortive Professional Costs** Taking into account the outstanding issues and the commitment shown by clients to date in respect of pursuing a Voluntary Agreement, reimbursement of client's abortive professional costs has been requested to protect them in the event that a Voluntary Agreement is not been achieved, bearing in mind the applicants comments in the email dated 9th May 2024 noted at Rep1.73.13 above. **Compensation for Landowner's and Occupier's time** Our clients operate substantial and complex businesses. A commitment has been requested from the applicants to reimburse our clients for their time committed to the Project proposals, the Inquiry process and considering the Option and Deed of Grant, at a rate which reflects their position in the business, level of responsibility and complexity of the issues being considered (subject to the provision of detailed records for the time accrued). The applicants have refused this request. **Easement Strip** To mitigate the impact on landowners we have requested confirmation from the applicants that the easements in the Deed of Grant for the respective cables will be contiguous. If not, this will negatively impact the land, by sterilising the area in-between the easements and limiting the ability to effectively drain this area as noted. No such commitment has been provided by the applicants, nor any technical justification to demonstrate why this commitment cannot be provided. To date the applicants have either not responded to the issues raised or refused to consider them as part of a Voluntary Agreement.	cables and underground cable Jointing Bays will be in accordance with the **Draft DCO (Revision 8)** [document reference 3.1]. This has also been separately communicated to the appointed agent on the 28th February 2025 by email. **Professional Fees** – The Landowners agent first raised this point in the Landowner specific negotiations on the 7th February 2025 by the appointed agent. The Applicants land agent responded to this point on the 28th February 2025 stating that the Applicants will pay any reasonable Agents fees upon evidence of time being incurred. **Limitation of the Grantors (Landowner's) Liability** – This was discussed at the LiG meetings, and the Applicants confirmed to the group in August 2024. The Appointed land agent has since raised this point on the 7th February 2025 and the Applicants agent has responded on the 28th February 2025, confirming that the Applicants will not seek a reciprocal indemnity from the Landowner, however the Landowner will remain liable for breach of contract if they breach their obligations in the voluntary agreement. **Schedule of Condition** – The Applicants have responded to in written representations responses REP 1-073:14 to REP 1-073:15. **Construction** – The appointed agent has previously raised this point in his email on the 30th August 2024, the Applicants Land agent responded on the 27th September 2024 confirming in the voluntary agreement the construction long stop date will be the period from the start of the Option agreement to the end of the extended option period which was a period of 9 years. As detailed in The Applicants response to REP4-107:11, the worst-case construction period onshore is up to 6 years in a sequential construction scenario, although the cable ducts would be installed simultaneously for both Projects, the cables may be pulled up to 21 months later for the second Project, as detailed in section 5.8 of **Chapter 5 Project Description (Revision 3)** [REP1-009]. As detailed in response to ISH 4, Action No.44 in **The Applicants' Responses to April 2025 Hearing Action Point** [REP4-096] land will be returned between Jointing Bays in two years, or within 12 months of the completion of works. **Surveys, Archaeological Trenches and Trial Pits** – the Applicants in consultation with the LiG agreed during the negotiations that no more than 6 archaeological trenches at any one time should be left open. The Appointed agent has already agreed on behalf of his clients to these terms through an Intrusive Licence agreement, the same terms are set out in the Option agreement. **Abortive Professional Costs** – It has been agreed with the LiG that if the Applicants withdraws the Projects or if the Applicants do not complete the voluntary agreement, then the Applicants will pay for any reasonable costs in association with negotiating the Option agreement. **Compensation for Landowners/Occupiers time** – During the LiG discussions last year it was agreed with the group as a whole of a fair rate to pay as compensation towards landowner's time of £40 per hour in line with the National Farmers' Union (NFU) recommendation, irrespective of the landowners position, as they have instructed professionals to act on their behalf with regard to the Projects. **Easement Strip** – The Applicants have discussed this matter with the LiG and confirmed in an email on the 28th August 2024 that the Easement strip(s) will be contiguous save for any environmental, engineering or trenchless crossing e.g. HDD constraints. This matter the Applicants believes has been accepted by the LiG resulting in over 80% of Landowners signing the voluntary agreement Heads of Terms. The Applicants have not withdrawn part of the compensation offered under the Voluntary Agreement. The Applicants offered an incentive payment for the landowner to agree heads of terms by 30th August 2024. However, the parties were unable to reach agreement by the set date, therefore the incentive payment is no longer applicable. The Applicants have

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
	Our clients remain committed to entering into a Voluntary Agreement but the applicants approach to the issues raised and the application of compensation penalties because the Voluntary Agreements have not been executed is frustrating this process. Recently the applicants have withdrawn part of the compensation payable under the Voluntary Agreements because our clients have yet to sign them, despite the fact that the applicants have failed to address the issues noted above. This is not the conduct of an applicant genuinely seeking to achieve Voluntary Agreements as purported through the Inquiry process.	offered a further incentive to agree the Option and Deed of Grant within 12 weeks of draft legal document been circulated, which the landowner may qualify for if they meet the deadline.
REP4-107:16	Rep1-073.21 As noted we await responses to a number of issues from the applicant and their land agent, which were raised at the outset of the Project and with the applicant directly through the LiG process. The only recent contact we have received from the applicant's land agent is to withdraw part of the compensation offered through the Voluntary Agreement to penalise our clients for raising issues with the Voluntary Agreements.	Please see response to REP4-107:15.
REP4-107:17	**Issue Specific Hearing 9th April 2025 Action Nos 47 and 49** Land Parcels 04-17 and 04-19 Temporary possession of land parcel 04-17 unnecessarily severs part of the field creating a small area of land which cannot be viably farmed (even if access is provided) with modern farm machinery. The boundaries of land parcel 04-19 also create unworkable field boundaries which are difficult to farm with modern farm machinery. Both of these issues were raised with the applicants' land agent at an early stage, but no response provided. The boundaries of the land required are unnecessarily irregular and the layout of the land required for temporary possession could be amended to avoid impacting on the landowners ability to farm the adjoining and severed land.	The Applicants are aware that in some situations the proposed routing of the Onshore Export Cable Corridor will cause small, severed areas which maybe unfarmable during the construction period, as detailed in the Applicants response to REP4-107:12, above. The Applicants shall use all reasonable endeavours to provide the Landowners access land being used for construction, however if this is not possible the Applicants will discuss the matter of compensation with the Landowners to ensure that they are in financially no worse position. A detailed response on Land Parcels 04-17 and 04-19 is provided in REP4-107:1, above.
REP4-107:18	Land Parcel 04-24 As noted under Rep1-073.5 above, the Project dissects the existing field and severs the eastern section creating a smaller land parcel whilst construction work is underway, which will be more difficult and costly to farm, impacting on the viability of farming enterprise. At the outset of the Project, representations were made to the applicant's land agent for the Works Corridor to be moved to the east so that it adjoined the eastern boundary of this field. No response was received to these representations and a technical justification has not been provided by the applicants setting out why the Works Corridor cannot be moved as requested. We are not aware of any engineering or environmental impediment which would prevent the Works Corridor from being moved to adjoin the eastern boundary of the field, thereby preventing any land from being severed.	The Applicants would refer to its response on severance in REP 4-107:01 above.

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
REP4-107:19	Land Parcels 06-18, 06-21 and 06-025 Our client who owns the above land (Mr M Mewburn) is a minerals operator and part of these land parcels are included in a Minerals Safeguarding Zone. This was raised by the applicant's land agent during the initial meeting regarding the Project and followed up with written representations. No response was received from the applicants or their land agent to these initial representations. The terms of the Voluntary Agreement proposed by the applicants would make it impossible to work the minerals underneath the cables, any minerals in between the cables (if the easements are not contiguous) and potentially the minerals to either side of the cables if undermining the cables is to be avoided. We have sought confirmation from the applicants via their land agent that landowners with a mineral resource sterilised by the Project will be compensated, subject to the provision of appropriate evidence. The applicants have refused to do this as part of the Voluntary Agreement. Compensating for the sterilisation of mineral resources in this manner is a normal head of claim for compensation in such circumstances and the applicants approach to this issue is preventing progress being made on a Voluntary Agreement.	The Applicants do not believe there is a realistic prospect for the landowner to extract mineral resource from plots 06-18, 06-21 and 06-025 due to the marginal areas allocated as Mineral Safeguarding Area and an Area of Search respectively on the periphery of the landholding and proximity to the public highway. For information purposes, plot 06-021 forms the public highway extent. However, the Applicants have sent to the appointed land agent a mineral development clause on the 25th April 2025, which the Applicants proposes as a way forward and would enable the landowner to recover compensation, if they were to secure planning consent for its extraction in the future. The Applicants agents are working with the appointed land agent to agree the provisions in the clause to be included in the Option and Deed of Grant as acceptable to both parties.
REP4-107:20	**Issue Specific Hearing 9th April 2025 Action Nos 49** Please note my comments above regarding Rep1-073 and cable depth, together with maintaining cable depth. We are happy to provide more information on the above representations if needed. The applicant's land agents are in possession of the Unilateral Undertaking and Deed of Grant for the Dogger Bank A and B project. If the Planning Inspectorate require a copy, one can be forwarded to assist the Inquiry on the basis that it is treated as redacted information.	Please see response to REP1-073:10. To date the Applicants or their land agents have not seen a copy of the Unilateral Undertaking or Deed of Grant as it relates to another Project and do not believe it is a public document. The Applicants in its absence has continued to negotiate with the Appointed agent on any matters that have been raised.

2.5 East Riding of Yorkshire Council

Table 2-5 – The Applicants' comments on East Riding of Yorkshire Council [REP4-118] responses to Action Points, ExQ1 and Rule 17

I.D.	Question	East Riding of Yorkshire Council Response	Applicants' Response
REP4- 118:1	Action No. 7 Converter station access road culvert sizing Paragraphs 37 and 38 of the Outline Drainage Strategy revision 3 [REP2-031] explain watercourses would pass below the proposed permanent access road to the proposed converter station and a suitably sized culvert would need to be provided to maintain existing flows. Would it be useful for the Applicants to commit to an expected minimum design standard? If so, what would this be? (For example, no increased risk of flooding for all storm events up to 1% annual exceedance probability plus an allowance for climate change.)	LLFA Response: Any proposed culverting of the watercourse shall not reduce the capacity within the watercourse and increase flood risk to any adjacent property or land and also any downstream areas.	The exact design and size of the proposed culverts for the permanent Onshore Converter Station access road would be agreed with the East Riding of Yorkshire Council (ERYC) in their capacity as both the Lead Local Flood Authority (LLFA) and the Drainage Authority at the detailed design stage, when the contractor has been selected. The design would include the consideration of the culvert size in relation to maintaining the existing flows and capacity in the watercourse and not increasing flood risk. As detailed in section 6.3.2 of the **Outline Code of Construction Practice (OCoCP) (Revision 4)** [REP4-040], the Applicants have committed to the following key mitigation in relation to the culvert design '*It will be ensured that any culverts are adequately sized and have sufficient capacity to avoid impounding flows and are installed below the active bed of the watercourse, ensuring that a suitable flow rate is maintained so that sediment continuity and the movement of fish and aquatic invertebrates can be maintained as in CIRIA's C786 Culverts, screen and outfall manual (CIRIA 2019). A suitable flow rate will be maintained whilst crossings are installed through the use of pumps, flumes or equivalent, so that the temporary works remain safe and operational in times of flood.*' The Code of Construction Practice will be prepared by the contractor and approved by ERYC as per Requirement 19 of the **Draft Development Consent Order (DCO) (Revision 8)** [document reference 3.1]. It should also be noted, the protective provisions for Drainage Authorities, which include the ERYC state the following in their definition of 'specified work': '*the alteration of an ordinary watercourse or a culvert or other form of drainage infrastructure in a manner that would be likely to affect the flow of an ordinary watercourse' in the definition of* '. Schedule 15, Part 4, paragraph (3) (1) of the Draft DCO states that '*Before commencing construction of a specified work, the undertaker must submit to the drainage authority plans of the specified work, including an independent review and such further particulars available to it as the drainage authority may within 14 days of the submission of the plans reasonably request.*' Therefore, any proposed culverting of the watercourse cannot take place until a plan has been agreed with the ERYC as the relevant drainage authority.
REP4- 118:2	Action no. 11 To comment/ provide an opinion on the assessment of temporary watercourse access crossings and trenched cable crossings method in Environmental Statement (ES) Chapter 20 [REP1-014] and additional information submitted by the applicants in relation to action point 10.	LLFA Response: Temporary watercourse crossings should be assessed with the same scope than that of permanent crossings, taking into account both number of crossings and durations	As detailed in **The Applicants' Responses to April 2025 Hearing Action Points** [REP4-096] response to Issue Specific Hearing (ISH) 4, Action No.10 (Section 4): '*To address the concerns of the Examining Authority as to how the 23 haul road temporary crossings have been assessed, the assessment of Impact 1 Direct Disturbance of Surface Water Bodies (Section of 20.6.1.1 of **ES Chapter 20 Water Resources and Flood Risk (Revision 2)** [REP1-014]) has been updated. This will be submitted at Deadline 7 alongside the request for an updated Environmental Statement as per the Rule 17 Letter - Request for further information dated 15 April [PD-018]. The total number of haul road only temporary crossings in each catchment have been calculated and added to the number of trenched crossings in each catchment to give a new total number of trenched and haul road only temporary crossings in each catchment. Two new columns have been added to Table 20-13 in Chapter 20 to show these changes. Where the new totals increase the magnitude of impact (taking into account embedded mitigation), this has been updated in Table 20-13. Table 20-14 and Table 20-15 have also been updated where these changes increase the significance of effect. In summary, the updated assessment results in the magnitude of impact increasing from negligible to low in one catchment for the In Isolation (4 year) Scenario, and increasing the magnitude of impact from negligible to low in four catchments for the worst case Sequential Scenario. Magnitude of impact also increases from low to medium in one catchment for the Sequential Scenario. As a result, significance of effect has increased*

I.D.	Question	East Riding of Yorkshire Council Response	Applicants' Response
			from negligible to minor adverse and not significant in one catchment (Catchwater Drain) for the In Isolation scenario (Table 20-14). For the Sequential Scenario significance of effect has increased from negligible to minor adverse and not significant in two catchments (Foredyke Stream Upper; High Hunsley to Woodmansey Area) (Table 20-15). *The updated assessment is a worst case scenario as the level of disturbance at the haul road only temporary crossings will be less than where temporary crossings are installed at trenched crossing locations. In addition, impacts for temporary crossings will be mitigated by measures included in the **OCoCP (Revision 4)** [document reference: 8.9] and secured DCO Requirement 19, including: 'If temporary culverts are needed, they will be adequately sized to avoid impounding flows (including allowing for increased winter flows as a result of climate change) and the invert set below bed level to allow bedload transport'.*
REP4- 118:3	Action no. 14 **Action no. 14 Respond to outstanding questions in ExQ1 related to hydrology and flood risk matters.** *LLFA Responses to outstanding questions:* *HF.1.12* - Can you comment on the details provided in the oCoCP (revision 3) [REP1-025] related to flood management, the drainage strategy, surface water management plan and watercourse crossings including: • If the level of detail is sufficient to frame the necessary mitigation of the potential effects during construction and operation of the projects. • If there is reasonable certainty of the quality and content of the future detailed CoCP, whether the approval bodies identified in Tables 3-2 and 3-3 of the oCoCP (revision 3) [REP1-025] would be appropriate. If the measures listed for temporary culverts in section 6.3.2.6 of the oCoCP (revision 3) [REP1-025] would be appropriate for permanent culverts, as suggested in paragraph 205 of the same document.	ERYC Response: The main concern would be the watercourses where HDD is not used, and the reinstatements of any watercourses are carried out under supervision. The applicant should demonstrate how reinstatements will be monitored/maintained following the construction phase ERYC Response: The LLFA believes these are appropriate ERYC Response: From the details provided this is acceptable, however this can be assessed once further details are provided	Point 1: As detailed in **The Applicants' Responses to April 2025 Hearing Action Points** [REP4-096] response to ISH4, Action No.6 (Section 4). The Applicants have retained flexibility for an open cut method (in agreement with Beverley and North Holderness Internal Drainage Board (BNH IDB) in the **Appendix 5-2 Obstacle Crossing Register (Revision 4)** [REP4-030] at certain crossings. This was on the basis some of these ordinary watercourses may be shallow ditches which it may be more appropriate to undertake an open cut method. For those crossings the contractor will undertake a full risk assessment of the crossing and develop a method statement based on the ground conditions, reinstatement options and the time of year. An open cut method will not be proposed if it is not considered suitable, at the detailed design stage. If an open cut method is proposed by the contractor, this would also include how the bank would be reinstated and stabilised (if required). Examples of bank stabilisation could include re-profiling, use of geotextiles, or other engineering measures such as gabion baskets mentioned at ISH4 and would be developed further prior to the detailed design stage and agreed as part of the crossing method statement. Wording was added to section 6.3.2.6 of the **OCoCP (Revision 4)** [REP4-040], at Deadline 4 to clarify these points. This would include details of any post-construction monitoring, where required, which would be dependent on the final detailed design of the bank stabilisation. Point 2: The Applicants acknowledge the ERYC response that the approval bodies identified in Tables 3-2 and 3-3 of the **OCoCP (Revision 4)** [REP4-040] are appropriate. Point 3: Please see response to REP4-118:1.
REP4- 118:4	*HF.1.15* - Accommodating drainage features constructed within the Order Limits associated with the export cable corridor. Are you satisfied that ground and surface water treatment and attenuation features could be constructed within the export cable corridor, assuming a worse case that the proposed haul road would be 100% impermeable?	ERYC Response: At the current time we do, however it is difficult to confirm until the full details are submitted.	The Applicants have provided further details on drainage in **The Applicants' Responses to April 2025 Hearing Action Points** [REP4-096] response to ISH 4, Action No.13 (Section 4) and Appendices B and C.
REP4- 118:5	*HF.1.17* - Converter station access road culvert sizing Paragraphs 37 and 38 of the Outline Drainage Strategy revision 3 [REP2-031] explain watercourses would pass	ERYC Response: Any proposed culverting of the watercourse shall not reduce the capacity within the watercourse and increase flood risk to any	Please see response to REP4-118:1, above.

I.D.	Question	East Riding of Yorkshire Council Response	Applicants' Response
	below the proposed permanent access road to the proposed converter station and a suitably sized culvert would need to be provided to maintain existing flows. Would it be useful for the Applicants to commit to an expected minimum design standard? If so, what would this be? (For example, no increased risk of flooding for all storm events up to 1% annual exceedance probability plus an allowance for climate change.)	adjacent property or land and also any downstream areas.	
REP4-118:6	Action no. 22 Provide details of the prevalence of ash in woodlands that have been identified as providing screening which would reduce the effects from converter stations (see [REP1-050] ISH2.9.7), what are the current rates of ash die back for those areas of woodland and whether this would affect the conclusions of the ES.	**Birkhill Wood** The northeast section of Birkhill Wood is broadleaved woodland, dominated by early mature sycamore with some oak. Birkhill Plantation to the south and west is mainly coniferous species (Leyland cypress, Norway spruce and larch present) with occasional silver birch, sycamore and oak to boundaries. Ash die-back will have negligible effect on screening. **Jillywood Plantation** Mixed plantation woodland to east. Pine (dominant) and ash to west. Die-back looks evident in upper canopy. Ash not present at high densities, die-back will have negligible effect on screening. **Risby Park** Several parcels of woodland including mixed deciduous and coniferous and coniferous plantation blocks. Ash present occasionally in broadleaved woodland and is exhibiting die-back. Sycamore abundant. Oak present as boundary features. Ash die-back will have negligible effect on screening. **Johnson's Pit** Predominantly sycamore, birch and oak so will not be impacted by die-back **Eleven Acre Plantation** Mixed deciduous and coniferous woodland. Coniferous block to the north and broadleaved to the south. Sycamore dominant with oak.	The Applicants welcome the helpful details provided by ERYC in relation to the negligible effect that ash die-back is likely to have on the screening value of woodlands in the area. This information aligns with the Applicant's response to this action point in **The Applicants' Responses to April 2025 Hearing Action Points** [REP4-096]. ERYC note that ash die-back is affecting "*numerous ash hedgerow standards*" in the area, but the Applicants consider that the screening value of such hedgerow trees is more limited. The Applicants are hopeful that correspondence between the two responses gives the Examining Authority sufficient comfort that ash die-back will have no material effect on the conclusions of the Landscape and Visual Impact Assessment.

I.D.	Question	East Riding of Yorkshire Council Response	Applicants' Response
		Numerous ash hedgerow standards in the wider area showing signs of die-back **Bentley Moor Wood** Applicant's arboricultural assessment details "Larch, Oak, Sycamore, Hawthorn, Blackthorn, Beech, Silver Birch, Ash. Semi-early mature plantation consisting mostly of sycamore (dominant), the remaining species occasional to rarely present." Ash die-back will have negligible effect on screening.	
REP4- 118:7	Action no.30 Consider whether a visualisation should be provided which would show the proposed access road from the scheduled monument near to Butt Farm.	A visualisation would be helpful at this point because it would inform not only effects upon the scheduled monument but also provide more information on the access road approach to the convertor station. However, the difficulty is that, until the swathe of land demarcated for underground cables is refined to a distinct corridor (such as only below the access road) it will not be known what landscape mitigation measures are available, beyond the hedge line already indicated on the Indicative Landscape Plan. This is because tree planting may or may not be possible in this area, subject to proximity to the underground cable corridor. It would be helpful for the applicant to define when a more refined design is likely to become available in this area to inform further review.	The Applicants have submitted an updated visualisation including the proposed access road in the view from the scheduled monument near to Butt Farm. This is included in **Landscape and Visual Impact Assessment Figure 23-1 to Figure 23-17 (Revision 4)** [REP4-039]. The visualisation shows the mitigation planting as currently proposed in the area where the access road enters the Onshore Substation Zone. The Applicants have outlined potential additional planting measures that can be considered in the updated **Outline Landscape Management Plan (Revision 4)** [REP4-045]. A more refined design in this area would not be available until post-consent when detailed design is undertaken. The detailed design would be included in the final Landscape Management Plan for approval by ERYC, as detailed in Requirement 10 of the **Draft Development Consent Order (DCO) (Revision 8)** [document reference 3.1].

2.6 Environment Agency

Table 2-6 – The Applicants' comments on Environment Agency [REP4-108] responses to Action Points, ExQ1 and Rule 17

I.D.	Question	Environment Agency Response	Applicants' Response
REP4-108:1	Action no. 2) To confirm whether the 2013 River Hull and Holderness Drain Flood Mapping Study has been combined into, or superseded by, NaFRA2, particularly in the areas around Flood Zones (FZ) 2 and 3 - Deadline 4	Our new Risk of Flood from Rivers and Sea and Flood Map for Planning (Flood Zones 2 and 3) dataset have been created as part of the new national flood risk assessment (NaFRA2), which brings together local detailed model outputs with new national modelling (NNM) and asset breach scenarios. In the case of the site in question the **2013 River Hull and Holderness Drain Flood Mapping Study** has been used as the primary data source for the new national assessment of flood risk (NaFRA2) within this locality. The new NaFRA2 data, as explained above, is derived from multiple sources of information, with outputs being used to inform both the Risk of Flood from Rivers and Sea (**RoFRS**) and Flood Map for Planning (**FMfP** - Flood Zones 2 and 3) products. The FMfP (Flood Zones 2 and 3) and supporting datasets are designed to only give an indication of flood risk to an area of land and are not suitable for showing whether an individual property/area is at risk of flooding (in an undefended scenario). They are also produced to support the implementation of Government planning policy by planning authorities. The Flood Zones are one of the flood risk datasets used to set out when Flood Risk Assessments (FRAs) and further detailed site-specific investigations are required and are used by local planning authorities to know when to consult the Environment Agency on planning applications in line with Schedule 4 of the Town and Country Planning (Development Management Procedure) Order 2015. **RoFRS** is a probabilistic product that represent the presence and condition of flood risk management assets and takes account of the chance of them overtopping or failing and shows the overall flood risk from rivers and the sea. Though this is the case, these outputs do not provide the design flood depths needed for detailed planning considerations required in an FRA. As such, detailed local modelling, like the **2013 River Hull and Holderness Drain Flood Mapping Study**, must be used (if available) to inform any detailed Flood Risk Assessment's required. We have noted that NaFRA2 shows there is an increased risk around surface water in the future, in proximity of the substation. We request that the applicant considers this information alongside their plans, to understand if there is an interaction. If so, we request they consider whether any further mitigation to the building or site is required, using the ERYC SFRA.	The Applicants note the clarification provided by the Environment Agency with regard to the applicability of the 2013 River Hull and Holderness Drain Flood Mapping Study. This matter was also discussed with the Environment Agency at the meeting held on 22nd April 2025, with clarification on the extent of the 1D and 2D model domains as well as its validity provided both at the meeting (detailed in section 4.1, paragraph 122 of **The Applicants' Written Summaries of Oral Submissions made at Compulsory Acquisition Hearing 2 (CAH2), Issue Specific Hearing (ISH) 3 (ISH3), ISH4 and ISH5** [REP4-086]) and in subsequent email correspondence. The Applicants confirm that the mapping from the new NaFRA2 data and the 2013 River Hull and Holderness Drain Flood Mapping Study has been considered in the **Flood Risk and Climate Change Technical Note** [document reference 15.5], submitted at Deadline 5. The Technical Note includes an assessment of the potential impact of flood risk to all elements of the Projects as a result of the updated and new flood mapping. With regard to the risk at the Onshore Converter Stations, the **Flood Risk and Climate Change Technical Note** [document reference 15.5], submitted at Deadline 5, includes a review of the previous surface water flood risk mapping in comparison with the updated surface water flood risk mapping, shown on Figure 5 of the **Flood Risk and Climate Change Technical Note** [document reference 15.5]. It also includes a review of the newly available future surface water flood risk, presented as Figure 6 of the **Flood Risk and Climate Change Technical Note** [document reference 15.6]. Following this review the Applicants note that the updated and new surface water flood risk mapping is very similar to that of the previously available dataset, with no additional areas at risk, and therefore there is no change in the conclusions presented within **Appendix 20-4 - Flood Risk Assessment** [APP-168] related to surface water flood risk as a result of the new and updated surface water mapping. Furthermore, the need for surface water flood risk is considered in the surface water drainage design for the Onshore Converter Stations, as noted in section 1.5.4 of the **Outline Drainage Strategy (Revision 3)** [REP2-033]. As such, based on the above conclusions it is the Applicants position that no further mitigation to that already identified is required.

I.D.	Question	Environment Agency Response	Applicants' Response
REP4-108:2	Action no. 3) To provide an opinion on the matter below which the Examining Authority (ExA) raised and your position on a potential increase to flood risk elsewhere? The applicants identify that the temporary construction compounds would occupy an area of 5,625m2. The EA identify two of these would be wholly within FZ3. In the response to ExQ1 reference HF 1.3, the applicants explain the associated displacement of floodwater would be small relative to the wider flood extent - Deadline 4	We have spoken with the applicant to get an understanding of what they propose to put on these compounds and how long they are likely to be in place for. We understand that equipment may be on site for somewhere between 4 and 6 years. We understand that there may be welfare units/offices on site, generators and soil storage. We acknowledge that the soil will be stored in such a way to not alter flow paths. The Two Satellite Construction compounds the applicant has identified in Flood Zone 3 are: Section 7 – TCC-A mainly in FZ 3 the area around this compound is very rural around, so we have less concern about the impacts from temporary displacement, however, request the applicant considers any impacts it may have with the flood data available. Section 8-TCC-B border FZ3 the areas around this compound are more urban, and there are some FZ1 properties nearby. We have asked the applicant to look at data available including flood zones, modelled levels and ground levels, to give some confidence that the proposal will not increase flood risk to properties in the locality. In addition, we have discussed what they will have in place to limit the impact of flooding to any offices/welfare units on site – such as setting finished floor levels appropriately, providing flood proofing etc in line with the SFRA. We have also asked for some assurance on the proposed access/egress routes. The applicant currently has a data clarification enquiry in with the Environment Agency. We have now looked at this and replied to the applicant. The miss-match between the flood map and the gridded outputs/level data at the two locations they queried is due to only 1d modelled outputs (modelled flood outlines) being produced for the area north of the A1035. This means that even though this model was used to inform the flood zones in the Flood Map for Planning (using the 1D flood outlines), there is no gridded data (2d) outputs available north of the A1035. Our Flood Map for Planning only uses the 1D modelled flood outlines to contribute towards the flood zones, as such 2D data outputs are often limited to urban/critical areas to manage costs.	The Applicants have undertaken an assessment of the potential flood risk to the two Temporary Construction Compounds (TCC's) shown as located in Flood Zone 3 on the Flood Map for Planning, within the **Flood Risk and Climate Change Technical Note** [document reference 15.6]. It is important to note that the Flood Map for Planning does not take into account the presence of defences. The **Flood Risk and Climate Change Technical Note** [document reference 15.6] includes a review of the applicability, conclusions and outputs from the Environment Agency modelling studies for both the 2013 River Hull and Holderness Drain Flood Mapping Study and 2024 Holderness Drain Mapping Study. The Environment Agency has confirmed that in both of the above modelling studies the floodplain south of the A1035 has been modelled in 2D, which gives out of channel flood depths across the floodplain, whereas north of the A1035 it has only been modelled in 1D. A review of the 1D modelled flood outline from the 2024 Holderness Drain Mapping Study indicates this does not extend to the two TCCs and therefore this was not considered further in the **Flood Risk and Climate Change Technical Note** [document reference 15.6]. The modelling data from the 2013 River Hull and Holderness Drain Flood Mapping Study is considered applicable to both the TCCs, known as Section 7 – TCC-A and Section 8 – TCC-B. The review has confirmed that both the TCCs are located within the area modelled in 1D only. On the basis, there is no 2D modelling covering Section 7 – TCC-A and Section 8 – TCC-B and in accordance with the Environment Agency clarification, the use of the 1D modelling outputs and in-channel nodes has been adopted to assess the flood risk at the TCCs. This included consideration of the bank levels along each watercourse in comparison with the modelled in-channel water levels to understand whether the embankments of the watercourses form either an informal or formal defence. Further to the above, the Applicants would like to clarify that the two TCC's which were shown as being located in Flood Zone 3, based on the Flood Map for Planning, may be in place for somewhere between 4 and 6 years in a worst-case sequential construction scenario. The Applicants have also confirmed that up to 50% of the TCC's would likely be removed within two years, although we cannot confirm which ones at this stage of design. Therefore, the 4-6 year time period had been considered as a worst case. As such, the assessment considered the present day Defended scenarios, given the relatively short term nature of the TCCs and based

I.D.	Question	Environment Agency Response	Applicants' Response
			on the Applicants understanding that the Environment Agency has no plans in the short term to undertake capital works, resulting in the removal of any of the existing defences. The **Flood Risk and Climate Change Technical Note** [document reference 15.6] concluded that during the Defended, present-day scenario the modelled in-channel water levels, at node points provided by the Environment Agency, appear to be below the bank levels of the watercourse. As such, the assessment has concluded that, during the present day 1 in 100-year event, there is no mechanism for fluvial flooding to affect the TCC's, especially given the elevations of the intervening ground levels. With regards to the access / egress routes the TCC located to the north of Tickton (Section 7 – TCC-A) is adjacent to an offsite haul route connected directly to the A1035, the distance from the TCC to the A1035 is less than 800m. Any personnel evacuating site would then need to travel approximately 2km along the A1035 to reach the area which is not in the mapped extent shown as being in Flood Zone 2 or 3. As personnel would be evacuating by vehicle it is considered this could be done within a few minutes, however precise details of an evacuation plan and safe muster point would be provided by the Contractor. The other TCC (Section 8-TCC-B) is directly off the A1035 and immediately adjacent, less than 200m distance to areas shown on the mapping as being outside of Flood Zone 2 and 3. Therefore, given its proximity to the edge of the mapped flood extent, evacuation can be achieved very quickly from the TCC to an area in Flood Zone 1 once instruction was given to leave site. Further information on the approach to be adopted in relation to the need for evacuation of the two TCC's is provided in the Applicants response to REP4-108:7. Therefore, in summary based on the conclusions set out in the **Flood Risk and Climate Change Technical Note** [document reference 15.5], the Applicants have concluded that both of the TCC's do not appear to be affected by flooding during the Defended 1 in 100 year scenarios. As a result, the identification of the above measures should be seen as a precautionary approach given flooding is unlikely to occur in these locations.
REP4-108:3	Action no. 8) To confirm its position on the proposed watercourse crossings Wx-029 and Wx-030 and the associated environmental impacts [REP2-014] - Deadline 4	**WX-029** will be clear span. The only additional requirement we have here is that the abutments for the crossing are located away from the embankment such that the clear span encompasses the bank on both sides of the watercourse.	**WX-029** would be designed and agreed with the Environment Agency as per the Protective Provisions. The abutments for the crossing would be located away from the embankment such that the clear span encompasses the bank on both sides of the watercourse. This would be included as part of the crossing method statement as detailed in section 5.15 of the **Outline Code of Construction Practice (OCoCP) (Revision 4)** [Rep4-040], secured by Requirement 19 of the **Draft**

I.D.	Question	Environment Agency Response	Applicants' Response
		WX-030 – this will be culverted. In principle we do not object to the culvert crossing, though the culvert must be appropriately sized to pass a flood flow. We have let the applicant know that the Meaux and Routh East Drain channel is deep and steep sided so it may be difficult to reinstate the channel when the culvert is removed. In relation to all watercourse crossings whether clear span or culverted we would expect that the sites are reinstated to the existing conditions once the temporary crossings are removed. Therefore, we have asked the applicant whether reinstatement and monitoring after the crossings have been removed could be included either in the proposals, or within the requirements of the DCO. We will be meeting with the applicants and our legal team to understand whether this is best secured through the requirements or through the protected provisions.	**Development Consent Order (DCO) (Revision 8)** [document reference 3.1]. **WX-030**: As detailed in section 6.3.2 of the **OCoCP (Revision 4)** [Rep4-040]: '*It will be ensured that any culverts are adequately sized and have sufficient capacity to avoid impounding flows and are installed below the active bed of the watercourse, ensuring that a suitable flow rate is maintained so that sediment continuity and the movement of fish and aquatic invertebrates can be maintained as in CIRIA's C786 Culverts, screen and outfall manual (CIRIA 2019). A suitable flow rate will be maintained whilst crossings are installed through the use of pumps, flumes or equivalent, so that the temporary works remain safe and operational in times of flood.*' The Code of Construction Practice will be prepared by the contractor and approved by East Riding of Yorkshire Council (ERYC) in consultation with the Environment Agency as per Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. It should also be noted the protective provisions for Environment Agency include ' *any work or operation authorised by this Order as is in, on, under, over or within 16 metres of a drainage work or is otherwise likely to— (a) affect any drainage work or the volumetric rate of flow of water in or flowing to or from any drainage work; (b) affect the flow, purity or quality of water in any watercourse or other surface waters or ground water; (c) cause obstruction to the free passage of fish or damage to any fishery; (d) affect the conservation, distribution or use of water resources.; or (e) affect the conservation value of the main river and habitats in its immediate vicinity; and "watercourse" includes all rivers, streams, ditches, drains, cuts, culverts, dykes, sluices, basins, sewers and passages through which water flows except a public sewer*' in the definition of 'specified work'. Schedule 15, Part 3 (3) (2) of the **Draft DCO (Revision 8)** [document reference 3.1] states that '*Before beginning to construct any specified work, the undertaker must submit to the Agency plans of the specified work and such further particulars available to it as the Agency may within 28 days of the receipt of the plans reasonably request. (2) Any such specified work must not be constructed except in accordance with such plans as may be approved in writing by the Agency, or determined under paragraph*'. Therefore, any proposed culverting of WX-030 cannot take place until a plan has been agreed with the Environment Agency. The Meaux and Routh East Drain channel would be reinstated following construction to the existing conditions once the temporary crossings are removed. The design will be agreed with the Environment Agency, as set out in the protective provisions, described above. The Contractor must propose a suitable methodology for agreement at the

I.D.	Question	Environment Agency Response	Applicants' Response
			detailed design stage taking the 'deep and steep sided' nature of the Meaux and Routh East Drain channel into account. Any reinstatement would be designed to remain in place for the duration of the Projects operational life and would not require monitoring. However, if any failure was identified by the Environment Agency it would be the responsibility of the Applicants (undertaker) to carry out repair as soon as reasonably practicable to the satisfaction of the Environment Agency.
REP4-108:4	Action no. 11) To comment/ provide an opinion on the assessment of temporary watercourse access crossings and trenched cable crossings method in Environmental Statement (ES) Chapter 20 [REP1-014] and additional information submitted by the applicants in relation to action point 10 (EA & LLFA TO ANSWER) - Deadline 5	We will provide a response to this by Deadline 5.	The Applicants will review the response at Deadline 5.
REP4-108:5	Action no. 14) Respond to outstanding questions in ExQ1 related to hydrology and flood risk matters. (EA & LLFA TO ANSWER) - Deadline 4	*CA.1.17* - In principle we are happy with the proposal set out in the Outline Code of Construction Practice Table 3.2, however when we met the applicant, we suggested re-wording Requirement 19 of the draft DCO to specifically mention watercourse crossings and crossing methodologies. However, we will be meeting with the applicants and our legal team to understand whether this is best secured through a re-worded requirement or through the protected provisions. *HF1.2* – In addition to our previous answer we can confirm that the 2013 River Hull and Holderness Drain Flood Mapping Study was used as the primary data source for the new national assessment of flood risk (NaFRA2) within this locality, reflecting that it is the best local model we have for the River Hull, however due to its age, we would always advise caution when considering its outputs as factors may have changed over that time, for example climate change. Unfortunately, it is going to be several years before a new EA local model is available for the River Hull. The 2013 River Hull and Holderness Drain Flood Mapping Study Model did include climate change at the time, but to understand current/future risk the climate change assumptions at the time should be reviewed against the most up to date information. When we spoke to the applicant about future flood risk, we suggested adding an additional requirement. This is because no detailed modelling has been undertaken, and our flood risk response has been based on a 32-year lifetime. Our recommended requirement would be that the facility must be decommissioned and offsite after 2061. If it is to remain in place after this date, then modelling must be started prior to 2061 to understand the most current climate change predictions and how this may impact future flood risk and the implications it may have on the facility as well as what mitigation may be required. The	In response to point 1 (CA.1.17): The Applicants have requested a further meeting with the Environment Agency to discuss this and the comments provided on the Protective Provisions. As detailed in the **Environment Agency Statement of Common Ground (SoCG) (Revision 2)** [REP4-060], the OCoCP (Revision 4) [REP4-040] states in section 5.15 that a Crossing Method Statement, will be agreed with the Environment Agency prior to construction: *"The Crossing Method Statement(s) will set out construction operations to be undertaken (including construction methods and types of plant required) and the associated environmental and health and safety issues for certain crossings where an increased risk is identified. The method statements will include details of crossing techniques to be deployed at crossings, including sensitive environmental crossings (such as Main Rivers). These will be developed with the relevant asset owner or key stakeholder such as the Environment Agency, Internal Drainage Board (IDB), Network Rail or the relevant planning authority."* The Crossing Method Statement must be agreed with the Environment Agency prior to construction for all Main Rivers. The **OCoCP (Revision 4)** [REP4-040], is secured through Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. Therefore, it is the Applicants position that additional details to Requirement 19 are not required, as the wording within the **OCoCP (Revision 4)** [REP4-040] is secured. It should also be noted the protective provisions for Environment Agency include *'any work or operation authorised by this Order as is in, on, under, over or within 16 metres of a drainage work or is otherwise likely to— (a) affect any drainage work or the volumetric rate of flow of water in or flowing to or from any drainage work; (b) affect the flow, purity or quality of water in any watercourse or other surface waters or ground water; (c) cause obstruction to the free passage of fish or damage*

I.D.	Question	Environment Agency Response	Applicants' Response
		applicants have assured us this has already been captured elsewhere, and we will review this. *HF1.7* – Cumulative impacts regarding flooding should be taken account of in the Flood Risk Assessment. The Environment Agency (EA) do not currently have any significant EA capital schemes along the proposed route that may align with the construction period of this proposal. However, we will still be undertaking regular inspection and maintenance of our assets throughout the construction phase and beyond. Please also note, that if there are any failures of assets then we would have to carry out unplanned/emergency works.	*to any fishery; (d) affect the conservation, distribution or use of water resources.; or (e) affect the conservation value of the main river and habitats in its immediate vicinity; and "watercourse" includes all rivers, streams, ditches, drains, cuts, culverts, dykes, sluices, basins, sewers and passages through which water flows except a public sewer'* in the definition of 'specified work'. In addition, Schedule 15, Part 3 (3) (2) of the **Draft DCO (Revision 8)** [document reference 3.1] states that '*Before beginning to construct any specified work, the undertaker must submit to the Agency plans of the specified work and such further particulars available to it as the Agency may within 28 days of the receipt of the plans reasonably request. (2) Any such specified work must not be constructed except in accordance with such plans as may be approved in writing by the Agency, or determined under paragraph*'. Therefore, under the protective provisions no crossing can be constructed until a plan has been agreed with the Environment Agency. In response to point 2 (HF1.2): The Applicants note the Environment Agency response in relation to the 2013 River Hull and Holderness Drain Flood Mapping Study and has also considered this in the response to REP4-108:1. In addition the modelling from the 2013 River Hull and Holderness Drain Flood Mapping Study, as well as the new NaFRA2 information and mapping, has been considered in the context of the Projects in the **Flood Risk and Climate Change Technical Note** [document reference 15.5], submitted at Deadline 5. In response to point 3: In relation to future flood risk, section 5.7.2.5 of the **Chapter 5 Project Description (Revision 3)** [REP1-009] states that the 'Operational construction lifetime is expected to be 30 years for a Concurrent and In Isolation Scenario and 32 years for a Sequential Scenario to accommodate the lag in completion of the construction for the two Projects.' This is a certified document. Section 5.7.1.10 and 5.7.2.6 of the **Chapter 5 Project Description (Revision 3)** [REP1-009] also states that '*The Onshore Converter Station may be used as a Substation or Converter Station site after decommissioning of the Projects or it may be upgraded for use by another offshore wind project. This would be subject to a separate planning application*'. Therefore, should the Onshore Converter Station(s) remain in place beyond the operational life time, they could only do so by seeking further planning permission which would include consideration of the latest flood risk data and planning policy at that time. Requirement 27 of the **Draft DCO (Revision 8)** [document reference 3.1] also states that: '*Within six months of the permanent cessation of commercial operation of the DBS East Project onshore works, an onshore decommissioning plan must be submitted by DBSEL to the relevant*

I.D.	Question	Environment Agency Response	Applicants' Response
			planning authority for approval unless otherwise agreed in writing by the relevant planning authority.' Therefore, with the wording of Requirement 27 in place The Applicants do not consider there is a need for any additional DCO Requirements to cover the Environment Agency's concern about decommissioning and flood risk. In response to point 4 (HF1.7): The Applicants note the Environment Agency comment in relation to there being no planned future capital schemes along the Onshore Cable Route, therefore it is concluded that there would be no cumulative flood risk impacts either to or from the Projects as there are no planned capital works. The Applicants acknowledge the Environment Agency may need to carry out unplanned or emergency works in the event of a failure. However, the Applicants consider that there are appropriate construction mitigation measures set out in the **OCoCP (Revision 4)** [REP4-040], secured through Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1] to ensure that there is no impact on the Projects, should these emergency works be required during construction.
REP4-108:6	Action no. 15) ExQ1 [PDA-014] - question MCP1.4 was directed to the EA; however, no response was submitted to this question as part of the EA's response in [REP3-042]. The question related to cable protection in the nearshore. In the statement of common ground between the applicants and EA [REP1-029] it is suggested that the cable protection measures in the nearshore environment are not currently agreed and no further information was submitted as part of the relevant representation or any written representations afterwards. Provide further details on the issues raised and works required to resolve this. In addition, provide your views on the updated coastal erosion technical note (revision 2) [REP3-023]? - Deadline 4	We can confirm that we are now satisfied with the information provided and with the mitigation proposed by the Applicants. We are happy that the position of this item be amended to agreed within the Statement of Common Ground.	The Applicants welcome the Environment Agency's agreement to this matter and this is reflected in the SoCG submitted at Deadline 4 [REP4-059].
REP4-108:7	**Response to Rule 17 letter** *HF.1.12* oCoCP content and quality Can you comment on the details provided in the oCoCP (revision 3) [REP1-025] related to flood management, the drainage strategy, surface water management plan and watercourse crossings including: • If the level of detail is sufficient to frame the necessary mitigation of the potential effects during construction and operation of the projects. • If there is reasonable certainty of the quality and content of the future detailed CoCP, whether the approval bodies identified in Tables 3-2 and 3-3 of the oCoCP (revision 3) [REP1-025] would be appropriate.	We have reviewed the Outline Code of Construction Practice with flood risk in mind, below are some further detailed comments on specific sections: **Emergency Response Evacuation and Pollution Control Plan** We have asked the applicant for further assurance that and emergency evacuation route/plan will be achievable, in particular for temporary compounds Section 7 – TCC-A and Section 8-TCC-B. **Outline Drainage Strategy and Surface Water Management Plan** In principle we are happy with the proposal, however request that if any surface water is to discharge to main river then we are consulted.	**Emergency Response Evacuation and Pollution Control Plan** The Emergency Response Evacuation and Pollution Control Plan will be developed by the Contractor at the detailed design stage and must be agreed with the ERYC, in consultation with the Environment Agency, the relevant Statutory Nature Conservation Bodies (SNCBs) and, if applicable, the Marine Mammal Organisation as detailed in Table 3-2 of the **OCoCP (Revision 4)** [REP4-040]. The TCC located to the north of Tickton (Section 7 – TCC-A) is adjacent to an offsite haul route connected directly to the A1035, the distance from the TCC to the A1035 is less than 800m. Any personnel evacuating site would then need to travel approximately 2km along the A1035 to reach the area which is not in the mapped extent shown as being in

I.D.	Question	Environment Agency Response	Applicants' Response
	If the measures listed for temporary culverts in section 6.3.2.6 of the oCoCP (revision 3) [REP1-025] would be appropriate for permanent culverts, as suggested in paragraph 205 of the same document.	**Flood Management** We would like to reiterate our response to the Issue Specific Hearing 4 – Question 3, as we feel it is relevant here: We have spoken with the applicant to get an understanding of what they propose to put in their temporary compounds and how long they are likely to be in place for. We understand that equipment may be on site for somewhere between 4 and 6 years. We understand that there may be welfare units/offices on site, generators and soil storage. We acknowledge that the soil will be stored in such a way to not alter flow paths. The Two Satellite Construction compounds the applicant has identified in Flood Zone 3 are: Section 7 – TCC-A mainly in FZ 3 the area around this compound is very rural around, so we have less concern about the impacts from temporary displacement, however, request the applicant considers any impacts it may have with the flood data available. Section 8-TCC-B border FZ3 the areas around this compound are more urban, and there are some FZ1 properties nearby. We have asked the applicant to look at data available including flood zones, modelled levels and ground levels, to give some confidence that the proposal will not increase flood risk to properties in the locality. In addition, we have discussed what they will have in place to limit the impact of flooding to any offices/welfare units on site – such as setting finished floor levels appropriately, providing flood proofing etc in line with the SFRA. We have also asked for some assurance on the proposed access/egress routes. **Watercourse Crossings – Main Rivers and Ordinary Watercourses and Crossing Method Statements** In principle we are happy with the proposal set out in the Outline Code of Construction Practice, however when we met the applicant we suggested re-wording Requirement 19 of the draft DCO to specifically mention watercourse crossings and crossing methodologies. However, we will be meeting with the applicants and our legal team to understand whether this is best secured through a re-worded requirement or through the protected provisions. We require this to be clear to enable us to secure discussions ahead of any works taking place, to ensure our satisfaction with the proposals.	Flood Zone 2 or 3. As personnel would be evacuating by vehicle it is considered this could be done within a few minutes, however precise details of an evacuation plan and safe muster point would be provided by the Contractor. The other TCC (Section 8-TCC-B) is directly off the A1035 and immediately adjacent, less than 200m distance to areas shown on the mapping as being outside of Flood Zone 2 and 3. Therefore, given its proximity to the edge of the mapped flood extent, evacuation can be achieved very quickly from the TCC to an area in Flood Zone 1 once instruction was given to leave site. In the **Flood Risk and Climate Change Technical Note** [document reference: 15.5], the Applicants have noted that both of the TCC's do not appear to be affected by flooding during the Defended 1 in 100 year scenarios and therefore, the identification of the above evacuation routes should be seen as a precautionary approach given flooding is unlikely to occur in these locations. Further mitigation measures, whereby the Applicants have adopted a precautionary approach, are also detailed in section 5.18.1 of the **OCoCP (Revision 4)** [REP4-040]: • The Principal Contractor(s) will sign up to the Environment Agency Flood Alerts and 'Floodline' flood warning services; • In areas not covered by the Environment Agency's flood alerts, site workers and users will be required to independently monitor local weather forecasts and ensure there is an evacuation route in place in the event that either fluvial or surface water flooding takes place; • All personnel will be made aware of any access routes which are located within Flood Zone 2 or 3 and any flood warning issued for those areas should result in the relevant access routes being cleared of all project personnel and, where possible, all project plant / materials; and • Visual checks on flood defences, watercourses and drainage culverts will be carried out both pre-construction and also during construction following a flood event within the working area after any significant weather event. Any signs of degradation will be reported to the Environment Agency, relevant landowner or Principal Contractor(s) immediately. With these measures in place the Applicants do not consider any further detail could be provided prior to the detailed design stage. **Outline Drainage Strategy and Surface Water Management Plan** The Applicants can confirm that if any surface water is to discharge to a Main River then the Environment Agency would be consulted as per Schedule 15, Part 3 (For the protection of the Environment Agency) of

I.D.	Question	Environment Agency Response	Applicants' Response
		WX-030 – this will be culverted. In principle we do not object to the culvert crossing, though the culvert must be appropriately sized to pass a flood flow. We have let the applicant know that the Meaux and Routh East Drain channel is deep and steep sided so it may be difficult to reinstate the channel when the culvert is removed. In relation to all watercourse crossings whether clear span or culverted we would expect that the sites are reinstated to the existing conditions once the temporary crossings are removed. Therefore, we have asked the applicant whether reinstatement and monitoring after the crossings have been removed could be included either in the proposals, or within the requirements of the DCO. We will be meeting with the applicants and our legal team to understand whether this is best secured through the requirements or through the protected provisions. Where temporary dams are required, we expect the applicant to assess the impact this may have on flood risk during the works. We are still discussing proposed protective provisions with the applicant, so are unable to comment further on this at this time. **Flood Defence Monitoring** We are pleased to see this has been incorporated, however we would also like this to be extended to where temporary crossings are removed, such as the culvert crossing at WX-030. **Piling Risk Assessment** We expect that any piling near flood defences would be picked up when detailed method statements are drawn up, we would like to ensure that we are part of those discussions. We request clarification that this will be secured by a requirement – we shall discuss with our legal team and the applicants. --- Satisfied with table 3.2 from a flood risk perspective, the only comment we have to make is that if surface water is directed to an Environment Agency Main River, then we would also like to be consulted on the Surface Water Management Plan. --- As none of these effect main rivers we have no comment to make on this. Please do not hesitate to contact me if you require any further information. We look forward to continuing to work with the applicant	the **Draft DCO (Revision 8)** [document reference: 3.1] which states that for any specified works within 16 meters of a Main River, that could effect the '*volumetric rate of flow of water in or flowing to or from any drainage work'* a plan must be submitted and agreed with the Environment Agency. **Flood Management** The Applicants would like to clarify that TCC's located in Flood Zone 3, based on the Flood Map for Planning, may be on site for somewhere between 4 and 6 years in a worst-case sequential construction scenario. The Applicants have also confirmed that up to 50% of the TCC's would likely be removed within two years, although we cannot confirm which ones at this stage of design. Therefore, the 4-6 year time period had been considered as a worst case. The Applicants note the Environment Agency response in relation to the temporary displacement of flood water at the two TCC's and has considered this in further detail in the **Flood Risk and Climate Change Technical Note** [document reference 15.5], submitted at Deadline 5. The **Flood Risk and Climate Change Technical Note** [document reference 15.5] concluded that during the Defended, present day scenario the modelled in-channel water levels, at node points provided by the Environment Agency, appear to be below the bank levels of the watercourse. As such, the assessment has concluded that, during the present day 1 in 100 year event, there is no mechanism for fluvial flooding to affect the TCC's, especially given the elevations of the intervening ground levels. At the meeting held with the Environment Agency on 22nd April 2025, it was confirmed that further detail, if required, would be added to the **OCoCP (Revision 4)** [REP4-040] at Deadline 7 in relation to the need for raising of finished floor levels for welfare and office facilities. However, based on the subsequent assessment and findings presented in the **Flood Risk and Climate Change Technical Note** [document reference 15.5], it is the Applicants position that this further mitigation, related to the welfare and office facilities, is not required. As detailed above there are number of offsite haul routes located that allow direct access to the A1035 to facilitate evacuation to an area outside the extent of the Flood Map for Planning Flood Zone 3. Evacuation would be by vehicles along the temporary haul route and further detail would be provided by the Contractor at the detailed design stage, through agreement with the Environment Agency. Key measures are already included in the OCoCP as set out above in the response on Emergency Response Evacuation and Pollution Control Plan.

I.D.	Question	Environment Agency Response	Applicants' Response
		to resolve any outstanding matters and to ensure the best environmental outcome for this project.	**Watercourse Crossings – Main Rivers and Ordinary Watercourses and Crossing Method Statements** Please see the responses to REP4-108:3 and REP4-108:5, above. **Flood Defence Monitoring** Only one temporary crossing is proposed to be crossed by a temporary culvert, as detailed in the Applicants response to REP4-108:3. The Meaux and Routh East Drain channel would be reinstated following construction to the existing conditions once the temporary crossings are removed. The design will be agreed with the Environment Agency, as set out in the protective provisions, described above. The Contractor must propose a suitable methodology for agreement at the detailed design stage taking the 'deep and steep sided' nature of the Meaux and Routh East Drain channel into account. **Piling Risk Assessment** The Applicants do not anticipate any piling near a flood defences. However, as detailed above if any were to be proposed it would form part of the detailed crossing method statement. **Permanent Culverts** The Applicants can confirm there would be no permanent culverts in Main Rivers.

2.7 Historic England

Table 2-7 – The Applicants' comments on Historic England [REP4-109] responses to Action Points, ExQ1 and Rule 17

I.D.	Question	Historic England Response	Applicants' Response
REP4-109:1	2.1 Action Point No. 31. Explain whether they consider that the proposed development would result in loss of significance of the scheduled monument near to Butt Farm?	Historic England refers to the assessment of the impact of the Onshore Converter Station on the significance of the Butt Farm Gunsite provided in answer to question HE1.7 at WQ1 [REP3-043] and at paragraph 4.7 of our WRs [REP1-059]. In our assessment, the impact of the Proposal equates to 'less than substantial harm' to the significance of the monument. Historic England's published guidance on 'setting' accords with the glossary of the NPPF and NPS EN-1 (footnote 231), both of which are clear that 'setting' referrers to the surroundings in which a heritage asset is experienced. The setting of the Butt Farm Gunsite contributes to its significance by virtue of its currently open aspect. The proposed Onshore Converter Station will be a large, prominent feature in the view and landscape when seen from the Butt Farm Gunsite and will diminish the experience of being on the scheduled site.	Policy, as set out by National Policy Statement (NPS) EN-1 (5.9.10) and amplified by Historic England Guidance (Historic England 2017 GPA3 *The Setting of Heritage Assets*) requires assessment of effects on the significance of heritage assets to consider an effect in terms of the change in the contribution of the setting to significance rather than merely reflecting physical change to setting. The Applicants have addressed the contribution of the setting of the scheduled Heavy Anti-Aircraft Gun Site at Butt Farm in some detail in previous submissions to the examination, including **The Applicants' Response to Relevant Representations** [PDA-013] responses RR-022 2.2-2.4; **The Applicants Response to Written Representations** [REP2-057] responses REP1-059:4.5 – 4.14; **The Applicants Response to Deadline 1 Documents** [REP2-058] response REP1-057 2.2. To summarise, the open nature of the present setting of the gun site allows its strategic placement and tactical function to be experienced, understood and appreciated. The open aspects of the site that contribute to this understanding are, however, the designed arcs of fire to the north and west which would remain open. The landscape to the south of the gun site was demonstrably primarily woodland and not 'open' during its operation, also reflecting the logic behind the siting of the gun site. This present openness to the south is an artefact of the loss of Bentley Moor Wood after the abandonment of the Heavy Anti-Aircraft Gun Site. Consequently, the viewer's ability to appreciate and understand the function of the gun site would remain unchanged by the visible presence of the proposed Onshore Converter Station. While the appearance and scale of the proposed Onshore Converter Station would arguably be incongruous, this would present a limited change to the significance of the asset which could be addressed by the proposed mitigation planting.
REP4-109:2	2.2 Action Point No 32 Provide more information on the nature of their concerns regarding potential for cumulative effects [REP3-043] on the scheduled monument near to Butt Farm and suggest how they could be addressed.	Historic England has been mindful that a number of energy infrastructure projects are contemplated for the region and wished to raise, at an early stage, the possibility of cumulative impacts occurring in the event that future projects are located close to infrastructure associated with the Proposal. Given the absence of detailed proposals for future developments at this stage, we are not able to comment further on the extent of any cumulative impacts or how they could be addressed.	The Applicants acknowledge this comment and believe that this comment does not need to be addressed further.

2.8 Marine Management Organisation (MMO)

Table 2-8 The Applicants' Response to section 1 and 2 of the Marine Management Organisation's (MMO) Deadline 4 Document [REP4-115]

I.D.	MMO Response	Applicants' Response
REP4-115:1.1	**1. Comments on REP3-005 Applicant's Draft DCO (Revision 6) (Tracked) and REP3-028 The Applicant's Responses to Deadline 2 Documents (Revision 1)** **1.1 DCO and DML Major Comments** 1.1.1 The MMO submitted comments at Deadline 3 regarding to the DCO and DML and will wait on the Applicant's review of these before adding any more comments. The MMO will provide comments in Deadline 5	The Applicants acknowledge the comment and note that a response was provided in Table 2-3 of **The Applicants' Responses to Deadline 3 Documents** [REP4-088] submitted at Deadline 4, alongside an updated revision of the **Draft Development Consent Order (DCO) (Revision 7)** [REP4-005].
REP4-115:1.2	**1.2 Navigation** 1.2.1 The MMO notes the Applicant has updated Condition 11 in line with Relevant Representative comments and notes Trinity House (TH) provided comments on this update. The MMO apologies for the error and has provided the below agreed wording (with TH and Maritime and Coastguard Agency) to the Applicant for updates to the DMLs. ***Colouring of structures*** *11 (1) Except as otherwise required by Trinity House the undertaker must colour all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height directed by Trinity House or must colour the structure as directed by Trinity House in writing from time to time.* *(2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs in writing, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).*	The Applicants acknowledge the comment and note the Marine Management Organisation (MMO) provided this text via email on the 17th April 2025. The Applicants can confirm that the text was updated in the **DCO (Revision 7)** [REP4-005] submitted at Deadline 4.
REP4-115:1.3	**1.3 Updates and amendments to Schedules 10, 11, 12, 13 and 14.** 1.3.1 The MMO welcomes the Applicant's updates and changes to the following and has no further comments unless otherwise stated: i. The definition of Mean High Water Springs. ii. The interpretation of "intrusive activities" with the removal of "temporary deposits". iii. The removal of "may" for a more definitive phrase in Conditions 1-5 (DML 1 and 2) and Conditions 1-3 (DML 3 and 4). iv. The increase in the time period the Applicant needs to submit to the MMO (from four months to six months) on Condition 6 and 7 (DML1 and 2), Condition 4 and 5 (DML 3 and 4) and Condition 2 and 3 (DML5). v. The addition of "in writing" within Condition 8 (DML1 and 2), Condition 6 (DML 3 and 4) and Condition 4 (DML 5). vi. Condition 9 the undertaker must confirm in writing to the MMO within 28 days of receipt of a copy of this deemed marine licence and any subsequent amendments or revisions to it, those being provided to the persons referred to listed in sub-paragraph (1)(a) must confirm receipt of this deemed marine licence in writing to the MMO that the required information has been provided. vii. The inclusion of all relevant work orders in Condition 9(8) (DML 1 and 2), Condition 7(8) (DML 3 and 4) and Condition 5(8) (DML5). viii. The addition of "unless otherwise agreed in writing by the MMO" and the inclusion of MCA to Condition 9(9) (DML 1 and 2), Condition 7(9) (DML 3 and 4) and Condition 5(9) (DML5).	The Applicants acknowledge this comment and welcome the MMO's agreement.

I.D.	MMO Response	Applicants' Response
	ix. The removal of Condition 15 (4), (5) and (6) in DML 1 and 2). Noting that the MMO still disagrees with Condition 17 (2) in relation to determination dates as set out in AS-169 – Table 1 - Line 82. x. The inclusion of provisions of pre and post construction surveys to determine habitat suitability for Sandeel (Condition 20(4)(a) and 22(3)(a) (DML 1 and 2), Conditions 18(4)(a) and 20(3)(a) (DML 3 and 4) and Condition 14(4)(a) and 16(3)(a) (DML5).	
REP4-115:1.4	**1.4 Updates to the Draft DCO** 1.4.1 The MMO notes the Applicant's comments and will review these alongside the Applicants Deadline 4 response and provide comments in Deadline 5.	The Applicants acknowledge this comment.
REP4-115:1.5	**1.5 Benthic** 1.5.1 The MMO has a relatively limited understanding of the impacts of the construction and operation of OWFs on benthic assemblages, their biodiversity, and, consequently, the ecological functions which they underpin. The MMO welcomes the Applicant's commitment to undertaking pre-construction surveys to better our understanding of the benthic assemblage within the array area and this should also be followed by suitable post-construction monitoring to gain a better understanding of impact of OWFs on the benthic, and wider, environment.	The Applicants acknowledge this comment.
REP4-115:1.6	**1.6 Physical Processes** 1.6.1 In regard to the 30-year operational lifespan on coastal processes. The Applicant has provided a response to this matter, stating *"[the Applicant's] …agrees that changes to tidal currents could potentially alter the gradients of sediment transport from one area to another along sediment transport pathways over the 30-year operational lifespan of the Project….Residual sediment transport is approximately south-east to north-west, and so there is potential for less sediment to be transported (supplied) from the south to the north of the arrays, with more sediment from north of the arrays lost further to the north. This could potentially lead to accretion of the seabed in the south with erosion of the seabed in the north'.* Overall, the Applicant concludes the changes will not be significant (since the change to bed shear stress is likely to be less than 3% of the baseline) and therefore there would be no cumulative impacts on sediment transport due to the direction of movement moving away from other offshore wind farms on Dogger Bank. 1.6.2 Whilst the predicted change in bed shear stresses is estimated to be relatively small-scale, the MMO would express caution with dismissing the potential for cumulative impact. It may take impacts to sedimentary features many years or decades to manifest changes, but even a small-scale change to the bed shear stresses will, in time, have impacts to the physical environment. Alongside the addition of other long-term developments introducing their own changes to gradients of sediment transport, there is a possibility that over the 30-year operational lifespan and beyond, there will be a cumulative impact on the coastal processes. The MMO agrees with the overall conclusion that the changes will not be significant in the short term but requests the above discussion to be included in the cumulative impacts assessment to acknowledge the possible changes to coastal processes. 1.6.3 No changes in the revised In Principle Monitoring Plan document have been made to the monitoring for the Marine Physical Environment. There is mention of using appropriate geophysical surveys of the area for engineering purposes (pre- and post- construction). The data can also be used for environmental monitoring which is appropriate. Physical change to seabed and sediment type would be reported on as part of the benthic monitoring. This is appropriate.	1.6.1 & 1.6.2 The Applicants will incorporate the discussion outlined in 1.6.1 (previously stated in response to RR-030: 5.2.2 in **The Applicants' Responses to Relevant Representations** [PDA-013]) in relation to cumulative effects on bedload sediment transport due to the presence of multiple offshore wind farms within the updated version of **Chapter 8 Marine Physical Environment** [APP-080] to be submitted at Deadline 7. 1.6.3 – The Applicants welcome the MMO's agreement.
REP4-115:1.7	**1.7 Fisheries**	The Applicants responded to the MMO's email in **The Applicants' Fish and Shellfish Response to the MMO** [REP4-088] submitted at Deadline 4.

I.D.	MMO Response	Applicants' Response
	1.7.1 The Applicant had the below query regarding Section 2.2.10 of the MMO's Deadline 2 response (REP2-061). The MMO responded via email on 04 April 2025. *"The Applicant's would like the MMO to clarify whether the >600 larvae per metre squared (m²) category consists of anything other than high abundance that would warrant a change to the figure's legend, and if so, what the updated categories should be; bearing in mind the intention of the display of IHLS abundance data in this report as an indicator of spawning activity."* 1.7.2 Section 2.2.10 relates to key data which is missing from the Applicant's proposed approach to have the recommended temporal restriction for cable works along the DBS export cable route dismissed, using elements of an approach used for the same purpose for Eastern Greenlink 2[1] (EGL2) subsea cable. Both the EGL2 cable and the DBS export cable are proposed to run through the Flamborough Head herring spawning ground. The excerpt relates to a concern the MMO had regarding the data underpinning Figure 2.7 (included below) of the Deadline 1 heatmapping report. The first concern was that the Applicant has aggregated 15 years of IHLS data into a single plot which does not fully represent the spatial and temporal fluctuations in herring spawning intensity across the spawning ground over the time period. It is possible for areas of herring spawning grounds where spawning activity was previously low to be recolonised and so it is important to see these data presented as separate maps for each individual year of IHLS data so that the relative importance of the spawning habitat which underlies the ECC can be clearly examined and assessed. 1.7.3 With regards to the Applicant's request for clarification on "whether the >600 larvae per m² category consists of anything other than high abundance", it is not entirely clear what they are asking. In brief, no, the MMO would not expect there to be a category higher than 'high abundance' (assuming the four categories in the Applicant's original plot represent very low, low, medium and high larval abundance, see Figure 1 below), however this is not what the MMO was asking for in previous advice. The MMO apologises if this was unclear. As outlined in the advice, a high abundance category of >600 larvae/m2 is not appropriate when presenting larval data for a 15-year period, for the purpose the Applicant is using it for, as it is not uncommon for areas within the main spawning grounds to record thousands, or tens of thousands, of larvae per m2 and so a point on the map indicating '>600 larvae/m2' could be representing a density of 601, or 6000 larvae/m2, there's no way to differentiate between these values, or from which year of data these values come from. From example an area of spawning ground may have a larval abundance of 6000 larvae/m2 at the beginning of the timeseries, but see larval abundances decrease overtime, however this is not reflected on the current presentation. In order to fully examine and understand the spatial and temporal variation in herring spawning activity across the spawning ground, relative to the location of the export cable route, it is necessary to see each year of data presented individually with a consistent scale showing contours of larval abundance in m/2 with a figure legend representing the concentration of larvae within each band. The MMO has included an example of a similar map produced by the Applicant of the Rampion Extension (Rampion 2) OWF project as an example of what we are looking to see (Figure 2 (a-c)). 1.7.5 The Applicant should note that each year of data is presented as a separate plot, and that the figure legend corresponds to the varying bands of 'heat' with a range of larval abundances. The scale in these example figures from Rampion shows range bands of herring larval abundances which are consistent between figures. The Applicant is already in possession of 15 years of IHLS data as this has been used to provide Figure 2.7 in the original Deadline 1 heatmapping report. In providing each year of IHLS data as standalone annual 'heat' maps, the Applicant will demonstrate where there are areas of consistently high or low spawning activity relative to the location of the export cable route. This will support any possible refinement of the recommend restriction on cable works, alongside the other key missing evidence requested section 2.2.10.	

I.D.	MMO Response	Applicants' Response
	The MMO and our scientific advisors have suggested a meeting to discuss this further and currently arranging this with the Applicant. Any documents or updates that will be discuss should be provided at least two weeks prior to the meeting to ensure the information can be reviewed prior to the meeting.	
REP4-115:2.1	**2. Comments on Applicant's amended application Documents submitted at Deadline 2.** **2.1 REP2-036 - Disposal Site Characterisation Report (Revision 2) (Tracked)** 2.1.1 The MMO notes that the Draft DCO (Revision 6) states the following maximum volumes for each disposal ground: • Disposal Ground 1 (DBS East): 4,533,587 cubic metres (m^3) • Disposal Ground 2 (DBS West): 3,940,125 m^3 • Disposal Ground 3 (Export Cable): 55,315,523.13 m^3 2.1.2 Based on the above volumes, the total disposal quantity would equate to 63,789,235.13 m3. It is not clear why this volume is different to that specified within Table 7-4 of the updated Disposal Characterisation Report (63,734,551 m^3). Please can this be clarified. 2.1.3 The MMO also notes that in response to Comment RR-030: 5.3.6 the Applicant acknowledges there is no agreed Action Level (AL) 2 for total hydrocarbon content (THC) and confirmed that references to an AL2 for THC have been removed in the updated Disposal Site Characterisation Report (Revision 2) [document reference 8.18]. However, this does not appear to have been amended, with point 68 stating '*One station (ST161) in the Offshore Export Cable Corridor exceeded Cefas AL1 for THC, but was below Cefas AL2*'. This should be amended in future revisions of the report.	2.1.1 & 2.1.2 – The figures in **Disposal Characterisation Report (Revision 2)** [REP2-036] have been updated to reflect the benefits of cable bundling and the updated document has been submitted at Deadline 5. The updated figures are close to those presented in **Draft Development Consent Order (Revision 7)** [REP4-005], however, some further minor edits were required to ensure alignment with the figures in the Draft Development Consent Order to address rounding errors. These edits have been made in the **Draft DCO (Revision 8**) [document reference 3.1] submitted at Deadline 5. 2.1.3 – The Applicants acknowledge this error which has been amended in the **Disposal Site Characterisation Report (Revision 3)** [document reference 8.18] submitted at Deadline 5.
REP4-115:2.2	**2.2 REP2-044 - In Principle Monitoring Plan (Revision 2) (Tracked)** 2.2.1 The In-Principle Monitoring Plan includes an update to the notice period for all pre-construction surveys (from 4 to 6 months) and a commitment to exclude anchoring within the Holderness Inshore Marine Conservation Zone (MCZ) during cable installation operations (document referenced in paragraph 9). The MMO welcomes the 6-month updates and defers to Natural England in relation to the impact to MCZ.	The Applicants welcome the MMO's agreement.
REP4-115:2.3	**2.3 REP2-052 - Outline Scour Protection Plan (Revision 3) (Tracked)** 2.3.1 This document has been amended to include a commitment to consider the risks associated with placing plastics (such as frond lines or mats potentially used in some scour protection types) into the marine environment in the final Scour Protection Plan, the MMO welcomes this commitment. 2.3.2 Furthermore, the worst-case scenario for scour protection has been updated to reflect the reduction in the number of Offshore Cable Platforms and Accommodation Platforms (2 and 1, respectively) and the removal of Gravity Based structures from the design parameters.	The Applicants acknowledge this comment.

Table 2-9 The Applicants' Response to the Questions Asked of the MMO During the Offshore Environmental Issues Specific Hearing (ISH) 5 [REP4-115]

I.D.	Question	MMO Response	Applicants' Response
REP4-115:3.2	**3.2 Action Point 23 –** Respond to the applicants' comments during ISH5 on the sound exposure level single strike threshold for the assessment of underwater noise impacts on herring and suggested appropriate behavioural threshold.	3.2.1 The MMO will wait for the Applicant's response in Deadline 4 before commenting in full at Deadline 5.	The Applicants acknowledge this comment.
REP4-115:3.3	**3.3 Action Point 26 -** Consider whether similar conditions to conditions 26 and 28, regarding piling restrictions, in schedule 11 of the recent Rampion 2 made order might be appropriate for the Deemed Marine Licence(s) in the draft DCO.	3.3.1 The MMO and our scientific advisors (Cefas) are content to discuss to agree the inclusion of piling restrictions similar to those within the Rampion 2, Schedule 11. The MMO requests that all the evidence requested to date is provided to enable discussion on what the conditions would look like. The conditions for Rampion 2 were developed through multiple discussions with Rampion 2 alongside further evidence being provided to ensure the MMO and our scientific advisors we content there would be no impact or once the final design was confirmed. 3.3.2 Cefas will not be providing a standalone response as they are the MMO's scientific advisors, and we provide relevant information as part of the planning process in consultation with Cefas.	3.3.1 The Applicants note the MMO's comments but do not agree that a seasonal restriction on piling is necessary, proportionate or reasonable in order to address any potential impacts from underwater noise on herring spawning grounds. The Applicants have presented extensive evidence to support their position in **Chapter 10 Fish and Shellfish Ecology** [APP-091], the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105] and the Applicants response to REP2-061:22 & 23 in T**he Applicants' Responses to Deadline 2 Documents** [REP3-028]. The imposition of such a condition would not be supported by evidence and would not meet the necessary legal tests. The Applicants responded to this Action Point (in **The Applicants' Responses to April 2025 Hearing Action Points** [REP4-096]) and maintain their previous position, as set out below: *"The Rampion 2 development contains and abuts large regions of preferred and marginal Atlantic herring spawning grounds as presented within Figure 8.10 of their EIA4 . Areas of unsuitable habitat are limited across their fish and shellfish study area as a whole. Impacts of underwater noise at the 207dB (mortality and potential mortal injury); 203dB (recoverable injury); and 186dB (temporary threshold shift) levels all overlap significantly with these regions of preferred and marginal potential habitat.* *In comparison, the overlap with herring spawning potential associated with the Projects, (Figure 2-1 of the Heat Mapping Report: Atlantic Herring and Sandeel [AS-105]) is much lower. The majority of the area covered by each of the noise thresholds is considered as unsuitable for herring spawning. When considering the suitability of the sediment directly (Figure 2-2 of the Heat Mapping Report: Atlantic Herring and Sandeel [AS-105]) findings are similar, with the majority of the area within these noise thresholds considered to be unsuitable for herring spawning.* *Further questions surround the specifics of the draft licence condition, due to a number of essential criteria being contained within the "spawning herring restriction plan" which at this time has not been identified within the public domain. The key is the extent of the "Eastern Array Area", and the value of the "…[noise] levels shown on the spawning herring piling restriction plan" that, which if exceeded, will result in a piling restriction (i.e. Does this relate to 207dB, 203dB, 186dB, 135dB etc?).* *When considering the significant differences in both the proximity and overlap with potential herring spawning grounds between the two projects, the Applicants do not consider it appropriate for the licence conditions applied to Rampion 2 to be applied to the Deemed Marine Licence(s) in the Draft DCO for the Projects."* 3.3.2 The Applicants acknowledge this comment.

I.D.	Question	MMO Response	Applicants' Response
REP4-115:3.4	**3.4 Action Point 45** – MMO to respond to the Applicants' comments in ISH5 relating to the worst-case piling scenario(s).	3.4.1 The MMO will wait for the Applicant's response in Deadline 4 before commenting in full at Deadline 5.	The Applicants acknowledge this comment.
REP4-115:3.5	**3.5 Action Point 47 –** Confirm whether the documents submitted by the applicants fully adhere to Defra's Marine Noise Policy paper published 21 January 2025.	3.5.1 The MMO welcomes the updates to the Marine Mammal Mitigation Plan (MMMP) and the Southern North Sea (SNS) Special Area of Conservation (SAC) Site Integrity Plan (SIP) in relation to the Defra Noise Policy paper. The MMO would like to highlight that Defra is intending on publishing further information and clarification in relation to the policy based on feedback from industry representatives and can share this with the Applicant and Examination Authority (ExA) once this has been published. 3.5.2 The MMO also highlights that the intention of the policy paper in manging the increasing level of noise anticipated over the coming years. If noise thresholds are likely to be breached, alone or in-combination with other Projects, the Project may not get approval of the SNS SAC SIP without the use of Noise Abatement or Mitigation Systems (NAS/NMS). 3.5.3 As a Wildlife licence will be required, the Applicant will be required to demonstrate that NAS has been secured, and where this has not been possible, justification must be provided. This is necessary to meet the required legal test to consider satisfactory alternatives, as NAS/NMS is now considered to be a primary and expected mitigation. Applications that do not propose to use NAS/NMS may only be accepted in exceptional circumstances, where an applicant can prove that the inability to secure NAS/NMS is outside of their control. The additional cost of NAS/NMS is not a sufficient justification to discount a satisfactory alternative. 3.5.4 It should be noted that as technology develops and the supply chain improves, any arguments against utilising NAS/NMS will become less valid. Developers who have secured the greatest possible noise reductions through NAS/NMS are less likely to face requests to further explore satisfactory alternatives, and therefore delays in consenting, as they have demonstrated they have utilised best endeavours to secure a '*satisfactory alternative*'.	3.5.1 The Applicants welcome news of clarifications from Defra on the marine noise policy and will consider further amendments if required after publication and review. 3.5.2 The Applicants are aware of the potential for breach of spatial or seasonal breaches in the Southern North Sea (SNS) Special Area of Conservation (SAC) thresholds for in-combination scenarios and has ensured there are management measures in place through the development of the Marine Mammal Management Plan (MMMP) and Site Integrity Plan (SIP) which are to be agreed through consultation and agreement with the MMO prior to construction. Both documents allow for the incorporation of further Noise Abatement or Mitigation Systems and have been included in the Projects' procurement to ensure their implementation if required. In the current assessment presented in the **Report to Inform Appropriate Assessment (RIAA) Habitats Regulations Assessment (HRA) Part 3 of 4 (document reference 6.1)** the potential areas of disturbance assume that there is no overlap in the areas of disturbance between different schemes and are therefore highly conservative. In line with the new Underwater Noise Policy and Position Paper (Defra 2025, JNCC *et al.* 2025) it is expected that all projects impact piling in English waters from 2025 will apply primary and/or secondary measures to reduce and manage noise levels from each project. In the current guidance (JNCC *et al.* 2020) this would reduce the EDR from 26km to 15km for monopiles. A highly conservative worst case scenario for each project has been presented based on the 26km Effective Disturbance Range (EDR). The assessment will be updated in the final SNS SAC SIP post consent taking into account updated project information, timings and any new guidance to evaluate the potential spatial and seasonal threshold effects. 3.5.3 The Applicants are aware of the legal tests that they will be required to meet in order to secure a Wildlife licence. As the Wildlife licence is not part of the DCO application the use of secondary mitigation such as Noise Abatement Systems (NAS)/ Noise Mitigation System (NMS) will be finalised post consent in line with the assessments to support the licence and legislative requirements. Securing these features or providing justification for the approach at the Projects would be agreed through consultation with relevant Statutory Nature Conservation Bodies (SNCBs) during the development of the SIP and MMMP. 3.5.4 and 3.5.5 The Applicants acknowledge the MMO's points. 3.5.6 and 3.5.7 The Applicants agree with the premise of the wording presented by the MMO and have incorporated the following wording into the **Draft DCO (Revision 8)** [document reference 3.1] (see Schedule 10 and 11, Condition 15 (1)(g); and Schedule 12 and 13, Condition 13 (1)(g)) submitted at Deadline 5, with minor amendments to include reference to primary measures and ensure that the drafting is suitable for a statutory instrument. The commitment to submit the MMMP at least six months prior to the commencement of licensed activities is already captured in Condition 17 (1) in Deemed

I.D.	Question	MMO Response	Applicants' Response
		3.5.5 It should be stressed that the argument for the reduction of noise is not limited to Marine Protected Areas (MPAs) and is not limited to marine mammals only. 3.5.6 The MMO understands that Natural England (NE) are requesting an update to the DML at this stage, noting this request isn't to agree and confirm a specific NAS/NMS (as this can only be decided post consent with the final design) but to provide assurances that if driven piles are used NAS/NMS will be utilised in the first instance. 3.5.7 The MMO highlights and we welcomed the recent inclusion of a commitment to using NAS/NMS on the DML by Morgan Generation OWF (Project EN010136) and Morecambe Generation OWF (on a without prejudice basis) (Project EN010137). The proposed wording was similar to below, noting there are slight variations due to different plans being utilised on the projects: *'(X) In the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol in accordance with the outline marine mammal mitigation protocol, the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation body, must be submitted to the MMO at least six months prior to the commencement of piling activities. The marine mammal mitigation protocol must include consideration of deployment of noise mitigation systems or noise abatement systems that will be utilised to manage sounds from those piling activities. The marine mammal mitigation protocol must include full details and justification for the mitigation chosen or excluded for deployment.'* 3.5.8 Although the policy did not set out a specific licence condition for commitment discussions are still ongoing with SNCBs. It is in the best interest of the Applicant to provide commitment at this stage as failure to acquire and deploy noise reduction methods post consent will only be agreed in exceptional circumstances and should be considered the last resort.	Marine Licences (DMLs) 1 and 2, and Condition 15 (1) of DMLs 3 and 4, and therefore has not been duplicated here. *'(g) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol (in accordance with the outline marine mammal mitigation protocol), the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation bodies and which must include consideration of noise reduction methods and/or, deployment of noise mitigation systems or noise abatement systems that will be utilised to manage sounds from those piling activities and such protocol must include full details and justification for the mitigation chosen or excluded for deployment;'* The Applicants consider this wording to be sufficient to satisfy the MMO and are engaging with Natural England on the condition wording submitted. 3.5.8 The Applicants maintain that they have made sufficient commitment in the wording presented in the Outline MMMP and In Principle SNS SAC SIP which is in accordance with the wording from the Defra (2025) policy as it currently stands. The Applicants are aware of exceptional circumstances at some developments that led to the failure to incorporate NAS. To avoid this situation arising at the Projects, NAS is being included within the Projects' procurement strategy and timeline considerations as an optional element to allow it to be called upon should it be required based on the final design parameters.
REP4-115:3.6	**3.6 Action Point 48 –** Provide their position and interpretation of 'first instance' in paragraph below from the Defra Marine Noise Policy paper published 21 January 2025. 'all offshore wind pile driving activity across all English waters will be required to demonstrate that they	3.6.1 The MMO would like to highlight that Defra is intending on publishing further information and clarification in relation to the policy based on feedback from industry representatives and can share this with the	The Applicants acknowledge the MMO's comment and note that the Applicants provided a response to the Action Point in Table 5-1 of **The Applicants' Responses to April 2005 Hearing Actions Points** [REP4-088] submitted at Deadline 4, stating: *"The Applicants consider the term "in the first instance" refers to effectively a default to the use of best endeavours to deliver primary and/or secondary noise reduction measures in order*

I.D.	Question	MMO Response	Applicants' Response
	have utilised best endeavours to deliver noise reductions through the use of primary and/or secondary noise reduction methods in the first instance.	Applicant and Examination Authority (ExA) once this has been published. 3.6.2 Pile driving in the marine environment has the potential to injure and disturb European Protected Species such as marine mammals. Under regulations 45 and 47 of the Conservation of Offshore Marine Habitats and Species Regulations 2017, it is an offence to injure and disturb protected species and the Government therefore has a legal duty under the Regulations to protect them. Activities that have the potential to injure and disturb protected species may only be licenced to proceed in instances where the relevant authority is satisfied that a series of legal tests are met under The Conservation of Offshore Marine Habitats and Species Regulations 2017. 3.6.3 Amongst other things, the appropriate licensing authority must not grant a licence unless it is satisfied: • That activity is to be undertaken for a certain purpose, for example scientific research, or is in the public interest • that there is no satisfactory alternative that will cause less harm to the species • that the activity does not harm the long-term conservation status of the species 3.6.4 The '*satisfactory alternatives*' test means that any applicant should explore alternative methods for undertaking the activity that would cause less harm to the species and this test may only be met once the appropriate licensing authority is satisfied that there is no alternative method available to the applicant that would cause less harm. 3.6.5 As within Section 3.5 above given the technical advances in relation to NAS and NMS, the first instance means the Applicant has to show there is no satisfactory alternative to cause an impact. The MMO believes that to reduce the noise that NAS/NMS will be required for all projects causing an impact going forward and that it is only the specific type of mitigation that should be discussed post consent.	*to mitigate against piling noise. The terminology should be read in the context of the paper as a whole, which then goes on to discuss the circumstances where noise reduction measures may not be possible, for example due to supply chain issues. Therefore, the Applicants understand that "in the first instance" would mean that the use of primary and/or secondary measures must always be considered first, and only where, following best endeavours to deliver the same, and where there was justification for an alternative, would an alternative be considered. The Applicants have identified appropriate primary and secondary mitigation options pre-consent, and are including them in the Projects' procurement strategy to ensure that an appropriate suite of mitigation measures will be included in the final MMMP post-consent.* *The Applicants have ensured that appropriate means of addressing the requirements from the policy through the potential to update the project design and for the application of secondary measures (such as Noise Abatement Systems) have been included in the* ***Outline Marine Mammal Mitigation Protocol (Revision 4)*** *[document reference 8.25] secured in condition 15(1)(g) of DMLs 1 and 2; and condition 13(1)(g) of DMLs 3 and 4 and the* ***In Principle Site Integrity Plan (SIP) for the Southern North Sea (SNS) Special Area of Conservation (SAC) (Revision 3)*** *[REP2-049] secured in condition 16 of DMLs 1 and 2 and condition 14 of DMLs 3 and 4, which will be agreed with the Marine Management Organisation (MMO) through consultation with Natural England post-consent incorporating the final project design."* 3.6.5 The Applicants have included secondary measures (including NMS options) in the Outline MMMP and In Principle SNS SAC SIP, incorporating the wording from the Defra (2025) noise policy. NAS is being included within the Projects' procurement strategy and timeline considerations as an optional element to allow it to be called upon should it be required based on the final design parameters. The Applicants have taken the necessary pre-consent steps to ensure they will be in a position post consent to meet the satisfactory alternative test and secure a wildlife licence.
REP4-115:3.7	**3.7 Action Point 49 –** Respond to the Applicants' comments during ISH5 in relation to unexploded ordnance clearance.	3.7.1 The MMO is content that the UXO clearance will be a separate Marine Licence and notes that the Applicant will be undertaking further underwater noise modelling which will be submitted with updated impact ranges at the time	The Applicants welcome the MMO's agreement.

I.D.	Question	MMO Response	Applicants' Response
		of application. The MMO will keep a watching brief on this as well as any comments from Natural England.	
REP4-115:3.8	**3.8 Action Point 50 –** Provide the applicants with draft condition wording in relation to monitoring and adaptive management provisions with regard to underwater noise.	3.8.1 The MMO provided detail within the Deadline 3 - Additional Submission (AS-169) and will await the Applicant's response in Deadline 4. *"The MMO is requesting this to implement a more proactive process to manage issues, in the event that post construction monitoring shows a greater impact than that assessed in the Environmental Statement. The MMO is currently experiencing this on Round 1 and 2 offshore wind farms. The additional conditions ensure that all parties are clear what is required if the monitoring shows higher impacts than predicted during the assessment stage. It also allows the Applicant themselves to provide potential solutions when reviewing the results of monitoring, to then be discussed with the MMO and SNCBs.* *The aim of the condition is to provide a clear process to the Applicant, the MMO and any consultees if, in preparing the monitoring reports, the Applicant identifies greater impact that the Environmental Statement (ES) predicted rather than a report being submitted and then a discussion having to take place upon review/consultation of the reports.* *The MMO notes that if impacts are higher than predicted, the MMO can utilise Section 72 of 2009 Act and vary the marine licence to request Adaptive Management but believes the addition of this condition gives a clear process to all and allows for proactive management by the Applicant, rather than reactive management by the MMO."*	The Applicants responded to the MMO in Table 2-3 (I.D.90) of **The Applicants' Responses to Deadline 3 Documents** [REP4-088] submitted at Deadline 4**,** stating: *"The need for further monitoring and actions is reflected in section 1.4 of the In Principle Monitoring Plan (Revision 3) [document reference 8.23] which states (paragraph 17):* *"The scope and design of all monitoring work should be finalised and agreed following review of the results of any preceding survey and / or monitoring work (i.e. an adaptive monitoring approach), including those surveys conducted in support of the EIA. This includes the potential for survey requirements to be adapted based on the results of the monitoring outlined in this document, including in the event that unforeseen effects arise, which may in turn give rise to the need for adaptive management measures to be considered. Where it has been agreed that there are no significant effects, monitoring need not be conditioned through the DMLs."* *The Applicants maintain that there is no need for any further provision in the **Draft DCO (Revision 7)** [document reference 3.1] in this regard."* The Applicants discussed this point at a meeting with the MMO on 13th May 2025 at which the MMO indicated that it may be possible for the Applicants to satisfy the MMO in relation to this concern through updates to the **In-Principle Monitoring Plan (Revision 3)** [document reference 8.23]. That document has therefore been updated at Deadline 5 to include details of the adaptive management process that the Applicants would implement should monitoring results show an impact greater than that assessed in the ES.
REP4-115:3.9	**3.9 Action Point 53 –** Respond to the applicants' comments during ISH5 in relation to the degree of commitment to additional noise mitigation and the related adverse effects on Southern North Sea SAC and Humber Estuary SAC.	3.9.1 It is noted that the Applicant doesn't agree with the MMO nor NE on this subject. The MMO will await the Applicant's written formal response to this question and will largely defer to NE on commitment to additional noise mitigation and the related adverse effects on the Southern North Sea and Humber Estuary SAC's. The MMO will keep a watching brief of NE's response.	The Applicants acknowledge this comment.

Table 2-10 The Applicants' Response to the MMO Comments on Written Representations (ISH) 5 [REP4-115]

I.D.	MMO Response	Applicants' Response
REP4-115:4.1	**4. MMO comments on Written Representations** 4.1 REP3-042 Environment Agency Response to Examining Authority's First Written Questions (ExQ1) 4.1.1 The MMO will keep a watching brief on the Applicant's response.	The Applicants acknowledge this comment.
REP4-115:4.2	**4.2 REP3-043 Historic England Response to Examining Authority's First Written Questions (ExQ1)** 4.2.1 With regards to section 2.17, the MMO agrees with Historic England for the need for a high resolution marine geophysical survey to be carried out along the planned export cable route. The MMO notes that this is usually done as part of the pre-construction surveys.	The Applicants acknowledge this comment and can confirm that the Applicants will conduct a marine geophysical survey with the Projects' Array Areas and Offshore Export Cable Corridor as part of pre-construction surveys. These are secured within the **In Principle Monitoring Plan (Revision 3)** [REP4-088].
REP4-115:4.3	**4.3 REP3-044 Maritime and Coastguard Agency Response to Examining Authority's First Written Questions (ExQ1) and requests for further information** 4.3.1 With regards to Q3 SN1.7 the MMO agrees with the Maritime and Coastguard Agency (MCA) on the need for a preconstruction and post construction compass deviation survey and will keep a watching brief on the Applicant's response.	The Applicants acknowledge this comment. The Applicants updated the **Cable Statement (Revision 4)** [REP4-050] at Deadline 4 regarding pre- and post-construction compass deviation studies.
REP4-115:4.4	**4.4 REP3-051 Natural England Appendix B3 - Natural England's comments and updated advice on Marine Physical Environment EN010125 – Dogger Bank South Offshore Wind Farms Examination Library Document Index** 4.4.1 The MMO notes that NE has requested clarification as section 8.1.3.3 states that within the arrays, seabed level could be increased by up to 0.5m where multiple cable corridors merge, but in practice the cable layout will be designed to avoid this. The MMO would welcome this clarification. 4.4.2 The MMO supports NE's comment that preconstruction surveys should be carried out in areas with mobile bedforms. 4.4.3 The MMO will keep a watching brief on the further discussion on implications for cable protection within the 10metre (m) depth contour and will likely provide comments at Deadline 5.	4.4.1 - The Applicants disagree with the MMO and Natural England. The Applicants responded to Natural England's comments in Table 2-9 (REP3-051:2) of **The Applicants' Responses to Deadline 3 Documents** [REP4-088] submitted at Deadline 4, stating: *"The figure of a 0.5m increase in seabed level is in reference to the worst-case increase in sediment accumulation calculated in the marine physical processes modelling undertaken for the Projects. The modelling has shown that up to 0.5m of sediment could be deposited in and around the Offshore Platform (see Figure D-42 of Appendix 8-3 Marine Physical Processes Modelling Technical Report (Revision 3) [REP2-0018]) where multiple inter-array cables come together. This is because there is a greater density of cables in this area and the modelling assumes that sediment deposition is cumulative e.g. the sediment deposited during trenching of one array cable is overlain by sediment deposited during the installation of the adjacent array cable. This will not be the case as two cables will not be installed adjacent to one another during the same time period (two cable vessels cannot operate adjacent to one another) and natural sediment transport processes will redistribute the sediment deposited during the installation of the first cable, before deposition of material disturbed by trenching of the adjacent cable. The higher density of array cables in the vicinity of the Offshore Platform cannot be avoided by design as they need to connect to a single platform. The overarching project design is secured in in Schedule 2 Part 1 of the Draft Development Consent Order (Revision 7) [document reference 3.1]). In any case, it would not be possible to secure a change in seabed level of up to 0.5m as sediment transport is not static and is constantly changing."* 4.4.2 - The Applicants re-iterate their response provided to Natural England in **The Applicants' Reponses to Deadline 2 Documents** [REP2-028]: *"The Applicants would like to reiterate that the final version of the CBRA will not be completed within the time frame of examination. There will also be no updates to the existing CBRA within the time frame of examination. This is because there is no new information or data available to the Applicants that can provide any further understanding than has already been documented. The Applicants are in the process of planning additional surveys for summer 2025. When the results become available, they will feed into the CBRAs as they are further updated post consent. The final CBRAs will be appended to any final Cable Statements submitted by the Applicants in fulfilment of the relevant DML Conditions relating to this*

I.D.	MMO Response	Applicants' Response
		matter, such as condition (such as condition 15 (1) (g) in Schedule 10). Hence, Natural England will have sight of, and opportunity to comment on, these documents and any related engineering proposals as part of the DML condition discharge process. *The current understanding of seabed mobility is outlined in section 8.5.8. of Chapter 9 Marine Physical Environment [APP-080]. This baseline understanding is based on a Projects-specific seabed mobility study undertaken by the Applicants to inform the assessment (MarineSpace, 2023). The study assesses multiple bathymetric surveys to quantify bed level change and shows that levels of change are of the order of 0.2m over an 11 year period in the Array Area. This study has been provided for consideration during the examination period, see the* ***Bed Mobility & Thermal Environment*** *[document reference: 13.7] submitted at Deadline 3. As noted above, it is expected this document will be superseded as further site investigation and design work is completed prior to construction. The Applicants re-iterate that, as noted above, there are protections written into the Draft DCO that will ensure that Natural England have the opportunity to review the information requested once it is available as part of the process of discharging DML conditions."* The Applicants will look forward to the receipt of further advice from the MMO pertaining to the use of cable protection within the 10m depth contour.
REP4-115:4.5	**4.5 REP3-052 Natural England Appendix C3 - Natural England's comments and updated advice on Benthic and Intertidal Ecology** 4.5.1 The MMO notes and supports NE's stance on this subject and will keep a watching brief on any further developments.	The Applicants acknowledge this comment.
REP4-115:4.6	**4.6 REP3-053 Natural England Appendix E3 - Natural England's comments and advice on Fish and Shellfish** 4.6.1 The MMO agrees with NE conclusions on this subject and agree that a seasonal restriction is needed to reduce population impacts on the Banks Herring population.	The Applicants disagree with the MMO and Natural England. The Applicants responded to Natural England's comments in Table 2-18 (REP3-058: A10) of **The Applicants' Responses to Deadline 3 Documents** [REP4-088] submitted at Deadline 4, stating: *'Underwater noise impact upon sandeel is considered temporary and restricted in spatial extent due to the low sensitivity as defined by Popper et al. (2014). Potential mortality of sandeel may occur in close proximity to monopiling, however population-level effects and subsequent reduction in prey resource for other species is unlikely to occur. This is due to the limited spatial extent of potential mortality effect in relation to the extensive distribution of sandeel habitat within the Central and Southern North Sea. TTS effects are temporary and therefore no long-term effects upon sandeel are predicted.* *The majority of impact pathways for the Projects relating to Atlantic herring spawning grounds occur within the Offshore Export Cable Corridor, with some degree of overlap with the TTS extent for piling activities occurring in the northeastern extent of the potential spawning habitat. Whilst the extent of TTS is not unusual for piling activities within an offshore wind farm array (~50km), it is noted that there is potential for underwater noise impact to Atlantic herring. Please refer to* ***Chapter 10 Fish and Shellfish Ecology*** *[APP-091] for the detailed assessment, noting that the conclusion of the assessment is that these impacts are Not Significant in EIA terms.* *When using the industry standard for assessing the potential for a significant effect from TTS (Popper et al., 2014), the IHLS data shows that the overlapping potential spawning habitat is not highly productive (consistently 1-50 larvae per m² with an isolated sample of 50-200 larvae per m² north of KP90 – refer to Figure 2.7 of the* ***Heat Mapping Report: Atlantic Herring and Sandeel*** *[AS-105]). Therefore, the sound produced during piling activities is highly unlikely to result in any significant effect to the North Sea Autumn Spawning Atlantic herring population.* *In light of this finding, which is supported by extensive assessment work, no mitigation is deemed necessary by the Applicants. However, it should be noted that the acoustic envelope assessed is a worst case which may be reduced and refined as the Projects mature. In addition, mitigation may be adopted for other fauna. One or both of these possibilities may be realised which would provide benefits in terms of the reduction of acoustic impacts of the Projects on taxa such as Atlantic herring.* *The Applicants have committed to utilising best endeavours to deliver noise reduction (primary and /or secondary methods) in line with the Department for Environmental Food and Rural Affairs (Defra) Policy Paper on Reducing Marine Noise as part of Defra's Marine Noise Package (2025). The additional mitigation measures are presented in section 3.1.9 of the* ***Outline MMMP (Revision 3)*** *[REP2-047] and consider the use of*

I.D.	MMO Response	Applicants' Response
		Noise Abatement Systems (NAS) as mitigation for underwater noise. Any additional mitigation will be dependent on the final project design and determined at the post-consent stage. *The provision of underwater noise impact contours where mitigation is incorporated to reduce underwater noise extent by 10dB is presented within the* ***Underwater Noise Reduction Technical Note*** *[document reference 14.9]. Examination of the mitigated modelling indicates that underwater noise impacts within the 186dB SEL_{cum}; 203 dB SEL_{cum}; and 207 dB SEL_{cum} contours limits any overlap of these impacts to regions either unsuitable for herring spawning, or regions with a spawning potential >0.25, and therefore considered of lower suitability based on the Kyle-Henney et al. (2024) methodology. Within the 135 dB SEL_{ss} contours, areas of herring spawning potential of a value <0.05-<0.1, and 0.05 (moderate and higher potential) are reduced by 80.91% and 100% respectively following the introduction of mitigation allowing for a 10dB reduction (Table 3-1* ***Underwater Noise Reduction Technical Note*** *[document reference 14.9]).* *As originally described within the memo submitted to the MMO dated 2nd November 2023 (see Appendix B of* ***The Applicant's Responses to Deadline 2 Documents*** *[REP3-028]), the Applicants strongly oppose the use of the 135dB behavioural threshold (which was determined for sprat Sprattus sprattus) for the assessment of potential impacts to Atlantic herring Clupea harengus. Whilst sprat and Atlantic herring are both species within the family Clupeidae, this is not a suitable justification for implementation of this threshold given the evidence presented by Hawkins et al. (2014). The scientific publications upon which this threshold is based (Hawkins and Popper, 2014; Hawkins et al., 2014)* ***explicitly state that: "these data cannot yet be used to define the sound exposure criteria";*** *and* ***"We would stress, however, that it would be premature to use these data to define sound exposure criteria for sprat and mackerel"*** *respectively. Therefore, on the evidence of the authors own position, the use of 135dB as a behavioural threshold should not be incorporated into MMO advice for the purposes of EIA. Guidance for impact thresholds is provided within Popper et al. (2014), (published the same year, and noting the common authors between these publications), the underwater noise impact thresholds presented are considered best practice guidance since its publication and are the ones used in the Applicants' assessment (****Chapter 10 Fish and Shellfish Ecology*** *[APP-091]). However, 135dB limits have been included in all underwater noise modelling outputs produced on request of the Examining Authority.* *The Applicants note that the Rampion 2 development contains and abuts large regions of preferred and marginal Atlantic herring spawning grounds as presented within Figure 8.10 of their EIA[22]. Impacts of underwater noise at the 207dB (mortality and potential mortal injury); 203dB (recoverable injury); and 186dB (temporary threshold shift) levels all overlap significantly with these regions of preferred and marginal potential habitat. Areas of unsuitable habitat are limited across the Fish and Shellfish Study Area as a whole.* *When compared to herring spawning potential associated with the Projects, (Figure 2-1 of the* ***Heat Mapping Report: Atlantic Herring and Sandeel*** *[AS-105]) overlap with these regions is greatly reduced. Even in the absence of mitigation, the majority of the region covered by each of the previously discussed thresholds is considered as unsuitable for herring spawning. When considering the suitability of the sediment directly (Figure 2-2 of the* ***Heat Mapping Report: Atlantic Herring and Sandeel*** *[AS-105]) findings are similar, with the majority of the region within these noise limits considered to be unsuitable for herring spawning.* *When considering the significant differences in both the proximity and overlap with potential herring spawning grounds between the two projects, it is not considered appropriate for the licence conditions applied to Rampion 2 to be applied to the Deemed Marine Licence(s) in the draft DCO for the Projects.* *For the above reasons, the Applicants do not agree that the proposed restriction is proportionate, evidence-based or necessary.'* At a meeting on 15/05/25 with the MMO and Cefas, the Applicants queried what more information could be provided to support the removal of any seasonal restrictions. The MMO advised they would provide more information on the proposed seasonal restrictions with regards to piling in the Array Areas and works within the Offshore Export Cable Corridor after internal discussions. It is important that consideration is given to whether the requested restriction is proportionate, given the comparatively weak evidence-base upon which it has been requested. Further, the application of any restriction should be clearly contextualised in the planning balance against the potentially existential threat that such restrictions pose to the proposed Projects. See the Applicants' response to FSE.2.15 in **The**

I.D.	MMO Response	Applicants' Response
		Applicants' Responses to ExAQ2 [document reference 15.2] for further details of the Applicants views of the likely impacts of the requested restriction on the deliverability of the Projects.
REP4-115:4.7	**4.7 REP3-054 Natural England Appendix F3 - Natural England's comments and advice on Marine Mammals** 4.7.1 The MMO notes and supports the position regarding marine mammals.	The Applicants acknowledge this comment.
REP4-115:4.8	**4.8 REP3-055 Natural England Appendix H3 - Natural England's comments and advice on Offshore Ornithology Compensation** 4.8.1 The MMO notes NE's position on offshore ornithology compensation and will keep a watching brief on further developments in relation to any marine licence requirements.	The Applicants acknowledge this comment.
REP4-115:4.9	**4.9 REP3-056 Natural England Appendix J - Natural England's comments on the In-Principle Monitoring Plan [APP-247] and [REP2-044]** 4.9.1 The MMO notes and supports NE's request for further detail within the IPMP and will keep a watching brief on the Applicant's response.	The Applicants acknowledge this comment.
REP4-115:4.10	**4.10 REP3-057 Natural England Appendix K - Natural England's Response to The Examining Authority's First Written Questions (ExQ1) and Rule 17 Request dated 3 March 2025 [PD-016]** 4.10.1 The MMO will keep a watching brief in regards to offshore ornithology compensation.	The Applicants acknowledge this comment.
REP4-115:4.11	**4.11 REP3-058 Natural England Appendix L - Natural England's comments and updated advice on Change Request 1** 4.11.1 The MMO notes NE's comments to assess the additional cables for possible heat impacts to sandeel. 4.11.2 The MMO agrees with NE regarding the need for clarification as to why pin piling has been referred to but not monopiling.	4.11.1 - The Applicants responded to Natural England's comments in Table 2-18 (REP3-058: A9) of **The Applicants' Responses to Deadline 3 Documents** [REP4-088] submitted at Deadline 4, stating: *'The impact of 'Potential interactions of heat generated by operational cables' was scoped out of the PEIR / ES Assessment in agreement with the Planning Inspectorate in the Projects' Scoping Report, as noted in Table 9-1 of Benthic and Intertidal Ecology Consultation Responses [APP-087]. In addition, as stated in section 10.6.2.7 of Chapter 10 Fish and Shellfish Ecology [APP-091]:* *Localised heating of sea water may occur, but this is limited to distances of tens of cm, and is likely to be of small magnitude, therefore no additional impact is predicted from heating effects (Boehlert and Gill, 201019; Moray Offshore Windfarm Ltd, 201820).* *As such, the Applicants do not propose to include any further assessment of possible heat impacts from operational cables.'* 4.11.2 - The Applicants responded to Natural England's comments in Table 2-18 (REP3-058: A.11) of **The Applicants' Responses to Deadline 3 Documents** [REP4-088] submitted at Deadline 4, stating: *Within the original assessment a precautionary approach was taken when assessing the potential impacts of underwater noise in the 'in isolation' scenario in which concurrent monopiling at the extremes of both Dogger Bank South (DBS) East and DBS West was assessed to maximise spatial extent. Pin-piling was determined as the worst case scenario under the 'together' scenario due to the concurrent piling within both Array Areas, and at the Electrical Switching Platform (ESP) location. Following the revision to the project design, piling at the ESP was removed, and the pin-piling*

I.D.	MMO Response	Applicants' Response
		parameters were changed to allow for only two simultaneous piling events. No changes to the monopiling scenario were made during the change request, and therefore the assessment for this piling scenario remains the same. *When considered spatially, monopiling therefore represents the worst case scenario for piling for both the 'in isolation' and 'together' scenarios following the removal of the ESP piling location. This is due to the precautionary approach taken within the original 'in isolation' assessment that assessed concurrent piling at both locations to maximise spatial extent.* *As pin piling would result in a greater number of piles that may be installed in one day (8 compared to only 4 monopiles in the 'in isolation' scenario), and the extended piling time associated with this method (2,609.3 hours compared to 544 hours in the 'in isolation' scenario) pin piling was retained as the worst case for the 'in isolation' scenario. This ensured that consideration of the greater temporal extent of this scenario was not lost following the revision to project design.* *Should monopiling be used during the 'together' scenario, impacts will remain as assessed within the 'in isolation' scenario as this scenario precautionarily assesses piling at both locations together. This worst case scenario is presented within Figure 10-8 of* ***Appendix 10-1 Fish and Shellfish Ecology Consultation Responses*** *[APP-093]. This figure includes the 135dB value – please see the response to REP3-058: A10 above for further details on the applicability of this threshold value when considering Atlantic herring.*
REP4-115:4.12	**4.12 REP3-069 The Wildlife Trust Response to Examining Authority's First Written Questions (ExQ1)** 4.12.1 The MMO will maintain a watching brief on any future relevant representations from The Wildlife Trust (TWT). 4.12.2 The MMO notes TWT position and disagreement regarding artificial nesting structures as compensation measures. The MMO defers to NE in relation to ornithology compensation matters.	The Applicants acknowledge this comment.

2.9 Maritime and Coastguard Agency

Table 2-11 – The Applicants' comments on Maritime and Coastguard Agency (MCA) [REP4-102] responses to Action Points, ExQ1 and Rule 17

I.D.	Question	Maritime and Coastguard Agency Response	Applicants' Response
REP4- 102:1	**Action Point 28:** *'The MCA and the applicants to co-ordinate on updating Section 3.3 of the Outline Vessel Traffic Monitoring Plan [APP-254] to provide more certainty on how changes identified as a result of monitoring would be addressed and secured.'*	The MCA has been in consultation with the applicant regarding the wording in Section 3.3 of APP-254. **Existing wording** – *'Upon completion should there be any changes noted since the submission of the NRA, consideration shall be given to meeting the MCA and/or Trinity House to discuss the results in further detail and whether any additional mitigation measures are required'.* **Proposed updated wording** – *'Upon completion of each vessel traffic monitoring report, should there be any changes noted when compared against the anticipated future baseline in the NRA, the MCA and Trinity House will be consulted to confirm whether any additional mitigation measures are required. The nature of such additional mitigation measures (where they are deemed necessary) would be determined as part of that consultation and may include amendments to the lighting and marking scheme which would be directed by Trinity House.'* The MCA can confirm that we are content with the proposed updated wording and would be happy for the update to be incorporated into the Outline Vessel Traffic Monitoring Plan (APP-254).	The Applicants welcome the MCA's agreement with the proposed updated wording and confirm this has been incorporated into the **Outline Vessel Traffic Monitoring Plan (Revision 2)** [document reference 8.30] submitted at Deadline 5.

2.10 National Gas Transmission Plc

Table 2-12 – The Applicants' response to National Gas Transmission Plc (NGT) Deadline 4 Document [REP4-112]

I.D.	NGT Response	Applicants' Response
REP4-112:1	**1 Introduction** 1.1 This submission is made at Deadline 4 on behalf of National Gas Transmission plc **(NGT)** in connection with the application by RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited **(Promoter)** for the Dogger Bank South Offshore Wind Farms Development Consent Order **(Draft Order)** to enable the construction of the Dogger Bank South Offshore Wind Farm **(Dogger Bank South Project)** (defined in the Draft Order as the **Authorised Development**). 1.2 It provides an update on the matters referred to in NGT's written representation dated 29 January 2025 **(NGT's Written Representation) [REP1-078]** and so responds to the Examining Authority's Rule 17 letter dated 15 April 2025 **(the Rule 17 Letter),** specifically in relation to action point 10 from Compulsory Acquisition Hearing 2 on 7 April 2025: *If agreement has not been reached, relevant statutory parties on the drafting of bespoke protective provisions to submit their preferred drafting for the protective provisions with a detailed explanation as to why these would be necessary*	No response required.
REP4-112:2	**2 Status of negotiations** 2.1 As the Examining Authority is aware, NGT has requested that the set of protective provisions that it has put forward for the benefit of its undertaking (**NGT's PPs,** a copy of which are included at **Appendix 2 of NGT's Written Representation**) should be included in the Draft Order. NGT's Written Representation sets out why NGT's PPs are necessary. 2.2 To this end, NGT's solicitors (Addleshaw Goddard LLP) have been engaging with the Promoter's solicitors. 2.3 Whilst discussions between the parties are ongoing and NGT would not expect the inclusion of NGT's PPs in the Draft Order to be contentious given their purpose and precedent in other development consent orders, an agreed position has not yet been reached with the Promoter.	The Applicants acknowledge this comment and will continue engaging with NGT to try and reach agreement on the protective provisions before the close of the examination.
REP4-112:3	**3 Summary of NGT's position** 3.1 In light of the above, NGT's position remains as set out in NGT's Written Representation. 3.2 NGT's Written Representation provides both NGT's PPs and the explanation as to why these protective provisions are necessary. In summary, NGT has existing infrastructure located within or in close proximity to the Dogger Bank South Project that needs to be protected via the protective provisions that NGT is proposing be included in the final form of the Draft Order. NGT's PPs will ensure that NGT's existing assets and interests are adequately protected, as well as compliance with relevant safety standards. 3.3 Since an agreed position has not been reached with the Promoter, NGT must continue to maintain the position set out in NGT's Written Representation and requests that NGT's PPs should be included in the Draft Order accordingly.	The Applicants acknowledge this comment and will continue engaging with NGT to try and reach agreement on the protective provisions before the close of the examination.

2.11 National Grid Electricity Transmission plc

Table 2-13 – The Applicants' response to National Grid Electricity Transmission plc (NGET) Deadline 4 Document [REP4-111]

I.D.	NGET Response	Applicants' Response
REP4-111:1	**1 Introduction** 1.1 This submission is made at Deadline 4 on behalf of National Grid Electricity Transmission plc (**NGET**) in connection with the application by RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited (**Promoter**) for the Dogger Bank South Offshore Wind Farms Development Consent Order (**Order**) to enable the construction of the Dogger Bank South Offshore Wind Farm (**Dogger Bank South Project**). 1.2 It provides an update on the matters referred to in NGET's written representation dated 29 January 2025 (**NGET's Written Representation) [REP1-080]** and so responds to the Examining Authority's Rule 17 letter dated 15 April 2025 (**the Rule 17 Letter**), specifically in relation to action point 10 from Compulsory Acquisition Hearing 2 on 7 April 2025: *If agreement has not been reached, relevant statutory parties on the drafting of bespoke protective provisions to submit their preferred drafting for the protective provisions with a detailed explanation as to why these would be necessary*	The Applicants acknowledge this comment.
REP4-111:2	**2 Status of negotiations** 2.1 As the Examining Authority is aware, NGET has requested that the set of protective provisions that it has put forward for the benefit of its undertaking (**NGET's PP**s, a copy of which are included at **Appendix 4 of NGET's Written Representation**) should be included in the Order. As set out in NGET's Written Representation, NGET's PPs are necessary to avoid serious detriment to not just NGET but multiple third party connectee projects reliant on the delivery of NGET's various projects at this location. 2.2 To this end, NGET's solicitors (Addleshaw Goddard LLP) have been engaging with the Promoter's solicitors. 2.3 Whilst discussions between the parties are ongoing and NGET would not expect the inclusion of NGET's PPs in the Order to be contentious given their purpose and precedent in other development consent orders, an agreed position has not yet been reached with the Promoter.	The Applicants acknowledge this comment. The Applicants are engaged with NGET to discuss the form of protective provisions. The Applicants are unable to accept these provisions as they may constrain the Applicants' ability to carry out the Projects within the scope of the **Draft Development Consent Order (DCO) (Revision 8)** [document reference 3.1]. NGET are seeking protections for areas of land required for the delivery of other schemes not yet consented or even applied for consent in the vicinity of the Projects. This could restrict the Applicants' ability to undertake works in the area around the proposed Birkhill Wood National Grid Substation. The land subject to this additional protection is not yet identifiable and NGET is yet to submit a Town and Country Planning Application for the site, so it is subject to change and further refinement. Furthermore, NGET do not yet have land rights in relation to some of the land subject to this additional protection. The purpose of the protective provisions is to provide protection to the statutory undertakers existing assets. The Applicants therefore consider that NGET's position to include future assets goes above and beyond what protective provisions are intended to cover and the protections provided to statutory undertakers in the Planning Act 2008. The Applicants consider that interactions between the Projects and any future projects should be addressed in a private co-operation agreement and have held discussions with NGET regarding a revised set of Heads of Terms that captures the salient points in more detail and covers the anticipated boiler plate provisions that were lacking from the initial draft circulated by NGET. Without sufficient protection and assurances from NGET, the Applicants cannot agree to these provisions as currently proposed by NGET. The Applicants require certainty that it can carry out works within the scope of the **Draft DCO (Revision 8)** [document reference 3.1].

I.D.	NGET Response	Applicants' Response
REP4-111:3	**3 Summary of NGET's position** 3.1 In light of the above, NGET's position remains as set out in NGET's Written Representation. 3.2 NGET's Written Representation provides both NGET's PPs and the explanation as to why these protective provisions are necessary. In summary, NGET has existing and future infrastructure that needs to be protected via the protective provisions that NGET is proposing be included in the final form of the Order. These protective provisions include wording that has precedent in other development consent orders that have been recently granted. Without inclusion of the protective provisions, serious detriment would be caused to NGET's undertaking as well as to other third-party projects that are reliant on NGET's existing and future infrastructure (including the Dogger Bank South Project itself). 3.3 Since an agreed position has not been reached with the Promoter, NGET must continue to maintain the position set out in NGET's Written Representation and requests that NGET's PPs should be included in the Order accordingly.	The Applicants and NGET are continuing to negotiate the protective provisions and co-operation agreement and hope to reach an agreement before the end of the examination subject to a resolution on the outstanding issues, including in relation to interactions with future infrastructure as noted above. If agreement has not been reached by Deadline 8, the Applicants will update the **Draft DCO (Revision 8)** [document reference 3.1] with the Applicants' preferred form of protective provisions in order that the ExA has the opportunity to consider the proposed wording during the Examination. In these circumstances, the Applicants would continue to engage with NGET to seek to agree the form of protective provisions prior to the close of Examination.

2.12 Natural England – Cover Letter

Table 2-14 – The Applicants' Response to Natural England's Deadline 4 Cover Letter [REP4-128]

I.D.	Natural England Response	Applicants' Response
REP4-128:1	**Application by RWE Renewables UK Dogger Bank South (West) Ltd and RWE Renewables UK Dogger Bank South (East) Ltd for an Order granting Development Consent for the Dogger Bank South Offshore Wind Farms** The following constitutes Natural England's formal statutory response for Examination Deadline 4. **1. Natural England's Deadline 4 Submissions** Natural England has reviewed the documents submitted by the Applicant at Deadline 3. An update of Natural England's position regarding documents relevant to our remit is provided in Annex 1, including anticipated timing of responses. Natural England is also submitting the following detailed responses, signposted from Annex 1: • EN010125 489457 DBS – Natural England's Risk and Issues Log Deadline 4 • EN010125 489457 DBS Appendix B4 – Natural England's Advice on Marine Physical Environment Deadline 4 • EN010125 489457 DBS Appendix C4 – Natural England's Advice on Benthic and Intertidal Ecology Deadline 4 • EN010125 489457 DBS Appendix F4 – Natural England's Advice on Marine Mammals Deadline 4 • EN010125 489457 DBS Appendix G4 – Natural England's Advice on Offshore Ornithology Deadline 4 • EN010125 489457 DBS Appendix H4 – Natural England's Advice on Offshore Ornithology Compensation Deadline 4 EN010125 489457 DBS Appendix M - Natural England's Response to The Examining Authority's Action points arising from Issue Specific Hearing 5 [EV10-002]	No response is required.
REP4-128:2	**2. Natural England's Engagement Through Examination** Natural England highlights to the Examining Authority (ExA) and the Applicant that the focus of our engagement during Examination will be on reviewing relevant updated Environmental Statement (ES) chapters/technical documents/outline plans or thematic clarification notes. Therefore, and as noted in our Rule 6 response [PDA-038; PDC-009], we do not generally respond to commentary on our submissions, other Interested Parties' representations/submissions or to comments from the Applicant or other stakeholders on the Risk and Issues Log, unless the ExA questions have directed us to do so. However, in this instance we have reviewed The Applicants' Responses to Deadline 2 Documents [REP3-028] to enable us to signpost to where issues are due to be progressed by planned, future submissions. In doing this, we note that the Applicant has provided additional technical information both within responses and in appendices of this document. Natural England request that all additional information provided is updated in relevant assessments/documents as needed, to enable issue resolution.	The Applicants confirm that an updated Environmental Statement (ES) will be submitted at Deadline 7 of Examination.

I.D.	Natural England Response	Applicants' Response
	In light of the above, Natural England welcomes the Examiner's request in the Rule 17 letter dated 15th April 2025 for the ES to be updated in full at Deadline 7.	
REP4-128:3	**3. Issue Specific Hearing (ISH) Actions** Natural England have reviewed the Actions from ISH5 [EV10-002] held on 10th April 2025, and acknowledge the Examiner's request in the Rule 17 letter for responses to be provided at Deadline 4. Natural England have responded as far as possible in Appendix M, however we have not been able to respond in full at this deadline. This is in part due to resource constraints as a result of the Easter holidays, and also due to necessary information not yet being available; we understand that the Applicant is due to submit key updated assessments at Deadline 4, including benthic and ornithology RIAAs. It is anticipated that these updates will progress and/or resolve several of the actions, particularly for ornithology, but it would be premature to advise on these at this Deadline. We also note that the Applicant will be submitting Written Summaries of their Oral Representations at Deadline 4, which often provide a more comprehensive view of the Applicant's positions than reviewing the auto-generated transcripts or recordings. Accordingly, Natural England consider that we will be able to provide more meaningful updates to the ExA following review of the Deadline 4 submissions and will therefore provide outstanding comments on actions relevant to these documents in full at Deadline 5. For clarity, we have signposted in our current response where we consider an action will be progressed and/or addressed by a planned Deadline 4 submission, or where we wish to review the written summaries prior to responding.	The Applicants note their disappointment with Natural England's inability to respond in full at Deadline 4 and, as a result, their failure to comply with the Examination Timetable. The Applicants' disappointment is particularly acute, noting the ExA's reminder in Rule 17 Letter - Request for further information dated 15th April 2025 [PD-018], issued shortly before Deadline 4, of the importance of submitting documents in a timely manner. This reminder was issued to help ensure that matters can be resolved within examination and that the process is not extended and / or that a consent decision delayed. The Applicants highlight that the Easter holidays affect all parties and that the ExA noted that where documents are submitted late without good reason, causing inconvenience or delay to other parties, this could amount to unreasonable behaviour and may result in the ExA considering the award of costs.
REP4-128:4	**4. Attendance at potential June ISH** Natural England acknowledges the ExA's disappointment at Interested Parties' (IP) lack of attendance at the recent hearings, as set out in the Rule 17 letter of 15th April 2025, and the early provision of dates for further hearings to be held week commencing 2nd June 2025, if required. Whilst we welcome the early notification and understand the ExA's desire for IPs to attend hearings, Natural England can confirm that we will not be attending, should they be held, for the reasons set out below. A decision on whether the hearings are required will be predicated on the information submitted at Deadline 4. Whilst Natural England understands the need for the hearings to be secured early, based on the Applicant's planned submissions at Deadline 4 we consider that Natural England's Deadline 4 submission, and potentially those of other IPs, will not provide an accurate reflection of the likely position of the Application at Deadline 5 and thus the need for the hearings, which follow shortly after Deadline 5. As noted in Section 3, key updates to address outstanding concerns related to ornithology and benthic aspects are due for submission at Deadline 4. Natural England and the Applicant have also scheduled meetings for early May to discuss actions needed to resolve remaining outstanding issues, the content of planned future submissions (including indirect prey effects and nearshore processes), and to confirm areas where agreement will not be reached. We anticipate that these will allow for substantially more progress and issue resolution to have been achieved at Deadline 5 than will be apparent at Deadline 4.	The Applicants note their disappointment with Natural England's confirmation of their continued non-attendance at hearings. The Applicants' disappointment is particularly acute, noting the ExA's reminder in Rule 17 Letter - Request for further information dated 15th April 2025 [PD-018] that: *Whilst the examination of the proposed development is a predominantly written process, hearings provide an important opportunity for the ExA to explore matters orally. This often enables the ExA to consider complex matters more efficiently. However, for this to be successful it is important that all the relevant parties attend the hearings.* The Applicants are concerned that Natural England's continued non-attendance at hearings could result in matters not being resolved within examination, could cause the extension of examination or may result in a delay to a consent decision. Some of the existing disagreements between the Applicants and Natural England include requests for mitigation which could affect project viability. Considering this, it is very concerning that Natural England have failed to attend hearings and deliver in-line with the ExA's requested examination timetable as this reduces the ability of both the Applicants and the ExA to interrogate these positions further prior to the Secretary of State making their decision.

I.D.	Natural England Response	Applicants' Response
	In addition, during the proposed time period for the hearings Natural England will also be engaged in North Falls OWF Deadline 5 (30th May), Morgan & Morecambe Transmission Assets Deadline 2 (3rd June), xlinks Deadline 2 (4th June), Sealink Relevant Representations (6th June) and of course Dogger Bank South Deadline 6 (13th June). Unfortunately, we must therefore prioritise where we consider the greatest environmental benefit to be achieved. In that light, we refer the ExA to the advice provided in our Rule 6 response [PDA-038; PDC-009] that Natural England will only attend ISH by exception and focus our engagement where there is the greatest prospect of significant environmental risks being resolved.	
REP4-128:5	**5. Provision of Outline Plans** Natural England are concerned that several of the outstanding issues raised in our Relevant and Written Representations will not be resolved within Examination due to the Applicant's reluctance to provide and/or update outline plans. For example, an Outline Decommissioning Plan and HDD Landfall Management Plan including a Bentonite Breakout Management Plan have not been provided. We highlight that similar requests have been made of other Round 4 projects and they have been forthcoming.	The Applicants have previously presented their position in relation to requests for an Outline Decommissioning Plan. This position can be found in the response to Natural England REP1- 067: B30 in **The Applicants' Responses to Deadline 1 Documents** [REP2-058]. The Applicants do not intend to repeat their position here but do note that they have made appropriate provisions to discharge the obligations placed upon the Projects under policies 2.8.88 and 2.8.89 of National Policy Statement for Renewable Energy Infrastructure (EN-3) which deal with decommissioning through the inclusion of Requirements 7(1) and 7(2) of the **Draft Development Consent Order (Revision 8)** [document reference 3.1]. These Requirements state that for each Project: *…offshore works must not be commenced until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2)(a) (requirement to prepare decommissioning programmes) of the 2004 Act has been submitted to the Secretary of State for approval.* The Applicants question the accuracy of Natural England's statement that requests for Outline Decommissioning Plans made to other Round 4 projects have been complied with. The Applicants have conducted a review of the documents for each Round 4 project and can find no examples of such a document. The Applicants note that the Draft DCOs of all Round 4 projects contain wording relating to offshore decommissioning that is very similar to that presented in the **Draft Development Consent Order (Revision 8)** [document reference 3.1). Thus, the Applicants contend that their position relating to decommissioning is aligned with contemporaneous offshore wind projects. The Applicants note that the **Outline Code of Construction Practice (Revision 4)** [REP4-040] contains a commitment to produce A Drilling Fluid Break Out Management Plan post-consent as part of the detailed construction Code of Practice approved under DCO Requirement 19, upon appointment of a Principal Contractor(s). An overview of this proposed document is provided in section 6.3.2.1. of this document. The Applicants note that during the course of the examination they have provided updates to a significant number of documents, including 10 out of 11 of the offshore management plans, in response to advice received from Natural England and other Interested Parties. Indeed, many of these documents have been updated several times. All updates are recorded and catalogued within the Examination Library. Examples of documents that have been updated in response to Natural England's representations include, but are not limited to the: **- Cable Statement (Revision 4)** [REP4-050] **- Outline Scour Protection Plan (Revision 3)** [REP2-051] **- In Principle Monitoring Plan (Revision 3)** [REP4-052] **- In Principle Site Integrity Plan for the Southern North Sea Special Area of Conservation (Revision 3)** [REP2-049] - **Outline Marine Mammal Mitigation Protocol (Revision 4)** [REP4-054] - **Outline Kittiwake Compensation Implementation and Monitoring Plan (Revision 2)** [REP4-022]

I.D.	Natural England Response	Applicants' Response
		The Applicants note that it is entirely valid for them to disagree with Natural England's advice, and they are not obliged to make all updates to documents that are requested. Where requests for updates have not been made full justifications have been provided as a matter of record throughout the Examination process. The Applicant's highlight Natural England's stance on not responding to comments received from the Applicants and other stakeholders outlined in Natural England's Deadline 1 Submission [REP1-063], where they stated that they would '*not be responding to commentary on our representations, other interested parties' representations or to comments from the Applicant or other stakeholders on the Risk and Issues Log, unless the ExA questions direct us to do so*'. The Applicants believe this approach is antithetical to the inquisitorial nature of the Examination process and reiterate that the guidance provided by Natural England should be open to challenge through the DCO process, a point previously highlighted during the Outer Dowsing offshore wind farm Examination[1].
REP4-128:6	**6. Comments on conclusions** The Applicant makes repeated reference to changes requested in Natural England's advice not having a material impact on assessment conclusions, and therefore not being a reason to cause a delay in Natural England finalising their positions. Whilst an update may not materially impact whether an adverse effect can be ruled out or not, it remains important for impact assessments to be based on correct outputs as these impact values will be used by other projects for in-combination assessments and to inform requirements for compensation. We also consider that it would be pre-emptive to 'finalise' a position prior to discussions regarding mitigation being fully closed out.	The Applicants acknowledge this comment. The Applicants made the comments in terms of expediting consideration of matters such as compensation. For example, in terms of in-combination effects for kittiwake disagreement over the contribution of other projects to the in-combination total does not affect the conclusion of adverse effect on integrity (AEoI) and does not affect the Projects compensation quantum. The comment is therefore intended to make the ExA aware that in this case that, whilst some details of the assessment need to be finalised / agreed, there are no implications for other workstreams. Notwithstanding the above, at the request of the Examining Authority within the Rule 17 Letter issued on the 15th April [PD-018] the Applicants are in the progress of updating the Environmental Statement for Deadline 7, which will include updates based on Natural England's comments received through the Examination process. The Report to Inform Appropriate Assessment has also been updated through the Examination process to account for Natural England's comments. **Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014] and **Part 4 of 4 – Marine Ornithological Features (Revision 4)** [REP4-016] were submitted at Deadline 4, with **Part 1 of 4 – Introduction and Terrestrial Ecology (Revision 3)** [document reference 6.1] and **Part 3 of 4 – Annex II Marine Mammals (Revision 3)** [document reference 6.1] being submitted at Deadline 5.
REP4-128:7	**7. Plan Level HRA conclusions** Natural England note the topic of Plan Level HRA conclusions being superseded by Project Level HRA conclusions has featured in both the Examiner's Questions (BE.1.10, [PD-014]) and the ISH actions [EV10-002]. For clarity, Natural England wish to highlight that we are in full agreement with the Applicant that "*the conclusions of the Plan Level HRA may be superseded by Project Level assessments where more detailed information is available*", as has been the case for several features of the Flamborough and Filey Coast SPA. We also agree "*that it would be unreasonable to only update Plan Level HRA conclusions in a negative way in response to project-level information*". Natural England has not advised otherwise, it is simply our view that in this case the evidence presented by the Applicant is insufficient to warrant divergence from the Plan Level conclusions.	The Applicants consider that, based on this response, there is agreement over the principal of the Applicants' case. The Applicants reiterate that considerable additional evidence has been submitted, and that Natural England has not responded to fundamental aspects of our case, in particular Natural England's divergence from MarESA on recovery timescales.
REP4-128:8	**8. Draft Development Consent Order (DCO)** Natural England notes that the Project Environmental Statement (ES) has based assessments on an operational lifetime of 30 - 32 years. Similarly, our advice and considerations on this project	The Applicants refer to **The Applicants' Responses to ExQ1** [REP3-027] (BGC.1.9): "*The Applicants do not think that it is appropriate to specify the operational lifetime of the Projects in the **Draft DCO (Revision 6)** [document reference 3.1]. The operational period of 30 to 32 years in the ES is an estimate to enable the*

[1] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010130/EN010130-001907-22.%2010%20The%20Applicant%E2%80%99s%20Position%200n%20Natural%20England%E2%80%99s%20Engagement%20in%20the%20Outer%20Dowsing%20Offshore%20Wind%20Examination.pdf

I.D.	Natural England Response	Applicants' Response
	thus far have been based on the proposed operational lifetime within the ES. However, we note that the draft Development Consent Order (DCO) does not include any condition or requirement that would allow enforcement of an end date. A similar issue with the lack of an enforceable end date was raised within Natural England's response to Outer Dowsing Offshore Wind Farm Deadline 6 (Natural England's cover letter Point 5). Given the assumptions made within the Project ES Natural England considers that there will be a need for a robust process to assess any extension to the operational life of the Project, such as through a variation or a new licence process, or other appropriate regulatory process. Therefore, we advise that an operational end date of 30 – 32 years is included within the Deemed Marine Licence (dML), which we understand to be aligned with standard best practice for all non-Offshore wind marine licences. We note that this is a new issue raised during the Examination process of Dogger Bank South and have included it as an additional row within the updated Risks and Issues Log tab A. For awareness, we note during discussions on this matter with the MMO, that this has highlighted a potential cross cutting issue with offshore windfarm marine licences. Natural England considers that there is a benefit to including an end date of the operational phase within the DCO/dML to ensure that it is clear that any repowering etc. would be subject to a new consent or variation, which would also require a full reassessment of impacts. Natural England notes this is also supported by the MMO. For awareness, Natural England will also be advising the inclusion of an operational end date on the dML for all OWF NSIPs Applications currently in examination.	*assessment of the environmental effects of the Projects pursuant to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. The operational lifetime of a wind farm is generally not fixed and is driven by fatigue, operational maintenance and expected life of the turbines. In order to maximise the contribution of the Projects to the Government's legal targets to achieve net zero and ensure the ongoing provision of low carbon renewable generating capacity, it is important to retain flexibility in the operational period.* *Furthermore, the Applicants would highlight that the lifetime of the Projects is already controlled through the requirements of the Energy Act 2004, which require the Applicants to submit a decommissioning programme to the Secretary of State prior to commencement of the Projects' offshore works (which is secured through requirement 7 of the* ***Draft DCO (Revision 6)*** *[document reference 3.1]). The decommissioning programme would include details of the measures to be taken for decommissioning the Projects and the times at which, or the periods within which, those measures will have to be taken. That programme must be approved by the Secretary of State who is therefore able to retain control over the operational lifetime of the Projects. The ES assesses the realistic worst case scenario and as detailed above and in* ***Chapter 5 Project Description (Revision 3)*** *[REP1-009] is based on the indicative design of 30-32 years, although this might be extended further as technology advances. The Applicants consider if this were to be extended to allow a longer operational period this would not alter the outcomes of the assessments, and the relevant mitigation would still be in place ensuring the levels of impact are acceptable."*

2.13 Natural England – Appendix B4 Marine Physical Environment

Table 2-15 – The Applicants' Response to Natural England's Advice On: [REP3-024] 10.37 Coastal Erosion Rate Technical Note (Revision 2) (Tracked) - Appendix B4 Marine Physical Environment [REP4-122]

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
REP4-122: B1	Findings from the revised National Coastal Erosion Risk Map (NCERM2) published by the Environment Agency on 28th January 2025 have been incorporated into the coastal erosion assessment initially outlined in [APP-080] Chapter 8 Marine Physical Environment. The erosion rates initially presented in this chapter ([APP-080]) have been revised using data provided by East Riding of Yorkshire Council data and the UKCP18 RCP4.5 50th percentile, RCP 8.5 70th and 95th percentile predictions of sea level rise. The revised data shows a reduction in the predicted rates of cliff retreat over the next 50 years compared to original predictions. This supports the original assessment conclusions in [APP-080] Chapter 8 Marine Physical Environment.	We consider this issue resolved and would anticipate the ES Chapters being updated accordingly.	This information will be included in the update to **Chapter 8 Marine Physical Environment** [APP-080] to be submitted at Deadline 7.
REP4-122: B2	It is stated in Paragraph 217 of 7.5 – Project Description [REP1-010] regarding Transition Joint Bays (TJB), "*The TJBs would be located beyond any areas at risk of natural coastal erosion across the anticipated operational life of the Projects. The location of the TJB's, along with the respective indicative trenchless landfall drill lengths, will take cliff erosion and a 30 to 32 year operational duration into consideration.*" This should take into account the revised predictions as discussed under ref (1) above. This set back distance will ensure the integrity of the cliff is not compromised during construction and reduce the assets being at risk from natural coastal erosion.	The rates of cliff erosion and exposure of cables will need to be considered in the pre-construction and decommissioning plans.	The Applicants acknowledge this comment, noting that it is their intention to design the Projects such that infrastructure installed around landfall remains buried for the anticipated lives of the Projects.

Table 2-16 The Applicants' Response to Natural England's Advice On: [REP3-032] 13.7 Bed Mobility and Thermal Environment (Revision 1) - Appendix B4 Marine Physical Environment [REP4-122]

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
REP4-122: B3	Natural England welcomes the Bed Mobility & Thermal Environment report [REP3-032]. However, we note that this report pre-dates the ES (2024), including a review of all selected and deselected export cable route options. We also note that it includes the MarineSpace (2023) DBS background review of bed mobility which was used to support the ES Chapter 8 Marine Physical Environment [APP-080]. There does not appear to be any new information in this report that	Whilst Natural England welcomes this background review, the information doesn't change our current advice.	The Applicants will collate the information currently presented in **Chapter 8 Marine Physical Environment** [APP-080] with the information presented in the **Bed Mobility & Thermal Environment Report** [REP3-032] and present it on a new figure showing sediment transport pathways within the updated **Chapter 8 Marine Physical Environment** [APP-080] to be submitted at Deadline 7. However, this will not lead to a material change in the assessment of changes to bedload sediment transport (see response to REP4-122: B4 below for further detail) as the information has already been included and is considered to fit for purpose and proportionate for the ES.

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
	changes our current advice. Furthermore, we note that this report is due to be superseded.		The Applicants note that there is no 'new' information relating to bed mobility in the Array Areas that will be available with the timeframe of examination. This is because any new reports must be informed by data derived from ongoing surveys. 'New' information will, of course, inform the final designs for the Projects and will inform the Cable Burial Risk Assessments (CBRAs) as they are updated prior to construction. Natural England will have the opportunity to review the final CBRAs when the final Cable Statement that is submitted in fulfilment of condition 15(1)(i) of Deemed Marine Licence 1 within the **Draft Development Consent Order (DCO) (Revision 8)** [document reference 3.1] and those submitted to discharge similar conditions included within each of the further Deemed Marine Licences.
REP4-122: B4	We note the conclusion drawn in [REP3-032] regarding cable burial risk within the arrays. This states that the *"sorted bedforms prevalent on Dogger Bank and covering large sections of the DBS OWF footprint are the primary sources of bed level change and this will need to be considered fully in the design of the inter-array cables and the latter sections of the export cable."* This aligns with concerns raised in our Relevant Representation and Risk and Issues Log [R&I, B29], that currently we do not have sufficient information to support the assessment conclusions regarding changes to bedload sediment transport and seabed morphology due to the presence of cable protection measures on Dogger Bank. We also advised that a seabed mobility assessment will need to be carried out to inform the cable burial assessment and, thus, requirement for surface laid cable protection on Dogger Bank. In [REP3-028], it is stated that as further site investigation and design work is due to be completed prior to construction, [REP3-032] this will be superseded, however an update to this or the Cable Burial Risk Assessment will not be provided within Examination timeframes.	Natural England reiterates our previous advice that, at present, the potential for seabed mobility, cable exposure, and scour require further investigation, particularly on Dogger Bank and the latter two thirds of the offshore export cable corridor, and the nearshore. With regards to the assessment of seabed mobility and sediment transport pathways and rates, we advise that whilst observations of seabed morphological features may be indicative of seabed mobility, the relative importance of tides and waves will need further consideration. We also advise that acquisition of further high-resolution site-specific bathymetric data would allow more accurate and confident assessment of bedform migration (direction and rate). Furthermore, the future effects of climate change and increased storminess will need to be considered over the lifetime of the project(s). [R&I, B29]	A seabed mobility assessment will be undertaken to inform the CBRA. This will be undertaken as the cable route is refined post-consent. The information presented in the **Bed Mobility & Thermal Environment Report** [REP3-032] is appropriate and proportionate to inform the assessment of bedload sediment transport. The Applicants will collate the information currently presented in **Chapter 8 Marine Physical Environment** [APP-080] with the information presented in the **Bed Mobility & Thermal Environment Report** [REP3-032] and present it on a new figure showing sediment transport pathways within the updated **Chapter 8 Marine Physical Environment** [APP-080] to be submitted at Deadline 7. There will be no new high resolution survey data acquired or analysed during the remainder of the examination period. High resolution bathymetry data was acquired in 2022 and is used to inform the assessment and analysis of seabed mobility presented in **Chapter 8 Marine Physical Environment** [APP-080]. New data will be collected as part of pre-construction surveys and will be used to inform the seabed mobility assessment as part of the Cable Burial Risk Assessment, post consent. Observations of seabed morphological features is a fundamental approach to bed mobility assessments as they are direct evidence that tidal currents are mobilising sediment. Theoretically, the seabed across the entire North Sea is potentially mobile and sediment is always moving so there is no way to determine mobility in areas where there is no residual net sediment transport or where bedforms are not present as sediment transport is in equilibrium with the current regime. The residual current direction from the tidal model outputs will be considered alongside the existing morphological analysis and presented on a new figure showing sediment transport pathways within the updated **Chapter 8 Marine Physical Environment** [APP-080] to be submitted at Deadline 7. The Applicants have considered the future effects of climate change on coastal erosion within **Chapter 8 Marine Physical Environment** [APP-080], with further updated to include NCERM2 outputs in the **Coastal Erosion Rate Technical Note (Revision 2)** [REP3-023]. The modelling undertaken in **Appendix 8.3 Marine Physical Processes Modelling Technical Report (Revision 3)** [REP2-018] was based on hindcast data as there is considerable uncertainty and variability in the model predictions of changes future storminess which is

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
			acknowledged by leading researchers in this field[2]. However, a conceptual assessment of future climate and wave scenarios in relation to coastal sediment transport will be included in the updated assessment of changes to bedload sediment transport due to the presence of cable protection measures in the **Assessment of Coastal Processes at the Dogger Bank South Landfall** [document reference 15.6].

Table 2-17 The Applicants' Response to Natural England's Advice On: [REP3-028] 13.3 The Applicant's Responses to Deadline 2 Documents (Revision 1) - Appendix B4 Marine Physical Environment [REP4-122]

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
REP4-122: B5	Natural England welcomes the Applicants' further clarification that the approximate length of cable protection measures within the nearshore would be 116m per cable trench (assuming the cables were laid in a straight line) and will only protrude 50cm above the seabed. However, it is unclear if the anticipated maximum length of cable protection per cable trench will be secured. Furthermore, we note that the Applicant intends to undertake modelling to demonstrate that this proposed nearshore cable protection MDS will have a limited effect on the wave regime in the area, for submission at Deadline 5.	Natural England advises that clarification is provided on whether the anticipated WCS cable protection length in the nearshore is secured in a plan/document and that design parameters for any cable protection will not negatively impact on coastal processes and/or the structural integrity of any external cable protection can be maintained. [R&I, B28]	The 116m length detailed in **The Applicant's Responses to Deadline 2 Documents** [REP3-028] was stated to provide an illustrative estimate of the potential scale of cable protection measures required within the nearshore area. As such this figure has not been secured as an absolute length within the **Draft DCO (Revision 8)** [document reference 3.1], with this commitment remaining secured under the following wording in Condition 3 (4) of Deemed Marine Licences (DMLs) 3 and 4 of the **Draft DCO (Revision 8)** [document reference 3.1]: *Any offshore export cables within the area between 350 metres seaward of MLWS and the 10 metre depth contour as measured against LAT (as at the date of commencement of construction of the licensed activities) must not have cable protection exceeding 10% of the length of such cables, when combined with the offshore export cables authorised by the deemed marine licence granted under Schedule 12 / 13 of the Order.* The Applicants have submitted the **Assessment of Coastal Processes at the Dogger Bank South Landfall** [document reference 15.6] at Deadline 5 which demonstrates the limited effects that cable protection in the nearshore environment would have. The modelling is focused on wave generated currents given they are the principal driver of sediment movement in the vicinity of the Projects' landfall location.
REP4-122: B6	We reiterate our previous advice whereby a realistic WCS for cable protection should be provided within Dogger Bank SAC and along the ECC with identification of affected features / sensitive habitats. The Applicant has indicated that further geotechnical surveys will be undertaken in 2025, however the CBRA will not be updated further within Examination timeframes.	We advise that it would be helpful if the Applicant could provide indicative locations for cable protection requirements based on currently available information. [R&I, B3, B4, C3]	The Applicants note that preliminary cable protection locations for the Export Cable Route are presented in **Appendix B BAS Tables of Appendix 2 of the Cable Statement (Revision 4)** [REP4-050]. Natural England should note that this information is not final. It remains preliminary and subject to future updates and revisions as further site information becomes available. Equivalent information is not available for the array area cabling or inter-platform cabling at present as no indicative routes are yet available and further site investigation work needs to be completed. Thus, indicative locations for cable protection for the array area cabling or inter-platform cabling will not be available until the DBS examination has closed. The final cable protection locations will be presented within the final Cable Statement that is submitted in fulfilment of condition 15(1)(i) of Deemed Marine Licence 1 within the **Draft DCO (Revision 8)** [document reference 3.1] and those submitted to discharge similar conditions included within each of the further Deemed Marine Licences.

[2] Bricheno, L.M., Woolf, D., Valiente, N.G., Makrygianni, N., Chowdhury, P., and Timmermans, B. Climate change impacts on storms and waves relevant to the UK and Ireland. MCCIP Science Review 2025, 24pp.

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
REP4-122: B7	Natural England notes the Applicant's position that the Project will not hinder the conservation objectives of the MCZs, which is similar to other Applicant's positions in regard to determining significance of impacts, including Sheringham and Dudgeon Extension Projects (SEP and DEP). However, Natural England advises that if significant indirect impacts from DBS cable installation on designated features of the MCZ can't be excluded during Examination, then we would recommend that a without prejudice MEEB proposal and/or commitments to invest in strategic compensation are progressed as was submitted for DEP and SEP.	Natural England advise that the assessment is updated as needed. We note that further information in relation to impacts to nearshore processes is due for submission at Deadline 5, and further discussion is planned with the Applicant regarding indirect effects to Holderness Offshore MCZ which may progress this issue.	The Applicants note that discussions on indirect effects on Marine Conservation Zones (MCZ) have to date centred on the Holderness **Inshore** MCZ. This is due to the site including the designated Spurn Head geological feature and the subsequent potential for indirect effects resulting from the placement of cable protection measures in the nearshore environment (as noted in the 'Key Concern / Update' column of this response), as opposed to the Holderness Offshore MCZ referred to in the 'Natural England's Advice to Resolve Issue' column of this response. As such, the Applicant's response below is focused on the Holderness Inshore MCZ. The Applicants highlight the additional information with regards to indirect effects on the underlying biotopes present within the Holderness Inshore MCZ is presented in **Benthic Ecology Technical Note (Revision 2)** [REP3-025], which provided further evidence that the biotopes present in within the Holderness Inshore MCZ are not sensitive to the potential levels of sediment re-suspension and deposition that may result from the Projects. With regards to the potential impacts on the Spurn Head geological feature of the Holderness Inshore MCZ, the Applicants have submitted the **Assessment of Coastal Processes at the Dogger Bank South Landfall** [document reference 15.6] at Deadline 5 which demonstrates the limited effects that cable protection in the nearshore environment would have, with the modelling indicating the scale of the effect would be extremely small with a <1% reduction of the annual net sediment transport budget. The modelling is focused on wave generated currents given they are the principal driver of sediment movement in the vicinity of the Projects' landfall location. Given this negligible reduction in annual net sediment transport budge, there will be no significant interruption to the existing sediment transport processes to the MCZ and the Spurn Head geological feature. In light of this additional information submitted into Examination, the Applicants confirm that an updated version of the **Stage 1 Marine Conservation Zone Assessment** [APP-240] will be submitted at Deadline 7 to incorporate the information provided in **Benthic Ecology Technical Note (Revision 2)** [REP3-025] and **Assessment of Coastal Processes at the Dogger Bank South Landfall** [document reference 15.6], and to reflect the latest design parameters of the Projects. With regards to the reference to the Sheringham Shoal and Dudgeon Extension Projects (SEP/DEP) offshore wind farm projects, a without prejudice MEEB proposal was proposed from the outset of that Project for the Cromer Shoal Chalk Beds MCZ, due to that projects export cable route routing directly through the site and there being a clear potential for direct impacts on the site. This is in contrast to Dogger Bank South, for which the Offshore Export Cable Corridor does not route directly through the Holderness Inshore MCZ, a change in route that was made during the pre-application phase at the request of Natural England (see **Chapter 4 - Site Selection and Assessment of Alternatives (Revision 2)** [AS-017] for further information), with any potential effects being limited to indirect effects only. As such, the Applicants do not agree that a comparison to the SEP/DEP MEEB proposal is appropriate in this instance given the greatly reduced potential scale of impact between the two projects.

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
			The Applicants also highlight that MEEB proposals regarding the Holderness Inshore MCZ were not required to be provided by Hornsea Project Four or the Dogger Bank A and B offshore wind farms, despite the offshore export cable corridors for these projects being located in the vicinity of the Projects Offshore Export Cable Corridor and being subject to the identical DCO Conditions regarding nearshore cable protection (in the case of Dogger Bank A and B) or less stringent DCO Conditions (in the case of Hornsea Project Four). Taking into consideration the volume of additional evidence provide by the Applicants through the Examination process, The Applicants maintain that there is no potential for significant indirect impacts on the Holderness Inshore MCZ and that a without prejudice Measures of Equivalent Environmental Benefit (MEEB) proposal is not required.
REP4-122: B8	Natural England welcomes the Applicant's further information (Appendix D) on the indicative location of the DBS cable crossing with Hornsea Project Four, to the east of Smithic Bank off the Holderness Coast. We remain concerned that the DBS/ Hornsea Project Four cable crossing (with MDS parameters per cable crossing of 15.2m width, 400m length, and 1.4m height), located in shallow water in close proximity to Smithic Bank and Holderness Offshore MCZ, has the potential to interrupt or affect sediment transport processes.	In line with Hornsea Project Four, we advise that the DBS/Hornsea Project Four cable crossing should be located seaward of the 20m depth contour to the east of Smithic Bank, and as distant from Holderness Offshore MCZ as possible. We advise that it is demonstrated that the location is sufficiently seaward as to avoid alterations to the local wave/current regime, sediment transport regime and morphology of Smithic Bank. [R&I, B28].	The Applicants note that it is not within their gift to heavily influence where this crossing might be located. The Applicants are likely only to be able to micro-site the crossing location within their 1km wide cable corridor after Hornsea Project Four has selected their cable routes. The final Hornsea Project 4 export cable routes will be the primary driving factor behind the location of the DBS / Hornsea Project 4 cable crossing relative to the location of the Smithic Bank and the Holderness Offshore MCZ given their corridor expands from around a standard width of a 2km wide swathe to a 9km wide swath where it meets the DBS export cable corridor, and they could cross the DBS corridor anywhere within this swathe. The flexibility in relation to the crossing location lies mainly with Hornsea Project 4 as a result. The eastern fringes of their export cable corridor run from c. 16m depth contour (closer to Smithic Bank), whilst the western fringes run to c. 42m depth contour (further from Smithic Bank). Hornsea Project 4 will be free to select the optimum route for their project within their consented corridor and the Applicants can do little to influence this. Cognisant of the fact that Hornsea Project Four's final route selection is the key driver of the DBS / Hornsea Project 4 crossing location, the Applicants note that Natural England should seek to influence Hornsea Project 4 final route selection as a priority if they have an interest in this crossing location, as DBS can only micro-site the crossings relative to the route selected by this third party project.
REP4-122: B9	We welcome the Applicants' clarification [REP3-028] on the WCS figures presented for secondary scour. However, we advise that currently there remains uncertainty regarding seabed mobility, bedform formation and migration and scour potential within the arrays and along large sections of the export cable routes (see advice in Appendix B4 of our Deadline 4 submission). Further, in the ES [APP-080] secondary scour effects are predicted to extend only 'a few metres' from the direct footprint of any scour protection. We advise that this needs to be secured better within the IPMP which includes only 'consideration' of secondary scour. 'Consideration' is not actually a firm commitment to 'monitor', as was proposed in [APP-080]. Moreover, given the high value of receptors such	Natural England advise that further consideration is given to the assessment and monitoring of secondary scour.	The Applicants have added further detail and a firmer commitment to monitoring the performance and integrity of scour protection and secondary scour to the **In Principle Monitoring Plan (Revision 4)** [document reference 8.23], submitted at Deadline 5.

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
	as DB SAC, it is important to ensure that the risk of potential impacts are managed as far as possible and that appropriate monitoring to detect changes and trigger any necessary counter measures is secured.		

Table 2-18 The Applicants' Response to Natural England's Advice On: [REP3-027] 13.2 The Applicants' Responses to ExQ1 - Appendix B4 Marine Physical Environment [REP4-122]

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
REP4-122: B10	Flamborough Front Monitoring Having reviewed the Applicant's response to MCP.1.10, Natural England agrees with the Applicant that physical monitoring of the Flamborough Front would be impracticable and that any monitoring campaign should utilise remote sensing satellite data which is open source (i.e. freely available). With respect to Hornsea 4 and gravity base structures (GBS), the Secretary of State determined that monitoring remained a requirement following removal of GBS from the project envelope[3].	Natural England maintains the advice provided in our Deadline 3 comments on the IPMP [REP3-056] and response to ExQ MCP.1.10 [REP3-057].	As noted in the **Review of Flamborough Front** [REP4-092] and the **In Principle Monitoring Plan (Revision 3)** [REP4-052] submitted at Deadline 4, the Applicants have committed to the monitoring of the Flamborough Front.

[3] Hornsea Four Secretary of State Decision Letter 12th July 2023

2.14 Natural England – Appendix C4 Benthic and Intertidal Ecology

Table 2-19 – The Applicants' response to Natural England's Advice On: [REP3-022] Review of Evidence on Recovery of Sandbank Habitat following Habitat Damage (Rev02) - Appendix C4 Benthic and Intertidal Ecology [REP4-127]

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
REP4-127:C1	Natural England welcomes the additional information which has been provided in relation to the likely recoverability of benthic receptors within the red line boundary. However, the pathways of effect which have been considered do not address impacts from the creation of depressions from UXO clearance or jack-up operations in areas of coarse or mixed sediments. As we have previously advised, these areas will need to be considered as permanent habitat change/loss unless it can be otherwise evidenced that they will backfill with similar sediment types. We also highlight that evidence from similar sediment types at Triton Knoll and Lincs OWFs are demonstrating that jack-up vessel leg depressions can remain 2-10 years after installation.	Natural England advises that assessed impacts from the creation of depressions from UXO clearance or jack-up operations in areas of coarse or mixed sediments require updating and considered as permanent habitat change/loss (rather than temporary disturbance/damage) unless it can be otherwise evidenced that they will backfill with similar sediment types.	**Unexploded Ordnance (UXO)** **Appendix B - Dogger Bank B Unexploded Ordnance (UXO) Crater Survey Results of Review of Evidence on Recovery of Sandbank Habitat Following Habitat Damage (Revision 2)** [REP3-021] provides the results from several high-order clearances (i.e. worst case for UXO). These show a maximum crater depth of 0.8m remained following clearance (in 1.5m sand depth; typically sand layers at clearance locations were much deeper). It is expected that given these depths, any sediments expelled by the detonation would be similar in character to the surrounding surficial and near surface sediments which subsequently infill. Considering the limited fines content in seabed sediments, the coarser sediment disturbed during detonation would be deposited within the immediate vicinity of the site of the detonation. This sediment would then become entrained by currents and transported as bedload, providing a source of sediment to infill the indentation. The UXO clearance campaign referenced in Appendix B, was completed in February-March 2023, with a survey of the craters in June 2023 at five of six clearance locations. Surveys showed that in all cases the craters had infilled rapidly, in some cases infilling was largely complete, and even where there was the least recovery in (DBB_027) a 0.8m crater infilled to approximately 0.4m depth (see Appendix B - Dogger Bank B UXO crater survey results). The Applicants consider from this evidence that a) infilling is rapid and b) infilling will be from local surface sediments. Therefore, this would not constitute permanent habitat loss and additional consideration of footprint is not required. **Jack-up** **Appendix 8-2 Met Mast Survey Analysis** [APP-083] did not report any physical evidence of jack-up operations post-decommissioning of the met masts despite each met mast having had at least four separate jack-up visits during their lifetime. Moray East is considered a suitable geological analogue to Dogger Bank as the underlying geology of both regions is dominated by glacial till overlain by a veneer of sand and gravelly sand (see below monitoring from Moray East (Moray Offshore Wind Farm (East) Limited, 2024) considered depressions from construction vessels, in this case the deepest penetrating jack up (11.2m) had infilled at a rate of almost 4m per year. As jack-ups are compressing the sediments beneath them, there is no exposure of deeper sediment layers. There was no reporting of whether the sediment in the depressions had altered in character, although scour pits associated with foundations in finer sediment were coarser than adjacent areas. This was not seen in coarser mixed sediments. Furthermore, the penetration depth of jack-up legs in coarser sediment will be much lower than in sandy sediment as it has a higher load bearing capacity. There were no reports of infilling with finer sediments. The Applicants consider from this evidence presented from the Dogger Bank and Moray East that a) infilling is rapid and b) infilling will be from local surface sediments. Therefore, this would not constitute permanent habitat loss and additional consideration of footprint is not required. **Footprint** If Natural England does not agree then the footprint of permanent habitat loss can be updated on a without prejudice basis to the compensation proposals

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
			Total area assumed for permanent habitat loss = 1,815,352m² (see Table 6-3 of **RIAA HRA Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014] submitted at Deadline 4). **Appendix B - Dogger Bank B Unexploded Ordnance (UXO) Crater Survey Results of Review of Evidence on Recovery of Sandbank Habitat Following Habitat Damage (Revision 2)** [REP3-021] provides the results from several high-order clearances. These show a maximum crater diameter of around 5m. – therefore a crater would be around 20m². As noted in section 5.5.7.4.3 of **Chapter 5 Project Description (Revision 3)** [REP1-009] however, it is expected that 41 UXO would need to be cleared during the construction phase across the entirety of the Offshore Development Area. Assuming all of these occur within the Dogger Bank Special Area of Conservation (SAC) the total footprint would be 820m², adding 0.05% to the assessed footprint. Area of seabed disturbance from jacking-up activities over Projects lifetime – 306,900m² see Table 6-3 of **RIAA HRA Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014] submitted at Deadline 4. This would add 17% to the assessed footprint. Therefore, if all of the above is considered permanent habitat loss the total footprint would be **2,123,072m².** The Applicants note that if the SoS concludes that habitat disturbance contributes to Adverse Effects on Integrity (AEoI) then the jacking-up footprint would be within the disturbance footprint and therefore already taken into account. Therefore, the footprint of jacking up should only be added to the permanent habitat loss footprint a) if SoS agrees that this is not a temporary disturbance impact and b) if the SoS agrees with the Applicants that other construction disturbance is temporary and does not contribute to AEoI. The Applicants reiterate that compensation requirements and quanta should not be considered lightly and needs to have a clearly evidenced and justified scientific basis. The difference is an increase in 17% footprint if the above temporary effects are concluded to constitute permanent habitat loss. Although the Applicants do not know the financial contribution that is required by the Marine Recovery Fund, any increase clearly has financial implications for the Projects. In addition, concluding AEoI on the basis of disturbance has implications for future projects given the extent of designations around the UK coast. Increasing the compensation requirement will increase the area of compensation required, and consideration also needs to be given to other sea users who could be affected by new designations, such as the fishing industry, but also a host of other sea users, who may lose access to sea areas potentially on the basis of weak evidence of impacts. The **National Federation of Fishermen's Organisation (NFFO) Statement of Common Ground (Revision 2)** [REP4-069] highlights this point noting concern over further disruption and displacement from designated sites. This concern has also been raised in parliament to the Environmental Audit Committee.

Table 2-20 – The Applicants' response to Natural England's Advice On: [REP3-028] 13.3 The Applicant's Responses to Deadline 2 Documents (Revision 1) - Appendix C4 Benthic and Intertidal Ecology [REP4-127]

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
REP4-127:C2	Halo effects Whilst the Applicant considers it unlikely that changes to sediment characteristics beyond the footprint of infrastructure would be of sufficient scale to lead to a loss of Annex 1 feature, the evidence suggests that it is a	Natural England advises that insufficient evidence has been provided to address our concerns set out in our Relevant Representations and Appendix C2.1 of our Deadline 2 submission [REP2-065]. Natural England welcome the Applicant's suggestion to add specific reference to monitoring	The Applicants note that this issue was not raised by Natural England for consideration during any pre-application discussions for these Project, nor has it been raised in relation to any other recent offshore wind farm consent application. In relation to the point around sufficiency of evidence, the Applicants highlight the contradiction in In Appendix G4 to the Natural England Deadline 4 Submission Natural England's comments and updated advice on Offshore Ornithology [REP4-124]) Natural England state:

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
	possibility that cannot be ruled out and should therefore be factored into the predicted impacts. Further, the Applicant's response focusses on organic material and sediment type, and does not consider changes to the characteristic benthic communities resulting from the placement of infrastructure. We highlight that the Applicant acknowledges it is likely that there will be a "*change from one Annex 1 sandbank biotope to another Annex 1 sandbank biotope*" but that they don't consider this would represent a loss of Annex 1 habitat. However, the Supplementary Advice on the Conservation Objectives for Dogger Bank SAC[4] for the Conservation Objective (CO) 'Biological Structure: Characteristic communities' states that "*Characteristic communities are ones associated with established biological communities (biotopes) that form the feature*", and therefore a change in biotope would represent the CO being taken further away from its restore objective.	for this impact pathway to the In Principle Monitoring Plan (IPMP).	*'Whilst recognising that there is inevitable and legitimate debate regarding the best approach to quantifying impacts for which the evidence base is still limited, Natural England consider that the Examination phase of a planning application is not an appropriate forum for constructive discussions on the interpretation of the evidence base and its application in best practice for impact assessment.'* Notwithstanding the above, from a review of the evidence for halo effects (see the **Ecological Halo Effects Technical Note** [document reference 15.7] submitted at Deadline 5) it is considered unlikely that these effects would be expressed in dynamic environments such as the Dogger Bank to such a degree that the change represents a loss of Annex I sandbank given the variability of sandbank biotopes at Dogger Bank. While there may be changes to biotopes as a result of this effect, it would not represent a loss of extent of Annex I sandbank. It is important to consider what biotopes are and the range of biotopes across the Dogger Bank SAC. Biotopes are a useful **statistical construct** whereby the similarity between the content of individual small sediment grab samples (approx. 0.1m^2) often collected at relatively wide spacing (up to 10's of kilometres) is calculated in terms of the number and abundance of infaunal species present and sediment grain size. The degree of similarity between such samples is a judgement and varies with scale. Often samples collected at the same location and time will display significant variation in number and abundance of species. When the distribution and extent of biotopes are mapped, it is necessary to interpolate between individual sample points using additional environmental information such as water depth, broad sediment type and various statistical techniques. When broader scale Annex I habitat types are mapped, such areas can incorporate considerable variation in biological communities present in time and space depending on many factors such as localised variations in sediment type, slope, organic matter content, availability of small scale hard substrates (e.g. pebbles, shells) for attachment and disturbance, larval settlement and recruitment. Such localised variation in small scale community types is characteristic of heterogeneous habitats in naturally disturbed environmental conditions, rather than a physical change to another habitat type at Annex I habitat level. Any change that is potentially occurring as a result of the wind farm therefore needs to be considered in light of the fundamental variability between communities **even if assigned to the same biotope.** The Dogger Bank is a mosaic of different types of sandbank biotopes, based upon gravel, sand and silt sediments, all which are highly variable (in terms of both species composition and abundances) even within biotopes, and all of which are encompassed by the 'Annex I sandbank' habitat. For example, Dogger Bank Creyke Beck (now Dogger Bank A & B) and Dogger Bank Teesside A & B (now Dogger Bank C and Sofia) surveys found very different communities from the Projects, including brittlestar beds, *Lanice conchilega* aggregations and seapen habitat (Forewind, 2013, 2014[5]), and all of these are considered to be encompassed by the Annex I feature. All of this variation is found within the 'Characteristic communities' of the Dogger Bank SAC and is reflected in the narrative on characteristic communities within the Supplementary Advice on the Conservation Objectives for Dogger Bank SAC referenced by Natural England. In their comment Natural England states that *"Characteristic communities are ones associated with established biological communities (biotopes) that form the feature", and therefore **a change in biotope** would represent the CO being taken further away from its restore objective.* Does this mean 1) a change in composition that does not change the biotope classification (i.e. change of species or abundance but the sample is still classified as the same biotope) 2) a change in the biotope identified pre-

[4] Supplementary Advice on Conservation Objectives for Dogger Bank Special Area of Conservation: JNCC, December 2022

[5] Forewind (2013) Dogger Bank Creyke Beck Environmental Statement – Chapter 12 Marine & Intertidal Ecology, Forewind (2014) Dogger Bank Teesside Environmental Statement – Chapter 12 Marine & Intertidal Ecology

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
			construction to another biotope post-construction, but still a biotope found within the area or within the Dogger Bank SAC or 3) a change to a biotope not found at Dogger Bank to date? The Applicants maintain the position that 1) gross changes in biotopes are unlikely at the Dogger Bank and 2) even if there is change this will not represent a loss of Annex I habitat. The Applicants consider that the current assessment is robust and has added a narrative on halo effects to the updated version of **RIAA HRA Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014] submitted at Deadline 4. Notwithstanding the above position, section 5 of **Ecological Halo Effects Technical Note** [document reference 15.7] (submitted at Deadline 5) provides an estimate of footprint of effect should the Secretary of State consider that ecological halo effects do contribute of AEoI and require compensation. The Applicants direct Natural England to the **In Principle Monitoring Plan (Revision 3)** [REP4-052] submitted at Deadline 4, which included additional detail with regards to benthic monitoring (in this case reference to Objective 3 of benthic monitoring objectives proposed by Natural England and JNCC).
REP4-127:C3	<u>Decommissioning of cable/scour protection</u> The Applicant maintains their position that the use of removable cable and scour protection measures will be considered during the detailed design stages of the Projects post-consent, and that under Requirement 7 of the Draft DCO [REP3-005] it is stated that the Project's offshore works must not commence until a written decommissioning programme has been submitted to the SoS for approval. Furthermore, the Applicant also maintains their position that strategic compensation to be applied is likely to exceed the actual footprint of impact caused by the Projects and that it is likely that the compensation will be secured on a permanent basis, beyond the life of the Projects, thus compensating for any enduring effects of protection should any be left in situ.	Natural England reiterates our previous advice [RR-039; B68, C59] [REP2-065] whereby a commitment to remove all on and above seabed infrastructure associated with the development within benthic designated sites (excluding cable crossings) at the time of decommissioning should be secured in the DCO. We do not agree that such commitments be left to post consent and consider it unlikely that technology and/or understanding will change significantly between now and the development of post-consent Cable, Scour Protection and Decommissioning Plans, which must be provided pre-construction. We also reiterate our previous advice [REP2-065] that the Defra guidance for marine compensatory measures is clear that the mitigation hierarchy must be applied to avoid and reduce impacts as much as possible, even if compensation measures are being implemented. Natural England also highlights that OSPAR decision 98/31 confirms that the preference is for decommissioning of all surface infrastructure. [R&I B7, B24, C27]	It is important to understand, by way of context, that the offshore wind projects previously consented within the Dogger Bank SAC have made a commitment to remove all seabed infrastructure as part of their determination of no AEoI for the Dogger Bank SAC. Thus, they are providing no compensation for losses of Annex I habitat protected by the SAC. By contrast, the Applicants have not made this commitment but have concluded that the Projects will have an AEoI for the Dogger Bank SAC. Thus, the Projects have committed to providing compensation for these impacts up to the limits established by the worst case scenario. This is a material consenting differences between previous offshore wind projects consented on the Dogger Bank and the Dogger Bank South Projects. The Applicants have previously presented their position in relation to decommissioning. This position can be found in the response to Natural England REP1- 067: B30 in **The Applicants' Responses to Deadline 1 Documents** [REP2-058]. The Applicants have previously presented their position in relation to the consideration of removable cable and scour protection. This position can be found in the response to Natural England REP2-065:7.1 in **The Applicants' Reponses to Deadline 2 Documents** [REP3-028]. The Applicants do not intend to repeat their positions here but do note that they have made appropriate provisions to discharge the obligations placed upon the Projects under policies 2.8.88 and 2.8.89 of National Policy Statement for Renewable Energy Infrastructure (EN-3) which deal with decommissioning through the inclusion of Requirements 7(1) and 7(2) of the **Draft Development Consent Order (Revision 8)** [document reference 3.1]. These Requirements state that for each Project: *…offshore works must not be commenced until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2)(a) (requirement to prepare decommissioning programmes) of the 2004 Act has been submitted to the Secretary of State for approval.* The Applicants will demonstrate compliance with relevant guidance and policy where applicable in the documents submitted to discharge the relevant Deemed Marine Licence conditions. As regards the use of cable and scour protection and the application of the mitigation hierarchy, the Applicants note that both the **Cable Statement (Revision 4**) [REP4-050] and the **Outline Scour Protection Plan (Revision 3)** [REP2-051] contain commitments to minimise the use of external cable and scour protection, with the Cable Statement also present detail on the siting of the cable routes to avoid certain seabed features, such as areas of seabed that pose a challenge to installation, thus avoiding the potential need for protection in such areas. The Applicants again note

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
			that compensation will be provided on a precautionary basis, covering the full extent of the areas predicted for deposition in the project design envelope. The Applicants assert that through these commitments, secured in certified documents, they have provided a very clear demonstration of how the mitigation hierarchy has been, and will be, applied during project development. These commitments show how the Applicants will avoid the need for protection through careful micro-siting and will take mitigating steps to minimise and reduce the footprint of protection in their final designs. This avoidance and minimisation will take place regardless of the compensation which will be brought forward for the full extent of protection included in the project design envelope. The Applicants note that permanency of presence is just one facet of the environmental effects that cable and scour protection could have, and that there are other pertinent factors to consider when determining which protection solutions should be deployed. These include footprint, volume, replacement cycles, maintenance requirements and differences in installation impacts. With this in mind, the Applicants note that a holistic assessment of these impacts should be undertaken as part of the final design process, such that the mitigation hierarchy can be properly applied to the cable and scour protection selection process. This work cannot be undertaken at present as the project is not sufficiently matured. The correct time to properly evaluate and compare the impacts of different cable and scour protection solutions is post-consent, when the available solutions have been identified, and the mitigation hierarchy can be properly applied in a holistic and reasoned way. Attempting to prejudge the outcome of this exercise in the manner suggested may lead to avoidable impacts on the Dogger Bank SAC. For the reasons highlighted above the Applicants are confident that they are meeting the prescriptions of the Defra policy and wider obligations in the National Policy Statements relating to the application of the mitigation hierarchy. Further, the Applicants are also confident that they have met the provisions of the National Policy Statements where they relate to planning for decommissioning.
REP4-127:C4	<u>Drill arisings</u> The Applicant has stated that drill arisings would be located adjacent to turbine foundations and within the scour protection footprint so would be captured within the existing habitat loss estimates. However, it is unclear to Natural England how this would be achieved in practice. Further, if the arisings were to be covered over with scour protection, then we agree that the footprint would be captured in the existing habitat loss estimates, however this would also assume that the protection is rock which would preclude all other forms of required mitigation regarding using removable scour/cable protection, which is less likely to be rock.	Natural England requests the Applicant provide further clarification on how it would be ensured that drill arisings would be deposited in such close proximity to turbines and the implications for the scour protection used. Natural England welcome the Applicant's suggestion to add specific reference to monitoring for this impact pathway to the In Principle Monitoring Plan (IPMP).	During drilling, the drilling platform would sit on top of the monopile being installed, as drilling progresses the arising are discharged into the sea as part of the drilling process, remaining in close proximity to the drilling location whilst minimising interference with any pre-installed scour protection or planned cable corridors. The Applicants have no intention to interfere/move the arisings once deposited on the seabed. The Applicants direct Natural England to the **In Principle Monitoring Plan (Revision 3)** [REP4-052] submitted at Deadline 4, which included additional detail with regards to monitoring of drill arisings in Table 1-3 of that document.

Table 2-21 – The Applicants' response to Natural England's Advice On: [REP3-027] 13.2 The Applicant's Responses to Examiner's Questions (Revision 1) - Appendix C4 Benthic and Intertidal Ecology [REP4-127]

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
REP4-127:C5	Natural England welcome the additional detail provided by the Applicant on benthic monitoring.	We advise that the IPMP is updated with the additional proposals.	The Applicants direct Natural England to the **In Principle Monitoring Plan (Revision 3)** [REP4-052] submitted at Deadline 4, which includes additional detail with regards to benthic monitoring.

2.15 Natural England - Appendix F4 Marine Mammals

Table 2-22 – The Applicants' response to Natural England's Deadline 4 Document [REP4-123] - Appendix F4 Marine Mammals

I.D.	Natural England Response	Applicants' Response
REP4-123:0	In formulating these comments, the following documents submitted by the Applicant have been considered in relation to the impacts of Dogger Bank South (East and West) Offshore Wind Farm (DBS) on Marine Mammals: • [REP3-031] 13.6 Marine Mammal Technical note - Significance of Effect for disturbance from piling and cumulative underwater noise • [REP3-013] Appendix 11-6 UXO Clearance Information and Assessment (Revision 3) (Tracked) A summary of Natural England's key concerns in relation to Marine Mammals is set out below.	No response is required.
REP4-123:1	**1. General Concerns** Natural England have reviewed the Unexploded Ordnance Clearance Information and Assessment [REP3-013] submitted by the Applicant at Deadline 3, however there are no updates in this document that currently change our previously provided advice. Natural England maintains that the Applicant should be committing to using noise reduction technology at this early stage and needs to provide an updated impact assessment to reflect the predicted sound reduction. This will allow any reduction to impact ranges to be calculated and presented before the end of Examination.	The Applicants submitted an update to the **Outline Marine Mammal Mitigation Protocol (MMMP) (Revision 4)** [REP4-054] at Deadline 4 to clarify that low order methods for Unexploded Ordnance (UXO) clearance will be the default method. If the situation occurs where a contingency high-order detonation is needed, the Applicants have committed to using Noise Abatement System (NAS) which is stated in section 2.2.2 of the **Outline MMMP (Revision 4)** [REP4-054], submitted at Deadline 4. As UXO clearance is not part of the DCO application and will require a separate Marine Licence application with revised assessments, and if required updated underwater noise modelling, no updates or amendments will be made to the UXO clearance assessments during the examination period. Furthermore, it was agreed with Natural England during a meeting held on 7th May 2025 that an updated impact assessment for UXO clearance will be presented within the Marine Licence Application post-consent and is not required before the end of Examination.
REP4-123:2.1	**2.Marine Mammal Technical note - Significance of Effect for disturbance from piling and cumulative underwater noise** ***2.1. iPCoD Population Modelling*** Natural England provided advice to the Applicant on iPCoD population modelling and significance levels at Deadline 3 [REP3-058]. As outlined in this advice, Natural England does not agree that significance should be defined as 1% annual decline over 6 years and instead the definition of a significant impact should be more conservative. Natural England considers the decline predicted by iPCoD (Appendix B Marine Mammal Environmental Statement Update [AS-143]) in year 2032 for harbour porpoise (98.72%), bottlenose dolphin (97.98%) and minke whale (98.34%), which all experience more than 1% decline, as potentially showing a significant impact and therefore warranting further investigation. Although some threats to marine mammals can be included in the model parameters, the model cannot account for all impacts that will also have population level effects (such as bycatch, prey availability and shipping) and therefore the determination of significant also needs to account for these other impacts.	JNCC *et al.* (2010)[6] draft guidance considered 4% as the maximum potential growth rate in harbour porpoise, and the 'default' rate for cetaceans. Therefore, beyond natural mortality, up to 4% of the population could theoretically be permanently removed before population growth could be halted. In assigning 5% to a temporary impact in this assessment, consideration is given to uncertainty of the individual consequences of temporary disturbance. If as a result of permanent threshold shift (PTS), which has been incorporated in to all population modelling, a population shows a continued annual decline of >1% per year (versus a modelled unimpacted reference population) over a set period of time (e.g., the first six years, based on the former Favourable Conservation Status (FCS) reporting period), then there is a high likelihood that a significant effect cannot be ruled out (NRW, 2023)[7]. The 2023 position statement by NRW[7] notes that this threshold could be used as one possible method to determine the significance of behavioural disturbance on a population, based on the iPCoD outputs. However, this guidance is intended for consideration of PTS and remains under development. In absence of other guidance, the Applicants maintain that a 1% decline per year threshold remains a valid way to review results of population modelling to draw overall assessment conclusions. The percentages listed by Natural England for harbour porpoise (98.72%), bottlenose dolphin (97.98%) and minke whale (98.34%) are over a 25 year period. Further qualitative assessment for population stressors such as prey availability and shipping has been incorporated into the **RIAA HRA Part 3 of 4 - Annex II Marine Mammals (Revision**

[6] JNCC, Natural England and CCW (2010). Draft EPS Guidance - The protection of marine European Protected Species from injury and disturbance. Guidance for the marine area in England and Wales and the UK offshore marine area. Joint Nature Conservation Committee, Natural England and Countryside Council for Wales. October 2010.
[7] NRW. (2023). PS016 NRW's Position on Assessing the effects of Hearing Injury from Underwater Noise on Marine Mammals. Position statement. May 2023.

I.D.	Natural England Response	Applicants' Response
	Natural England advises that the Applicant presents results from the iPCoD modelling using a more conservative definition of significant impacts.	**3)** [document reference 6.1] (submitted at Deadline 5) and will be incorporated into **Chapter 11 Marine Mammals** [APP-095], which will be submitted at Deadline 7.
REP4-123:2.2	***2.2 Harbour Porpoise*** Natural England is concerned by the significance level of 'major adverse' for harbour porpoise, presented in the Effective Deterrent Range (EDR)/Dose Response/Temporary Threshold Shift (TTS) column of Table 1-3. There is limited understanding of how disturbance leads to health, reproduction and consequently population level impacts in marine mammals. Although iPCoD is the best available tool to predict these impacts, there are still limitations to this model, and therefore conclusions of significance cannot be based solely on iPCoD outcomes. To reduce the significant impact to harbour porpoise, Natural England advises that the Applicant should commit to using noise reducing technology and provide updated documents to show how implementing this will alter estimated impact ranges and significance conclusions.	The Applicants maintain that population modelling is the best tool to understand the Projects impacts and cumulative disturbance as it considers the consequences of disturbance and hearing damage in the long term, incorporating the worst case numbers for PTS and disturbance. If the significance of effect is solely based on EDRs or dose response curve, this highlights the short-term disturbance only, assuming 100% of animals will respond and can be over precautionary. Therefore, creating a snapshot of the impact and not considering any long-term effects, or animals returning to the area after piling. Studies such as Benhemma-Le Gall *et al.* (2024)[8] and others presented in section 11.6.1.2.1 of **Chapter 11 Marine Mammals** [APP-095] found that harbour porpoises and other marine mammals return to the area soon after the end of piling. The Applicants have committed to utilising best endeavours to deliver noise reduction (primary and /or secondary methods) in line with the Department for Environmental Food and Rural Affairs (Defra) Policy Paper on Reducing Marine Noise as part of Defra's Marine Noise Package (2025)[9]. The additional mitigation measures are presented in section 3.1.9 of the **Outline MMMP (Revision 4)** [REP4-054] and consider the use of primary and secondary noise reduction measures as mitigation for underwater noise. Any additional mitigation will be dependent on the final project design and determined at the post-consent stage. The Applicants have included noise reduction measures in section 9.2 of the **In Principle Site Integrity Plan (SIP) for the Southern North Sea (SNS) Special Area of Conservation (SAC) (Revision 3)** [REP2-049]. The noise reduction methods are in line with the Defra policy paper on Reducing Marine Noise as part of Defra's Marine Noise Package and NAS is being included within the Projects' procurement strategy as an optional element to allow it to be called upon should it be required based on the final design parameters.
REP4-123:2.3	***2.3 Grey Seals*** Natural England is concerned by the significance level of 'moderate adverse' for grey seals, calculated by the dose response method. There is limited understanding of how disturbance leads to health, reproduction and consequently population level impacts in marine mammals; although iPCoD is the best available tool to predict these impacts, there are still limitations to this model, and therefore conclusions of significance cannot be based solely on iPCoD outcomes. The results of the dose response method still need to be taken into consideration, especially when resulting in a significant impact. To reduce the significant impact to grey seals, we advise the Applicant commits to using noise reducing technology and provide updated documents to show how implementing this will alter estimated impact ranges and significance conclusions.	

[8] Benhemma-Le Gall, A., Hastie, G.D., Brown, A.M., Booth, C.G., Graham, I.M., Fernandez-Betelu, O., Iorio-Merlo, V., Bashford, R., Swanson, H., Cheney, B.J., Abad Oliva, N. & Thompson, P.M. (2024). Harbour porpoise responses to the installation of XXL monopiles without noise abatement; implications for noise management in the Southern North Sea. PrePARED Report, No. 004. August 2024

[9] Department for Environment Food and Rural Affairs (Defra). (2025) Defra Policy Paper on Reducing Marine Noise. Published January 2025. Available online at: https://www.gov.uk/government/publications/reducing-marine-noise/reducing-marine-noise

2.16 Natural England - Appendix G4 Offshore Ornithology

Table 2-23 – The Applicants' response to Natural England's Deadline 4 Document [REP4-124] - Appendix G4 Offshore Ornithology

I.D.	Natural England Response	Applicants' Response
REP4-124:0	Overview In formulating these comments, the following documents submitted by the Applicant have been considered in relation to the impacts of Dogger Bank South (East and West) Offshore Wind Farm (DBS) on Offshore Ornithology: • [REP3-032] 13.5 Precaution in the Ornithology Assessment and Implications for Compensation Quantum • [REP3-027] 13.2 The Applicants' Responses to ExQ1 Whilst recognising that there is inevitable and legitimate debate regarding the best approach to quantifying impacts for which the evidence base is still limited, Natural England consider that the Examination phase of a planning application is not an appropriate forum for constructive discussions on the interpretation of the evidence base and its application in best practice for impact assessment. We note that we have already responded to several of the points made by the Applicant in [REP3-032] in our previous responses, particularly our Response to The Examining Authority's First Written Questions (ExQ1) [REP3-057] and consider it unlikely that further rationale provided on our advice will lead to a material change in the Applicant's position. However, for the avoidance of doubt, we present a summary in Section 1 below of the sources of uncertainty and justification for our position where the Applicant disputes this. For clarity, we have used the stepwise approach outlined in the Round 4 Kittiwake Strategic Compensation Plan [APP-053] and used by the Applicant. Should the Examiners require any further information to inform their understanding, we would be happy to provide this in response to the next set of Examiner's Questions. Natural England have provided detailed comments on [REP3-027] in Section 2. Shorter comments (e.g. signposting to future submissions indicated by the Applicant or aspects where our advice remains unchanged) are captured in our Deadline 4 Risk and Issues Log.	The Applicants strongly disagree with Natural England's statement that '*the Examination phase of a planning application is not an appropriate forum for constructive discussions on the interpretation of the evidence base and its application in best practice for impact assessment*'. The Applicants believe this approach is antithetical to the inquisitorial nature of the Examination process and reiterate that the guidance and evidence provided by Natural England should be open to challenge through the DCO process, a point previously highlighted during the Outer Dowsing offshore wind farm Examination[10]. The Applicants highlight that through their relevant representation [RR-039], Natural England themselves introduced new effect pathways not raised pre-application (the potential 'halo effects' resulting from offshore structures) (see response to REP4-127:C2 in **Table 2-20** of this document and (**Ecological Halo Effects Technical Note** [document reference 15.7] for further information). Through this new issue Natural England have requested the Applicants to develop a methodology to quantify the potential magnitude of the effect, yet when asked for clarity on how to interpret their requests during a call held on 8th May 2025 could not provide any additional advice. The Applicants have no choice in this instance but to use the examination as a '*forum for constructive discussions on the interpretation of the evidence base and its application in best practice for impact assessment*'.
REP4-124:1	**1.Precaution in the Ornithology Assessment and Implications for Compensation Quantum [REP3-032]** Natural England are aware of the need to consider the multiple sources of uncertainty appropriately and scientifically within the assessment process and the calculation of compensation quantum and can confirm that this is reflected in our Best Practice and project-specific advice. We disagree with the Applicant's claims that applying precaution at multiple stages of the process leads to disproportionate requirements for compensation and their position that precaution should be applied only once. Natural England advise that the impact assessment and the compensation calculations represent separate elements of the Habitats	The Applicants welcome Natural England's statement that they do not intend to set unachievable compensation targets. However, the Applicants maintain that Natural England's approach with respect to uncertainties, and hence precaution, in impact assessment results in disproportionately high predicted impacts and this is becoming increasingly apparent in cumulative assessments. This is evidenced in the example the Applicants provided in AS 085: *Using Natural England advised methods, the estimated number of guillemot which are adults from FFC SPA is 110,084, from an SPA population of 149,978. This suggests that over 73% of the FFC SPA guillemot population is apparently present on all UK wind farms through the course of the year and at risk of displacement, despite the fact that offshore wind farms actually make up approximately 6% of the area within 300km of the FFC SPA, 12 times less than the in-combination assessment indicates (and a considerably smaller proportion across the UK North Sea as a whole). It is not*

[10] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010130/EN010130-001907-22.%2010%20The%20Applicant%E2%80%99s%20Position%20on%20Natural%20England%E2%80%99s%20Engagement%20in%20the%20Outer%20Dowsing%20Offshore%20Wind%20Examination.pdf

I.D.	Natural England Response	Applicants' Response
	Regulation Assessment (HRA) process. Within the impact assessment process, applying an appropriate degree of precaution to each element of uncertainty is required in order to establish an appropriate level of precaution overall when assessing impacts on SPAs. When calculating compensation requirements, the uncertainties in the likelihood of success of the proposed compensation measures must be considered. We highlight that both are required to have the requisite confidence that any proposed compensatory measures will result in the Project's impacts being offset within its lifetime. We note that the Applicant has not made this important distinction consistently. We also highlight that the compensation requirements being large does not mean that they are necessarily inappropriate. However, we reiterate that Natural England has no intention of setting unachievable targets for compensation.	*difficult to envisage that, with the addition of a small number of wind farms the current assessment methods could predict more birds are at risk of displacement than are present in the population.* This is reproduced here to illustrate the unsustainability inherent in Natural England's over precautionary approach. The Applicants also disagree with Natural England's position that the impact assessment and subsequent compensation calculations should be treated separately in terms of the degree of precaution applied. As the Applicants have discussed elsewhere (e.g. REP3-030), Natural England apply considerable over-precaution in the assessment methods to which additional precaution is added through the compensation calculations. It is precisely this compounding of precaution which the Applicants consider results in disproportionate demands for compensation to be placed on offshore wind farm developers.
REP4-124:1.1.1	**1.1 Step 1 – Calculation of project-level impact** *See also Natural England responses to ExQ1[REP3-057] OR.1.3, 1.4* 1.1.1 Density and abundance estimates Density and abundance estimates are generated from digital aerial surveys that provide only a 'snapshot' of the baseline environment. They are temporally restricted in that they are run once a month for two years, which is considered the minimum for assessment purposes (Searle et al 2021[11], SNCBs 2022[12]), and that they are generally only undertaken at certain times of the day and in certain weather conditions. Surveys are therefore unlikely to capture the true variation in bird densities or how this may vary over time. This is a source of uncertainty and potential under-precaution in the assessment – densities may, at any one time, exceed those recorded by baseline surveys. The use of seasonal mean peak abundances is recommended by the SNCBs (SNCBs 2022[2]) to account for some of this potential under-representation of actual numbers. However, it should be noted that the seasonal definitions may lead to under- or over-estimation of impacts if they do not adequately characterise periods relating to different behaviours and levels of vulnerability. This is therefore also a source of uncertainty and potential under-precaution in the assessment. Surveys are also spatially restricted in that they cover only a small proportion of the total survey area – 10% in the case of the Projects [APP-105]. Overall density and abundance estimates for the entire area are based on the results of these sample surveys. The true abundance/density of birds in the area at the time of the survey could (with 95% certainty) lie anywhere within the estimate's 95% confidence intervals. As the Applicant has stated, there is a considerable difference between the mean values and upper 95% confidence intervals in the assessment. This difference results from large confidence intervals that are a function of the lack of precision in the baseline density and abundance estimates (Risk and Issues Log Ref. G58). This is a source of uncertainty and potential under-precaution in the assessment because the mean values are those used to calculate displacement and collision impacts. This	The Applicants consider they have set out their position on these and other matters and where they remain in disagreement with Natural England's position (e.g. REP3-028, REP3-030). Please note that the Applicants have presented the assessment in line with Natural England's advice (including the use of seasonal peak mean abundances), and the above disagreement notwithstanding, the Applicants do not consider there to be any further merit in pursuing these discussions. However the Applicants consider that the following Natural England comment with respect to density and abundance estimates: *This is a source of uncertainty and potential under-precaution in the assessment – densities may, at any one time, exceed those recorded by baseline surveys.* fails to acknowledge the opposite is equally true: i.e. that recorded densities, and abundance may in fact be peak values and therefore actual numbers on the sites may often in fact be much lower. This is why central values (e.g. mean or median) are more appropriate for use in assessments. If the Applicants consistently advocated for use of the lower 95% confidence intervals as the basis for assessment this would (rightly) be criticised by Natural England on the basis that this would potentially underrepresent impacts. However, when the Applicants make the point that Natural England's use of the upper 95% confidence intervals is over-precautionary and risks over-estimating impacts this is defended as being appropriate in the face of uncertainty. The Applicants maintain that a balanced approach to uncertainty is more appropriate and statistically robust, based around the use of central values and consideration of confidence limits only in the final outputs, rather than at multiple intermediate steps in the process. The Applicants fully agree that there is uncertainty in the baseline density and abundance estimates and this is explicitly presented throughout the assessment (in the ES chapter, in the RIAA, in the technical appendices) so it is unclear how Natural England is able to state: *We note that the uncertainty inherent in the estimation of baseline density and abundance estimates has not been addressed by the Applicant in this document and that this is an important omission when it comes to calculating compensation requirements.* The difference between Natural England's approach to uncertainty and the Applicants' is that the Applicants take a balanced view that 'real' baseline figures may lie anywhere between the lower and upper 95% confidence intervals,

[11] Searle, K.R., Jones, E.L., Trinder, M., McGregor, R., Donovan, C., Cook, A., Daunt, F., Humphries, L., Masden, E., McCluskie, A. & Butler, A. 2021. JNCC Report on the Correct treatment of uncertainty in ornithological assessments. JNCC Report No. 677, JNCC, Peterborough, ISSN 0963-8091

[12] SNCBs. 2022. Joint SNCB Interim Displacement Advice Note - Advice on how to present assessment information on the extent and potential consequences of seabird displacement from Offshore Wind Farm (OWF) developments.

I.D.	Natural England Response	Applicants' Response
	is why we advise that the upper 95% confidence interval is used to scale compensation requirements (see Step 2 below for a more detailed rationale). We note that the uncertainty inherent in the estimation of baseline density and abundance estimates has not been addressed by the Applicant in this document and that this is an important omission when it comes to calculating compensation requirements (see step 3 below).	and as such the mean is the most appropriate representative value, while Natural England only consider the upper half of the range, from the mean to the upper 95% confidence value.
REP4-124:1.1.2	1.1.2 Displacement impacts *See also Natural England responses to ExQ1[REP3-057] OR.1.3* The Applicant has expressed concerns with respect to the use of the upper 95% confidence interval in the displacement assessment These confidence intervals are a function of the lack of precision in the original baseline abundance estimates (see Section 1.1.1 above), and we would like to clarify that we are not advising the use of the upper 95% confidence interval for the estimation of the Projects' displacement impacts (for which the mean is used), but for the scaling of compensation measures (see Step 2 below).	The Applicants acknowledge this clarification from Natural England. However, it is not clear to the Applicants why Natural England considers that the magnitude of compensation needs to be scaled to accommodate the upper 95% confidence interval impact when they also state that success of the compensation should be assessed against the mean value. This will require considerable extra effort and cost to be made for no apparent purpose.
REP4-124:1.1.2.1	*1.1.2.1 Displacement rates* Evidence on displacement rates is sparse and varied, and the reasons for this variation are poorly understood, which is a source of uncertainty in the assessment. This is why Natural England do not support the use of a single displacement rate and advise considering a range of displacement rates (30%-70% displacement for auks). We also note that recently published evidence suggests that displacement rates higher than 70% are possible for auks (Lamb et al 2024[13], Peschko et al 2024[14]). As such we do not consider the use of even the upper limit of Natural England's advised range to be over-precautionary. This highlights that the Applicant's approach – and to some extent even Natural England's - is therefore a potential source of under-precaution in the assessment.	While the Applicants have presented the assessment in line with Natural England's advice, they have also set out their position on these and other matters and where they remain in disagreement with Natural England's position (e.g. REP3-028, REP3-030). The Applicants consider that it is very unlikely that agreement will be reached with Natural England on this matter.
REP4-124:1.1.2.2	*1.1.2.2 Mortality rates* Although it is generally acknowledged that displacement may lead to reduced survival, empirical evidence on mortality rates for seabirds is severely limited (Searle *et al* 2018[15], SNCBs 2022[2]). This is a source of uncertainty in the assessment and is why Natural England do not support the use of a single mortality rate and advise considering a range of displacement rates (1%-10% for auks). Whilst we acknowledge that this range encompasses an extreme worst-case scenario of a 10% mortality rate, we stress this should not be interpreted as Natural England suggesting that a mortality rate of 10% represents the most likely scenario.	The Applicants consider they have set out their position on these and other matters and where they remain in disagreement with Natural England's position (e.g. REP3-027 answers to OR 1.3, 1.7, REP3-028, REP3-030). Please note that the Applicants have presented the assessment in line with Natural England's advice and consider that it is very unlikely that agreement will be reached with Natural England on this matter.

[13] Lamb J., Gulka J., Adams E., Cook A. and Williams K.A. 2024. A synthetic analysis of post-construction displacement and attraction of marine birds at offshore wind energy installations, Environmental Impact Assessment Review, Volume 108
[14] Peschko, V., Schwemmer, H., Mercker, M. et al. 2024. Cumulative effects of offshore wind farms on common guillemots (Uria aalge) in the southern North Sea - climate versus biodiversity? Biodivers Conserv 33, 949–970.
[15] Searle, K.R., Mobbs, D.C., Butler, A., Furness, R.W., Trinder, M.N. and Daunt, F. 2018. Finding out the fate of displaced birds. Scottish Mar. Freshw. Sci, 9, pp.1-161.

I.D.	Natural England Response	Applicants' Response
	We also highlight that the mortality-led approach does not consider the potential effects of displacement on the reproductive success of displaced individuals (Searle *et al* 2021[1]), which is a potential source of under-precaution in the assessment. The Applicant continues to advocate for the use of a single displacement rate of 50% and a single mortality rate of 1%, based the results of a 2019 review written for the Norfolk Vanguard offshore wind farm. Our objections to the conclusions of this review were outlined within the Vanguard Examination (PINS ref. EN010079 [REP3-051[16]]). This review was also written prior to the publication of more recent, peer-reviewed evidence (Peschko et al. 2020[17] &2024[4]), and more recent evidence reviews (Lamb *et al.*2024[3]). We also maintain our position that the Trinder *et al* (2024) paper cited by the Applicant to support their position does not provide evidence of lower rates of displacement for auks, as this paper is not focused on array-scale displacement, and we further note that the results are from a single wind farm and may not, therefore, apply to other projects. Natural England anticipate that the forthcoming ORJIP project ImpUDis (Improving understanding of distributional change for relevant seabird species) will provide a comprehensive overview of auk displacement. Until this project returns evidence which can inform displacement rates of auks, Natural England continue to advise the use of a range-based approach when considering displacement impacts, in terms of both displacement and mortality rates. However, we do generally advise the use of 70% displacement and 2% mortality rates for calculating compensatory requirements for auks, due to the desirability of having clear targets for measures to deliver.	
REP4-124:1.1.2.3	*1.1.2.3. Displacement buffer* Displacement effects are understood to occur not only from the array area, but also within the surrounding area, known as the 'buffer'. Evidence on displacement rates in the buffer and on the size of this buffer is sparse and varied, which is a source of uncertainty in the assessment. The SNCBs recommend the use of a standard displacement buffer of 2km for most species (including auks), in which the same displacement rates as for the array should be applied (SNCBs 2022[2]). Recently published evidence suggests that auk displacement may occur at distances greater than 2km (Peschko et al 2024[4], Lamb et al 2024[3]). Peschko et al (2024)[4] recorded displacement effects on guillemot up to 21km from arrays. This is therefore a potential source of under-precaution in the assessment for these species, and we cannot agree with the Applicant's statement that assessing displacement impacts for the array area plus 2km buffer is a '*worst case assumption*'. Natural England have previously advised [AS-159] that the Projects should consider likely cumulative displacement impacts on the high densities of auks recorded between the two arrays but outside of the 2km buffer. To date, this has not been included in the assessments	The Applicants discussed the contents of a proposed technical note (to be submitted at Deadline 6) with Natural England on the 7th May 2025. This will allow Natural England to comment on the content and allow for any updates to be made. The technical note will then be appended to the In-Principle Monitoring Plan. It was agreed with Natural England that the note would be for information only and that no changes are required to be made to **Chapter 12 Offshore Ornithology (Revision 3)** [REP4-032] or **Report to Inform Appropriate Assessment (RIAA) Habitats Regulations Assessment (HRA) Part 4 of 4 – Marine Ornithological Features (Revision 4)** [REP4-016]. In summary the note will provide details of the analysis and results of estimating how many guillemot and razorbill were present in the zone between the two arrays (and their 2km buffers) and present displacement matrices. As there is no guidance on how to assess displacement for these species beyond 2km, and the Applicants consider this to be unwarranted and another example of Natural England's over-precautionary approach, it was agreed in the meeting on the 7th May 2025 that no assessment would be provided (i.e. presentation of impacts for any particular combinations of displacement and mortality rates).

[16] https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010079-002568-DL3%20-%20Natural%20England%20-%20Deadline%203%20Submission.pdf
[17] Peschko, V., Mercker, M. and Garthe, S. 2020. Telemetry reveals strong effects of offshore wind farms on behaviour and habitat use of common guillemots (Uria aalge) during the breeding season. Marine Biology, 167, 118.

I.D.	Natural England Response	Applicants' Response
	submitted, and this omission is consequently a source of under-precaution in the assessment for these species.	
REP4-124:1.1.3	1.1.3 Collision impacts The Applicant's submissions are focused on the use of the 95% confidence intervals arising from Collision Risk Modelling (CRM). These confidence intervals are a function of the lack of precision in the original baseline density (not abundance, as stated by the Applicant) estimates (see 1.1.1 above). We would like to clarify that we are not advising the use of the upper 95% confidence interval for the estimation of the Projects' collision impacts (for which the mean is used), but for the scaling of compensation measures (see Step 2 below).	The Applicants acknowledge this clarification from Natural England.
REP4-124:1.1.4.1	1.1.4 Apportioning See also Natural England responses to ExQ1[REP3-057] OR.1.4, OR.1.18, and OR.1.39 *1.1.4.1. Proportion of breeding adults* Ideally, the proportion of birds in the survey area that are breeding adults would be determined during the baseline survey process. However, ages of most seabird species are difficult to determine from survey data. This is therefore a source of uncertainty in the assessment. We note that the Applicant advocates for the use of a generalised stable age structure to estimate proportions of adults. Natural England do not accept the use of this method, as it is not based on empirical, site-specific data. Furthermore, the stable age method assumes that seabird populations are stable, and that birds of different age classes are present in the same proportions throughout the population's range, neither of which are likely. For example, ringing data shows immature guillemot and razorbill are more likely to be distributed further away from breeding colonies, being unconstrained by the location of a nesting site (Wernham et al 2002[18]). We do not, therefore, consider that this method is likely to be representative of actual proportions of adults present within the survey area and continue to advise that, in the absence of empirical site-specific evidence to the contrary, all 'adult-type' birds are apportioned as adults.	The Applicants consider they have set out their position on these and other matters and where they remain in disagreement with Natural England's position (e.g. REP3-028, REP3-030). Please note that the Applicants have presented the assessment in line with Natural England's advice as well as using methods they think are more appropriate, however the Applicants consider that it is very unlikely that further agreement will be reached with Natural England on this matter.
REP4-124:1.1.4.2	*1.1.4.2. Connectivity with SPA* The proportion of birds within the survey area that are likely to be breeding adults from a particular SPA (e.g. Flamborough and Filey Coast SPA) is based on an assessment of the likely connectivity of this SPA with the survey area. During the breeding season, this is estimated by considering the likely foraging ranges of birds that are constrained in their movements by the location of their nest site. This is a source of uncertainty within the assessment, because empirical data on foraging ranges, usually derived from tracking data, are limited. We note, for example, that no such tracking data is currently available for guillemot and razorbill breeding at FFC SPA. This uncertainty is addressed by applying the mean maximum foraging	The Applicants have further reviewed the data that were used in deriving the seabird foraging ranges in Woodward *et al.* (2019) and have identified that, in addition to the use of the mean maximum and one standard deviation as the basis for assigning mortality of auks to the Flamborough and Filey Coast Special Protection Area (FFC SPA) (which the Applicants consider to be an unrepresentative application of these data, as discussed in previous submissions), the guillemot and razorbill foraging ranges have been very heavily influenced by the results from one study which Woodward *et al.* (2019) note as an outlier. With this outlier omitted the case for breeding season connectivity is removed for guillemot and greatly reduced for razorbill, even using Natural England's approach (see REP4-086, the Applicant's summary of oral submissions for details[25]). While there may be small numbers of gannets still at FFC SPA in October, it is of equal relevance that birds from colonies further north begin their southward migration in September (Furness 2015) and consequently an

[18] Wernham, C. 2002. The Migration Atlas: Movements of the Birds of Britain and Ireland. T. & A.D. Poyser.
[25] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010125/EN010125-001584-14.2%20The%20Applicants%E2%80%99%20Written%20Summaries%20of%20Oral%20Submissions%20made%20at%20CAH2,%20ISH3,%20ISH4%20and%20ISH5.pdf

I.D.	Natural England Response	Applicants' Response
	ranges plus 1 SD (standard deviation) (Woodward et al 2019[19], Woodward et al 2024[20]). The Applicant claims that the mean foraging range is a more representative figure, with which we do not agree. The mean maximum plus 1SD is the standard distance advised by SNCB to be used to determine connectivity in the absence of site-specific data, due to the uncertainty that exists within existing datasets. We note that the Applicant does not dispute our position with respect to apportioning during the guillemot 'non-breeding' and razorbill 'winter' seasons, and we reiterate that this approach may be a source of under-precaution in the current assessment approach, particularly for guillemot, given evidence that FFC SPA birds may not be evenly distributed throughout the North Sea and Channel during this period, but instead may remain closer to their breeding colonies (FBO 2020[21], O'Hara 2025[22]). We also note that the current definition of the gannet breeding season excludes October (Furness, 2015[23]) and there are often still gannet chicks at FFC SPA in October (Butcher et al 2024[24]). The current apportioning approach is therefore also a potential source of under-precaution in the assessment for this species. Natural England have responded to the Applicant's statement about how the proportion of FFC SPA guillemot in the Project areas 'seems unrealistic' in detail in our response to the ExA Question OR.1.39 [REP3-057].	increasingly large proportion of the gannets recorded at the Projects in September will be individuals from other breeding colonies. Therefore, in October, at the same time as the FFC SPA gannets are decreasing in numbers (many having set off on their southward migration) the number of gannets in the southern North Sea from other colonies will be rapidly increasing. Taken together, these factors mean that there is negligible risk that defining the end of the FFC SPA breeding season as September has resulted in under-precaution as Natural England has suggested. The above notwithstanding, the Applicants consider they have set out their position on these and other matters and where they remain in disagreement with Natural England's position (e.g. REP3-028, REP3-030). Please note that the Applicants have presented the assessment in line with Natural England's advice, and the above disagreements notwithstanding.
REP4-124:1.2.1	**1.2 Step 2 – Determining size of compensation population required.** *See also Natural England's response to ExQ OR.1.12 and OR.1.18, and Appendix H2 from our Deadline 2 submission [AS-160].* 1.2.1 Use of the 95% upper confidence limit Natural England generally advise that seabird compensatory measures are scaled against the 95% upper confidence limit (UCL) predicted impact value, rather than the central impact value. The confidence intervals of the estimated impact values result from the confidence intervals of the original baseline density and abundance estimates (see 1.1.1). Larger confidence intervals reflect lower levels of precision in these original estimates. The 95% confidence interval shows the range within which we can be 95% confident the true value falls. Natural England advise that compensation measures are scaled using the upper 95% confidence limit to ensure that, given the uncertainties regarding the predicted impacts, decision-makers can still have confidence that the compensatory measures can provide sufficient benefit, should the impacts exceed those of the central prediction.	The Applicants consider they have set out their position on these and other matters and where they remain in disagreement with Natural England's position (e.g. REP3-2028, REP3-030). Please note that the Applicants have presented the assessment in line with Natural England's advice, and the above disagreement notwithstanding, the Applicants do not consider there to be any further merit in pursuing these discussions. The **Report to Inform Appropriate Assessment (RIAA) - Habitats Regulations Assessment - Appendix 1 -Project-Level Kittiwake Compensation Plan (Revision 5)** [REP4-020] includes the compensation quantum both using the Natural England's preferred approach (Hornsea 3) and the Applicants preferred approach (Hornsea 4). For both of these, the quantum is expressed both in terms of the mean and the upper 95% confidence interval and then for ratios from 1:1 and 1:3. It is the Applicants understanding that Natural England consider that the 'scaling and design' of the measure refers to the capacity of the Artificial Nest Structures (ANS) (i.e. the number of nest spaces provided) as opposed to the target for number of pairs to be provided by the measure. This provides headroom and allows for the ANS to not be completely filled. The Applicants highlight that providing compensation measure scaled to the value derived from the upper 95% confidence interval, represents a considerable cost increase to the Applicants. The Applicants are due to meet with Natural England on the 28th May 2025 and will seek to clarify their position at that meeting and provide an update at Deadline 6.

[19] Woodward, I., Thaxter, C.B., Owen, E., Cook, A.S.C.P. 2019. Desk-based revision of seabird foraging ranges used for HRA screening. BTO Research Report 724.
[20] Woodward, I. D., Thaxter, C. B., Owen, E., Bolton, M., Ward, R. M., & Cook, A. S. C. P. (2024). The value of seabird foraging ranges as a tool to investigate potential interactions with offshore wind farms. Ocean and Coastal Management, 254, 107192. [redacted]
[21] Flamborough Bird Observatory. 2020. Annual Report 2020. Flamborough Bird Observatory Trust
[22] O'Hara D. 2025. Winter 2024/25 Guillemot attendance at RSPB Bempton Cliffs, Flamborough & Filey Coast SPA. Summary report to Natural England as part of the mNCEA Project.
[23] Furness, R.W. 2015. Non-breeding season populations of seabirds in UK waters: Population sizes for biologically defined minimum population scales (BDMPS). Natural England Commissioned Reports, Number 164.
[24] Butcher J., Aitken D. and O'Hara D. 2024. Flamborough and Filey Coast SPA Seabird Monitoring Programme. 2024 Report.

I.D.	Natural England Response	Applicants' Response
	We recognise that using the 95% UCL impact value can, in combination with use of greater ratios, result in large compensation quanta for some species, and that therefore a pragmatic interpretation of these calculations may be needed. For example, where a compensation case for a project with a substantial quantum is well detailed and has good prospects of success, a case could be made that where the Hornsea 3 part 2 approach is adopted, it is unnecessary to then adopt both the 95% UCL impact value and a ratio higher than 2:1 to adequately account for uncertainty. It is also important to distinguish between the compensation quantum, which informs the scaling and design of the measure to be implemented, and the target or objective for the compensation to achieve, which Habitats Regulations Assessments have generally (though not always) set with respect to the central impact value. Setting the compensation quantum with respect to UCL values reflects the need to provide the Secretary of State (SoS) with sufficient confidence that the measure can offset a greater level of impact from the development than the central impact value, should that arise, with ratios used to take into account the level of uncertainty associated with the effectiveness of a given measure. However, using these calculations as the basis for targets to assess the success of the measures risks only judging that success against the worst-case scenario requirements, which we do not consider to be proportionate, given that under-performance of the compensation measures against the target will require adaptive management to be put in place. We consider this pragmatic approach is likely to be reflected in the frequent use of the central impact value for target-setting by SoS.	
REP4-124:1.2.2	1.2.2 Method for calculating compensation quantum. The Applicant currently disagrees with the use of the Hornsea 3 part 2 method to calculating compensation quantum. We acknowledge that identifying a robust and proportionate approach to quantifying the compensation requirements for offshore windfarms impacting seabird SPAs has proved challenging. Multiple methods have been used but there is no clear consensus on the most appropriate method to use. On behalf of Collaboration on Offshore Wind Strategic Compensation (COWSC), Natural England commissioned the British Trust for Ornithology (BTO) to conduct a review of existing approaches to compensation calculations, and, if possible, to make recommendations to COWSC regarding the most appropriate method to use. Natural England is currently considering the recommendations made in the BTO report and will update our advice, if necessary, in due course. We have provided the Applicant with an 'in press' copy of the BTO report to inform their approach, noting that the formal research report is not scheduled to be published until sometime in May. In the meantime, our advice remains that given in recent Examination submissions, that the Hornsea 3 part 2 method should be used to calculate the number of breeding pairs required to compensate for impacts on Kittiwake, but we will accept the use of the Hornsea 4 method for other species provided that this is based on the 95% upper confidence limit and noting that additional calculations to factor in philopatry may be required. We note the Applicant's concerns regarding the lack of information in the public domain on the details of the Hornsea 3 part 2 method and the consequent difficulty of replicating it. We have therefore provided the Applicant with a spreadsheet containing the details of what Natural England considers to be the calculations involved in this method, noting that this has	Following a meeting with Natural England on 7th May 2025, the Applicants understand that the BTO report (and methodology presented) will not be Natural England's formal advice at this time or likely to be during the examination period, a position the Applicant have asked Natural England to clarify to the ExA. The Applicants, therefore (whilst having reviewed the BTO report), do not propose to present any updates to the compensation plans (**Report to Inform Appropriate Assessment (RIAA) - Habitats Regulations Assessment - Appendix 1 - Project-Level Kittiwake Compensation Plan (Revision 5)** [REP4-020] and **Habitats Regulations Derogation: Provision of Evidence Appendix 2 - Guillemot [and Razorbill] Compensation Plan (Revision 4**) [REP4-024]) based on the BTO work at this point. With regard to kittiwake, [REP4-020] provides the compensation quantum as per the Applicant's preferred method (the Hornsea 4 method) and Natural England's advice (the Hornsea 3 part 2 method). The Applicants maintain their position that the Hornsea 3 part 2 method is flawed (see [REP4-020] section 5.1). With regard to guillemot and razorbill, the Hornsea 4 method is presented in [REP4-024]. The Hornsea 4 method does not take account of any requirement to 'export' birds outside of the colony (by adding consideration of philopatry or its reciprocal, natal dispersal). The requirement for this is questionable as discussed in **Precaution in the Ornithology Assessment and Implications for Compensation Quantum** [REP3-030]. As acknowledged by Natural England, the case for connectivity was established in [REP4-024] (see section 5.3.1.5.1) for each of the colonies identified since they are all located within reported recruitment distances. Natural England previously stated in Appendix H2 - Natural England's Advice on Offshore Ornithology Compensation Deadline 2 [AS-160] that:

I.D.	Natural England Response	Applicants' Response
	been created for Natural England's own internal use and is not an official version of the method.	*With respect to the Isles of Scilly, the situation is slightly different. Guillemot and razorbill do not currently occur in numbers to meet either of the criteria to be included as named assemblage components in the Isles of Scilly SPA seabird assemblage .....As such, any additional breeding guillemot and razorbill on Scilly that arise as part of the strategic approach will directly benefit the National Site Network and fall under the protective provisions of the Habitats Regulations. Furthermore, it is possible that a successful eradication campaign delivered at scale could boost numbers to the extent that they become named assemblage components in the future.* Natural England also stated in Appendix H1 - Natural England's Advice on Seabird Compensation Calculations Ornithology [REP1-065] that: While the probability of recruitment from a natal (hatched) colony to any other particular breeding colony is likely to decline with increasing distance, all additional birds hatched within the regional population will ultimately be contributing to the overall coherence of the National Site Network, including individuals that recruit to non-SPA colonies. This is because growth at those colonies will also contribute to growth in the regional populations (i.e. the inter-connected nature of seabird breeding populations means that they are all linked to a greater or lesser extent, whether designated as SPAs or not). Thus, the Applicants consider that the emphasis Natural England places on the need to account for philopatry for auk species (guillemots and razorbills) within the compensation calculation is overstated. The Applicants note that in a meeting held with Natural England on 7th May 2025, Natural England confirmed they do not intend to change their advice based on the BTO report within the timeframe of the Projects Examination. Their advice remains that the Hornsea 3 part 2 method is their preferred methodology for kittiwakes. As such the Applicants do not propose to update the **Report to Inform Appropriate Assessment (RIAA) - Habitats Regulations Assessment - Appendix 1 - Project-Level Kittiwake Compensation Plan (Revision 5)** [REP4-020] based on the methodology provided in the BTO report.
REP4-124:1.3	**1.3 Step 3 - Application of compensation ratio** *See also Natural England responses to ExQ1[REP3-057] OR.1.12 and OR.1.15.* Natural England note that the application of a compensation ratio is used to address the uncertainty that a proposed compensation measure will be able to deliver the required benefits, and that our position on the application of compensation ratios is in agreement with that proposed by the Applicant in paragraphs 47 and 69. However, the distinction between the uncertainties inherent within the impact assessment (see Step 1) and those associated with the delivery of the compensation measure is an important one, which the Applicant has not made consistently. For auks they state that the application of any ratio when calculating compensation requirements is arbitrary and unnecessary, whilst for kittiwake they acknowledge that a 2:1 ratio is appropriate given the uncertainties surrounding Artificial Nest Structures (ANS). We highlight that greater uncertainty exists regarding the likely success of auk compensation measures than do for kittiwake. We therefore consider that the Applicant's suggestion of a 1:1 ratio for auks fails to take into consideration the uncertainties associated with the potential success of the proposed measures. The application of a compensation ratio should be set on a case-by-case basis. Given that specific details of the location, numbers of nesting spaces, and design for kittiwake ANS and specific details of proposed auk compensation measures have not, as yet, been provided by the Applicant, we are currently unable to advise on appropriate compensation ratios at this	The Applicants consider they have set out their position on these and other matters and where they remain in disagreement with Natural England's position (e.g. REP3-2028, REP3-030). Please note that the Applicants have presented the assessment in line with Natural England's advice, and the above disagreement notwithstanding, the Applicants do not consider there to be any further merit in pursuing these discussions. The Applicants note that Natural England state: *"that greater uncertainty exists regarding the likely success of auk compensation measures than do for kittiwake"* This contradicts previous advice to the opposite effect provided in Appendix H1 to the Natural England Deadline 1 Submission Natural England's Advice on Seabird Compensation Calculations [REP1-065] which stated (emphasis added): *Measures with **high likelihood** of success and flexibility for adaptive management, **e.g. island predator eradication may allow a lower ratio than for where the measure is less well tested** and there are greater constraints on adaptive management **e.g. ANS**. Other factors such as the scale of the predicted impact and the sensitivity of the impacted species will also need to be factored in.* The Applicants maintain that there is high confidence in the measure for auks and a 1:1 ratio is justified.

I.D.	Natural England Response	Applicants' Response
	time. However, we note that we are unlikely to advise that a ratio of 1:1 is appropriate for auks.	
REP4-124:2	**2.The Applicants' Responses to ExQ1 [REP3-027]** *ExQ1 - OR.1.2, OR.1.9* Natural England acknowledge our error in failing to notice the PVA outputs that were provided in Annex A of RIAA HRA Part 4 of 4 – Marine Ornithological Features (Revision 3) [AS-085]. We note that further updates to the PVAs will be provided at Deadline 4, and we will therefore review both sets of PVA outputs for comment at Deadline 5. The Applicant has stated that the complete outputs from the PVAs would not be helpful as they are too long and detailed. Natural England advise that, in terms of PVA outputs, the '*Tables of main PVA metrics*' would be sufficient for the purposes of revision. The Applicant has also stated that Sheringham Shoal and Dudgeon Extension Projects Offshore Wind Farm (SEP & DEP OWF) did not provide PVA input parameters in their public submissions. We would like to signpost the Applicant to input parameters for the PVAs undertaken by SEP & DEP, which were provided in their RIAA (e.g. Table 9-122) [APP-059] and Appendix 11.1 Offshore Ornithology Technical Report (Tables 11.11 – 11.17) [APP-195].	The Applicants welcome Natural England's admission that the requested information was provided in the named submissions and considers that the necessary inputs and outputs have been provided. With respect to the information provided in the Sheringham Shoal and Dudgeon Extension Projects Offshore Wind Farm (SEP & DEP OWF), the references to public documents that Natural England has provided were already known to the Applicants and contrary to Natural England's statement, they do not provide the input data: For example, Table 9-122 of the DEP and SEP RIAA [APP-059] provides only outputs from the lesser black-backed gull Population Viability Assessment (PVA). These cannot be used to ensure the models have been parameterised in the same manner or, if not, why the results may differ from those presented by the Applicants (which was the purpose of the Applicant's comment). And the tables of PVA inputs in Appendix 11.1 Offshore Ornithology Technical Report (Tables 11.11 – 11.17) [APP-195] are omitted from the documents in the Examination Library (it is stated these are available on request from the Applicant).

2.17 Natural England - Appendix H4 Offshore Ornithology Compensation

Table 2-24 – The Applicants' response to Natural England's Deadline 4 Document [REP4-125] - Appendix H4 Offshore Ornithology Compensation

I.D.	Natural England Response	Applicants' Response
REP4-125:0	In formulating these comments, the following documents submitted by the Applicant have been considered in relation to the impacts of Dogger Bank South (East and West) Offshore Wind Farm (DBS) on Offshore Ornithology Compensation: • [REP3-020] 10.20. Guillemot and Razorbill Compensation Site Refinement Report (Revision 2) (Tracked) – Please note that Natural England also had sight of the unredacted version of this document which is not currently in the Examination library. [REP3-032] 13.5 Precaution in the Ornithology Assessment and Implications for Compensation Quantum	No response is required.
REP4-125:1.1	**1.Guillemot and Razorbill Compensation Site Refinement Report** **1.1. Summary** Natural England welcome the survey work undertaken by the Projects to verify rat presence and assess the amount of suitable nesting habitat for guillemot and razorbill at shortlisted locations. However, we have some concerns about the methods used to estimate the number of breeding pairs that can be accommodated, particularly for Razorbill. We note that the identification of suitable habitat was based on guillemot nesting habitat requirements, and that these are significantly different to those of Razorbill. We also have queries about the method used to estimate the total area of suitable habitat and consider that the potential nesting densities used for guillemot may be unrealistically high. The final figures presented for estimated compensation potential may require unfeasible colony growth rates and have not considered factors such as likely recruitment and productivity rates, the quantity and quality of available prey, and the current levels of suppression by rats. We note that only one option, the Isles of Scilly, has currently been assessed as potentially meeting all of the necessary criteria for a compensation eradication site. Whilst we welcome the inclusion of the Isles of Scilly in the Applicant's proposed approach, it is likely that further progress on this measure will be limited within the Examination timeframe, given that the focus should be on developing the strategic delivery mechanism. The Applicant's recent surveys have confirmed predator presence on Worm's Head and further surveys are planned in May/June 2025. We consider that the current survey scope should be extended to address remaining uncertainties that will be essential in determining the feasibility of this location, noting its connection to the mainland at low tide and Worm's Head being a tourist destination Natural England would be happy to engage with the Applicant on the survey methodology outside of the Examination as needed. Given the site lies in Wales, it would be appropriate for discussions regarding the feasibility of this site for predator management to include Natural Resources Wales as well.	Please see responses to REP4-125:1.2.1 – REP4-125:1.3.3. The Applicants welcome Natural England's offer to engage outside of Examination regarding the survey methodology for Worms Head, however following a meeting with the National Trust on 9th May 2025, this site is no longer available to the Applicants as a project-led option. This is due to the National Trust's reservations about the ability to implement and maintain an effective eradication without unacceptable visual and accessibility impacts, in addition to the National Trust's preference for auk compensation to be provided on a strategic scale via the Marine Recovery Fund. **Appendix 2 - Guillemot [and Razorbill] Compensation Plan (Revision 5)** [document reference: 6.2.2] has been submitted at Deadline 5 to reflect this update. The Applicants would welcome Natural England's engagement, when appropriate, on additional sites that are being explored.

I.D.	Natural England Response	Applicants' Response
REP4-125:1.2.1	**1.2. Methodology** 1.2.1 Applicability to razorbill The methodology presented for the seabird counts and correction factors (Section 2.1.3.1) are described as being applied to guillemot only, however the count results include data for razorbill. Natural England advise the Applicant provides further clarification on the methods used for counting and estimating the numbers of breeding razorbill. Natural England also disagree with guillemot nesting densities being used in the habitat assessment to estimate the number of breeding pairs that could be accommodated for both species. Razorbill have significantly different nesting habitat requirements to guillemot, preferring enclosed spaces to open-topped ledges, and usually nest at much lower densities than guillemot (Birkhead (1978)[26], Harris & Wanless (1989)[27], Hipfner & Dussureault (2001)[28]). We highlight that the highest nesting densities for razorbill recorded by Elisseou (2020)[29] and Legard and Davoren (2025)[30] were 0.65 birds/m² and 0.86 birds/m², respectively. This is far lower than even the lower nesting density of 20 pairs/m² used by the Applicant, which is a guillemot nesting density from Harris & Birkhead (1985)[31]. Natural England advise that estimation of compensation potential for razorbills should be based on an assessment of the availability of suitable razorbill nesting habitat and realistic razorbill nesting densities.	The survey method used for counting and estimating razorbill numbers was the same as that described for guillemot and in accordance with Walsh *et al.* (1995)[32]. The census unit was Individual Adult on land (above intertidal areas). Where razorbill nested on cliff ledges or among boulders, number of individuals was counted directly. The decision was made not to flush birds from crevices, which may have led to an underestimate of the number of razorbills but was considered preferable to causing significant disturbance. Birds on intertidal rocks and those on the sea were not included in the count. A correction factor (0.67) was applied to estimate the number of apparently occupied nests from a count of individuals (Harris 1989[33], Lloyd *et al.* 1991[34]). The Applicants acknowledge that the literature, when considering the species in isolation, provides a distinction between guillemot habitat and razorbill habitat. However, as reported in the **Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment** [REP4-097], during surveys at all locations, guillemot and razorbill were observed in mixed colonies and therefore the Applicants consider it inappropriate for this assessment to arbitrarily distinguish between guillemot and razorbill habitat. The habitat assessment, as stated in the **Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment** [REP4-097], has used guillemot nesting densities have been used as a proxy to represent mixed-species colonies.
REP4-125:1.2.2	1.2.2 Nesting densities Natural England consider that the nesting densities used to estimate the potential number of breeding pairs that could be accommodated are very high, even for guillemots. The lower nesting density of 20 pairs/m² used by the Applicant is presented in Harris & Birkhead (1985)[6] as "*the average density on broad, flat rocky areas*" and may not therefore be suitable to apply for every habitat type included in this assessment. Further, Birkhead (1976)[35] describes nesting densities of guillemot on Skomer as 'dense' when above 10 pairs/m² and also describes nesting areas of 'medium' (5.5 pairs/m²) and 'sparse' (2.5 pairs/m²) density. The Applicant themselves state (Section 2.1.3.2.1) that guillemots may nest at lower densities in boulders and cavities, which is the most prevalent habitat type on the Isles of Scilly.	During feasibility surveys undertaken by Habitat Assessment and Restoration Ltd (HAR) in 2024 high densities of guillemots were recorded in multiple locations. For example, 48 pairs/m² were recorded at Middle Mouse, 60 pairs/m² at St Bees, 43 pairs/m² at St Tudwals East, and 33 pairs/m² at Puffin Island, Wales. Therefore, the Applicants consider that nesting densities of over 40 pairs/m² are not unrealistic and would advocate that nesting densities of 20 pairs/m² could be considered unrealistically low for a healthy colony. The Applicants note that the recent Hornsea Project Four Guillemot Compensation Implementation and Monitoring Plan was approved by Natural England based upon predicted nesting density of 27 pairs/m² (Orsted, 2025[37]). The Applicants do not intend to include lower nesting densities in the habitat assessment.

[26] Birkhead, T.R., 1978. Behavioural adaptations to high density nesting in the common guillemot Uria aalge. Animal Behaviour, 26, pp.321-331.
[27] Harris, M.P. and Wanless, S., 1989. The breeding biology of Razorbills Alca torda on the Isle of May. Bird Study, 36(2), pp.105-114.
[28] Hipfner, J.M. and Dussureault, J., 2001. The occurrence, size, and composition of Razorbill nest structures. The Wilson Bulletin, 113(4), pp.445-448.
[29] Elisseou, M., 2020. Change in occupancy and density of nesting Atlantic puffins and razorbills on Machias Seal Island between 2011 and 2019. Thesis submitted to University of New Brunswick
[30] Legard, M.J. and Davoren, G.K., 2025. A non-invasive method during routine handling indicates docility in a wild, crevice-nesting seabird. Behaviour, 1(aop), pp.1-22
[31] Harris, M.P. and Birkhead, T.R. 1985. Breeding ecology of the Atlantic Alcidae. In D.N. Nettleship and T.R. Birkhead (eds.), The Atlantic Alcidae (London: Academic Press).
[32] Walsh, P.M., Halley, D.J., Harris, M.P., del Nevo, A., Sim, I.M.W. and Tasker, M.L. 1995. Seabird monitoring handbook for Britain and Ireland, A compilation of methods for survey and monitoring of breeding seabirds.
[33] Harris, M.P. 1989. Development of Monitoring of Seabird Populations and Performance: Final Report to NCC. CSD report 941. Nature Conservancy Council.
[34] Lloyd, C., Tasker, M.L., & Partridge, K. 1991. The status of seabirds in Britain and Ireland. London, T.& A.D. Poyser.
[35] Birkhead, T., 1976. Breeding biology and survival of guillemots (Uria aalge) (Doctoral dissertation, University of Oxford).
[37] Orsted (2025). Hornsea Project Four Guillemot Compensation Implementation and Monitoring Plan. Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010098/EN010098-002422-Hornsea%20Four%20Guillemot%20Compensation%20Implementation%20and%20Monitoring%20Plan%20(09277077_A).pdf

I.D.	Natural England Response	Applicants' Response
	The higher nesting density of 46 pairs/m² used by the Applicant is taken from Harris and Wanless (1988)[36], who are clear that this was the highest nesting density for guillemots recorded on the Isle of May, while the majority of nesting areas had nesting densities of less than half this. Natural England therefore consider that the potential numbers of breeding pairs estimated by the Applicant are likely to be unrealistically high, and we advise the Applicant also includes results using lower nesting densities when assessing the habitat potential for the preferred sites presented in Tables 3-2 and 4-1.	
REP4-125:1.2.3	1.2.3 Habitat area A key aim of the surveys was to quantify the amount of suitable available nesting habitat, with the size of this estimated using laser measuring tools and scaling of photographs. Natural England would welcome further detail being provided on how the three-dimensional nature of the environments, including rocky ledges, platforms, and boulder fields, was accounted for in the estimates i.e. whether it was all treated as flat surface for scaling.	The habitat assessments (and seabird counts), reported in the **Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment** [REP4-097] were undertaken as a boat-based survey. Laser measuring tools were used for estimating height and width measurements. These estimations were sense checked by scaling digital photographs. Ledges were estimated in multiples of 30cm depth, typically using a bird or other feature to assist with scale. Rocky ledges were typically treated as flat surfaces, however in locations where large slabs of rock were present, the 'flat surface' measurement was reduced by up to 50%.
REP4-125:1.2.4	1.2.4 Colony growth rates The Applicant has presented the estimated compensation potential (i.e. potential number of breeding pairs) for each location based on the available habitat area. However, it is important to note that the calculated space available is not a guarantee that it will be fully utilised. We highlight that based on the 2023 starting colony size for the Isles of Scilly, the colony would need to achieve annual growth rates of up to 17% over 30 years to meet the numbers proposed. Likewise, for Worm's Head, based on the 2024 population size of 38 pairs recorded by the Applicant, to achieve the population sizes presented in Table 4-1, the guillemot population would have to achieve annual growth rates of up to 21% over 30 years. We consider that these growth rates may be unachievable in practice, noting that following the eradication of rats on Lundy annual growth rates have been ~9%. We do acknowledge, however, that the estimates currently presented are based on the maximum space available and not the compensation target, which could be a lower value, and therefore a more achievable target. Natural England advise that the estimation of compensation potential should consider the likely growth rates achievable, factoring in likely recruitment and productivity rates, and what would be required to meet the compensation requirement (according to both the Applicant's and SNCB's preferred values) rather than just the maximum site capacity.	The Applicants have considered Natural England's comment and have calculated the estimated time taken to achieve the guillemot compensation targets at the Isles of Scilly based on the colony growth rate of 9% quoted for Lundy and starting colony size of 497 pairs. The Lundy growth rate is considered appropriate to use as it provides a good example from the south-west of the UK at a colony which has been released from predator pressure and with relatively similar habitat to the Isles of Scilly. The Applicants acknowledge that colonies, such as Flamborough and Filey show lower growth rates, however these are large colonies likely constrained by density dependence and not experiencing release from predation. The calculation estimated that the Applicants' proposed compensation requirement of 719 pairs (50% displacement, 1% mortality, mean impact value, 1:1 ratio) could be achieved in 11 years at the Isles of Scilly. However, to meet the SNCB's preferred value of 7,762 pairs (70% displacement, 2% mortality, 95% upper confidence interval, 2:1 ratio) could take up to 37 years. The Applicants would highlight that growth rate will be determined by a number of factors outside the Applicants control and that any timeframe provided either by the Applicants or another party is a plausible estimate and unlikely to be accurate. The calculation for Worms Head has not been included as this site is no longer available to the Applicants as a Project-led measure (see response to REP4-125:12.1).
REP4-125:1.3.1	**1.3 Survey results** 1.3.1 Worm's Head Natural England welcome the further surveys undertaken by the Applicant which have confirmed rat presence on the headland. However, we note that there remain questions around whether rats can access the identified areas of suitable guillemot and razorbill nesting habitat and are therefore having a negative impact on auk populations. There are also	Unfortunately, from the 9th May 2025 Worms Head is no longer an option that is available to the Applicants as a potential project-led compensation site. Therefore, no response is required. However, the Applicants note Natural England's comments and will be cognizant of these in developing another compensation at another site.

[36] Harris, M.P. and Wanless, S., 1988. The breeding biology of guillemots Uria aalge on the Isle of May over a six-year period. Ibis, 130(2), pp.172-192.

I.D.	Natural England Response	Applicants' Response
	concerns regarding the feasibility of an eradication and prevention of re-incursions at this site, given its connectivity with the mainland and high visitor use (which introduces additional food sources for rats). We acknowledge and welcome the Applicant's stated commitment to conduct further surveys at this site in May/June 2025 to obtain accurate seabird counts, and advise that the surveys should also consider the aspects listed above as the results will be essential to determine whether predator eradication at this location is suitable and feasible. We advise that the results should be submitted into Examination at the earliest possible opportunity. Worm's Head falls within two Welsh designated sites – Gower Coast: Rhossili to Port Eynon SSSI and Limestone Coast of Southwest Wales / Arfordir Calchfaen De Orllewin Cymru Special Area of Conservation (SAC). Accordingly, the site-specific understanding and advice of the relevant Statutory Nature Conservation Body (SNCB) is key to achieving a consensus regarding the practicality and sustainability of predator management measures on the site, including any unintended consequences to other interest features. it would therefore be appropriate for discussions regarding the feasibility of this site for predator management to include Natural Resources Wales.	
REP4-125:1.3.2	1.3.2 Middle Mouse The report states that the most recent surveys undertaken by the Applicant found no evidence of predators on Middle Mouse, and that previous research by the University of Bangor also did not observe any predators. We further note that a report by Hornsea Project 4 (Orsted 2021) found no evidence of rats or impacts of predators on auk populations on the island. The Applicant has stated that they will continue to consult with the landowner and that "*further surveys will be required during the breeding season to confirm the presence or absence of rats*". However, given the above results, Natural England query whether further surveys are required to confirm the absence of rats on Middle Mouse.	The Applicants agree that surveys to date have not recorded the presence of rats on Middle Mouse, but this is not conclusive. It is worth pointing out that the University of Bangor have not focused any effort on looking for evidence of rats, and the Hornsea Project Four assessment was based only on desk-based information. The Applicants would also note that the recent Hornsea Project Four guillemot CIMP (Orsted, 2025[37]) received agreement from Natural England regarding only indirect evidence of rats on L'Etac. Therefore, the Applicants consider that, with Middle Mouse being only 750m from the mainland, within Natural England's previously advised minimum swimming distance for rats, there is potential for rats to be present during the seabird breeding season and that evidence of their presence may be recorded at that time. The Applicants intend to maintain Middle Mouse as a potential compensation site option. Following consultation with Natural Resource Wales, further surveys cannot, for reasons of seabird disturbance, be undertaken until after the breeding season. Therefore, the Applicants will re-assess the requirement for surveys closer to this time.
REP4-125:1.3.3	1.3.3 The Isles of Scilly Natural England note that the Applicant has suggested that one option to support a rat eradication on the Isles of Scilly would be through: "*identification of geographically distinct islands where a predator eradication scheme could be undertaken, including maintenance of a biosecurity zone, until such time as an entire predator eradication scheme for the remaining islands would be undertaken*". However, a successful rat eradication on the archipelago is likely to require concurrent action on all of the islands in the northern Scillies group to ensure reinvasion does not occur, as noted by the Applicant. We note that there are the Isles of Scilly Seabird Recovery Partnership and the Defra Task and Finish group undertaking ongoing work to attempt to quantify the benefits of a rat eradication on the Isles of Scillies to seabirds. The results of this work will need to be taken into consideration if this measure is taken forward, and we welcome the Applicant's ongoing engagement with initiatives regarding the measure. However, the outputs are not expected	The Applicants acknowledge Natural England's comments regarding the Isles of Scilly. The Applicants submitted their **Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment** [REP4-097] into the Examination at Deadline 4 in addition to providing it directly to Natural England and the Defra Task and Finish Group and the Isles of Scilly Seabird Recovery Partnership members, demonstrating the Applicants' desire to assist with development of the scheme. It is noted that significant further progress is unlikely within the examination timeframe, although Offshore Wind Industry Council (OWIC) have confirmed that an interim report on the RSPB and Isles of Scilly Wildlife Trust habitat assessment should be available prior to the end of examination. In addition, the Applicants are aware that significant work is progressing the development of this measure. OWIC have recently provided the Applicants with a programme of work they are funding which includes rat genetic testing (an initial set of samples, with a second collection prior to ordering rodenticide), rat distribution surveys (to be carried out prior to eradication) and the habitat assessment work described above.

I.D.	Natural England Response	Applicants' Response
	until Spring 2027 so it is unlikely that significant further progress can be made with this measure within the Examination timeframe.	**Year 1 (April 2025- March 2026)** • Sample collection for genetic testing from April 2025; • Volunteer training workshops for snap trap use June 2025; • Habitat assessment fieldwork June 2025; • Full habitat assessment report and viability assessment October 2025; • First sample collection for genetic testing completed by March 2026; and • Testing and analysis complete by March 2026. **Year 2 (April 2026 to March 2027)** • Second genetic testing sample collection to begin April 2026; • Rat distribution surveys winter 2026/2027; • Sample collection for genetic testing completed by March 2027; • Testing and analysis complete by March 2027; and • Data analysis on distribution surveys completed by March 2027. The Applicants consider that the evidence submitted to date regarding the Isles of Scilly, which includes the Applicants' estimate of compensation capacity of between 24,296 and 55,880 nesting spaces, alongside the statements provided by Defra, should give sufficient comfort to the Examining Authority and Secretary of State that a suitable strategic compensation option will be available.

2.18 Natural England – Appendix M Natural England's Comments on Actions from ISH5 Deadline 4

Table 2-25 – The Applicants' Response to Appendix M Natural England's Comments on Actions from ISH5 Deadline 4 [REP4-126]

NE Ref	Examining Authority Action	Natural England's Response	Applicants' Response
REP4-126:1	Confirm whether it believes that all relevant information regarding abundance estimates has been submitted by the applicants into the examination.	We confirm that the Applicant has updated all abundance estimates that Natural England advised to be addressed at Relevant Representations.	The Applicants welcome Natural England's agreement on this point.
REP4-126:2	a) Confirm with the applicants what buffer distance would be appropriate for an assessment for action point 2. b) Comment on the applicants' opinion given in the hearing of whether a reassessment using a buffer greater than 2km would make a notable difference to the assessment conclusions.	a) Natural England have a meeting scheduled with the Applicant to establish an appropriate way forward on 7th May 2025. We will provide further update at Deadline 5. b) Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5. Please also see Section 6 of our Deadline 4 cover letter.	a) The Applicants discussed the contents of a proposed technical note (to be submitted at Deadline 6) with Natural England on the 7th May 2025. This will allow Natural England to comment on the content and allow for any updates to be made. The technical note will then be appended to the In-Principal Monitoring Plan. b) The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:4	Confirm whether it believes that there are any outstanding issues regarding the provision of the information by the applicants relating to collision risk.	The Applicant has updated their gannet collision risk assessment in accordance with Natural England's advice, however there are currently outstanding issues with cumulative and in-combination collision totals for some species. It is Natural England's understanding that the Applicant will be submitting an updated ornithology assessment to address these issues at Deadline 4. We will review this and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:7	Respond to Dr Trinder's (the applicants) comments during ISH5 on ornithological mitigation including: a) The applicants' position on the size of the blade tip clearance (air gap). b) appropriate foraging ranges. c) why the applicants have not included hotspot modelling to identify particularly high impact areas as a mitigation option to inform array reductions.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5. We also understand that a document related to ornithological mitigation is being submitted at Deadline 4.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:8	Respond to the applicants' comments during ISH5 on in combination totals and project compensation for kittiwake at the Flamborough and Filey Coast Special Protection Area (SPA).	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5. See also action 4.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:9	Respond to the applicants' comments during ISH5 on the starting population for the Population Viability Assessments for kittiwakes.	Natural England acknowledge that the PVA updates provided in Annex A of [AS-085] were missed in our Deadline 2 review. We welcome that the kittiwake PVA was run with the correct starting population size. We will provide further comment at Deadline 5 following the Applicant's submission of the remaining PVA updates at Deadline 4.	The Applicants welcome Natural England's clarification on this matter and await Natural England's response at Deadline 5.

NE Ref	Examining Authority Action	Natural England's Response	Applicants' Response
REP4-126:10	Respond to the applicants' comments during ISH5 on submission on density dependence modelling and the range of potential future growth rates for seabird population trends to inform the Population Viability Assessments.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:14	Respond to the applicants' comments during ISH5 on their reasoning for the reduction from three to two breeding seasons to achieve compensation for kittiwakes in advance of first operation of the proposed development.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:15	a) Respond to the Examining Authority's (ExA's) question on the likelihood that the information from NE's commissioned methodology review by the British Trust for Ornithology will be able to be submitted prior to the close of the examination. b) Respond to the Examining Authority's (ExA's) question on the likelihood that the information from NE's commissioned methodology review by the British Trust for Ornithology will be able to be submitted prior to the close of the examination.	Please see Section 1.2.2 of Appendix G4 of Natural England's Deadline 4 submission for updated advice regarding the commissioned methodology review by the British Trust for Ornithology.	See the Applicants' response to REP4-124:1.2.2 in **Table 2-23** of this document.
REP4-126:16	Confirm if there is any additional information outstanding regarding auk compensation quanta which the applicants should provide.	It is Natural England's understanding that the Applicant will be submitting an updated Auk Compensation Plan and ornithology RIAA at Deadline 4. We will review these and provide further comment at Deadline 5. Please also see Appendix G4 and H4 of Natural England's Deadline 4 submission for our most recent advice on auk compensation quanta.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:19	Respond to the applicants' comments during ISH5 on auk compensation.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5. Please also see Appendix G4 and H4 of Natural England's Deadline 4 submission for our most recent advice on auk compensation.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:21	Respond to the applicants' comments during ISH5 regarding changes to the location of the planned exit pits and the likelihood of impacts to red throated diver in the Greater Wash SPA.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5. We also note that we requested further clarification be provided on this issue in our Deadline 3 submission, which we anticipate will be provided at Deadline 4.	The Applicants highlight the response provided on this matter in REP3-058: A.23 of **The Applicants' Responses to Deadline 3 Documents and Additional Submissions** [REP4-088] and await Natural England's response at Deadline 5.
REP4-126:22	Submit, if required, comments on any ornithological aspect that has been discussed during ISH5.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.

NE Ref	Examining Authority Action	Natural England's Response	Applicants' Response
REP4-126:23	Respond to the applicants' comments during ISH5 on the sound exposure level single strike threshold for the assessment of underwater noise impacts on herring and suggested appropriate behavioural threshold.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:25	Provide its latest position on the need for seasonal restrictions for piling and potential disturbance to spawning herring.	Natural England maintain the advice provided in our Relevant Representations on the need for a seasonal restriction to be committed to in the array area for piling and disturbance. Natural England defer to Cefas for further comment on the appropriate period of a seasonal restriction to be applied, however we maintain that multiple environmental factors could cause herring to spawn at different times within the season and that herring populations could experience significant impacts from underwater noise from piling activities and UXO clearance during the spawning period.	The Applicants acknowledge this position. At a meeting on 15th May 2025 with the MMO and Cefas, the Applicants queried what further information could be provided to support the removal of any seasonal restrictions. The MMO advised they would provide more information on the proposed seasonal restrictions with regards to piling in the Array Areas and works within the Offshore Export Cable Corridor after internal discussions. Further discussions are due to be held in early June to further progress this matter, supported by the technical note (**Modelling of underwater noise associated with alternative piling locations to inform potential impacts on Atlantic Herring spawning grounds** [document reference 15.8]) and the **Illustrative Underwater Noise Reduction Technical Note (Revision 2)** [document reference 14.9] issued at Deadline 5. The Applicants note this meeting had been repeatedly requested with Cefas following the resumption of the Examination in January 2025, and that the delay in agreement of a meeting has limited the Applicants potential to consider any potential amendments to the Projects' design as requested by Cefas. The Applicants maintain the position that a seasonal restriction is not required, as previously detailed in the response to REP3-058: A10 of **The Applicants' Responses to Deadline 3 Documents and Additional Submissions** [REP4-088].
REP4-126:26	Consider whether similar conditions to conditions 26 and 28, regarding piling restrictions, in schedule 11 of the recent Rampion 2 made order might be appropriate for the Deemed Marine Licence(s) in the draft DCO.	Natural England would welcome the inclusion of piling restrictions similar to those applied to Rampion 2, however we defer to MMO and Cefas for further advice on the appropriate timings and evidence requirements of any such piling restriction for DBS.	The Rampion 2 development contains and abuts large regions of preferred and marginal Atlantic herring spawning grounds as presented within Figure 8.10 of the Rampion 2 EIA[38]. Areas of unsuitable habitat are limited across the Rampion 2 Fish and Shellfish Study Area as a whole. Impacts of underwater noise at the 207dB (mortality and potential mortal injury); 203dB (recoverable injury); and 186dB (temporary threshold shift) levels all overlap significantly with these regions of preferred and marginal potential habitat. When compared to herring spawning potential associated with the Projects, (Figure 2-1 of the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105]) overlap with these regions is greatly reduced. The majority of the region covered by each of the previously discussed thresholds is considered as unsuitable for herring spawning. When considering the suitability of the sediment directly (Figure 2-2 of the **Heat Mapping Report: Atlantic Herring and Sandee**l [AS-105]) findings are similar, with the majority of the region within these noise limits considered to be unsuitable for herring spawning. Further questions surround the specifics of the piling restriction assigned to Rampion 2, due to a number of essential criteria being contained within the

38 https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010117/EN010117-000341-6.3.8%20Rampion%202%20ES%20Volume%203%20Chapter%208%20Fish%20and%20Shellfish%20-%20Figures.pdf

NE Ref	Examining Authority Action	Natural England's Response	Applicants' Response
			"spawning herring restriction plan" which at this time has not been identified within the public domain. The key information that is unavailable is the extent of the "Eastern Array Area", and the value of the "…[noise] levels shown on the spawning herring piling restriction plan" that, which if exceeded, will result in a piling restriction (i.e. Does this relate to 207dB, 203dB, 186dB, 135dB etc.). When considering the significant differences in both the proximity and overlap with potential herring spawning grounds between the two projects, it is not considered appropriate for the licence conditions applied to Rampion 2 to be applied to the Deemed Marine Licence(s) in the Draft DCO for the DBS Projects.
REP4-126:27	Respond to the applicants' comments during ISH5 on the need to assess the additional cables for possible heat impacts to sandeel, which they stated has been carried out.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:28	Respond to the applicants' comments during ISH5 on the need for an assessment of fish habitat loss from unexploded ordnance clearance.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:30	Respond to the applicants' comments during ISH5 on the value and sensitivity assessment of Dogger Bank and Smithic Bank.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:31	Respond to the applicants' comments during ISH5 on NE's suggested commitment for the deposition of dredged material for areas along the export cable corridor utilising a fall pipe.	Natural England's main requirement for the use of a fall pipe is in areas of sensitive receptors including Smithic Bank and NERC habitats and where recovery of Annex I sandbanks is a fundamental concern i.e. within Dogger Bank SAC. The use of a fall pipe within SACs as well as commitments to place the sediment updrift and in similar habitat type has been committed to on both Five Estuaries and Outer Dowsing OWFs.	The Applicants note that Outer Dowsing do not appear to have made any commitment to use a fall pipe, as suggested by Natural England. Further, the Applicants note that the question asked here was for Natural England to provide evidence of the existence of dredging vessels suitable for use on the Projects which are equipped with fall pipes. The Applicants are not aware of the existence of such vessels and cannot make commitments that they do not believe are technically feasible.
REP4-126:33	Provide an update on any outstanding matters regarding disposal of dredged material.	The Applicant has stated [REP3-027] (ExQ BE.1.15) / [REP3-028] they will commit to depositing like sediment on like sediment with respect to surficial sand, gravel and silt within Dogger Bank SAC and we are of the understanding that an updated Cable Statement will be provided at Deadline 4 to reflect this. We will provide further comment accordingly. This is notwithstanding our response to Action 31, above.	The Applicants confirm that the **Cable Statement (Revision 4)** [REP4-050] was issued at Deadline 4 and await Natural England's response on the submission at Deadline 5.
REP4-126:34	Confirm whether it is content with the additional information provided by the applicants on the required baseline information relating to sediment transport pathways. Or otherwise, clarify any outstanding matters and signpost to relevant guidance.	Our understanding of additional information provided by the Applicants on the required baseline information relating to sediment transport pathways and associated response is set out below: • [REP3-032] 13.7 Bed Mobility and Thermal Environment (Revision 1) – please see Table 2 of Appendix B4 of our	1. See The Applicants' response to Natural England's Advice On: [REP3-032] 13.7 Bed Mobility and Thermal Environment (Revision 1) (NE Ref 4) in **Table 2-26** of this document.

NE Ref	Examining Authority Action	Natural England's Response	Applicants' Response
		Deadline 4 submission for further detail. In summary, this report does not present any information that changes our current advice. As previously advised, at present, the potential for seabed mobility, cable exposure, and scour require further investigation, particularly on Dogger Bank and the latter two thirds of the offshore export cable corridor, and the nearshore. • Appendix D of [REP3-028] 13.3 The Applicant's Responses to Deadline 2 Documents (Revision 1) – please see Table 3 of Appendix B4 of our Deadline 4 submission for further detail. In summary, we remain concerned on the indicative location of the DBS cable crossing with Hornsea Project Four and advise that it is demonstrated that the location is sufficiently seaward as to avoid alterations to the local wave/current regime, sediment transport regime and morphology of Smithic Bank. • The Applicant has indicated [REP3-028] that a technical note will be provided at Deadline 5 regarding the potential effects of cable protection measures on sediment transport in the nearshore environment. We will provide comment on this accordingly.	2. See the Applicants' response to REP4-122: B8 in **Table 2-17** of this document. The Applicants also highlight the recent announcement by Orsted that they would '*discontinue the Hornsea 4 offshore wind project in its current form*[39]'. As such, there is uncertainty around the potential for a cable crossing in the indicative area presented in Appendix D of **The Applicant's Responses to Deadline 2 Document** [REP3-028] and whether or not it will be required. 3. The Applicants have submitted an **Assessment of Coastal Processes at the Dogger Bank South Landfall** [document reference: 15.6] at Deadline 5.
REP4-126:35	Respond to the applicants' comments during ISH5 on the deployment and replacement of cable protection measures following the applicants' oral representation made during ISH5.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:37	Confirm if there is any outstanding information on potential impacts to spawning habitat from cable protection scour and its current position on the matter.	Natural England maintain our position at Relevant Representations that clarity is needed on how localised impacts on high potential spawning habitat loss due to cable protection have been assessed for sandeel and herring. There have been no assessment updates provided by the Applicant during Examination relating to impacts on spawning habitat, as highlighted in their Response to Relevant Representations [AS-048] and The Applicant's Response to Deadline 2 Documents [REP3-028]. Please also see our response to ISH Action 57 and Appendix C4 of our Deadline 4 submission.	The Applicants maintain that the potential impacts of habitat loss within both the Array Areas and Offshore Export Cable Corridor for all fish species (including potential impacts to sandeel and herring spawning habitat) have been assessed in section 10.6.2.6 of **Chapter 10 Fish and Shellfish Ecology** [APP-091], which concluded a minor adverse significance of effect due to the medium sensitivity of the receptors to habitat loss and low magnitude of the impact due to the low spatial area the habitat loss would encompass when compared to the wider available habitat. **Chapter 10 Fish and Shellfish Ecology** [APP-091] will be updated at Deadline 7 to reflect the latest Project Design Parameters resulting from **Project Change Request 1 - Offshore & Intertidal Works** [AS-141] and the commitment to the bundling of export cables, which both further reduce the potential habitat loss of sandeel and herring spawning habitat within the Offshore Development Area. The Applicants further note that they have made commitments to minimise the use of cable and scour protection as far as is practicable.

[39] [redacted]

NE Ref	Examining Authority Action	Natural England's Response	Applicants' Response
REP4-126:38	Provide an update on its position regarding ecological halo effects following the applicants' oral representation made during ISH5.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5. Please also see Appendix C4 of our Deadline 4 submission.	See the Applicants' response to REP4-127:C2 in **Table 2-20** of this document. The Applicants are disappointed that Natural England have not responded in full at Deadline 4.
REP4-126:39	Provide its opinion on the applicants' comments in ISH5 as to whether the applicants have done everything possible to mitigate for impacts on benthic habitats and have fully adhered to the mitigation hierarchy.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5. Please also see Appendix C4 of our Deadline 4 submission.	See the Applicants' response to REP4-127:C3 in **Table 2-20** of this document for the Applicant's latest position on Decommissioning of cable/scour protection and the implementation of the mitigation hierarchy. Following a meeting held with Natural England on 8th May 2025, Natural England confirmed they will provide further clarification to their stance on the licensing of cable/scour protection measures post-construction. The Applicants are disappointed that Natural England have not responded in full at Deadline 4.
REP4-126:40	To confirm when the further evidence related to the disturbance/ damage of Annex I sandbanks within the Dogger Bank Special Area of Conservation (SAC) and that the length of time for recovery could be up to 25 years is likely to be available and if it will be submitted prior to the close of the examination.	Natural England are awaiting confirmation on when the Favourable Condition Status for Annex I Sandbanks is due to be published, though it is expected to be this year.	The Applicants request Natural England provide notification of when the Favourable Condition Status for Annex I Sandbanks is due to be published at the earliest opportunity.
REP4-126:42	To confirm whether its response indicates its position is that a project assessment could not in principle supersede a plan level HRA conclusion or whether in this particular case it is the adequacy or inadequacy of the evidence provided that is hindering that.	We confirm that the latter interpretation is correct. Please see Section 7 of Natural England's Deadline 4 covering letter for further detail.	See the Applicants' response to REP4-128:7 in **Table 2-14** of this document.
REP4-126:43	Provide an update on its position regarding how the measures put forward for cable bundling and rock protection would be secured following the applicants' oral representation made during ISH5.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:46	To provide a response to the points raised by the applicants during ISH5 in relation to noise abatement systems including the associated procurement.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:47	Confirm whether the documents submitted by the applicants fully adhere to Defra's Marine Noise Policy paper published 21 January 2025.	Natural England maintain the advice provided in Appendix F3 of our Deadline 3 submission [REP3-054].	See the Applicants' response to Appendix F3 in Table 2-13 of **The Applicants' Responses to Deadline 3 Documents** [REP4-088].
REP4-126:48	Provide their position and interpretation of 'first instance' in paragraph below from the Defra Marine Noise Policy paper published 21 January 2025. *'all offshore wind pile driving activity across all English waters will be required to demonstrate that they have utilised best endeavours*	Natural England notes that Defra is due to publish further information and clarification on various points in the Noise Policy paper and we will provide further advice following that publication as required.	The Applicants welcomes news of clarifications from Defra on the marine noise policy and will consider further amendments, if required, after publication and review. The Applicants acknowledge the Natural England comment and note that the Applicants provided response to the Action Point in Table 5-1 of **The Applicants'**

NE Ref	Examining Authority Action	Natural England's Response	Applicants' Response
	to deliver noise reductions through the use of primary and/or secondary noise reduction methods in the first instance'	Natural England understands the MMO consider primary and/or secondary noise reduction methods to be 'satisfactory alternatives' to reducing noise impacts from piling. As such, Natural England considers 'first instance' to mean the Applicant should consider the use of primary and/or secondary noise reduction methods to reduce the impacts of underwater noise and ensure the 'satisfactory alternatives' licensing test can be met and a licence can be issued. Therefore, Natural England believes that some form of noise reduction will be required for all projects going forward, although the details of which technology is most appropriate for a specific project can be identified post-consent.	**Responses to April 2025 Hearing Actions Points** [REP4-096] submitted at Deadline 4, stating: *"The Applicants consider the term" in the first instance" refers to effectively a default to the use of best endeavours to deliver primary and/or secondary noise reduction measures in order to mitigate against piling noise. The terminology should be read in the context of the paper as a whole, which then goes on to discuss the circumstances where noise reduction measures may not be possible, for example due to supply chain issues. Therefore, the Applicants understand that "in the first instance" would mean that the use of primary and/or secondary measures must always be considered first, and only where, following best endeavours to deliver the same, and where there was justification for an alternative, would an alternative be considered. The Applicants have identified appropriate primary and secondary mitigation options pre-consent and are including them in the Projects' procurement strategy to ensure that an appropriate suite of mitigation measures will be included in the final MMMP post-consent.* *The Applicants have ensured that appropriate means of addressing the requirements from the policy through the potential to update the project design and for the application of secondary measures (such as Noise Abatement Systems) have been included in the **Outline Marine Mammal Mitigation Protocol (Revision 4)** [document reference 8.25] secured in condition 15(1)(g) of DMLs 1 and 2; and condition 13(1)(g) of DMLs 3 and 4 and the **In Principle Site Integrity Plan (SIP) for the Southern North Sea (SNS) Special Area of Conservation (SAC) (Revision 3)** [REP2-049] secured in condition 16 of DMLs 1 and 2 and condition 14 of DMLs 3 and 4, which will be agreed with the Marine Management Organisation (MMO) through consultation with Natural England post-consent incorporating the final project design.*
REP4-126:49	Respond to the applicants' comments during ISH5 in relation to unexploded ordnance clearance.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:53	Respond to the applicants' comments during ISH5 in relation to the degree of commitment to additional noise mitigation and the related adverse effects on Southern North Sea SAC and Humber Estuary SAC.	Natural England will review the Applicant's written summary of their oral representation and provide further comment at Deadline 5.	The Applicants are disappointed that a response to this Action Point was not forthcoming at Deadline 4 and await Natural England's response at Deadline 5.
REP4-126:57	Provide its position as to whether the worst-case scenario has been assessed in the ES in relation to the impacts to spawning grounds if the offshore infrastructure was to be left permanently in place.	Natural England do not consider that the worst-case scenario of permanent impacts to spawning grounds from infrastructure being left in situ has been assessed, however we also advise that consideration of permanent impacts should be a last resort following exhaustive application of the mitigation hierarchy. At present, we consider that mitigation options remain available to the Applicant to avoid or reduce their impacts.	The Applicants maintain their previous position on this matter, as detailed previously in REP2-065:7.2 of **The Applicant's Response to Deadline 2 Documents** [REP3-028] and repeated below: *The Applicants have a far reaching and clearly demonstrable commitment to minimising their environmental impacts. This commitment has been clearly demonstrated through the site selection and development work it has undertaken to avoid impacts where possible as reported within the ES. The likely significant effects of the Projects have been further reduced through the mitigation proposals brought*

NE Ref	Examining Authority Action	Natural England's Response	Applicants' Response
		Natural England maintains the advice provided in our Relevant Representations [RR-039] that in the first instance, the Applicant should commit to not installing cable protection within areas of high - very high potential spawning habitat for sandeel and herring to avoid impacts. If this is not possible, a commitment should be made to only a certain proportion of the full volume being allowed in these areas to reduce impacts. It should be demonstrated through the Cable Burial Risk Assessment why the volumes applied for are needed and cannot be refined down further. Should cable protection be utilised in these areas, a commitment should be made to remove all on and above seabed infrastructure at the time of decommissioning to prevent permanent impacts to spawning areas. We advise these commitments should be secured in the DCO.	*forward by the Projects. These proposals are catalogued in the **Commitments Register (Revision 2)** [REP2-025] and in secured in relevant management plans.* *In addition, the Applicants further highlight their recent efforts to minimise their environmental impacts through the introduction of the recently accepted Change Request (**Project Change Request 1 – Offshore and Intertidal Works** [AS-141]), which were in large part brought forward as part of their commitment to minimising the environmental impacts of the Projects where possible, including those impacts associated with the deployment of cable and scour protection.* *The Applicants reiterate their response on this issue as stated in the **Response to Natural England's Relevant Representations** [AS-048] (RR-039: NE7). This response is re-stated below:* *'The Applicants acknowledge this comment. The Applicants understand the sensitivities of the benthic habitats of the Offshore Development Area. In recognition of these sensitivities the Applicants have committed to embedded mitigation to **minimise use of scour and external cable protection where practicable**. Cable and scour protection methods and designs will be developed post-consent. The Applicants will give **due consideration to the use of removable cable and scour protection measures during the detailed design stages of the Projects post-consent**.'* *Final Cable Statements are required for approval prior to the commencement of construction as conditions within each DML. The final Cable Statements will present the details of any cable protection proposed, including those details relating to the type, quantity and location of cable protection proposed.* *Similarly, Scour Protection Plans are required for approval prior to the commencement of construction under each relevant DML. The Scour Protection Plans will present the details of scour protection proposed including types, proposed sources, locations and quantities of scour protection proposed.* *The proposals put forward in any Final Cable Statements and Scour Protection Plans will apply the mitigation proposals identified within the ES. **The Applicants' embedded mitigation proposals to minimise the use of cable and scour protection as far as is practicable will be demonstrated within these documents. These documents will also demonstrate how due consideration has been given to the use of removable cable and scour protection measures.*** *The Final Cable Statement(s) and final Scour Protection Plan(s) presented for the approval of MMO prior to the commencement of construction (where required under each DML) will provide the final details of cable and scour protection proposed. The Applicants note that Natural England will have the opportunity to comment on the finalised proposals brough forward for approval and DML condition discharge at this juncture.* *The Applicants note, that in addition to engaging in further efforts to minimise the impacts of the deployment of cable and scour protection, these impacts will be compensated for at a level which is likely to exceed the quantum of impact both in*

NE Ref	Examining Authority Action	Natural England's Response	Applicants' Response
			terms of geographical extent and duration. See response to REP2-065:7.1 for further details. *As regards decommissioning, a plan will be provided for Secretary of State approval under S105 of the Energy Act 2004* ***prior to construction****. This commitment is secured in* ***Draft DCO (Revision 6)*** *[document reference 3.1] which contains Requirement 7 which states that the Projects:* *'must not be commenced until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2)(a) (requirement to prepare decommissioning programmes) of the 2004 Act has been submitted to the Secretary of State for approval'.* *The Applicants consider it most appropriate to give detailed consideration to matters pertaining to decommissioning following the completion of design work, with further consideration given to the matter across the life of the Projects. The reasons for this include, but are not limited to:* • *Final designs for the Projects not being available. Without knowing what is to be built, it is not possible to develop clear plans for decommissioning;* • *Decommissioning is unlikely to be undertaken for several decades. At the present time the technologies available to enact decommissioning cannot be understood; and* • *Best-practices and the legislative regimes relating to decommissioning will be better understood closer to the timing of decommissioning.* *The Applicants maintain that the deferral of the production of this programme to the post-consent / pre-construction phases of the Projects is the most appropriate and meaningful time for its delivery. In terms of decommissioning, the Applicants reiterate that the Decommissioning Programme and the Final Cable Statement and Scour Protection Plan will also demonstrate how due consideration has been given to the use of removable cable and scour protection measures, in addition to details relating to the Applicants decommissioning proposals. Thus, it is clear that there are post-consent controls in place in relation to the matters of concern to Natural England and they will have the opportunity to comment on the plans of the project at the most appropriate time.* *Through the steps presented above the Applicants have clearly demonstrated how the mitigation hierarchy will be applied to the impacts of cable and scour protection in relation to habitat loss, showing how these impacts will be avoided, reduced and mitigated as far as is practicable, and how the strategic compensation to be provided for the DBS Projects is likely to deliver on a highly precautionary basis both in terms of extent and duration. In addition, post consent controls are in place which could ensure the further reduction of the environmental impacts of the proposed Projects where practicable.* *Finally, the Applicants acknowledge Natural England's decommissioning study, but note that the focus of the study is only the feasibility of the removal of protection. In terms of environmental impact avoidance, reduction, mitigation and compensation it*

NE Ref	Examining Authority Action	Natural England's Response	Applicants' Response
			does not take a holistic view as it does not consider issues and impacts associated with design, cost, maintenance and construction that may be associated with their use. For further information see https://publications.deltares.nl/Deltares250.pdf . It is important to consider and reflect upon the fact that there are potential disbenefits associated with the use of removable protection in addition to any perceived benefits when developing designs for cable and scour protection.

Table 2-26 The Applicants' Response to Natural England's Advice On: [REP3-032] 13.7 Bed Mobility and Thermal Environment (Revision 1)

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
4	Natural England welcomes the Bed Mobility & Thermal Environment report [REP3-032]. However, we note that this report pre-dates the ES (2024), including a review of all selected and deselected export cable route options. We also note that it includes the MarineSpace (2023) DBS background review of bed mobility which was used to support the ES Chapter 8 Marine Physical Environment [APP-080]. There does not appear to be any new information in this report that changes our current advice. Furthermore, we note that this report is due to be superseded.	Whilst Natural England welcomes this background review, the information doesn't change our current advice.	See The Applicants' Response to REP4-122: B3 in **Table 2-16** of this document.
5	We note the conclusion drawn in [REP3-032] regarding cable burial risk within the arrays. This states that the *"sorted bedforms prevalent on Dogger Bank and covering large sections of the DBS OWF footprint are the primary sources of bed level change and this will need to be considered fully in the design of the inter-array cables and the latter sections of the export cable."* This aligns with concerns raised in our Relevant Representation and Risk and Issues Log [R&I, B29], that currently we do not have sufficient information to support the assessment conclusions regarding changes to bedload sediment transport and seabed morphology due to the presence of cable protection measures on Dogger Bank. We also advised that a seabed mobility assessment will need to be carried out to inform the cable burial assessment and, thus, requirement for surface laid cable protection on Dogger Bank. In [REP3-028], it is stated that as further site investigation and design work is due to be completed prior to construction, [REP3-032] this will be superseded, however an update to this or the Cable Burial Risk Assessment will not be provided within Examination timeframes.	Natural England reiterates our previous advice that, at present, the potential for seabed mobility, cable exposure, and scour require further investigation, particularly on Dogger Bank and the latter two thirds of the offshore export cable corridor, and the nearshore. With regards to the assessment of seabed mobility and sediment transport pathways and rates, we advise that whilst observations of seabed morphological features may be indicative of seabed mobility, the relative importance of tides and waves will need further consideration. We also advise that acquisition of further high-resolution site-specific bathymetric data would allow more accurate and confident assessment of bedform migration (direction and rate). Furthermore, the future effects of climate change and increased storminess will need to be considered over the lifetime of the project(s). [R&I, B29]	See The Applicants' Response to REP4-122: B4 in **Table 2-16** of this document.

Table 2-27 The Applicants' Response to Natural England's Advice On: [REP3-028] 13.3 The Applicant's Responses to Deadline 2 Documents (Revision 1)

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
6	Natural England welcomes the Applicants' further clarification that the approximate length of cable protection measures within the nearshore would be 116m per cable trench (assuming the cables were laid in a straight line) and will only protrude 50cm above the seabed. However, it is unclear if the anticipated maximum length of cable protection per cable trench will be secured. Furthermore, we note that the Applicant intends to undertake modelling to demonstrate that this proposed nearshore cable protection MDS will have a limited effect on the wave regime in the area, for submission at Deadline 5.	Natural England advises that clarification is provided on whether the anticipated WCS cable protection length in the nearshore is secured in a plan/document and that design parameters for any cable protection will not negatively impact on coastal processes and/or the structural integrity of any external cable protection can be maintained. [R&I, B28]	See The Applicants' Response to REP4-122: B5 in **Table 2-17** of this document.
7	We reiterate our previous advice whereby a realistic WCS for cable protection should be provided within Dogger Bank SAC and along the ECC with identification of affected features / sensitive habitats. The Applicant has indicated that further geotechnical surveys will be undertaken in 2025, however the CBRA will not be updated further within Examination timeframes.	We advise that it would be helpful if the Applicant could provide indicative locations for cable protection requirements based on currently available information. [R&I, B3, B4, C3]	See The Applicants' Response to REP4-122: B6 in **Table 2-17** of this document.
8	Natural England notes the Applicant's position that the Project will not hinder the conservation objectives of the MCZs, which is similar to other Applicant's positions in regard to determining significance of impacts, including Sheringham and Dudgeon Extension Projects (SEP and DEP). However, Natural England advises that if significant indirect impacts from DBS cable installation on designated features of the MCZ can't be excluded during Examination, then we would recommend that a without prejudice MEEB proposal and/or commitments to invest in strategic compensation are progressed as was submitted for DEP and SEP.	Natural England advise that the assessment is updated as needed. We note that further information in relation to impacts to nearshore processes is due for submission at Deadline 5, and further discussion is planned with the Applicant regarding indirect effects to Holderness Offshore MCZ which may progress this issue.	See The Applicants' Response to REP4-122: B7 in **Table 2-17** of this document.
9	Natural England welcomes the Applicant's further information (Appendix D) on the indicative location of the DBS cable crossing with Hornsea Project Four, to the east of Smithic Bank off the Holderness Coast. We remain concerned that the DBS/ Hornsea Project Four cable crossing (with MDS parameters per cable crossing of 15.2m width, 400m length, and 1.4m height), located in shallow water in close proximity to Smithic Bank and Holderness Offshore MCZ, has the potential to interrupt or affect sediment transport processes.	In line with Hornsea Project Four, we advise that the DBS/Hornsea Project Four cable crossing should be located seaward of the 20m depth contour to the east of Smithic Bank, and as distant from Holderness Offshore MCZ as possible. We advise that it is demonstrated that the location is sufficiently seaward as to avoid alterations to the local wave/current regime, sediment transport regime and morphology of Smithic Bank. [R&I, B28].	See The Applicants' Response to REP4-122: B8 in **Table 2-17** of this document.
10	We welcome the Applicants' clarification [REP3-028] on the WCS figures presented for secondary scour. However, we advise that currently there remains uncertainty regarding seabed mobility,	Natural England advise that further consideration is given to the assessment and monitoring of secondary scour.	See The Applicants' Response to REP4-122: B9 in **Table 2-17** of this document.

NE Ref	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
	bedform formation and migration and scour potential within the arrays and along large sections of the export cable routes (see advice in Appendix B4 of our Deadline 4 submission). Further, in the ES [APP-080] secondary scour effects are predicted to extend only 'a few metres' from the direct footprint of any scour protection. We advise that this needs to be secured better within the IPMP which includes only 'consideration' of secondary scour. 'Consideration' is not actually a firm commitment to 'monitor', as was proposed in [APP-080]. Moreover, given the high value of receptors such as DB SAC, it is important to ensure that the risk of potential impacts are managed as far as possible and that appropriate monitoring to detect changes and trigger any necessary counter measures is secured.		

2.19 Natural England - Risks and Issues Log

Table 2-28 – The Applicants' response to Natural England's Deadline 4 Risks and Issues Log [REP4-129]

I.D.	Natural England Response	RAG Status	Applicants' Response
Draft Development Consent Order (Revision 6) [REP3-004]			
REP4-129: A7	Initial Relevant Representation - *This condition does not include the requirement to submit an updated OOOMP. We also note that condition 10 (1) (c) requires details on cable protection. However, we assume this covers during construction cable protection only. We further note that operations and maintenance is provisioned for at condition 7. However, the wording at condition 7 only allows for the replenishment of cable protection. Natural England interprets this to mean the deemed Marine Licence (dML) only allows for new areas of cable protection to be installed during construction. Confirmation is needed of the intention with regard to the conditioning of cable protection deployment after construction. (Schedule 10, 15(1)).* Deadline 4 Status - See Point A15 with regards to additional or replenishment cable protection.		See the Applicants' response to REP4-129: A15 below.
REP4-129: A10	Initial Relevant Representation - *Amend the condition such that the Site Integrity Plan for piling must be submitted no later than 6 months prior and no sooner than 9 months prior to piling. (Schedule 10, 16(3))* Deadline 4 Status - No change. We continue to advise the SIP is submitted no sooner than nine months prior to piling.		The Applicants maintain the position as stated in response to REP1-067: A10 in **The Applicants' Responses to Deadline 1 Documents** [REP2-058], repeated below for convenience. '*The Applicants note Natural England's additional request that the SIP should be submitted no sooner than nine months prior to piling (in addition to no later than six months). The Applicants do not agree that this restriction is necessary or proportionate as it is possible that piling programmes will be known in sufficient detail more than nine months in advance of the start of piling operations, and note this requirement could directly impact the delivery programme of the Projects, therefore potentially impacting government policy regarding the significant and urgent need for new renewable energy generation (see as an example NPS EN-1 at 3.1.1).*'
REP4-129: A12	Initial Relevant Representation - *Update the conditions to include ornithological monitoring. Further amendments may be required on monitoring condition wording in line with MMO advice. (Schedule 10, 20-22)* Deadline 4 Status - Issue progressed. We welcome the inclusion of ornithological monitoring as outlined in [REP3-005] and [REP3-007]. Please see Table 1 of our Appendix J [REP3-056] submitted at Deadline 3 for further detail on monitoring.		See the Applicants' responses to Appendix J - Natural England's comments on the In-Principle Monitoring Plan [REP3-056] in Table 2-15 of **The Applicants' Responses to Deadline 3 Documents** [REP4-088], submitted at Deadline 4.
REP4-129: A14	Initial Relevant Representation - *The Maximum Design Parameters for the number of piles that can be installed per day (including simultaneously and concurrently) have not been secured in the DCO/dML. A condition should be included to secure these.* Deadline 4 Status - Issue Resolved. Natural England are satisfied that the condition wording captures the WCS as assessed in the original ES, which was then reduced as a result of the Change Request.		The Applicants welcome Natural England's agreement on this matter.
REP4-129: A15	Initial Relevant Representation - *The Development Consent Order (DCO) does not contain an end date for deployment of cable protection for within and outside of designated sites. Natural England's standard advice is that cable protection should only be deployed for a maximum period of 10 years from the commencement of operations outside of designated sites. Within any designated sites for benthic*		During a meeting held with Natural England on 8th May 2025, Natural England confirmed they will provide further clarification on their position on the licensing of cable/scour protection measures post-construction for the Applicants to consider.

I.D.	Natural England Response	RAG Status	Applicants' Response
	features, such as the Dogger Bank SAC, the condition should stipulate that there should be no deployment of cable protection after the completion of construction. Deadline 4 Status - No change. It is outlined in the Applicants' Reponses to Deadline 2 Documents [REP3-028] that their position remains unchanged, whereby replenishment of cable and scour protection up to the limits set out within the DCO could be deposited within the footprints of deposition established at the construction stage. Natural England maintain our previous advice.		Until further clarification is received, the Applicants maintain their previous position on this matter as detailed in response to REP3-060: A15 of **The Applicants' Responses to Deadline 3 Documents** [REP4-088] and repeated below: *'As noted in their response to Natural England's REP2-065:6 provided within **The Applicants' Reponses to Deadline 2 Documents (Revision 1)** [REP3-028] the Applicants' position remains that:* *Replenishment of cable and scour protection up to the limits set out within the DMLs could be deposited within the footprints of deposition established at the construction stage. These footprints would be established through the discharge of the Reporting of Scour and Cable Protection conditions in each DML (for example, see Condition 23 in DML 1 (Schedule 10) within the **Draft DCO (Revision 6)** [document reference 3.1]) with the volumes of deposition also managed through these conditions. The effects of protection introduced through this mechanism will be compensated for as part of the DBS benthic SAC compensation proposals. The effects of such protection will have been comprehensively assessed as a permanent effect compensated for through the DBS DCO consenting process. The Applicants maintain that further assessment and compensation discussions relating to project activities that have been previously assessed, licenced and compensated for would be neither proportionate or necessary.* *The Applicants reiterate that protection required in 'new areas' where no protection had previously been placed, would be licenced in ten year blocks following the completion of construction. This will help to ensure management of impacts whilst preserving the flexibility that the applicants require in order to adequately maintain and operate a complex asset in a dynamic environment.* *Please see the Applicants' response to RR-039: C13 in **Response to Natural England's Relevant Representations** [AS-048] for the full proposal.* *The Applicants are seeking meetings with Natural England between Deadlines 4 and 5 to discuss a number of technical issues. This matter will be on the agenda with the intention of moving the Applicants' and Natural England's positions into closer alignment.* *The Applicants confirm that condition 23 of DMLs 1 and 2, condition 21 of DMLs 3 and 4 and condition 17 of DML5 all contain provisions requiring cable and scour protection reports to be provided within 4 months following completion of construction of the authorised scheme, with updates provided where further deposits are made through the processes outlined within the **Outline Offshore Operations and Maintenance Plan (Revision 3)** [REP2-045] occur during the operational phases of the Projects. The Applicants are unclear as to the nature of any further updates that Natural England are expecting for these conditions and would appreciate clarification in this regard.'*
REP4-129: A15.1	Natural England request the DCO include a condition or requirement to ensure that the project does not exceed the operational lifetime considered within the Environmental Statement. See cover letter of Natural England's Deadline 4 submission for further detail.		See the Applicants' response to REP4-128: CV8 in **Table 2-14** of this document.
Commitments Register (Revision 2) [REP2-025]			
REP4-129: A17	Initial Relevant Representation - *Natural England advise that any named document should be clear on what the Applicant's commitments/requirements are, and include any rationale/justification as to why the commitments are being made, even if how they will be delivered is currently unknown.*		The Applicants will submit an updated revision of the **Commitments Register (Revision 3)** [document reference: 8.6] at Deadline 7 alongside the updated Environmental Statement, which will include updated commitments with regards to sediment disposal. This document update will

I.D.	Natural England Response	RAG Status	Applicants' Response
	Deadline 4 Status - No change - no new information relevant to this issue has been submitted at this deadline. Whilst some updates re sediment disposal have been made to Points B17, B44, C21, C33, C34 for detail on sediment disposal, these have not been reflected in an updated Commitment Register.		provide confirmation of the intended purpose of this document, its contents and how it should be read within the context of the wider Environmental Statement.
Outline Offshore Operations and Maintenance Plan (Revision 3) [REP2-045]			
REP4-129: A21	Initial Relevant Representation - *Natural England is concerned about what is and is not permitted as part of the DCO/dML through this named plan, in relation to replacement of cable protection over the lifetime of the project and any 'allowances' for new cable protection. We advise that further cable protection and scour prevention within Dogger Bank SAC would require a new marine licence, and that outside of the SAC a register should be kept and summited annually to the MMO on any placement of cable protection. This should include the volume, footprint and locations to ensue commitments have been adhered to and indirect impacts to designated sites avoided. See A15, A22.* Deadline 3 Status - No change - please see Point A15 for further information regarding our advice on scour / cable protection replenishment.		See the Applicants' response to REP4-129: A15 above.
Marine Physical Environment			
REP4-129: B3	Initial Relevant Representation - *The rationale behind remedial cable protection along 10% of the cable route within Dogger Bank SAC should be provided, with evidence provided to justify a realistic Worst Case Scenario (WCS). Specific locations (informed by acoustic data) of areas requiring cable protection should be identified, including identification of affected features/sensitive habitats. (7.8)* Deadline 4 status - No change - the Applicant has confirmed that no further revisions will be made to the CBRA within Examination timeframes [REP3-028]. We maintain our advice that further information and rationale is provided for the WCS for cable protection within DB SAC. We advise that it would be helpful if the Applicant could provide indicative locations for remedial cable protection requirements based on currently available information. Please see Appendix B4 to our Deadline 4 submission for further information including our concerns regarding seabed mobility and cable burial risk on Dogger Bank.		See the Applicants' response to REP4-122: B6 in **Table 2-17** of this document.
REP4-129: B4	Initial Relevant Representation - *The WCS for remedial cable protection assumes 20% of the export cable route will require remedial protection outside of Dogger Bank SAC. A realistic worst-case scenario on the locations for cable protection should be identified (informed by geophysical and geotechnical data). We also advise that the rationale (including supporting evidence) for this requirement should be provided. (7.8)* Deadline 4 status - No change - we maintain our advice that further information and rationale is provided for the WCS for cable protection outside of DB SAC, however the Applicant has confirmed that no further revisions will be made to the CBRA within Examination timeframes [REP3-028]. We therefore advise that it would be helpful if the Applicant could provide indicative locations for remedial cable protection requirements based on currently available information. See Appendix B4 of our Deadline 4 submission for further detail on bedform migration rates and directions, seabed mobility, and sediment transport.		See the Applicants' response to REP4-122: B6 in **Table 2-17** of this document.

I.D.	Natural England Response	RAG Status	Applicants' Response
REP4-129: B7	Initial Relevant Representation - *We advise that a commitment is made and secured in the DCO to remove all on and above seabed infrastructure associated with the development within benthic designated sites (excluding cable crossings). Without this, the WCS should assess the impacts of leaving assets permanently in situ rather than restricting to the operational lifetime. (7.8).* Deadline 4 status - No change. Natural England maintain our previous advice. See Appendix C4 of our Deadline 4 submission for further detail.		See the Applicants' response to REP4-127: C3 in **Table 2-20** of this document.
REP4-129: B8	Initial Relevant Representation - *The Preliminary CBRA is based on the Projects' Red Line Boundary (RLB) at PEIR stage, which has been significantly revised. We advise that a more up-to-date and detailed pre-consent cable burial assessment should be provided, based on the most recent RLB and turbine/cable layout. This should use project specific geotechnical data and/or data from constructed offshore windfarms to consider the likelihood of burial success to inform realistic MDS parameters for cable protection requirements. (8.20)* Deadline 4 status - No change. We maintain our previous advice. We note that the Applicant has confirmed in [REP3-028] that there will be no updates to the existing CBRA during Examination. Therefore we will not provide further comment on this issue unless the Applicant provides updates to the CBRA.		The Applicants acknowledge Natural England's position on this matter, noting that an update to the Export Cable CBRA has been provided which brings the red line boundary in the Cable Burial Risk Assessments (CBRAs) into alignment with the application. As has previously been noted, and as is common for offshore wind DCO applications, the CBRAs remain preliminary and will not be finalised until the project designs are finalised at the post-consent stage of the Projects. The final CBRAs will be provided within the final Cable Statements required to discharge relevant conditions in each Deemed Marine Licence included in the **Draft Development Consent Order (Revision 8)** [document reference 3.1].
REP4-129: B12	Initial Relevant Representation - *We advise that Table 8-20 of [APP-080] should be revised using the 95% confidence level from the revised National Coastal Erosion Risk Mapping project. Cliff erosion is relevant in terms of reviewing whether construction impacts have altered baseline cliff erosion rates. Therefore, this should be done as part of the post construction monitoring rather than strictly being needed for the ES.* Deadline 4 status - Issue progressed. Natural England welcome that updated coastal erosion predictions have been provided. We advise that these updates are included in the updated ES documents to be provided at Deadline 7. See Appendix B4 of Natural England's Deadline 4 submission for further detail.		The Applicants confirm the updated coastal erosion predictions will be included in the update of **Chapter 8 Marine Physical Environment** [APP-080], to be submitted at Deadline 7.
REP4-129: B17	Initial Relevant Representation - *Removal or modification of sandwaves within the OECC and array areas could adversely affect nearby sandbanks, seabed topography, and affect flow and sediment transport patterns. All efforts should be made to avoid areas of sandwaves and/or minimise the need for sandwave levelling/pre-sweeping by micro-routing. If possible, dredged material should be placed to aid natural infilling of trenches. Best practice should be followed to assess and minimise potential impacts to sandwave/sandbank systems. The proposed pre- and post-construction monitoring should be used to assess geomorphological recovery after cable installation. (7.5, 7.8)* Deadline 3 status - Issue progressed. The Applicant has said that in commitment C089 of the Commitments Register, that cable route selection/micro-siting will help avoid areas of seabed that are challenging eg. sandwaves. Can the Applicant confirm if this commitment will enable reduction of the MDS for sandwave levelling? In line with our advice in Appendix B4 to our Deadline 4 submission, we advise that the Applicant still needs to more accurately assess bedform migration direction and rates. The Applicant has also stated [REP3-028] that they can commit to depositing sediment on like sediment (within Dogger Bank SAC) and has indicated that an updated Cable Statement will be provided at Deadline 4 [REP3-028] to reflect such changes. We will provide further comment		The Applicants confirm that commitment C089 would enable reduction of the volumes of sediment proposed for dredging as part of sand wave levelling, through the avoidance of areas where sand wave levelling is required where technically feasible. However, these reductions can only be made post-consent as that is when this mitigation is to be applied. The final details of the application of this mitigation measure will be demonstrated through the documents that the Applicants submit to discharge Conditions 15(a)(iii) and 15(i) in Deemed Marine Licence 1 (as repeated across the remaining Deemed Marine Licences) in the **Draft Development Consent Order (Revision 8)** [document reference 3.1]. Regarding the comment on assessment of bedform migration direction and rates, see the Applicants response to REP4-122: B4 in **Table 2-16** of this document. As per the Applicants' response to REP2-069: B45 within **The Applicants' Reponses to Deadline 2 Documents** [REP3-028] the Applicants await evidence from Natural England that fall pipes are equipped on the kinds of vessels that would be used to complete the dredging required to deliver the Projects. In the Applicants view, such equipment is not available on such vessels.

I.D.	Natural England Response	RAG Status	Applicants' Response
	accordingly, but highlight that as with other developments currently in Examination which are impacting on Annex I sandbanks, commitments to deposit adjacent to and updrift of the sandbank using a fall/down pipe is also required to fully mitigate impacts.		The Applicants will give further consideration to this request if Natural England can provide a demonstration to the contrary. The Applicants cannot commit to delivering mitigation that they do not regard as technically feasible. The Applicants cannot comment on what other projects think is or isn't feasible. The Applicants note that Natural England were asked to provide a response to an ISH5 Action Point on this topic, but did not provide a direct response to this question (AP31 within Action Points from Issue Specific Hearing 5 (ISH5) held on 10 April 2025 [EV10-002]). The Applicants note that should material be deposited updrift of a dredging site then there is every possibility that this material may move to re-fill the area before any relevant works are completed requiring further, remedial dredging activity. As a result, the Applicants assert that following this request could result in avoidable ecological impacts.
REP4-129: B21	Initial Relevant Representation - *Dogger Bank SAC should be included as a receptor in the Marine Physical Environment EIA. It should also be identified (along with other relevant designated sites) on Marine Physical Environment maps to inform understanding of potential impacts. (7.8)* Deadline 4 status - No change. The Applicant has indicated [REP3-028] that whilst DB SAC was previously included as a receptor in PEIR, it was removed following consultation in an ETG meeting held on 29th Jan 2024. We have reviewed the minutes from this meeting and cannot see that it was discussed. Natural England maintain our previous advice.		As stated in the minutes of the meeting held on 29th January 2024, during discussions of potential impacts upon the Dogger Bank Special Area of Conservation (SAC) and Southern North Sea SAC Natural England noted that: *'LB: When considering SACs, minor adverse does not work for the assessment, it should be 'does or does not have adverse effect' in relation to integrity of SAC. There is a separate assessment for this, make sure consistent terminology and clearly signposted to relevant chapters throughout to avoid wrong messaging* *PP: Mentioned that there is a SAC assessment, and noted LB comments regarding terminology when referring to the SAC, and that EIA terminology shouldn't be used.'* The full minutes from this meeting are provided in Appendix A of this document for further reference. As noted in the above text, Natural England confirmed there was a separate assessment for consideration of effects on the Dogger Bank SAC. As a result of this feedback, the Applicants removed reference to the Dogger Bank SAC itself as a receptor, instead including reference to the Dogger Bank as a geological receptor. It should be noted that the Dogger Bank SAC is designated for the Annex I habitat feature 'Sandbanks which are slightly covered by seawater all the time' and not any geological features. As such referring to the Dogger Bank as a geological and geomorphological receptor, which is not covered by the SAC designation, ensured a more appropriate assessment. It would be erroneous to assess the receptor in the marine physical environment chapter in terms of its SAC designation which is related to habitats and instead this is considered in the **RIAA HRA Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014].
REP4-129: B22	Initial Relevant Representation - *We do not agree with the conclusions of the EIA or cumulative effects assessments for the Flamborough Front during Operation and Maintenance.* *We advise the Applicant should seek to reduce impacts as much as possible through consideration of the placement of foundation structures and reducing the WCS for foundation structures within Array Areas. Owing to the ecological importance of the Flamborough Front, and emerging evidence that suggests large OWF clusters (i.e. Dogger Bank) may result in substantial impacts on stratification, currents, and sediment resuspension; we also advise that the Applicant should commit to monitoring potential changes*		As noted in the **Review of Flamborough Front** [REP4-092] and **In Principle Monitoring Plan (Revision 3)** [REP4-052] submitted at Deadline 4, the Applicants have committed to the monitoring of the Flamborough Front.

I.D.	Natural England Response	RAG Status	Applicants' Response
	to stratification, currents, and productivity (pre-construction, post-construction, lifetime). The results of monitoring should be combined with those from other nearby OWFs and with up-to-date research such as from the University of Hull. (7.8, 8.7.3.4) Deadline 4 status - No change. The Applicant has indicated that a technical note summarising the potential effects of the Projects on the Flamborough Front and how other offshore wind farm projects have assessed their potential impacts on the feature will be provided at Deadline 4 [REP3-027]. We maintain the advice provided at Deadline 3 with respect to monitoring requirements.		
REP4-129: B23	Initial Relevant Representation - *We cannot rule out an adverse effect on integrity for the Humber Estuary SAC due to the current condition allowing 10% of the cumulative export cable length to be protected from 350m seaward of MLWS to the 10m depth contour. We advise that alternative methods of cable burial and/or protection should be explored in line with the mitigation hierarchy, to remove or reduce the need for cable protection between MLWS and the 10m contour. If cable protection is not removed from the project envelope, the commitment and associated DCO condition should be refined to only placing cable protection within -9 and -10m below LAT, as the Applicant has already identified this as being the area potentially requiring cable protection. See also C13. (6.1, 7.5, 7.8)* Deadline 4 status - Issue progressed. We welcome the Applicant's clarification [REP3-028] that the approximate length of cable protection measures within the nearshore would be 116m per cable trench (assuming the cables were laid in a straight line) and will only protrude 50cm above the seabed. However, we require clarity on whether this is secured in a plan/document. The Applicants also propose further modelling to demonstrate that the WCS nearshore cable protection will have a limited effect on the area and that a technical note will be provided at Deadline 5 regarding the potential effects of cable protection measures on sediment transport in the nearshore environment. See Appendix B4 of Natural England's Deadline 4 submission for further detail.		See the Applicants' response to REP4-122: B5 in **Table 2-18** of this document.
REP4-129: B28	Initial Relevant Representation - *There is insufficient information regarding the location and significance of cable crossings and nearshore cable protection measures relative to Smithic Bank to support the assessment conclusions. The potential exchange of sediment between South Smithic and the Holderness Coast should be considered when assessing impacts to the nearshore and circulatory sediment transport processes due to the presence of nearby cable protection measures and cable crossings. (7.8)* Deadline 4 status - No change. The Applicant has provided an indicative location map for the DBS/Hornsea Project 4 cable crossing in Appendix D to [REP3-028]. We advise that in order to reduce potential impacts to nearshore sediment transport processes and seabed morphology, that the DBS/Hornsea Project 4 cable crossing should be placed seaward of the 20m depth contour to the east of Smithic Bank and as distant from Holderness Offshore MCZ, as possible. Cable crossing MDS parameters should also be reduced as much as possible.		See the Applicants' response to REP4-122: B8 in **Table 2-17** of this document.
REP4-129: B35	Initial Relevant Representation - *An EIA matrix has been used to determine magnitude rather than considering if there is an impact pathway to the MCZ features and utilising conservation objectives, conservation advice and advice on operations. This section of the MCZ assessment should be updated in line with Stage 1 MCZ Assessments undertaken for other OWF projects. Until this is updated, we are unable to agree with the conclusions of this assessment. (8.17)*		See the Applicants' response to REP4-122: B7 in **Table 2-17** of this document.

I.D.	Natural England Response	RAG Status	Applicants' Response
	Deadline 4 status - No change. We note the Applicant's position that the Project will not hinder the conservation objectives of the MCZs however, we advise that if significant indirect impacts from DBS cable installation on designated features of the MCZ can't be excluded during Examination then we would recommend that a without prejudice MEEB proposal and/or commitments to invest in strategic compensation are progressed as was submitted for DEP and SEP. Please see Appendix B4 of Natural England's Deadline 4 submission for further detail.		
REP4-129: B45	Initial Relevant Representation - *We advise the mitigation in Section 5.2 does not go far enough, especially within the Dogger Bank SAC and in areas where there are priority habitats and/or indirect impacts to designated site features could occur. We advise that the following mitigation measures are adopted (but not exclusively):* *- All deposition of dredged sediment within the Dogger Bank SAC should be done through the use of a fall pipe and adjacent and upstream of the dredge location in same sediment type to ensure sediment stays within the site.* *- Drill arisings should be deposited within similar sediment characteristics i.e. not on sandbanks. Therefore, adjacent to turbines is unlikely to be appropriate.* *- Sandwave deposition should avoid areas of priority habitats under NERC 2006 by the inclusion of a 50m buffer around the NERC habitats.* *- Deposition of dredge material along the export cable should utilise a fall pipe where there is a risk of increases in suspended sediment concentrations impacting on designated site features and those of ecological importance. (8.18)* Deadline 4 status - No change. The Applicant has stated [REP3-028] that they can commit to depositing like sediment on like sediment (within Dogger Bank SAC) and has indicated that an updated Cable Statement will be provided at Deadline 4 [REP3-028] to reflect such changes. We will provide further comment accordingly. However, we note that both Five Estuaries and Outer Dowsing OWF Applicant's have committed to use of a fall pipe adjacent and upstream of the dredge location in same sediment type to ensure sediment stays within the site.		See the Applicants' response to REP4-126: 31 in **Table 2-25** of this document regarding the proposed use of a fall pipe. The Applicants note that Natural England's advice is inaccurate and Outer Dowsing Offshore Wind Farm (OWF) does not appear to have made any such commitment to the use of a fall pipe.
REP4-129: B47	Initial Relevant Representation - *We advise that this document needs to better consider the risk and implications of secondary scour occurring. (8.27)* Deadline 4 status - No change. We welcome the Applicants' clarification [REP3-028] on the WCS figures presented. However, outstanding concerns remain regarding seabed mobility, bedform formation and migration and scour potential (see Appendix B4 of our Deadline 4 submission). We also advise that monitoring of secondary scour needs to be better secured in the IPMP. See Appendix C4 of our Deadline 4 submission for further detail.		See the Applicants' response to REP4-122: B9 in **Table 2-17** of this document.
Benthic & Intertidal Ecology			
REP4-129: C3	Initial Relevant Representation - *Justification is required for the WCS quantification of cable protection within and outside of Dogger Bank SAC. This should cover:* *- Previous experience and available information about the ground type within the Array area and along the ECC route.*		See the Applicants' response to REP4-122: B6 in **Table 2-17** of this document.

I.D.	Natural England Response	RAG Status	Applicants' Response
	-Possible post-construction measures e.g. placement of additional scour replenishment during the operational phase *- Implications from the removal and replacement of scour protection during cable repairs especially where a new cable loop is included* *- Implications from the changes in scour prevention/cable protection elevation above the seabed to ensure it remains within the parameters assessed. (7.05)* Deadline 4 status - No change - we maintain our advice that further information and rationale is provided for the WCS for cable protection within and outside of DB SAC, however the Applicant has confirmed that no further revisions will be made to the CBRA within Examination timeframes [REP3-028]. We therefore advise that it would be helpful if the Applicant could provide indicative locations for remedial cable protection requirements based on currently available information.		
REP4-129: C4	Initial Relevant Representation - *Clarity is needed on how the potential for the addition of further cable/scour protection during the operational phase has been considered and included within the worst-case calculations for cable/scour protection. It is unclear whether figures provided in the Offshore Operations and Maintenance Plan (OOMP; APP-248) for replacement cable protection for the export cables have been integrated into the Project Description. Estimates for cable protection replacement requirements for the inter-array and inter-platform cables have also not been provided. We advise that the standard for quantities of additional scour and/or cable protection outside of benthic SACs is for the replenishment of 10% of any scour prevention/cable protection laid during installation within a 10-year period, as long as the overall footprint is not increased. Any additional scour prevention/cable protection during the operational phase within a designated site will require a separate Marine Licence. See C13 below. (7.05, 8.24)* Deadline 4 status - No change. It is outlined in the Applicants' Reponses to Deadline 2 Documents [REP3-028] that their position remains unchanged, whereby replenishment of cable and scour protection up to the limits set out within the DCO could be deposited within the footprints of deposition established at the construction stage. Natural England maintain our previous advice.		See the Applicants' response to REP4-129: A15 above.
REP4-129: C7	Initial Relevant Representation - *The Applicant has not sufficiently characterised benthic receptors within Flamborough Head SAC. All benthic receptors within the ZoI, particularly those within designated sites, need to be sufficiently characterised to enable a robust, evidenced assessment to be undertaken and presented. In the absence of characterisation of benthic receptors at a suitable resolution, the WCS needs to be presented (e.g. most sensitive biotope within the broadscale habitat used as a basis for assessments) to consider the sensitivity or recoverability of the benthic receptors to the identified pressure pathways. (7.09, 6.1)* Deadline 4 status - Issue progressed. Natural England welcome the further characterisation of benthic receptors at a suitable resolution and more transparent consideration of the sensitivity and recoverability of designated benthic receptors to the identified pressure pathways within the ZoI [REP3-026]. We consider this aspect of the issue to be resolved. Updates to ES documents are required to fully resolve the issue, we will provide further comment once updates are provided at Deadline 7.		The Applicants confirm that the updates presented in the **Benthic Ecology Technical Note (Revision 2)** [REP3-025] will be incorporated into the Environmental Statement (ES) at Deadline 7.

I.D.	Natural England Response	RAG Status	Applicants' Response
REP4-129: C11	Initial Relevant Representation - *Loss of benthic habitat as a result of UXO clearance, particularly within Dogger Bank SAC, should be added to the worst-case calculation for the EIA and RIAA, whether it be temporary or otherwise. We advise that the Applicant also needs to evidence their claim that "craters would be expected to re-fill with sediment over the course of days" (applies to both UXO detonations and jack-up operations). If depressions are created from UXO clearance or jack-up operations in areas of coarse or mixed sediments, the area may need to be considered as permanent habitat change/loss unless it can be otherwise evidenced that they will backfill with similar sediment types. We consider that recovery is altogether unlikely within the irreplaceable NERC Section 41 habitats which have been identified within the red line boundary (i.e. Piddocks with a sparse associated fauna in sublittoral very soft chalk or clay). (7.09, 6.1, 7.05)* Deadline 4 status - No change. Natural England welcomes the additional information provided by the Applicant in Appendix 1 of [REP3-022] however, the pathways of effect which have been considered do not address impacts from the creation of depressions from UXO clearance or jack-up operations in areas of coarse or mixed sediments. We continue to advise that impacts from the creation of depressions from UXO clearance or jack-up operations in areas of coarse or mixed sediments should be considered as permanent habitat change/loss (rather than temporary disturbance/damage) unless it can be otherwise evidenced that they will backfill with similar sediment types. Evidence from similar sediment types at Triton Knoll and Lincs OWFs are demonstrating that JUV leg depressions remain 2-10 years after installation.		See the Applicants' response to REP4-127: C1 in **Table 2-19** of this document.
REP4-129: C16	Initial Relevant Representation - *We do not agree that an AEoI can be excluded from the disturbance/damage of Annex I sandbanks within the Dogger Bank SAC. Unlike more dynamic sandbanks, the length of time for recovery could be up to 25 years. We highlight that the R4 Plan Level benthic compensation includes the requirement for benthic compensation for disturbance/damage caused to Annex I 'glacial till' Annex I Sandbanks within Dogger Bank SAC. (6.1)* Deadline 4 status - No change - Natural England and the Applicant maintain their respective positions. It is unlikely that agreement will be reached on this matter.		Following a meeting held with Natural England on 8th May 2025, the Applicants agree that an agreement on this matter is unlikely to be reached. The Applicants highlight that the worst case for disturbance effects have been provided in **Project Change Request 1 – Offshore and Intertidal Works** [AS-141] and have been included in the updated revision of the **RIAA HRA Part 2 of 4 - Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014] submitted at Deadline 4. This is also reflected in the updated **Appendix 3 Project Level Dogger Bank Compensation Plan (Revision 3)** [REP4-028] submitted at Deadline 4 which includes the disturbance footprint on a without-prejudice basis. This information will allow the Secretary of State to determine the footprint contributing to Adverse Effect on Integrity should they concur with Natural England's advice.
REP3-129: C18	Initial Relevant Representation - *Full consideration of the likely nature, extent, duration, and significance of impacts upon SPA and SAC supporting habitats is required to inform a robust assessment of the likely impacts upon designated ornithological and marine mammal features. We consider that this has not been adequately undertaken for sites including Flamborough and Filey Coast SPA and the Southern North Sea SAC. (7.09)* Deadline 4 status -No change - The Applicant has indicated that a technical note relevant to this issue will be submitted at Deadline 4.		The Applicants await Natural England's response to the **Effects on Prey Species Technical Note** [REP4-093] issued at Deadline 4. The Applicants also note during a meeting held with Natural England on 8th May 2025, Natural England confirmed they would provide a list of specific data sources regarding effects on prey species to inform any further updates to be provided by the Applicants on this topic.
REP3-129: C24	Initial Relevant Representation - *Natural England advise that a tidal ellipse is used to estimate the zone of greatest influence for sediment plumes for the array area and export cable corridor. We note that the Zone of Influence (ZoI) for suspended sediment has been updated to 8km (6.1, Table 6-1) based on site specific physical processes modelling undertaken. It is unclear as to where the 8km ZoI is derived from.*		The Applicants welcome Natural England's agreement on this matter.

I.D.	Natural England Response	RAG Status	Applicants' Response
	The Applicant should provide further clarity on estimated sediment plume sizes including which values have been used to assess for Changes in Suspended Sediment Concentration and Transport due to Cable Installation (Array, Inter Platform and Export) and smothering and siltation for all relevant parts of the Application. (6.1, 7.08) Deadline 3 status - Issue resolved. We welcome the Applicant's clarification on the Zone of Influence (ZoI) used to inform the impact assessment based on numerical modelling as provided in [REP3-026].		
Benthic Compensation - Detailed comments			
REP4-129: D31	Initial Relevant Representation - *It is not clear if a Dogger Bank CIMP will be required in addition to the Round 4 Plan Level one or the Strategic compensation work. The SNCBs request further clarity is provided from DEFRA and TCE when available.* Deadline 4 status - The SNCBs and DEFRA's view is that the BIMP is undertaken through the MRF process. Therefore there is no need to progress as part of the examination for strategic compensation		No response is required.
Fish and Shellfish Ecology			
REP4-129: E5	Initial Relevant Representation - *The Applicant should utilise sandeel abundance data (such as the North Sea sandeel dredge survey) to support the assessment of impacts on localised sandeel populations (currently only habitat suitability heat maps and drop down video have been used).* Deadline 4 status - No Change. Whilst we welcome the Applicant has provided a figure of the North Sea Sandeel Survey data in Appendix A of their response to Deadline 2 documents [REP3-028], and that this further confirms the presence of sandeel in the array, there is no presentation of data on relative abundance/population distribution within the project area compared to wider region. It is our understanding that abundance indices are available from the NSSS data set and would help to support the assessment of sandeel suitability. Natural England request the Applicant includes these updates in relevant assessments.		The Applicants note there is sampling uncertainty in all sandeel abundance surveys that utilise beam trawl, dredge, and grab sampling techniques. This is due to the ability for sandeel to escape nets and avoid gear by burying into the sediment or swimming into the water column. Text explaining this point is detailed in the MMO/Cefas-approved heat mapping methodology for the OneBenthic data layer, which in itself includes sandeel presence data similar to the NSSS (Reach *et al.*, 2024) *"…sandeel are not always represented by beam trawl samples due to their ability to dive into burrows and escape the net. As such, the sandeel presence dataset is assumed to underrepresent the location of sandeel, as beam trawls may pass over sandeel habitat without collecting specimens. This reduction in precision of the data-layer in comparison to real potential supporting habitat for sandeel will result in a lower confidence than would be expected for a direct sampling method. Where sandeel specimens are collected, these locations are a direct indicator of sandeel supporting habitat…"* The North Sea Sandeel Survey (NSSS) data was previously included in the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105] in response to RR-030: 5.5.7 of **The Applicants' Responses to Relevant Representations** [PDA-013]. As such, the NSSS data was used to indicate presence/absence of supporting habitat rather than variation in abundance. The indices are not easy to interrogate because there is very little existing public information describing the NSSS in detail besides the data download links. Known sandeel grounds in the North Sea are included within the Wright *et al.* (2019) data layer, which were presented in the updated heat maps shown in the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105] and which will be included in the updates to **Chapter 10 Fish and Shellfish Ecology** [APP-091] to be submitted at Deadline 7.
REP4-129: E7	Initial Relevant Representation - *Habitat loss for sandeel and herring from UXO clearance have not been assessed as "specific surveys to identify potential locations of UXO would not be undertaken until the*		As noted in the Applicant's response to RR-039: E 19 in **The Applicants' Responses to Relevant Representations** [PDA-013], a nominal assessment of Unexploded Ordnance (UXO) clearance impacts is included within the assessment of underwater noise impacts within section 10.6.1.4 of

I.D.	Natural England Response	RAG Status	Applicants' Response
	DCO for the Projects is granted". A nominal assessment should be included as has been done for other receptors, e.g. marine mammals and benthic. Deadline 4 status - No change - The Applicant has submitted a UXO clearance information report [REP3-013] at Deadline 3, however Natural England would like clarification on the Applicant's justification for focusing solely on marine mammals for direct injury impacts, and not including fish species.		**Chapter 10 Fish and Shellfish Ecology** [APP-091], with specific impact ranges relating to UXO presented in Table 10-23 of the chapter.
Marine Mammals			
REP4-129: F2	Initial Relevant Representation – *Clarity is needed on how the worst case scenario (WCS) for the maximum number of piles to be installed concurrently in 24 hours across the two arrays will be secured in the dMLs for the separate Projects.* Deadline 4 status - Issue Resolved. Natural England are satisfied that the condition wording captures the WCS as assessed in the original ES which was then reduced as a result of the change request.		The Applicants welcome Natural England's agreement on these matters.
REP4-129: F3	Initial Relevant Representation – *Clarity is needed on the WCS for simultaneous piling across the two arrays in a concurrent build out scenario, and how the dMLs for the separate Projects will secure this.* Deadline 4 status - Issue Resolved. Natural England are satisfied that the condition wording captures the WCS as assessed in the original ES which was then reduced as a result of the change request.		
Offshore Ornithology			
REP4-129: G53	Initial comment - *Presentation of displacement matrices including upper and lower confidence intervals* *Whilst the Applicant has updated their displacement assessment for the arrays combined the relevant tables in ES Appendix 12-12 [APP-115] have not been updated. Natural England advise that ES Appendix 12-12 [APP-115] is updated to reflect the updated displacement assessment figures and that all displacement matrices are presented (for both EIA and the RIAA), including for the upper and lower confidence intervals. Please see Appendix G2, Table 2 for further detail.* Deadline 4 status - No change. Natural England acknowledge the difficulties associated with summing confidence intervals. However, we maintain our previous advice that the Applicant's original method is inappropriate for calculating seasonal peak abundances and thus displacement impacts for the arrays combined (see R&I G6 and G11), which we consider leads to under-representation of impacts on displacement-affected species. We maintain our advice that displacement matrices are provided including upper and lower confidence intervals. Please see Appendix G4 for further detail.		See the Applicants' response to REP4-124: G1.1.1 in **Table 2-23** of this document.
REP4-129: G53	Initial comment - *Cumulative and in-combination totals* *Cumulative impact totals presented in 7.12 ES Chapter 12 [AS-058] and the unapportioned in-combination totals presented in 6.1 RIAA HRA Part 4 of 4 – Marine Ornithological Features (Revision 3) [AS-086] do not always match.* *We advise the Applicant to check the cumulative and in-combination totals for all species. Please see Appendix G2, Table 2 for further detail.*		The Applicants direct Natural England to the Cumulative Effects Assessment provided in **Chapter 12 Offshore Ornithology (Revision 3)** [REP4-032] (submitted at Deadline 4), which was updated to reflect the latest Natural England guidance and Relevant Representations. As noted in Table 12-1 of the chapter, the Applicants reviewed the cumulative and in-combination tables for all species and made updates where necessary. However, much of the apparent discrepancies identified by Natural England are actually due to presentation of estimates derived under previous guidance and how these are updated for current assessments. To make this

I.D.	Natural England Response	RAG Status	Applicants' Response
	Deadline 4 status - Natural England acknowledge the Applicant's response [REP3-028], however, we consider that there is no scientific justification for applying different methods to calculating cumulative and in-combination totals. We therefore advise that the same methods be applied to both sets of calculations, noting that it would be appropriate for the Applicant to present totals for both methods for both cumulative and in-combination totals.		clearer, where appropriate, the tables were updated to provide estimates derived under previous and current guidance for the cumulative and in-combination totals.
Offshore Ornithology Compensation			
REP4-129: H23	Initial comment - *Several locations included have previously been ruled out by other projects (e.g. Hornsea Four). We consider there is a significant risk that all sites on the shortlist will be deemed unsuitable for compensation. Feasibility assessments for the shortlisted sites are needed as a matter of urgency to enable other sites to be explored should these prove unsuitable.* Deadline 4 status - Issue progressed. NE welcome the recent survey work undertaken, albeit this indicates Middle Mouse does not support rats. Worm's Head is now the sole project-led site. We advise that the views of NRW on the feasibility of this location are sought. Given the scale of potential impacts the Applicant's auk compensation will be dependent on strategic delivery on the Isles of Scilly, so we welcome the Applicant's engagement with the initiative. Please see Appendix H4 for detailed comments and H24 below.		See the Applicants' response to REP4-125: H1.3.1 – H1.3.3 in **Table 2-24** of this document. The Applicants also note that the **Guillemot [and Razorbill] Compensation Plan (Revision 5)** [document reference 6.2.2] has been submitted at Deadline 5 to reflect the latest status of auk compensation measures for the Projects.
REP4-129: H24	Initial comment - *Feasibility assessments for the shortlisted sites are needed as a matter of urgency to confirm the presence of predators and suitable auk nesting habitat and to determine the scale of compensation that could be achieved.* Deadline 4 status - Issue Progressed. The recent survey work undertaken has confirmed rat presence at Worm's Head, however further surveys are needed to confirm rats can access areas utilised by guillemot and that physical implementation of the measure is achievable. The advice of NRW regarding the feasibility of measures at this site should be sought. We also have some outstanding concerns regarding how the scale of compensation has been calculated. Please refer to Appendix H4 for detailed comments.		See the Applicants' response to REP4-125: H1.3.1 **Table 2-24** of this document.

2.20 Network Rail Infrastructure Limited

Table 2-29 – The Applicants' comments on Network Rail Infrastructure Limited [REP4-120] responses to Action Points, ExQ1 and Rule 17

I.D.	Network Rail Infrastructure Limited Response	Applicants' Response
REP4-120:1	This update is in response to the action points following the Compulsory Hearing on 7 April 2025. **1 Applicant's response to Network Rail's relevant representation [PDA-013]** 1.1 Network Rail have reviewed the Applicant's response to its relevant representation and its position remains the same.	No response required.
REP4-120:2	**2 Update on the Property Agreement** 2.1 There has been no progress on the property agreement since CAH2. Network Rail are currently waiting for comments from the Applicant following an all parties call on 6 March 2025. 2.2 There are several outstanding provisions yet to be agreed, however two of the main contentious points are in respect of: a) a right to terminate the option agreement on 12 months' written notice in favour of Network Rail; and b) an obligation on the Applicants in the Deed of Easement to cease operating / cut off supply should Network Rail require in the event of an emergency or if Network Rail are undertaking works to the railway. 2.3 These provisions are reflective of Network Rail's standard requirements. It was discussed that the Applicant would provide further details on the design of the HDD which Network Rail could discuss with its asset protection department. Subject to those discussions, the Applicant would then propose alternative drafting acceptable to the Applicant. These details and the updated drafting are yet to be provided. 2.4 Discussions are ongoing with the Applicant and both parties are keen to work through the outstanding issues and complete the property agreement as soon as possible.	During an all parties call on 6th March 2025, Network Rail requested further details on the proposed trenchless crossing of the railway. The Applicants have since focussed on developing more detailed engineering proposals to share with Network Rail. The Applicants do not consider that at this stage that agreement can be reached on the outstanding points within the Property Agreements due to the risk that these pose to the delivery and ongoing operation of the Projects. The Applicants cannot agree to a right to terminate the option agreement on 12 months notice as this would prevent delivery of the Projects. In addition, the Applicants consider that an obligation on the Applicants to cease operating in the event of an emergency or if Network Rail are undertaking works is unnecessary as the Projects' export cables can co-exist with the railway, being installed at a significant depth below the railway. Discussions are ongoing with Network Rail to resolve the position with a further all parties call held on 6th May 2025. It was agreed between parties that the Applicants would produce further detailed engineering drawings for discussion with Network Rail's asset protection team. A call has been scheduled for 16th May 2025 to review and discuss these plans. It is hoped that this will facilitate progress on the outstanding points on the Property Agreements so that agreement can be reached prior to the close of Examination.
REP4-120:3	**3 General Update** 3.1 Negotiations are still ongoing with the Applicant in respect of the protective provisions and framework agreement. An all-parties call is in the process of being arranged to iron out any issues in order for the agreements to be finalised prior to close of Examination.	Discussions are ongoing with Network Rail to resolve the position with a further all parties call held on 6th May 2025. The Applicants are hopeful that progress on the Property Agreement will enable the parties to agree the outstanding points in the framework agreement and protective provisions. In the absence of a completed Property Agreement, the Applicants are unable to accept some of the provisions included in Network Rail's preferred protective provisions including in relation to restrictions on compulsory acquisition powers and the Applicants' ability to exercise certain powers provided for under the Development Consent Order.

2.21 Ørsted IPs

5. The Applicants note that responses have been provided to the Ørsted IPs submission only where it is considered it will assist the examination.

Table 2-30 – The Applicants' comments on Ørsted IPs [REP4-121] responses to Action Points, ExQ1 and Rule 17

I.D.	Ørsted IPs Oral Submissions and Post Hearing Notes	Applicants' Response
REP4-121:1	**1. INTRODUCTION** 1.1 This document summarises the main oral submissions made by Hornsea 1 Limited, the collective of Breesea Limited, Soundmark Wind Limited, Sonningmay Limited and Optimus Wind Limited (together, the "**Hornsea 2 Companies**"), Orsted Hornsea Project Three (UK) Limited, Orsted Hornsea Project Four Limited, Lincs Wind Farm Limited, Westermost Rough Limited and Race Bank Wind Farm Limited (together or in any combination, the "**Ørsted IPs**") at Issue Specific Hearing 3 (ISH3) dealing with Offshore Environmental Matters held on 8 April 2025, in relation to the application for development consent for the Dogger Bank South Offshore Wind Farms (the "**DBS Project**") by RWE Renewables UK Dogger Bank South (West) Ltd and RWE Renewables UK Dogger Bank South (East) Ltd (the "**Applicants**"). 1.2 ISH3 was attended by the Examining Authority (the "**ExA**"), the Applicants and a number of Interested Parties, including the Ørsted IPs. 1.3 This document does not purport to summarise the oral submissions of parties other than the Ørsted IPs, and summaries of submissions made by other parties are only included where necessary in order to give context to the Ørsted IPs' submissions in response. 1.4 Numbered items referred to are references to the numbered items in the agenda published by the ExA on 28 March 2025 **[EV8-001] (the "Agenda"**). The Ørsted IPs made oral submissions under Agenda items 1 and 4 only. Where post hearing notes have been added, those notes are prefixed with "Post Hearing Note" and set out in italics for clarity. 1.5 The Ørsted IPs also note that Deadline 4 of the examination affords an opportunity for Interested Parties to comment on submissions made by the Applicants at Deadline 3 – for the Ørsted IPs, this would constitute comments on the Applicants' Responses to ExQ1 **[REP3-027]**. However, the Ørsted IPs consider that the points they would wish to make in relation to the Applicants' submissions (without simply repeating the submissions made by the Ørsted IPs at Deadlines 1 and 3 of the examination – and, indeed, the Ørsted IPs' position remains as set out in those submissions) are captured in the summary of oral submissions and post hearing notes below. 1.6 The only exception to the approach set out in paragraph 1.5 above is that the Ørsted IPs wish to take this opportunity to provide an update on the negotiations between the Applicants and Orsted Hornsea Project Four Limited in relation to the draft Heads of Terms for a cooperation agreement between the parties. These negotiations are progressing smoothly, with the Heads of Terms largely agreed, meaning that the parties are now proceeding to the drafting of the full agreement. 1.7 Therefore, this document comprises the Ørsted IPs' only submission for Deadline 4.	The Applicants have now agreed Heads of Terms for a Cooperation Agreement with Orsted Hornsea Project Four Limited. The Applicants are preparing a first draft of this agreement and will share with Orsted Hornsea Project Four Limited shortly.
REP4-121:2	In response to submissions made by the Applicants in relation to Leasing Round 4 projects and The Crown Estate ("TCE"), **Alex Tresadern, for the Ørsted IPs**, noted that in the Applicants' Responses to ExQ1 **[REP3-027]**, notably IOU 1.12, the Applicants assert that "*the resolution to this issue [that being wake loss] is for the Projcos and Orsted IPs to accept that the question of wake effects was resolved through TCE's Round 4 leasing process and the 7.5km buffer which was fixed. This approach has been generally accepted by the offshore wind sector, until the wholly*	The Applicants view remains that the trigger for the current focus on wake effects in offshore wind Examinations was the unexpected decision in Awel y Mor in September 2023, rather than a greater industry understanding of wake effects. The issues which Orsted IPs are referring to would have been known understood during the design of Round 4 with The Crown Estate sharing information on the Round 4 process with prospective bidders throughout 2018 and 2019 in advance of launching the

I.D.	Ørsted IPs Oral Submissions and Post Hearing Notes	Applicants' Response
	unexpected outcome of the Awel y Mor decision". The Ørsted IPs disagree with the statement that "this approach has been generally accepted by the offshore wind sector" – this assertion cannot apply to Leasing Round 4 projects given that all of them are currently facing wake loss-based DCO objections. An understanding of the true extent of far-field wake effects (i.e. their extension significantly beyond the 5/7.5km buffers imposed in the Leasing Round 4 process) was only beginning to emerge (from Ørsted's perspective) after those 5/7.5km buffers were established in 2018/19. It was this lack of awareness at the time, rather than the fundamental existence of those buffers, that explains the relative lack of planning disputes prior to the Awel y Mor DCO examination and the Leasing Round 4 projects. *Post Hearing Note: The Ørsted IPs note that the industry understanding of the extent of wake effects has matured considerably since Round 4 leasing. Indeed, Ørsted communicated to the market for the first time on this topic in 2019, warning the market that they had observed wakes persisting much longer than previously assumed. In addition, the Ørsted IPs note that developers have traditionally sought to resolve issues relating to wake impacts outside of the planning process via the established industry norm of reaching commercial agreements.*	Round 4 Invitation to Tender (ITT) in September 2019 and confirming preferred bidders in February 2021. The Applicants are not aware of lobbying of The Crown Estate (TCE) to increase the buffer areas or, for example, to provide a further mechanism to resolve wake concerns in the Round 4 agreement for lease. The Applicants do not accept that compensation agreements are commonly entered into outside of the situation where a new project is within a relevant TCE buffer area.
REP4-121:3	The **ExA** referred to the fact that the Race Bank, Lincs and Westermost Rough Offshore Wind Farms would be located approximately 134km, 154km and 112km respectively from the proposed array areas of the DBS Project, and asked the Ørsted IPs to explain why they consider that there would be likely effects from wake loss from the DBS Project to these wind farms given the distances involved and evidence provided to date. **Alex Tresadern, for the Ørsted IPs**, confirmed that a full response to this question would be provided in writing, but noted that (pursuant to the Ørsted IPs' submissions in the Outer Dowsing Offshore Wind Farm Project examination) it can be the case that a 'small' AEP impact on an asset can have a significant impact on its financial viability, and that (as previously set out) distance is not the only factor in assessing wake loss impacts. *Post Hearing Note: The Ørsted IPs note that this comprises Action Point 11 of the ISH3 Action Points **[EV8-010].** The Ørsted IPs cannot answer this question without a wake loss assessment being undertaken by the Applicants. It may be the case that such an assessment reveals minimal wake loss effects on these assets due to the distances, in which case the Ørsted IPs would consider withdrawing the wake loss objections of these assets (i.e. taking the same approach of certain Ørsted IPs' assets in the Outer Dowsing Offshore Wind Farm Project examination), but in lieu of such an assessment the assets remain part of the Ørsted IPs' portfolio that may suffer wake loss effects as a result of the DBS Project.*	The Orsted IPs have industry leading experts, and a large team of experienced energy analysts. The Applicants are extremely surprised that there is no one capable of making a judgment call on whether a model would predict a wake loss, or indeed whether the results of that model are trustworthy at distances of 100+ kilometres with interceding windfarms.
REP4-121:4	The **ExA** asked the Ørsted IPs to provide a view on wind sector management as a form of mitigation for wake loss effects and how this could be captured by the draft DCO. **Alex Tresadern, for the Ørsted IPs**, confirmed that this information would be provided in writing. *Post Hearing Note: The Ørsted IPs note that this comprises Action Point 20 of the ISH3 Action Points [EV8-010]. Wind sector management refers to the process of adapting a different operating mode on the Applicants' turbines when the wind direction is such that it will cause wake on existing assets. Under normal conditions, turbines aim to operate as efficiently as possible to extract energy from the wind. The more energy that is extracted from the wind, the more the wind speed decreases as it passes 8 through the rotor and, therefore, the higher the wake impacts will be. Turbines can change their operating setting to be less aggressive, hence extracting less energy from the incoming wind with a subsequent reduction of the wake impacts. The changes to operating modes would not be required for wind directions which do not result in wake impacts on neighbouring assets, and would also not be required for low and high wind speeds when the wake impacts are less.*	Wind sector management is, as noted, used for management of loads and sometimes noise, almost exclusively in onshore wind farms. For these purposes it is indeed technically mature. An "off label" use for wake mitigation would have to be contractually agreed with a turbine manufacturer. It is not guaranteed that these modes would be developed or available for offshore turbines as noise and loads issues are both uncommon for offshore. This mitigation, as covered in **Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points** [REP4-099], still fails both the availability and net-positive tests.

I.D.	Ørsted IPs Oral Submissions and Post Hearing Notes	Applicants' Response
	Wind sector management is a technically mature solution that is most commonly used to protect turbines from excessive loads due to upstream obstacles (e.g. mountains) or for turbines to operate in a reduced noise mode. The balance between turbine efficiency and wake impacts is not linear (i.e. a 1% reduction in turbine efficiency for the Applicants would not equal a 1% improvement of the wake impact) and would require a site-specific analysis to determine the cost and benefit of this approach to mitigation. For the Applicants, wind sector management may not prove to be an effective form of mitigation, as there are multiple wind directions which may cause wake impacts on neighbouring assets; however, this should be demonstrated through sitespecific analysis. **Alex Tresadern, for the Ørsted IPs**, noted that, in any event and as set out in the Ørsted IPs' Responses to ExQ1 **[REP3-064]**, the Ørsted IPs cannot make a properly informed judgment on the resolutions sought (including mitigation) without seeing an independent assessment of the wake loss impact on their assets, which the Applicants should provide. It may be that the Ørsted IPs seek a separate commercial agreement (which are commonplace within the industry) with the Applicants on these matters, or it may be that protective provisions on the face of the DCO are sought in lieu of such agreement.	
REP4-121:5	The **ExA** asked the Ørsted IPs to provide details of how the agreements referred to above are commonplace in the industry. **Alex Tresadern, for the Ørsted IPs**, confirmed that this information would be provided in writing. *Post Hearing Note: Whilst the Ørsted IPs cannot provide details of confidential agreements, the Ørsted IPs refer to two submissions made by the Ørsted IPs during the recent examination of the Morgan Offshore Wind Project: (1) the Ørsted IPs' Response to Deadline 3 Submissions **[REP4-048 of that examination]**; and (2) the Ørsted IPs' Responses to ExQ2 **[REP5- 059a of that examination]**. In these submissions, the Ørsted IPs noted that wake effects were openly considered during the consenting process for the Burbo Bank Extension offshore wind farm, the Walney Extension offshore wind farm, and the Hornsea 2 offshore windfarm (which are Ørsted developments). The Ørsted IPs therefore reiterate this position in response to this question from the ExA. In addition, the Ørsted IPs note that, for example, overlaps and impacts in relation to oil and gas infrastructure are dealt with in such a manner, particularly in relation to additional costs deemed to be incurred by owners of existing assets (notably in respect of helicopter access).*	The Applicants have commented in an earlier submission as regards the Hornsea 2 examination. They have been unable to find evidence of the consideration of wake effects in the Burbo Bank Extension and Walney Extension offshore wind farm consenting process. The Applicants request that the Orsted IPs provide further information as to what, exactly, they are referring to, preferably including copies of relevant documents or relevant extracts.

2.22 The Projcos

6. The Projcos submitted **Post-hearing submissions including written summaries of oral cases and other documents requested by the ExA at the Hearings** [REP4-117] at Deadline 4. The Applicants are not proposing to respond in detail to this submission by the Projco IPs (a) to avoid undue repetition of their position through the process and (b) because they made substantial submissions at Deadline 4 in parallel to this submission, in relation to EIA, wake assessment and mitigation in the **Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points** [REP4-099] document. Those submissions are directly relevant to a range of points made by the Projco IPs. The Applicants have also provided answers to the ExA questions on Infrastructure and Other Users (IOU), which relate to a range of wake matters, including policy, wake assessments, mitigation and protective provisions. These include some direct cross references to aspects of this Projco IPs submission.

7. In the circumstances, the Applicants have decided that it makes sense to see the Projco IPs Deadline 5 response to their Deadline 4 submissions and the ExA's IOU questions before responding further. A lack of detailed response should not be taken as conceding on any point.

2.23 Riplingham Estates

Table 2-31 – The Applicants' response to Riplingham Estates Deadline 4 Document [REP4-119]

I.D.	Riplingham Estates Response	Applicants' Response
REP4-119:1	**Statement by Michael Glover.** 1. This statement to the panel follows my last appearance in front of the panel on 14th January 2025. 2. Following my appearance there has been further correspondence and a meeting with Dalcour Maclaren. 3. Unfortunately only limited progress has since been made. 4. In summary my clients concerns are that the voluntary agreement offered does not reflect either the financial or practical consequences of the proposed scheme on our clients land, which is immediately on the urban fringe of Beverley, a popular market town. We have made it clear previously that we totally accept that compensation is not an issue for the Planning Inspectorate; that is a matter for the Upper Tribunal Lands Chamber , but we do feel that the conduct of an applicant for Development Consent Order compulsory purchase powers is a matter that should concern and involve the Inspectorate and a landowner should not have to be expected to have to pursue the matter to that length just to get fair treatment. 5. It is an accepted part of the Compulsory Purchase Code that the exercise of compulsory purchase powers should be a last resort and it should be expected that a body seeking compulsory purchase powers should act in a responsible, fair and realistic manner to seek a voluntary, first and foremost. 6. We have been faced with the argument by Dalcour Maclaren that land on the urban fringe is worth no more than land out in open countryside for similar sized parcels and land quality. That view has been put in writing on behalf of the applicant. It is a view that it is totally at odds with accepted valuation knowledge and experience. My "Black is White" analogy previously submitted to the panel. 7. The proposal also makes no allowance for severance, as the scheme will prevent future access and services being laid over the easement strip. 8. We have written in open correspondence with Dalcour Maclaren but their last two items of correspondence have been expressed Without Prejudice 9. Accordingly it makes it impossible for me to say what we would like to say to this panel today having regard to that correspondence. 10. We and Dalcour Maclaren do agree that the issues here can probably be solved by a workable development clause. 11 Because of the Without Prejudice nature of Dalcour Maclarens recent correspondence I shall set out below the following factual position of our clients. The Panel may then interpret these comments as they may think appropriate having regard to the circumstances, including the above:- a. Our clients will not pay, themselves, for removal of the cables in the event of the land securing development consent.	The Applicants' Land Agent has been having productive discussions with Riplingham Estates agent and the Applicants are confident of reaching an agreement to mutually acceptable commercial terms for an Option and Deed of Grant for the Onshore Export Cable Corridor. The Applicants Land Agents have been in regular contact with the agents acting on behalf of Riplingham Estates and can comment on each point in turn as follows. 2. The Applicants can confirm that there has been further correspondence and that the Applicant's appointed agents, Dalcour Maclaren, met Michael Glover LLP at their offices on 11th February 2025. 3. The Applicants note that limited progress has been made but would reference the comments in 5. below and would welcome further discussion on matters of principal concern to Riplingham Estates. 4. The Applicants note Mr Glover's summary position that the voluntary agreement does not adequately reflect the financial consequences of the Project and notes his confirmation that the Examining Authority (ExA) is specifically prohibited from considering matters of a financial nature. The Applicants believe that the financial terms on offer for a voluntary agreement are fair and reasonable for the acquisition of easement rights for the Cables. If a voluntary agreement cannot be reached, the Applicants acknowledge Mr Glover's position that commercial terms will become a matter for the Upper Tribunal Lands Chamber to consider. 5. The Applicants have been involved in negotiations to secure a voluntary agreement with the Land Interest Group (LiG) and with Michael Glover LLP since November 2023. The Applicant's strong preference is to enter into a voluntary agreement with Riplingham Estates and will continue to work towards this end. 6. The Applicants believe that it has adopted a consistent approach across the Project and that the sum being offered for the easement consideration adequately reflects a 'before and after' valuation based on open market value. The sum being offered is also within the range of the comparables which Michael Glover has provided to Dalcour Maclaren, the Applicant's appointed agent. The Applicants are obliged to point out that commercial negotiations encompass more than just the easement consideration and that the package on offer includes a Development Clause in the case of both the Riplingham Estate and the Los Trustees. In earlier negotiations, the Project varied the route of the Cables to mitigate any impact on future development at the Riplingham Estate. In the case of Los Trustees, the Project accepted the request of Michael Glover LLP at consultation to take the northern route to avoid the proposed household waste facility thereby mitigating impacts. The Applicants believe that the determination of the easement consideration is a financial matter which falls outside the scope of the ExA's terms of reference. The ExA should also note that it is the opinion of the Applicants that agreement on the Development Clause could address the concerns being raised by Mr Glover in respect of loss of development potential. 7. The Applicants welcome the clarity which has been provided in this response in relation to "severance" and is open to constructive engagement with Michael Glover LLP to address issues of specific concern. The Applicants are of the opinion that severance cannot be assessed until such time as development proposals are realised or entry for construction is taken. The Applicants would suggest that these issues are best addressed in the context of a review of the template legal documentation by the respective legal representatives.

I.D.	Riplingham Estates Response	Applicants' Response
	b. Our clients will not pay, themselves, for their own solicitors to appraise and comment on a development claus , particularly where one has clearly been drafted by solicitors. c. Our clients will not accept that having the cost of the development clause being inspected by their own solicitors should only be reimburseable conditional on entry into a voluntary agreement. The whole point of having a development clause inspected/settled by legal counsel is to try and reach an agreement to be able to enter into a voluntary arrangement. d. Our clients will not accept a development clause that effectively allows avoidance of either removal of the cables or avoidance of addressing compensation in the event that they cannot be removed. e. Our clients have no problem with being under an obligation to try to design development proposals that try to incorporate land uses (within planning policy requirements) that would allow the cables to stay in place- eg public open space but will not agree to a clause which allows an easement holder (Grantee) to significantly delay and frustrate the Grantors development proposals. We also feel that the reasonable extra costs of complying with an easement holders requirements should be indemnified by the Grantee. In the meantime, the approach previously referred to (and evidenced) by Gladman Developments Ltd is being progressed and they may have to be a party to any voluntary agreement as they are likely to have a legal interest in the land. My last letter to Dalcour Maclaren (my letters /email correspondence have always been open correspondence to date) was on the 25th March 2025. A without prejudice response has been received on 1st April 2025. I intend to respond shortly in a factual manner, appropriate in the circumstances to responding to without prejudice correspondence but getting across the fact that our clients are diligently and we believe fairly seeking a voluntary agreement. We would intend to lodge our open recent correspondence with the panel as evidence We would really welcome sensible and productive discussions. At the hearing on 5th April 2025 we further stated that a promotion agreement with Gladman, a land promotion company was being advanced and I pointed out that Gladman choose their sites carefully- where they feel that there is a good chance of securing planning permission. I pointed out that an unallocated site in Swanland, a west Hull satellite village, had been promoted for our clients by Gladman and had secured residential planning permission on appeal (and following a judicial review brought by East Riding of Yorkshire Council, which the council lost) and we had subsequently sold it for £18,436,557.00 on 31-10-2023.	8. The Applicants can confirm that the last two items of email correspondence from Dalcour Maclaren, dated 13th March 2025 and 1st April 2025, were expressed on a Without Prejudice basis. Copies of these emails are appended to this Response. The position set out in these emails has been confirmed subsequently to Michael Glover LLP in open correspondence. 9. The Applicants would refer to its response in 8 above. 10. The Applicants welcome the confirmation that a Development Clause may represent a way forward and looks forward to working with Michael Glover LLP to agree provisions acceptable to both parties. 11. The Applicants would refer to its response in 8 above. a. The Applicants believe that statement is incorrect. The position has been changed in the latest iteration of the Development Clause which was sent to Michael Glover LLP on 13th March 2025. The latest iteration in circulation envisages that the cost of any relocation of infrastructure (assuming this option were to be taken) would be at the expense of the Applicants and not the Riplingham Estate. b. Noted. In their email of 1st April 2025, Dalcour Maclaren confirmed that the Applicants would reimburse the Estate's reasonable legal costs. As set out in 8 above, the position set out in the email of 1st April 2025 has been confirmed subsequently to Michael Glover LLP in open correspondence. c. The Applicants believe that statement is incorrect. Again, in their email of 1st April 2025, Dalcour Maclaren confirmed that the Applicants would reimburse the Estate's reasonable legal costs with no conditionality on acceptance of terms. As set out in 8 above, the position set out in the email of 1st April 2025 has been confirmed subsequently to Michael Glover LLP in open correspondence. d. The Applicants believe that this is not the intention of the Development Clause and is happy to provide further clarity in the legal review process of the Development Clause. e. The Applicants welcome the commitment by Michael Glover LLP to work with the Applicants on the design of development proposals. Again, the Applicants believe that it is not the intention of the Development Clause to frustrate or unreasonably delay development proposals. The Applicants are not aware that these concerns have been raised previously and would suggest that matters relating to Grantor's Obligations are best addressed in a review of the template of the draft Option Agreement and Deed of Grant by the respective legal representatives. The Applicants note the potential interest of Gladman Developments Ltd and would request further information regarding "the approach previously referred to (and evidenced)". The ExA should note that the correspondence which has been submitted by Michael Glover LLP makes limited specific reference to the Los Trustees. The Applicants would request that Michael Glover LLP confirm their position in respect of the Los Trustees separate from that of the Riplingham Estate. It is the understanding of the Applicants that the approach by Gladman Developments Ltd relates solely to the Riplingham Estate. The Applicants would request that Michael Glover LLP confirm this position. These points have already been covered above, principally in point 8. The Applicants and its appointed agents, Dalcour Maclaren, share the sentiment of sensible and productive discussions and remain committed to working towards a voluntary agreement.

2.24 Royal Society for the Protection of Birds

Table 2-32 – The Applicants' comments on Royal Society for the Protection of Birds (RSPB) [REP4-113] responses to Action Points, ExQ1 and Rule 17

I.D.	Question	RSPB Response	Applicants' Response
REP4-113:1	ISH5 Action No. 5 Respond to Dr Trinder's (the applicants) comments during ISH5 on the applicants' quality assurance of the digital aerial survey	• The RSPB note that while the digital aerial survey data undergoes internal QA by the survey provider, there is no independent external quality assurance. Dr. Trinder accepted this but pointed out that this had been carried out previously and that it "essentially failed to find any significant biases". The RSPB was not aware of this independent assessment and would be grateful if more detail could be provided to the Examination of this QA process and the results. • The RSPB also note although NE guidance (Parker et al. 20221) does not include an explicit requirement for external quality assurance, it does say: "Increasing clarity on the validation of data and results would increase overall confidence in the dataset and provide assurance in the interpretation, which could reduce the need for precaution during examination." While that does not specifically suggest a need for external QA it does raise the need for increased clarity on QA and data validation – an obvious way of doing this would be to introduce independent external QA. • The RSPB position on DAS has been informed by a NatureScot review (https://www.nature.scot/doc/offshore-wind-ornithological-impact-assessment-review-digital-aerial-survey-methods) produced by a sub-group of NatureScot's Scientific Advisory Committee, which RSPB was a member of. The review was published in January 2023. As such, it was published after the majority of the Applicant's Digital Aerial Surveys had been completed and the Expert Topic Group meetings where the method was discussed. Hence why our comments were made subsequent to any ETG agreement.	The Applicants direct the RPSB to responses AS-173: OR.1.51a - AS-173: OR.1.51e in **The Applicants' Responses to RSPB's Deadline 3 Additional Submission** [document reference 15.4], which provide responses to the RSPB's follow-up queries on Digital Aerial Surveys.
REP4-113:2	ISH5 Action No. 14 Respond to the applicants' comments during ISH5 on their reasoning for the reduction from three to two breeding seasons to achieve compensation for kittiwakes in advance of first operation of the proposed development.	The RSPB has reviewed the Applicant's comments during ISH5 on their reasoning for the reduction from three to two breeding seasons to achieve compensation for kittiwakes in advance of first operation of the proposed development (ISH5, Transcript 1, pages 31-32). The RSPB has noted that the Applicant has committed to provide a written summary of its oral submission at Deadline 4, with particular reference to its logistical reasons for requiring a reduction in the number of breeding seasons. The RSPB will review the Applicant's written submission and, if necessary, aim to respond at Deadline 5. In respect of its submission on matters relating to mortality debt, the RSPB's view remains the same as set out in its response to question OR.1.26 in our response to ExQ1 (see REP3-066).	The Applicants direct the RSPB to paragraph 221 of **The Applicants' Written Summaries of Oral Submissions made at CAH2, ISH3, ISH4 and ISH5** [REP4-086] submitted at Deadline 4.
REP4-113:3	ISH5 Action No. 19 Respond to the applicants' comments during ISH5 on auk compensation.	The RSPB has reviewed the Applicant's comments during ISH5 on auk compensation (ISH5, Transcript 2,pages 4-10). In particular, these relate to: • Updates on the project's surveys of Worms Head and Middle Mouse;	The Applicants note RSPB's concern over the public availability of the information on number of nesting spaces at Middle Mouse and Worms Head. However, the Applicants maintain that this information has significant commercial value and do not at this stage intend to enter unredacted versions into examination. The Applicants **Isles of Scilly**

I.D.	Question	RSPB Response	Applicants' Response
		• Publication of redacted information on the Applicant's assessments of the capacity of suitable nesting habitat for Worms Head, Middle Mouse and the Isles of Scilly; • Discussion of the Isles of Scilly Predator Eradication scheme more generally. In respect of the updates on the project surveys of Worms Head and Middle Mouse, their content and their availability to the examination, the RSPB refers the Examining Authority to its answer to our answer to question OR.1.29 in our response to ExQ1 (see REP3-066). Nothing in the Applicant's comments change our position at this time. We note that some of this information may only be available right at the end of the examination. We welcome the discussion relating to the publication redacted information on the Applicant's assessments of the capacity of suitable nesting habitat for Worms Head, Middle Mouse and the Isles of Scilly. We welcome and note the Applicant's commitment to publish its assessment in respect of the Isles of Scilly. However, we remain concerned that similar information in respect of Worms Head and Middle Mouse may not be provided. Without transparency on this information, it will remain impossible for the RSPB to advise the Examining Authority as to whether the Applicant's statements that these locations would be capable of meeting different levels of predicted impacts on Guillemots and Razorbills from the Flamborough and Filey Coast SPA are correct. We have noted the discussion in respect of the mechanism by which Dogger Bank South may access a future Isles of Scilly Predator Eradication Project. We will await further information and clarity, when that is available, before commenting further.	**Guillemot and Razorbill Survey and Habitat Assessment** (REP4-097) has been submitted into the examination and provided to the Isles of Scilly Seabird Recovery Partnership (of which RSPB is closely involved). With regards to the Isles of Scilly, the Applicants understand that Offshore Wind Industry Council's (OWIC) intention is to support, through an interim industry-led fund (which the Applicants would contribute to), the works required to inform a robust eradication plan for the Isles of Scilly, including seabird habitat assessment, rat distribution mapping and rat genetic testing. OWIC have procured the legal services required to develop this. It is also the Applicants' understanding that Defra then intend to deliver the eradication via the MRF, which the Applicants would contribute to.
REP4-113: OR.1.3	OR.1.3 - **Displacement, mortality and apportionment values for razorbill and guillemot on the FFC SPA** For the assessment in the Guillemot [and Razorbill] Compensation Plan [AS-089] relating to the razorbill and guillemot features of the FFC SPA, which values of displacement, mortality and apportionment presented in the RIAA [AS-085], should the ExA rely on for its recommendation and ultimately the SoS rely on were they to decide AEoI for razorbill and guillemot on the FFC SPA? Justify your response with evidence.	The RSPB does not believe that a single value can be used in assessment for displacement and mortality rates and believes that the use of a range of values follows the correct application of the precautionary principle. As such, we consider that the approach advocated by Natural England to be a measured and reasonable response to the considerable uncertainty inherent in the assessment procedure and that the spurious accuracy of single estimates of displacement and mortality is contrary to the European Commission's Precautionary Principle guidance. The precautionary principle exists for situations where scientific data does not exist or is incomplete and therefore it is not possible to complete a full evaluation of the possible risks a plan, project or activity may cause to the environment, including possible danger to humans, animal or plant health, or to the environment in general. The European Commission's Precautionary Principle Guidance1 states that it should apply when a phenomenon, product or process may have a dangerous effect, identified by a scientific and objective evaluation, if this evaluation does not allow the risk to be determined with sufficient certainty. As such the degree of precaution applied to an evaluation, or assessment, can be seen to be directly proportional to the extent of scientific uncertainty inherent in that assessment. As the guidance goes on to recommend, "The implementation of an approach based on the precautionary	The Applicants consider they have set out their position on these and other matters and where they remain in disagreement with the RSPB's and Natural England's positions (e.g. REP3-028, REP3-030). Please note that the Applicants have presented the assessment in line with the statutory guidance provided by Natural England and, the above disagreements notwithstanding, the Applicants consider it is unlikely that agreement will be reached on this matter.

I.D.	Question	RSPB Response	Applicants' Response
		principle should start with a scientific evaluation, as complete as possible, and where possible, identifying at each stage the degree of scientific uncertainty." As there can be "almost as many definitions of uncertainty as there are treatments of the subject"2, following Masden et al. (2015)3, the RSPB defines it as a lack of knowledge, or incomplete information about a particular subject. Masden et al., (Ibid.) and subsequently Searle et al. (2023)4identified a hierarchy of uncertainty in offshore wind farm assessment. This included not only the uncertainty arising from scientific knowledge but uncertainty arising more strategically from the process of assessment itself, such as uncertainty within language and decision-making. Included within this process, uncertainty can be considered as anything that increases the difficulty in reaching firm and robust conclusions, including linguistic uncertainty such as where doubt is raised as to the robustness of the evidence underpinning the recommended assessment process. Crucial to the understanding of the application of the precautionary principle to the assessment of offshore wind farms is the need for precaution to be proportional to the scientific uncertainty. As there is considerable uncertainty at each stage of the assessment process, so there is a need for a proportionate degree of precaution to be applied. The Applicant argues that because there is application of precaution at each stage of the assessment that this is multiplied throughout the stages of assessment. While it is true that precaution can be magnified by the process, if handled incorrectly, a framework of end-to-end uncertainty can overcome this problem, as advocated by Searle et al (2023)5. However, rather than adopt this approach, the Applicant focuses on criticising, and sometimes misinterpreting, the scientific advice of Natural England. A key example of this is in the discussion of displacement. The Applicant highlights what they consider the overly precautionary nature of the displacement and mortality rates advocated by Natural England, but do not acknowledge that these are the upper limits of a range of impact scenarios. The reason for this range is the amount of uncertainty inherent in displacement analysis, and currently the most suitable means of incorporating this uncertainty is by using a range of values. Much of the uncertainty in displacement rates comes from the variability in recorded displacement rates, which a recent meta-analysis described for auks in multiple studies as being between 0-70% (Lamb et al, 2024).6 This range of values will be due to a number of factors, but it is likely the main driver will be the inherent dynamism of the marine environment. As such, reliance on studies carried out at a single site, should be avoided. For example, Trinder et al., (2024)7 reported no displacement of auk species within a single site, Beatrice wind farm in the Moray Firth, whereas the above meta-analysis across 15 sites with auks present, reported that 65% of these studies detected an effect. So, while the current advice is to use a range of displacement rates to capture this inherent variability, the Applicant has highlighted only the upper limits of the range in order to highlight a perceived overly precautionary approach, whereas the Lamb et al (2024) study highlights that these are within the probable range of displacement effects.	

I.D.	Question	RSPB Response	Applicants' Response
REP4-113: OR.1.5	OR.1.5 - **Seasonal abundance, apportioning and displacement risk for guillemot** Can you respond to the Applicants' statement in the RIAA [AS-085, paragraph 236] that based on NE's guidance to estimate seasonal abundance and apportioning for guillemot? *'…over 73% of the FFC SPA guillemot population is apparently present on all UK wind farms through the course of the year and at risk of displacement, despite the fact that offshore wind farms actually make up approximately 6% of the area within 300km of the FFC SPA…. It is not difficult to envisage that, with the addition of a small number of wind farms the current assessment methods could predict more birds are at risk of displacement than are present in the population.'*	The distribution of seabirds at sea is neither evenly spread nor static. Digital Aerial Surveys capture a snapshot of bird usage of a relatively small area within the wider ocean in one moment of time. It does not capture the dynamism of the birds usage of the ocean, which will be influenced by both location of breeding areas and location of foraging sites. The latter will be subject to a suite of drivers, including water depth, temperature, stratification, benthic substrates and oceanic currents. This means that the birds captured within the snapshot will be in constant movement across large areas of the ocean and it is entirely plausible that the birds will at some point be at risk of the consequences of distributional change in response to the presence of a number of, or even all, windfarms in the North Sea. It is somewhat misleading to imply that the recommended guidance means that 73% of the population will be present within a wind farm at a given point in time. An important source of uncertainty in assessment arises through turnover; that is, variation in space use over time between individuals, and patterns of nest attendance within breeding pairs. This means a key limitation in the current approaches to assessment is that estimates of abundance derived from at-sea survey data are liable to underestimate the true population of birds likely to be at risk of displacement and barrier effects from an offshore wind farm as a result of turnover. For instance, interactions between seabird populations and wind farms may be driven by a limited number of individuals from a population interacting frequently with a wind farm (large impacts on a small proportion of the population), as indicated by Peschko et al. (20208 ; 20219) in guillemots and gannets, or alternatively by many individuals interacting only occasionally with an offshore renewable development (small impacts on a large proportion of the population), as indicated in kittiwakes by O'Hanlon et al. (2023)10. Quantifying and reducing this source of uncertainty requires empirical data on the turnover of individuals in key locations within and around wind farms and on how turnover is driven by the level of fidelity in foraging locations within and across individuals. It is therefore critical to estimating how wind farms may potentially generate population-level impacts through their impacts on individual birds. However, at-sea surveys do not collect individual-based data and so cannot capture information on temporal change at the individual level. As a consequence, the approaches used in assessments attempt to adjust for these uncertainties and potential under-estimates by, for example, when calculating inputs to the Displacement Matrix, using the seasonal maximum of monthly abundance estimates. This means that the estimates of usage can on first glance seem implausible (73% of the population present on 6% of the sea!), but in the context of the dynamic nature of seabird distributions and the issues around turnover, represent an appropriate method to account for uncertainty and provide a proportionate level of precaution.	The Applicants disagree with the RSPB's statement that the in-combination sum of displacement which is equivalent to 73% of the Flamborough and Filey Coast (FFC) Special Protection Area (SPA) population is misleading. The Natural England guidance on in-combination assessment is to sum the impacts across wind farms and that is what this figure represents. However, the RSPB also suggest this figure could be an underestimate due to turnover of individuals, meaning that the factor 12 difference between seabird abundance on wind farms and the area covered could be even higher. It is acknowledged that seabird distributions are not homogenous, but none of the arguments made by the RSPB contradicts the Applicants' position that the in-combination totals are a clear indication that the over precaution which has been applied to each wind farm (as required by following statutory guidance) results in a highly improbable in-combination total. The Applicants consider they have set out their position on these and other matters and where they remain in disagreement with the RSPB's and Natural England's positions (e.g. REP3-028, REP3-030). Please note that the Applicants have presented the assessment in line with the statutory guidance provided by Natural England and, the above disagreements notwithstanding, the Applicants consider it is unlikely that agreement will be reached on this matter.
REP4-113: OR.1.6	OR.1.6 - **Seasonal abundance, apportioning and displacement risk for razorbill**	Please refer to the RSPB's response to OR.1.5. above.	See the Applicants response to REP4-113:5 above.

I.D.	Question	RSPB Response	Applicants' Response
	Can you respond to the Applicants' comment in the RIAA [AS-085, paragraph 314] that based on NE's guidance to estimate seasonal abundance and apportioning for Razorbill? *'…suggests that 40% of the FFC SPA razorbill population is apparently present on UK wind farms through the course of the year and at risk of displacement. This highlights the precautionary basis of the methods used to estimate seasonal abundance and apportioning since offshore wind farms make up approximately 6% of the area within 300km of the FFC SPA… Indeed, it is not difficult to envisage that, with the addition of a small number of wind farms the current assessment methods could predict more birds are at risk of displacement than are present in the population.'*		
REP4-113: OR.1.9	OR.1.9 - **PVAs** 1. Are NE and the RSPB satisfied with the PVAs undertaken for kittiwake from the FFC SPA and presented by the Applicants in the RIAA [AS-085]? Can you explain your response? 2. Can the Applicants respond to NE's advice [AS-159] that you should: a) Check the results of all PVA scenarios run for the assessment? b) Use the most recent population estimate for kittiwake at the FFC SPA as the starting population for PVAs run for this population? c) Clearly present the inputs and outputs for all PVA scenarios so that the specification and parameterisation of the models can be fully understood and assessed, including the log files for all PVA scenarios undertaken? Consider realistic assessments of current and future seabird population trends, considering all relevant evidence, when assessing the significance of the predicted impacts of the projects, such as the approach taken by Sheringham and Dudgeon Extension Projects Offshore Wind Farm (OWF) Development Consent Order (DCO) application in considering a range of potential future growth rates?	The RSPB acknowledge that the Applicant has provided an updated PVA in Annex A of RIAA HRA Part 4 of 4 – Marine Ornithological Features (Revision 3) [AS-085], that to some extent supersedes the version that NE's advice is related to. However we note from the Applicant response in REP3-027 that they are carrying out further review of their results and will report on this review at Deadline 4. The RSPB will respond fully to this question after we have the opportunity to review the relevant Applicant's submissions at Deadline 4. The RSPB do however agree with the Applicant that as the kittiwake population of the Flamborough and Filey Coast SPA is already subject to Adverse Effect on Integrity due to in-combination impacts, the results of the PVA will not materially affect conclusions as to the significance of impacts.	The Applicants welcome the RSPB's agreement that the results of the Population Viability Assessment (PVA) will not materially affect conclusions as to the significance of impacts.

I.D.	Question	RSPB Response	Applicants' Response
REP4-113: OR.1.18	OR.1.18 - **Kittiwake compensation quantum** 1. Can you provide comment on the Applicants' apportioned impact as presented in the RIAA [AS-085] and Project-level Kittiwake Compensation Plan [REP2-010]? Could NE elaborate on the evidence for the case of using the upper 95% upper confidence limit vs the mean, and 100% vs 53% adult apportionment?	The RSPB welcomes the Applicants presentation of apportioned impacts both in alignment with Natural England's advice, with 100% adult apportioning to SPA colonies, and using their own, preferred, stable age structure approach. The RSPB agree with the approach of 100% SPA apportionment and believe it to provide a level of precaution proportionate to the extent of uncertainty. The RSPB also agree with Natural England's recommended approach of using 95% upper confidence limits as opposed to the mean as this provides a level of precaution proportionate to the extent of uncertainty.	The Applicants note the RSPB's comments on these matters and that they are aligned with Natural England's position. For the avoidance of doubt the Applicants consider 100% adult apportioning to the SPA and use of the upper 95% confidence intervals to introduce unwarranted levels of over-precaution into the assessment, as discussed previously in the **Precaution in the Ornithology Assessment and Implications for Compensation Quantum** [REP3-030], submitted at Deadline 3.
REP4-113: OR.1.37	OR.1.37 - **NPS EN-3 in relation to offshore ornithology** Looking at the evidence in front of the Examination at this time, what is your position in respect of the following tests in NPS EN-3 (which the ExA must consider in its recommendation to the SoS)? a) '*The Secretary of State may consider that monitoring of any impact is appropriate owing to the complex nature of offshore wind development, and the difficulty in establishing the evidence base for marine environmental recovery'*. NPS EN-3 paragraph 2.8.296. b) '*The Secretary of State must be satisfied that displacement assessments have been conducted to a satisfactory standard having had regard to the advice from the relevant statutory advisor'*. NPS EN-3 paragraph 2.8.315. '*The conservation status of seabirds is of relevance and the Secretary of State should take into account the views of the relevant statutory advisors and be satisfied that cumulative and incombination impacts on seabird species have been considered'*. NPS EN-3 paragraph 2.8.316.	a) The RSPB highlight the monitoring work being carried out in the Forth and Tay region of Scotland, overseen by the Forth and Tay Regional Advisory Group, as being the standard of monitoring that should be aspired to. This work includes: • Digital Aerial Survey, pre, during, and post construction; • Enhanced monitoring at SPA colonies potentially impacted; • Tagging and tracking of seabirds from impacted SPA colonies; • An integrated radar and camera monitoring system to record seabird reactive behaviour in the vicinity of turbines and collision events. b) The RSPB notes that Natural England, as the relevant statutory adviser, has referred to its outstanding concerns with the in-combination and cumulative assessments (OR.1.37, REP3-057). The RSPB also highlight our own concerns, and the need for precaution in assessment, as described above. c) The RSPB notes that Natural England, as the relevant statutory adviser, has referred to its outstanding concerns with the in-combination and cumulative assessments (OR.1.37, REP3- 057). The RSPB also refers the Examining Authority to its answer to OR.1.41 (REP3-066) in relation to the importance of understanding the population level status of relevant species of seabird. This provides general background to help understand the conservation importance and status of an SPA's breeding seabird features, placing the predicted impacts in proper context.	a) - The Applicants consider the most appropriate time to have detailed discussions on monitoring is post-consent, at which time the Applicants will engage with relevant stakeholders to develop and agree monitoring that will maximise benefit to the wind farm industry through the collection of data designed to reduce uncertainty and hence precaution in future impact assessments. The Applicants do not consider it appropriate to begin that process prior to consent award. b) & c) - The Applicants consider they have set out their position on these and other matters and where they remain in disagreement with the RSPB's and Natural England's positions (e.g. as detailed in Table 2-13 of **The Applicants' Responses to Deadline 2 Documents** [REP3-028], Table 2-12 of **The Applicants' Comments on the Responses to ExQ1** [REP4-087] and the **Precaution in the Ornithology Assessment and Implications for Compensation Quantum** [REP3-030]). However, please note that the Applicants have presented the assessment in line with the statutory guidance provided by Natural England and given due consideration to the conservation status of these species, in particular those that are features of designated sites (i.e. SPAs). In summary, the Applicants consider that a robust and appropriate ornithological impact assessment has been presented for the Projects which passes all the tests in NPS EN-3.
REP4-113: OR.1.50	OR.1.50 - **Collision risk modelling and associated parameters in the draft DCO** Following on from written question OR.1.50, do you believe the rotor wind swept area should be included as a parameter in the draft DCO as per other made orders for other offshore windfarms such as Sheringham and Dudgeon and Awel y Môr?	The RSPB agree with Natural England that that the maximum rotor swept area should be secured in the DCO, as has been done on other offshore wind farm projects such as Sheringham and Dudgeon and Awely Môr. Any changes to the rotor swept area would affect all collision impacts, but particularly for kittiwake from FFC SPA, which is already subject to Adverse Effect on Integrity due to in-combination impacts.	The Applicants maintain the position set out in the response to this matter provided to OR 1.49 in **The Applicants' Responses to ExQ1** [REP3-027]: *Requirement 2 of the **Draft DCO (Revision 6)** [document reference 3.1] includes restrictions on both the number and diameter of turbines permitted to be constructed. It states that the number of wind turbine generators in respect of the DBS East Project offshore works must not exceed 100 and in respect of the DBS West Project offshore works must not exceed 100. It also limits the rotor diameter of each turbine to 344.08m, as well as containing restrictions on the height and spacing of*

I.D.	Question	RSPB Response	Applicants' Response
			the turbines and the minimum air gap. It is therefore not considered to be necessary to also secure the rotor swept area.
REP4-113: OR.1.52	OR.1.52 - **New research findings** At least two scientific research papers that may be relevant to the offshore ornithology assessment have been published since the submission of the application - do either of these or any other recent research have any implications for the assessments reported by the Applicant for the EIA and HRA? (1: Davies, JG et al, Influence of wind on kittiwake Rissa tridactyla flight and offshore wind turbine collision risk. Marine Biology 171, 191 (2024). 2: Pollock, CJ et al, Avoidance and attraction responses of kittiwakes to three offshore wind farms in the North Sea. Marine Biology 171, 217 (2024).)	The RSPB welcome both these research papers. They report on valuable, rigorously designed research, carried out and reported well, using advanced technological and analytical methodologies. However, both papers highlight that current assessment methods are a simplification of a complex situation, and while they highlight and inform our understanding of that complexity, the results cannot be immediately incorporated into these assessment methods, a point explicitly acknowledged by the authors of Pollock et al. who say the results cannot "*feed directly into the way current impacts are assessed, due to their behaviours being more nuanced than such assessments allow for*". Both papers describe the complexity and nuance of kittiwake reactive responses to the presence of turbines and highlight the consequent uncertainty in impact prediction. These conclusions highlight the need for precaution in assessment, as a proportionate response to the uncertainty arising though variability in behaviours. Other recent and relevant research paper are included in above responses.	No response is required.

2.25 Stephen Mounce

Table 2-33 – The Applicants' response to Stephen Mounce Deadline 4 Documents [REP4-100 and REP4-101]

I.D.	Stephen Mounce Response	Applicants' Response
REP4-100:1	I am responding to the above consultation as an Interested Party (20050002) and providing some further input based on my interest in Burton Bushes and the Westwood (see background in Appendix 1). At the last oral hearing on the 9th April (01:58:46), the following query was raised: "*And finally, then for the Burton Bush's answer, you briefly mentioned that earlier. Given the location of the Burton buses, triple C is within 250m of the proposed development. Should the potential for geological effects be assessed and reported on.*" Caroline Martin for the applicant. "*Um, it's not it. It's not anticipated the triple S will be impacted due to the construction or operation of the project. So we've not slept. We've not set it in chapter 19. Um. It doesn't it doesn't overlap with the, um, project corridor. Um, there's no no potential contamination pollutant linkages. Um, therefore it's not there isn't a potential viable there's not a viable way that it would be impacted by the construction or operation of the project.*" I would contend the response for the Applicant is insufficient and the lack of assessment not satisfactory.	Applicants acknowledge the additional information provided in REP4-100 Appendix 1. The Applicants would like to refer to previous responses provided to Dr Stephen Mounce as a number of these matters have been responded to previously within the below documents: • The Applicants' Responses to Written Representations (Table 2.15) [REP2-057]; and • Applicants Response to Relevant Representations (Table 7.5) [PDA-013]. The Applicants confirmed at the ISH4 and within the Written Summaries of Oral Submissions of ISH4 [REP4-086] that there is no viable pathway for the Burton Bushes Site of Special Scientific Interest (SSSI), located approximately 120m from the Onshore Export Cable Corridor and 1.2km from the nearest Temporary Construction Compound (TCC) to be impacted. Therefore, Burton Bushes SSSI has not been assessed in **Chapter 19 Geology and Land Quality** [APP-158]. The justification for this is provided below. Beverley and the Onshore Export Cable Corridor are located on glacial till which in turn is underlain by chalk as indicated on **Figure 19-6c** of **Chapter 19 Geology and Land Quality Figure 19-1 to Figure 19-9 (Revision 3)** [REP4-038]. Geological records to the northeast of Burton Bushes indicate the glacial till to be up to 7m deep and to the west up to 5.50m deep (where fully penetrated). The citation for Burton Bushes states that 'The undisturbed nature of the soil profile is an important feature of the site' and that the woodland is characteristic of the Holderness Till soil. However, it is important to note that Burton Bushes has been notified by Natural England for its woodland feature and not for its geological interest. The land to the west of Burton Bushes where the cable corridor is located is agricultural land and near surface soils have been disturbed through agricultural activities and are therefore no longer undisturbed. During the construction and operational phase, the activities will not interact with the shallow soil profile underlying Burton Bushes SSSI which is notified for its woodland feature. The construction phase will only interact with agricultural soils and the shallow underlying glacial till which underlies the Onshore Export Cable Corridor. There is no activity being undertaken which could potentially cause an interaction with the shallow soil profile underlying Burton Bushes as the geology is glacial till which is generally formed of clay of limited permeability. Therefore, as previously stated, there is not considered to be a hydrogeological connectivity between the Projects and the Burton Bushes SSSI, approximately 120m away. In the absence of a viable route by which an impact would occur to Burton Bushes the risk to this receptor has not been assessed in relation to **Chapter 19 Geology and Land Quality** [APP-158]. It is also important to note that Hull Geological Society and the East Yorkshire Regionally Important Geological Sites (RIGS) group[40] do not list Burton Bushes as being designated as a RIGS, a Geomorphological Site or as being a Geological SSSI. The site is designated in relation to its woodland not in relation to its geological significance hence why it has not been assessed in **Chapter 19 Geology and Land Quality** [APP-158].
REP4-100:2	While undergrounding power lines is often done to reduce visual impact and can have fewer landscape effects than overhead lines, it is not impact-free – especially not in an area rich in ecological and cultural significance. Each of the potential impacts identified (soil, water, woodland, archaeology) needs to be acknowledged and mitigated with evidence-backed	A comprehensive study on the potential likely significant impacts of the Projects for those topics which have been identified, is provided in the following Environmental Statement (ES) chapters: • **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019];

[40] Hull Geological Society and the East Yorkshire RIGS Group. Available at: [redacted] [accessed May 2025].

I.D.	Stephen Mounce Response	Applicants' Response
	measures. Only with such comprehensive planning can one confidently say the project will have "no significant impacts" on the surrounding SSSI, ancient woodland, or archaeological resources.	• **Chapter 19 Geology and Land Quality** [APP-158]; • **Chapter 20 Flood Risk and Hydrology (Revision 3)** [document reference 7.20]; and • **Chapter 22 Onshore Archaeology and Cultural Heritage (Revision 2**) [AS-092]. Further details are provided in the following responses.
REP4-100:3	The proposed overland corridor is now given around a 100 to 125m gap whilst circling around Burton Bushes and the Westwood (approximate, no ruler on the online map at https://interactivemap.doggerbanksouth.co.uk/). So we know that the cable trenching and construction (of temporary construction compounds) will potentially occur within 150 meters of three sensitive receptors: a Site of Special Scientific Interest (SSSI), an area of ancient woodland, and known archaeological remains (Burton Bushes). The applicant has asserted that geological effects need not be assessed and claims there will be no significant construction or operational impacts. However, given the proximity to these sensitive sites, a careful review of potential risks is warranted. Some of these issues are briefly touched upon below:	The Applicants have considered the Deadline 4 response provided by Dr Stephen Mounce and have provided additional details in the responses below. As stated in REP4-100.2 a comprehensive study on the potential impacts on all ecological and archaeological receptors has been undertaken. Burton Bushes SSSI and Beverley Westwood Local Wildlife Site (LWS) is located approximately 120m from the Onshore Export Cable Corridor. Potential construction effects are controlled through the measures given in the **Outline Construction Traffic Management Plan (OCTMP) (Revision 3)** [REP4-046], **Outline Ecological Management Plan (OEMP) (Revision 5)** [REP4-042] and the **Outline Code of Construction Practice (OCoCP) (Revision 4)** [REP4-040]. When the construction works are complete the Onshore Development Area will be reinstated and above ground infrastructure along the Onshore Export Cable Corridor limited to the above ground manhole covers to allow access for below ground Link Boxes and marker posts. In regard to the geological effects, as indicated in REP4-100:1, the site is not designated as a geological SSSI and in addition, as detailed in REP4-100:1, there is not considered to be a hydrogeological connectivity between the Projects and the Burton Bushes SSSI. Therefore, there is no risk that the construction of a trench within the Onshore Export Cable Corridor approximately 120m from Burton Bushes SSSI could cause a direct or indirect impact, as the receptor does not exist in this form.
REP4-100:4	**SSSIs** SSSIs are nationally important conservation sites designated under UK law for their exceptional wildlife or geology. They represent some of the most sensitive habitats or geological features in the country. Any damage to an SSSI can undermine the very features it was designated to protect. Development even outside an SSSI can adversely affect it – national planning policy states that development on land outside a SSSI likely to have an adverse effect on it "should not normally be permitted". SSSIs are highly protected. An environment near an SSSI demands stringent controls to ensure no adverse effect on the designated features. Opportunities to enhance or buffer the SSSI (for instance, by avoiding any activity in a defined buffer zone or by implementing habitat buffers) should be considered in line with policy. The Wildlife and Countryside Act 1981 gives legal protection to SSSIs, making it an offense to intentionally or recklessly damage an SSSI's features – a reminder of the duty of care required this close to a designated site. • **Habitat and Species Disturbance**. Many SSSIs harbour rare species or fragile ecosystems that are sensitive to noise, vibration, or human disturbance. Construction activity (e.g. heavy machinery noise or human presence) could disturb wildlife, especially during critical periods like breeding seasons. For example, an SSSI designated for ground-nesting birds could be impacted by noise or activity within a few hundred meters, potentially causing birds to avoid the area or abandon nests. Burton Bushes is home to some rare species as regards birds (over 63 varieties including greater spotted woodpecker, tawny owl, chiffchaffs and blackcaps). • **Dust, Pollution and Run-off.** Trenching work produces soil dust and could release sediments or pollutants. Dust settling on adjacent vegetation can alter the nutrient balance or pH of soils and leaves, affecting plant health. Run-off of silt or any construction contaminants (fuel, oil, cement) could enter the SSSI, especially if there are hydrological connections (ditches,	**SSSIs** The Projects' embedded mitigation as described in Table 18-4 of **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019] has included the avoidance of statutory designated sites for nature conservation as part of the site selection and route planning process. As a result, there will be no direct impacts to designated sites such as SSSIs, Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The survey reports underpinning the assessments identified four biological SSSIs within 2km of the Onshore Study Area (**Appendix 18-2 Habitat Survey Report (Revision 2)** [PDC-004]. These were: Burton Bushes SSSI, Leven Canal SSSI, Pulfin Bog SSSI and Hornsea Mere SSSI. **Habitat and Species Disturbance** The Projects' embedded mitigation as described in Table 18-4 of **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019] has included the avoidance of sensitive habitats where possible as part of the site selection and route planning process. Through avoiding sensitive habitats through route refinement, residual indirect effects are minimised and those which may occur would be controlled through management plans such as the Ecological Management Plan during construction, which will follow the measures outlined in the **OEMP (Revision 5)** [REP4-042]. The suite of species-specific surveys that were carried to inform the Development Consent Order (DCO) submission identified potential important ecological receptors, including any species associated with nearby SSSIs. The results were used to inform the contents of **OEMP (Revision 5)** [REP4-042], which is a document that sets out strategies for managing and mitigating ecological impacts during the construction phase. Additionally, pre-construction ecological surveys will be carried out to identify any habitat and potential behaviour changes relevant to breeding and overwintering birds. An Ecological Clerk of Works (ECoW) will be present throughout the construction phase undertaking regular checks and identifying any potential constraints that could affect species or habitat

I.D.	Stephen Mounce Response	Applicants' Response
	streams) leading from the work area. Note that the Westwood is often waterlogged with a waterway opening up to the bottom of Burton Bushes and running East to West including to the farmland to the West. Many SSSIs are extremely vulnerable to water quality changes; even small siltation events can smother sensitive plants or invertebrates. Natural England considers activities altering water flow or quality as potential risks to SSSIs, and such operations would typically be scrutinized closely. • **Hydrological Changes**. If the SSSI includes wetland habitat or relies on specific groundwater levels, nearby excavation can inadvertently drain or redirect water. Lowering of the water table or changes in surface water patterns can degrade wet habitats or dry out soils beyond the SSSI boundary. For instance, a fen or bog SSSI could be harmed if trench de-watering or altered drainage causes it to receive less water. Even when works are outside the SSSI, if they intercept the same groundwater or catchment, there is a risk of impact. This is recognized in guidance that notes cable trenches can disrupt shallow groundwater systems and modify drainage pathways. • **Geological Features**. Some SSSIs are designated for geological formations (exposed strata, fossil beds, landforms). While the project proponents claim geological effects need not be assessed, this should be verified. If the nearby SSSI is a geological SSSI, vibrations from construction or changes in stability could potentially affect rock exposures. Whilst trenching 250m away (but not 125-150m) is unlikely to physically disturb a geological outcrop within the SSSI, caution is needed if, for example, the trench could intercept the stratum that the SSSI exposes. In any case, maintaining the integrity of a geological SSSI (e.g. avoiding any dumping of spoil or alteration of natural erosion processes) is important	and implementing mitigation, such as buffer zones of suitable size to ensure birds are not disturbed during the breeding season or whilst overwintering. The potential impacts arising from noise and vibration have been assessed on individual species as described in **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019], particularly those that may be more sensitive to these impacts such as breeding birds and roosting bats. Whilst no bat roosts have been identified within or in the immediate vicinity of the Onshore Development Area, there is potential that birds may use existing habitats and feature to nest. To avoid effects on nesting birds as well as any other sensitive species, several mitigation measures as described in the **OEMP (Revision 5)** [REP4-042] will be put in place including targeted preconstruction surveys, routine checks by ecological clerk of works, restriction or suspension of works that may affect breeding birds or any other protected species. There are no SSSIs designated for ground-nesting birds within 2km of the onshore study area. **Dust, Pollution and Run-off** As detailed in the **OEMP (Revision 5)** [REP4-042] and the **OCoCP (Revision 4)** [REP4-040], appropriate and adequate measures would be in place to ensure fugitive emissions (i.e. dust and emissions from an increase in construction traffic and road access) will be controlled to avoid effects on important ecological features. It is important to reiterate that Burton Bushes SSSI is not notified for any wetland habitat, nor does it rely on specific groundwater levels to maintain its special interest. No impact pathways have been identified between the proposed works and any other SSSI. Section 3 of **Appendix D, Outline Pollution Prevention Plan (OPPP)** of **the OCoCP (Revision 4)** [REP4-040] include measures for the protection of the surface water environment from any potential 'run-off' during construction. This includes measures for preventing any potential silt or contaminants entering a hydrological (river and streams) or hydrogeological (ground water) receptor. The Contractor will also be responsible for developing a Surface Water Management Plan (SWMP) to manage any surface water run off or shallow ground water encountered during construction. The SWMP must be approved by the East Riding of Yorkshire Council (ERYC) prior to construction, as of the **OCoCP (Revision 4)** [REP4-040]. However, it should be noted there is no hydrological or hydrogeological linkage between the works and any SSSIs , as noted in the next section. **Hydrological Changes** There will be no hydrological or hydrogeological impact on the statutory designated sites because of trenchless techniques that are being proposed to avoid disturbance to main rivers. Some watercourses within the Onshore Development Area will be open cut, in these cases there will also be no significant effects on connected designated sites due to the planned embedded mitigation as outlined in **Chapter 19 Geology and Land Quality** [APP-158] and **Chapter 20 Flood risk and Hydrology (Revision 3)** [document reference 7.20]. This also includes the SWMP, described above. With respect to Burton Bushes SSSI, the primary shallow geology is Glacial Till which by its nature is of limited permeability which will limit the lateral and vertical migration of shallow groundwater. It is also present in what is termed the 'unsaturated zone' and published typical permeabilities of a Till of this nature are 0.0002m/day. Borehole logs available from the British Geological Survey (BGS) within the vicinity of the SSSI indicate that there is not a shallow groundwater table present and that the water table has a resting depth of >25m within the chalk. This is further supported by ground investigation which has been completed in the vicinity of Burton Bushes which indicates the resting monitored groundwater table to be within the deeper Principal Chalk aquifer. There is no viable linkage by which the cable corridor would disrupt shallow groundwater flow pathways simply because the shallow groundwater is not present.

I.D.	Stephen Mounce Response	Applicants' Response
		Geology As indicated in our response to REP4-100:1 above, Burton Bushes is not designated as a geological SSSI therefore there is no risk that the construction of a trench or vibrations within the cable corridor could cause a direct or indirect impact, as the receptor does not exist in this form.
REP4-100:5	**Ancient Woodland** Ancient woodlands (wooded areas continuously present for centuries, usually defined as since at least 1600 AD in England) are an irreplaceable natural resource. They "support more threatened species than any other habitat in the UK" and are functionally irreplaceable in terms of biodiversity and cultural heritage. Only around 12% of the UK is wooded, and ancient semi-natural woodland comprises a small fraction of this; many ancient woods are very small (under 5 ha) and thus extremely vulnerable to edge effects from nearby land use. Because of their unique value, national planning policy affords ancient woodland strong protection: any development resulting in the loss or deterioration of ancient woodland should be refused unless there are wholly exceptional reasons, and even then compensation is required. "Deterioration" includes indirect impacts, not just clear-cutting trees. Current policy explicitly aims to safeguard ancient woods from both direct and indirect effects of development.	The Applicants acknowledge this comment.
REP4-100:6	Key sensitivities of ancient woodlands and their adjacent areas include: • Root Zone and Soil Disturbance. The root systems of woodland trees often extend well beyond the woodland boundary. Construction within close proximity can sever or damage roots, destabilize trees, or alter soil conditions essential for tree health. Natural England and the Forestry Commission's standing advice recommends a buffer zone of at least 15 meters from the edge of an ancient woodland for any development, specifically to "avoid root damage" to trees (this 15 m approximates the typical root protection area, though roots can extend further) If there are mature or veteran trees near the cable route (even outside the mapped woodland), their individual root protection areas should also be respected. In practice, this means no trenching, heavy machinery, or storage of materials within those buffer areas. Soil compaction from construction traffic near trees can be as harmful as direct root cutting, since compacted soil reduces oxygen and water availability to roots. • Changes in Hydrology. Ancient woodland ecosystems often depend on stable soil moisture and local hydrological regimes. Altering drainage patterns upslope or upstream of a wood can lead to a woodland either drying out or becoming waterlogged. For instance, digging a trench can act as a drain that intercepts groundwater flow – possibly lowering the water table on the woodland side. Research on large underground cable projects has found that excavations can disrupt shallow groundwater and lower groundwater levels in the vicinity. If the ancient wood has wet flushes, springlines, or ponds, a nearby trench might divert or drain some of that water. Conversely, changes in run-off could cause more water to flow into the wood in an uncontrolled way, potentially eroding soils. Either scenario could stress or kill sensitive ancient trees and alter the plant community. Indeed, a review of development impacts on ancient woods notes that altered hydrological functioning or soil structure can lead to tree death and shifts in woodland vegetation. Thus, maintaining the status quo of water flow is crucial – any EIA should assess whether the cable route intersects key groundwater paths and propose mitigation if so.	Direct impacts to woodlands as well as other valuable terrestrial habitats have been avoided during the Onshore Development Area site selection process and through scheme design. The site selection process is detailed in **Chapter 4 Site Selection and Assessment of Alternatives (Revision 2)** [AS-017]. Indirect impacts on ancient woodland as identified in the response are dealt with as set out below. **Root Zone and Soil Disturbance** The Applicants are confident that the detailed arboricultural surveys carried out to British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction' identified and categorised each arboricultural feature likely to be impacted by the Projects. The results of this survey informed the **Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment and Outline Arboricultural Method Statement (Revision 2)** [AS-036]. These documents identify potential impacts to all arboricultural features in relation to the Projects and set out measures to avoid and/or minimise those impacts. The **OEMP (Revision 5)** [REP4-042] specifies protective buffer zones around key retained habitats (e.g. woodland , mature broadleaved trees, ponds, important grasslands and sections of watercourses). These would be specified in the final Ecological Management Plan and relevant construction drawings, with reference to other appropriate documents, including Tree Protection Plans (TPPs) which would be derived from the Arboricultural Impact Assessment and assessment undertaken post DCO consent and standard industry guidance (e.g. BS5837:2012). No works would be undertaken within these buffer zones, which would be maintained throughout the construction works period. Buffer zones surrounding retained areas of woodland and mature broadleaved trees would be at least 15m in width or at least the width of the tree root protection zone (whichever is greater), as advised by an appropriately qualified arboriculturist. Where practicable, buffer zones around hedgerows being retained would be at least 5m in width. Additional buffer zones, where required, would be identified by the ECoW around habitat features of value to protected species. It is not expected that the root protection zone of any tree within Burton Bushes SSSI extends into the Onshore Export Cable Corridor as the separation distance is approximately 120m. A comprehensive **Outline Soil Management Plan (OSMP)** is included in **Appendix A** of the **OCoCP (Revision 4)** [REP4-041]. Sections 4.5 and 4.6 detail measures to strip and store

I.D.	Stephen Mounce Response	Applicants' Response
	• Edge Effects – Light, Noise, and Pollution Ancient woodlands are negatively affected by the "edge effects" of adjacent development. Even though the cable works are temporary, there are still edge disturbances to consider. Increased light penetration can change understorey conditions and invite weeds. Noise and human activity can disrupt woodland wildlife – for example, construction noise might displace birds or mammals from the woodland edge, reduce breeding success, or increase stress on species that use the woodland core as refuge. Dust from excavation, as mentioned earlier, can settle on woodland flora. Chemical pollutants (vehicle exhaust, fuel spills, concrete washwater) can also harm delicate woodland ground flora or soil fungi if they drift or leach into the wood. Nitrogen deposition from construction equipment exhaust or dust deposition can favor competitive grasses over ancient woodland indicator plants, subtly degrading the habitat. Additionally, disturbed ground at the wood's edge is an entry point for invasive non-native species or aggressive weeds that can outcompete ancient woodland plants. Mitigation measures (like physical barriers, dust suppression, careful timing of works) are thus important to minimize these edge effects. • Fragmentation and Connectivity. While the cable itself will be underground, the associated temporary works could fragment habitat. For example, if construction haul roads or site compounds are placed between the woodland and other nearby habitats, it might hinder the movement of species. Bats from the woodland could be affected by lighting at night, or woodland birds may avoid crossing open areas. Ancient woodlands often rely on nearby hedgerows or copses as "stepping stones" for wildlife; these should be preserved. It's important that during construction any unnecessary clearing of vegetation is avoided and that the working width is kept to the minimum needed.	topsoil and subsoil soil for the duration of the works, avoiding compaction. Please see response to REP4-100:11 for further detail. Bentley Moor Wood and LWS located within the Onshore Substation Zone will be avoided by the use of trenchless crossing techniques such as Horizontal Directional Drilling (HDD). Where the Projects are committed to trenchless crossing under an area of ancient woodland, as is the case at Bentley Moor Wood, the Applicants are committed to trenchless crossing techniques at depth greater than 5m as recommended by the Woodland Trust, unless following detailed geotechnical investigations clear evidence is provided to demonstrate that a shallower depth would not result in adverse impacts on roots, soils or rhizosphere along or above the proposed route. **Changes in hydrology** As stated in REP400.1 there is no evidence to suggest that there is any hydrogeological link between Burton Bushes SSSI and the works area. In addition, Burton Bushes is not notified for any habitats that rely on waterlogging. More generally there is no hydrological link which would affect the water table and hydrogeological regimes of any ancient woodland identified along the route because of trenchless techniques that are being proposed to avoid disturbance to main rivers. The **OCoCP (Revision 4)** [REP4-040] details management measures to protect groundwater during construction. The **OSMP**, included in **Appendix A** of the **OCoCP (Revision 4)** [REP4-040], sets out the approach to the handling, storage and effective reinstatement of topsoil and subsoil in line with best practice. As noted in the response to REP 4-100:4 above, embedded mitigation is also outlined in **Chapter 19 Geology and Land Quality** [APP-158] and **Chapter 20 Flood risk and Hydrology (Revision 3)** [document reference 7.20]. There will be no effects outside the Order Limits. Section 3 of **Appendix D, OPPP** of the **OCoCP (Revision 4)** [REP4-040] includes measures for the protection of the surface water environment from any potential 'run-off' during construction. This includes measures for preventing any silt or potential contaminants entering a hydrological (river and streams) or hydrogeological (ground water) receptor. The Contractor will also be responsible for developing a SWMP to manage any surface water run off or shallow ground water encountered during construction. The SWMP must be approved by the ERYC prior to construction, as part of the **OCoCP (Revision 4)** [REP4-040]. **Edge Effects – Light, Noise and Pollution** During the construction phase, night working is not scheduled as part of the normal working hours and may only be undertaken with the prior written approval of ERYC for specific time critical activities (e.g. for long trenchless crossing operations). This is secured through Requirement 20 of the **Draft DCO (Revision 8)** [document reference: 3.1] and detailed in the **OCoCP (Revision 4)** [REP4-041]. Where night working is unavoidable, or lighting is required for security/health and safety reasons, light fixtures would be directed towards working areas and away from adjacent or nearby habitats of value to protected or notable species. Any security lighting would be motion activated on short timers. Any such installations would be specified in the Code of Construction Practice and inspected by the ECoW for compliance. As described in the **OEMP (Revision 5)** [REP4-042], all permanent lighting at the Onshore Converter Station(s) would only operate when required and will be directional to avoid unnecessary illumination. All necessary lighting shall be designed to minimise light scatter (kept near or below the horizontal) and would be designed in accordance with the Guidance Note on Bats and Artificial Lighting produced by the Bat Conservation Trust and Institution of Lighting Professionals in 2023 to minimise impact on species, in particular bats. Any changes to lighting requirements would need to be discussed and approved in advance with the ECoW.

I.D.	Stephen Mounce Response	Applicants' Response
		Vegetation clearance to allow the construction of the Projects has been reduced to a minimum to avoid impact on habitats and species. The assessment of effects of habitat fragmentation have been discussed in detail for all relevant ecological receptors and is presented in section 18.6 of **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019]. With the establishment of appropriate buffer protection zones, there will be no construction work near woodland habitats, including woodlands and woodland edges habitats. As detailed in section 26.6.1.3.1.2 and section 26.6.1.3.2.2 of **Chapter 26 Air Quality** [APP-208] and section 18.6.1.1.2 of **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019], the effects upon Burton Bushes SSSI arising from changes to NOx, NH_3, N-Dep and acid deposition from road traffic emissions and construction equipment are not significant. For all construction scenarios (In Isolation, Concurrently or Sequentially) the magnitude of impact for disturbance caused by works associated with the Onshore Export Cable Corridor and Onshore Converter Stations is 'negligible' as construction activities would not adversely affect the integrity or conservation status of the statutory sites. Any fugitive emissions would be controlled by the measures set out in Table 18-4 of **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019] including the **OEMP (Revision 5)** [REP4-042], OCoCP (Revision 4) [REP4-041] and **the OCTMP (Revision 3)** [REP4-046]. Whilst invasive non-native species of plants have not been identified as part of the ecological surveys by the Projects to date, biosecurity measures as described in section 1.6.3.7 of the **OEMP (Revision 5)** [REP4-042] will be adopted. An invasive non-native species management plan will be prepared before construction phase commences. **Fragmentation and Connectivity** The impacts of temporary habitat loss and fragmentation during construction have been thoroughly evaluated in **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019] and the residual effects assessed as minor adverse, which is not significant in Environmental Impact Assessment (EIA) terms. It is important to note that no 'unnecessary clearing of vegetation' will be undertaken as at the detailed design stage accurate measurements of vegetation clearance required for the construction corridor will be undertaken and in addition maximum lengths of hedgerow removal have been defined in the **OEMP (Revision 5)** [REP4-042] . The working width will also be kept to the minimum required.
REP4-100:7	It is notable that the Forestry Commission is a non-statutory consultee for developments within 500m of ancient woodland. The 500m distance indicates that indirect effects can extend far beyond the 15m root zone buffer – for example, research has documented that some impacts (like changes in light, noise, and invasive plants) can penetrate woodland hundreds of meters from a development edge. In this case, at as little as 100-125m away, the project is well within the zone where consultation and careful consideration is expected. In summary, ancient woodlands are exceptionally sensitive: the project should strive to completely avoid any direct interaction (no encroachment into the woodland) and rigorously mitigate indirect impacts (dust, noise, water, lighting). Any deterioration of the woodland, even without direct tree loss, would be viewed as a significant adverse impact under planning policy.	In May 2022, the Government published an updated policy statement on ancient woodland, entitled '*Keepers of Time: ancient and native woodland and trees policy in England*'. The Government's 'Keepers of Time' policy accentuates the importance of ancient woodland, stating: "*Ancient woodlands, ancient wood pastures and parkland and ancient and veteran trees are irreplaceable habitats which must be protected. Their long-standing presence, species and form serve as a rich cultural record of past management practices*." The Projects' design and measures described in the **OEMP (Revision 5)** [REP4-042] have adopted the recommendations and relevant measures to protect these irreplaceable habitats. Natural England, The Woodland Trust and Forestry Commission amongst various other statutory and non-statutory consultees have provided comments and suggestions on required surveys and the design of the Projects. Indirect impacts on ancient woodlands and the establishment of appropriate buffer zones are presented in the responses above. The Applicants are committed to the protection of Ancient Woodland within and adjacent to the Onshore Export Cable Corridor. As recorded in response to REP4-100:6, the Applicants do not consider there to be any significant impacts on Ancient Woodland from dust, noise, water and lighting with the adoption of mitigation measures set out in the **OEMP (Revision 5)** [REP4-042] and **OCoCP (Revision 4)** [REP4-040].
REP4-100:8	**Archaeological Sites**	The Applicants acknowledge that direct disturbance of archaeological remains may arise during construction work. As a consequence, an archaeological evaluation of the proposed Onshore Export Cable Corridor has been carried out in line with

I.D.	Stephen Mounce Response	Applicants' Response
	The presence of known archaeological remains within 250m of the cable route is a major cultural heritage consideration. Archaeological sites (whether scheduled monuments or unscheduled but recorded sites) are a finite, non-renewable resource (see the Burton Bushes English Heritage Survey from 2004). Once disturbed or removed, the information they contain is lost forever unless properly excavated and recorded. Even when development is not directly on top of a known site, nearby ground works can still pose risks to archaeological heritage: • Direct Physical Damage. Any ground disturbance – "including levelling; digging trenches for foundations, pipes or cables; landscaping" – can damage or destroy buried archaeological features. In practice, if the cable trench or associated works (e.g. access tracks, laydown areas) intersect any part of an archaeological site, those remains would likely be removed by the excavation. Even at 125-250m away, it's possible that unrecorded archaeological materials extend into the project area. The UK is dense with archaeology; for example, during National Grid's recent Hinkley Point C connection project in Somerset, cable trenching uncovered the remains of a Roman roadside settlement along the route. Such finds are not uncommon – utility trenching projects often discover archaeological artifacts or features. This underscores that a comprehensive archaeological survey of the cable corridor (not just known sites 250 m away) is needed. It should not be assumed that "no impact" will occur without evidence; rather, a precautionary approach is to identify and avoid or excavate any archaeological deposits along the route. • Vibration and Structural Impacts. For underground, purely buried remains, vibration is less of an issue compared to direct disturbance but still need consideration. • Changes to the Burial Environment. An often overlooked impact is how construction can alter the burial environment that preserves archaeological materials. Many archaeological remains – especially organic materials like wood, leather, textiles, or even bone – are preserved because of specific soil conditions (for example, waterlogged, anaerobic soils, or stable geochemistry). If a trench is excavated and dewatered, the local water table may drop in the surrounding soils. Dewatering of deposits can introduce oxygen and dry conditions, accelerating the biological and chemical decay of nearby archaeological artifacts. Even small changes in soil moisture can start to degrade organic remains that have survived for centuries under anoxic conditions. There is documented evidence that even archaeological trial pits can locally disturb hydrology and increase decay rates in sensitive sites. Therefore, if the known archaeological site is of a type that relies on waterlogged conditions (say, an ancient well, a peat deposit with artifacts, or a preserved timber structure in wet ground), then the cable works could indirectly harm it by altering the subsurface water flow. An environmental assessment should explicitly consider this possibility and perhaps include hydrological modeling to ensure the water regime at the archaeological site remains stable. Mitigation might involve limiting dewatering, using clay plugs in trenches, or monitoring groundwater during and after construction.	the National Policy Statement (NPS) EN-1 requirement to '*carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation*' (5.9.11). This work has comprised the following operations: • An archaeological desk-based assessment (**Appendix 22-2 Onshore Archaeological Desk-Based Assessment** [APP-175]), which considered a study area of 500m from the proposed development for all records within the Humber Historic Environment Record (HER) and 1km for designated heritage assets record in the National Heritage List for England (NHLE). • Historic map regression and aerial photography/lidar interpretation (**Appendix 22-3 Assessment of Airborne and Satellite Remote Sensing Data and Map Regression Analysis for Archaeology** [APP-176]). • Walkover survey (**Appendix 22-4 Heritage Walkover Survey Report** [APP-177]). The potential sensitivity of the proposed routing around Burton Bushes was recognised during the application and this section of the route was defined as survey priority area 18 (PA18) for the purposes of the geophysical survey. These surveys were carried out and reported to the examination (**Geophysical Assessment Report (Revision 02) - Part 1 of 6 [AS-030], Geophysical Assessment Report (Revision 02) - Part 2 of 6** [AS-031]) which report on survey in PA18 (fields 496, 517, 520, 538, 553, 553s, 560, 567, 574 and 578) .These surveys noted that data collected within this area "*…is dominated by responses from past ridge and furrow cultivation, modern agricultural activity such as drainage features, and natural variations…*" (section 201). Intrusive archaeological works carried out as part of this assessment process have demonstrated that geophysical survey is an effective technique for identifying potential archaeological remains in this landscape, and it has consequently been agreed with the Humber Archaeological Partnership (HAP) and Historic England (HE) that the surveys reported to the examination provide a robust understanding of the potential for and significance of archaeological remains within the Order Limits that is sufficient to understand the effects of the proposed development. These effects are which are assessed in the ES as significant and adverse in the absence of mitigation but effectively mitigated by a combination of avoidance in detail design and the proposed investigative works as set out in the **Outline Onshore Written Scheme of Investigation (WSI) (Revision 2)** [REP4-048]. Effects on non-designated heritage assets arising through vibration or change to water environment were assessed in **Chapter 22 Onshore Archaeology and Cultural Heritage (Revision 2)** [AS-092], section 22.6.1.4 Impacts 3 and 4 Indirect Physical Impact on (Permanent Change to) Designated and Non-designated Heritage Assets, as of no more than minor significance following the application of the agreed scheme of investigative mitigation. The Applicants believe that the above information provides a robust response to all of the points raised in REP4-100.8.
REP4-100:9	The usual approach is to preserve archaeological remains in situ wherever feasible, and if disturbance is unavoidable, to excavate and record them beforehand. In line with this, a project of this nature should have an Archaeological Mitigation Strategy. This typically includes: a detailed desk-based assessment, field evaluations (if not already done at design stage), micro-siting the trench to avoid the most sensitive areas if possible, and an archaeological watching brief during	As noted in the response to REP4-100:8 above, the Applicants have carried out a detailed programme of archaeological evaluation that was agreed with HE and HAP to inform the EIA assessment and to inform the development of a detailed Outline WSI that sets out a staged programme of archaeological investigation and recording (**Outline Onshore WSI (Revision 2)** [REP4-048]).

I.D.	Stephen Mounce Response	Applicants' Response
	trenching (with professional archaeologists on site to observe the excavated soil for any finds or features).	
REP4-100:10	Historic England and the local county archaeologist would expect the developer to have identified all known heritage assets in proximity and assessed the likelihood of unknown archaeology on the route. The applicant's claim that there will be "no construction or operational impacts" on archaeology should be treated with caution unless backed by a thorough investigation. As National Grid's archaeologists noted during the Hinkley project, archaeological treasures "*can be damaged or removed all too easily, without either recording what they were or preserving them*", and thus proactive measures are essential. In summary, the archaeological sensitivity is high: the project should assume that ground disturbance has the potential to encounter or affect historic remains and plan accordingly to avoid, protect, or excavate those resources in a responsible manner.	As noted in the response to REP 4-100:8 above, the ES (**Chapter 22 Onshore Archaeology and Cultural Heritage (Revision 2)** [AS-092]) explicitly considered the potential effects of disturbance of archaeological heritage assets including previously unrecorded ('unknown') archaeological remains during construction , including a programme of geophysical survey and trial trenching. Construction period effects on archaeological heritage assets are anticipated, as set out in the **Chapter 22 Onshore Archaeology and Cultural Heritage (Revision 2)** [AS-092] at section 22.6.1.2 Impact 2 Direct Physical Impact on (Permanent Change to) Non-designated Heritage Assets (Including Buried Archaeological Remains, Historic Earthworks and Structures) and all identified effects on identified heritage assets are set out at **The Applicants' Responses to Issue Specific Hearing 2 Supplementary Agenda Questions Appendix A Heritage assets, the effects and the attributed level of harm in response to ISH2 10.9** [REP2-059]. Mitigation of these effects would be through the staged programme of investigation and recording set out in the Outline Onshore WSI (Revision 2) [REP4-048]). It is not anticipated that effects on archaeological remains will arise during the operational period through disturbance, as there would be no intrusive groundworks out with areas that had already been disturbed during construction (**Chapter 22 Onshore Archaeology and Cultural Heritage (Revision 2)** [AS-092], section 22.6.2).
REP4-100:11	Some additional areas that should be assessed in a more comprehensive investigation and associated environmental impact assessment (EIA) include: • The main soil impacts from the underground cabling will be during construction: compaction, loss of structure, and potential erosion. If not mitigated, these can lead to long-term degradation of soil health along the cable route. It will be essential for the project to implement a Soil Management Plan: e.g. restricting vehicle movements to defined tracks, avoiding working in very wet conditions to prevent rutting, deep-ripping or decompacting subsoil after backfilling, and careful topsoil reinstatement. With proper restoration, surface soil conditions can gradually recover, but monitoring might be needed to ensure, for instance, that plant communities reestablish and that no persistent compaction remains. If there are areas of peat or soft organic soil, the geological/hydrogeological assessment should consider how to handle those without causing extensive compression or oxidation of peat. • The primary hydrological concerns are: maintaining the water supply to sensitive habitats (SSSI woodland soils), preventing construction-phase water pollution or siltation, and ensuring post-construction drainage patterns are as close to original as possible. Mitigation likely needs to include a robust drainage management plan (using silt fences, ponds, etc.), timing works in drier months if feasible, and possibly using trench plugs to partition the cable trench and prevent it from becoming a conduit for water. Monitoring groundwater levels or surface water flows during and after construction could be considered if the SSSI's features are water-dependent. • Protecting the ancient woodland means not just avoiding cutting its trees, but also preventing any deterioration of its condition. An Arboricultural Impact Assessment or a statement could be provided from a suitably qualified ecologist/arborist confirming that the ancient woodland will be fully protected, with appropriate buffers and mitigation.	The Applicants have provided the following response to address these points which have already been considered in the EIA: • A comprehensive **OSMP** is included in **Appendix A** of the **OCoCP (Revision 4)** [REP4-040]. This includes measures to strip and store topsoil and subsoil soil for the duration of the works as described in sections 4.5 and 4.6, this avoids compaction. Where topsoils are stripped best practice guidance and methods will be followed in accordance with the guidance documents mentioned in section 1.3 of the OSMP including the Defra Construction Code of Practice for Sustainable Use of Soils on Construction Sites (Defra 2009) or, the latest available guidance. The initial topsoil strip will be subject to monitoring to ensure that the handling method outlined in the detailed Soil Management Plan (SMP) is implemented correctly. Haul routes to and from the stripping zones will be clear and established in advance, to ensure that excessive trafficking of subsoils is reduced. As stated in paragraph 125 'The contractor and subcontractors must ensure soils are protected from damage and remain suitable for re-use.' Section 4.6.2 sets out best practice soil storage requirements. Including that 'If topsoil is to be stored for more than one winter, seeding of the storage mounds is recommended. This will assist with weed control, maximise aeration of the stored soils, reduce soil erosion through grass rooting, speed up drying of the topsoil and improve the aesthetics of the site.' Section 4.7 and section 4.8 detail reinstatement and aftercare measures. The Contractor will develop the detailed Soil Management Plan based on the measures and agreed in the OSMP, this will be agreed with the ERYC and is secured by Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. Soil descriptions are included in section 3.2.1 of the OSMP, although some organic soils were identified along the route (soil type 5) they only represent 3% of the development route. • With respect to concerns around hydrology, the Applicants refer to the provision of a SWMP and **OCoCP (Revision 4)** [REP4-040], as detailed in REP4-100:4 and the **Outline Drainage Strategy (Revision 3)** [REP2-033]. As stated in REP4-100.1 there is no hydrogeological pathway between the construction area and Burton Bushes SSSI – which is not notified for any water-dependant feature. In addition, borehole logs available for within the vicinity of the SSSI indicate that there is not a shallow groundwater table present and that the water table has a resting depth of >25m within the chalk providing further evidence that there is no need for groundwater monitoring.

I.D.	Stephen Mounce Response	Applicants' Response
		• The Applicants have submitted an **Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment and Outline Arboricultural Method Statement (Revision 3)** [REP3-017] into examination. This includes commitments to ensure a 15m buffer zone around the Ancient Woodland to avoid root damage and a commitment to HDD under the Ancient Woodland to ensure its protection. A detailed Arboricultural Method Statement will be prepared and agreed with the ERYC prior to construction.
REP4-100:12	The scientific and grey literature consistently indicate that underground installations can have significant environmental footprints if not carefully managed. The impacts on soil structure and hydrology are among the best documented, while the indirect impacts on nearby habitats require piecing together ecological studies of other types of development. All evidence suggests that the Applicant's assertion of "no impacts" would be scientifically unsound unless extremely rigorous mitigation and a benign setting make it true. Typically, one would expect an EIA to cite such studies and justify conclusions with evidence. The absence of an impact assessment on soils, hydrology, etc., would run contrary to the known research, which is why raising these points with references is important in planning feedback. I still contend the overland cable route corridor is too close to Burton Bushes.	As referenced in response to REP4-100:11 above, the Applicants have provided the results of the Soil Resource Assessment Survey within **Appendix A, OSMP** of the **OCoCP (Revision 4)** [REP4-040]. This adequately assesses the soil survey results of the whole Onshore Development Area. Natural England have agreed that the OSMP is adequate and suitable for the purpose of protecting the quality and integrity of the soil resources within the Onshore Development Area. The outcome of the OSMP has been taken into consideration within **Chapter 19 Geology and Land Quality** [APP-158]. The Applicants have also produced an assessment of the impacts of the Projects on hydrology. This is documented in **Chapter 20 Flood Risk and Hydrology (Revision 3)** [document reference 7.20]. These assessments are in line with EIA guidance and best practise. The location of Burton Bushes SSSI in regard to the Onshore Development Area has been considered in responses above and is not repeated in this response.
REP4-100:13	**Appendix 1** [REP1-090]	The Applicants acknowledge this information has previously been submitted under [REP1-090]. A response has been provided in Table 2-15 of **The Applicants' Responses to Written Representations** [REP2-057].
REP4-101:1	Submission ID: 35999 At the last oral hearing on the 9th April (01:58:46), the following query was raised: "And finally, then for the Burton Bush's answer, you briefly mentioned that earlier. Given the location of the Burton buses, triple C is within 250m of the proposed development. Should the potential for geological effects be assessed and reported on." I would contend the Applicants answer is insufficient and the lack of assessment not satisfactory. While undergrounding power lines is often done to reduce visual impact and can have fewer landscape effects than overhead lines, it is not impact-free – especially not in an area rich in ecological and cultural significance. Each of the potential impacts identified (soil, water, woodland, archaeology) needs to be acknowledged and mitigated with evidence-backed measures. Only with such comprehensive planning can one confidently say the project will have "no significant impacts" on the surrounding SSSI, ancient woodland, or archaeological resources	Please see the response to REP4-100:1 and REP4-100:2.

2.26 UK Chamber of Shipping

Table 2-34 – The Applicants' comments on UK Chamber of Shipping [REP4-114] responses to Action Points, ExQ1 and Rule 17

I.D.	Question	UK Chamber of Shipping Response	Applicants' Response
REP4-114: SN.1.2	**SN.1.2 Effect on commercial vessels** Table B-1, when cross referenced with Table 3-1 and Table 3-2, of the Navigational Risk Assessment [APP-124] identifies a reasonably probable serious cumulative effect of the proposed DBS East and West arrays for commercial vessels. Can you comment on this and confirm you are satisfied that the commercial impact of the proposed development on ports and commercial shipping has been appropriately assessed and mitigated. Please provide justification in your response.	The UK Chamber does not have significant concerns due to the relatively low level of shipping activity in the area.	The Applicants welcome the UK Chamber of Shipping's response provided.
REP4-114: SN.1.6	**SN.1.6 Temporal displacement** Commercial vessel displacement impacts associated with the Proposed Development in isolation and cumulatively appear to be assessed only based on a percentage increase to the distance of existing shipping routes. Explain if temporal duration should be included in the assessment to reflect distance and the potential for slower vessel speeds navigating multiple obstructions. If so, how would this affect the conclusions reached in the ES? If temporal duration should not be included, provide justification in your response.	The UK Chamber does not have significant concerns due to the relatively low level of shipping activity in the area.	The Applicants welcome the UK Chamber of Shipping's response provided.

Appendix A East Yorkshire Concrete Email 28th February 2025 [REP4-107:2]

[redacted]

From: [redacted]
Sent: 28 February 2025 16:33
To: [redacted]
Subject: Dogger Bank South - Mark Mewburn and East Yorkshire Concrete Products Limited

Without Prejudice and Subject to Contract

Dear [redacted]

I hope you had a good holiday.

Further to our telephone conversation on the 13th February I would like to confirm that Mark Mewburn is entitled to receive the Option Agreement Incentive payment if the Option is exchanged within 12 weeks from the date that the legal agreements are issued to your clients solicitors.

With regards to the minerals discussion we have had for Mark Mewburn, as noted an area of your clients land falls within the Minerals local plan as an area of Search for Sand and Gravel to the south of your clients land ownership with the Option area and a Minerals Safeguarding area to the north of your clients land ownership with the Option area. It is proposed that if your client wishes to extract minerals during the easement period from land which is within the easement strip then consent must be sought from the Grantee to do, however under the Heads of Terms in clause E9 the Grantor would not be allowed to carry out works or excavations within the Easement Strip which may endanger the stability, stability or integrity of the Cables.

The other point you raised was that of a rate of £150 per hour plus VAT for your clients time. This was as I recall a discussion that was had at the LIG meetings last year and the rate of £40 per hour for Landowners time which is in the Heads of Terms was agreed with the LIG at the time, as such my client is unwilling to commit to paying an additional amount to your client.

With regards to your other client East Yorkshire Concrete Projects limited, they will be entitled to the second incentive payment of 10% of the total easement consideration and the non-deductible option fees if the Option is exchanged within 12 weeks from the date that the legal agreements are issued to your clients solicitors.

The comments that you raised in your email on the 7th February I have inserted below and added my responses to each in blue. Please note that some of the comments you raised were also raised in the Written Representations your client made to the Examining Authority on the 31st January 2025. I have attached a link to a copy of the document which is on the PINS website, for ease the responses to East Yorkshire Concrete Projects Limited and Mr Alexander Douglas Robinson start on page 35 of this document.

EN010125-001277-12.2 The Applicants' Responses to Written Representations.pdf

- Cable Depth
- The UU obligates the Project to maintain the depth of the cables. Please confirm a similar clause can be added into the Voluntary Agreement for DBS?
  Please see the response that RWE has given on the written representations responses, I.D., REP 1-073:9 to REP 1-073:13 which states that;

  The Onshore Export Cables would be pulled through pre-installed ducts at sufficient depth to protect them from activities above the cable. There may be occasions where direct lay is required in certain ground conditions or if an obstruction is identified. Cable ducts are generally laid in

trenches at an indicative depth range of 1.3m-1.7m and an average of 1.6m to the top of the ducts from the restored surface level to include topsoil which can vary in depth as detailed in Table 5-27 of Chapter 5 Project Description (Revision 3) [REP1-009]. This will be a minimum of 1.2m depth below the subsoil interface and has been designed to allow all agricultural operations to resume following the reinstatement after the completion of the works. Alternatively installed in trenchless crossing bores and then the cables are pulled through. Jointing Bays would be constructed at intervals along the Onshore Export Cable Corridor to allow pulling and / or joining of the cables. Typically, the Jointing Bays would be located every 750m to 1.5km.

Cable ducts are generally laid in trenches at an indicative depth range of 1.3m-1.7m and an average of 1.6m to the top of the ducts from the restored surface level to include topsoil which can vary in depth as detailed in Table 5-27 of Chapter 5 Project Description (Revision 3) [REP1-009]. This will be a minimum of 1.2m depth below the subsoil interface and has been designed to allow all agricultural operations to resume following the reinstatement after the completion of the works.

The Applicants have offered the Interested Party a legally binding Option and Deed of Grant which states that 'the Infrastructure will be laid to a depth such that there is a distance of not less than 1.6 metres from the restored surface of the Easement Strip to the top of the duct and not less than 1.35 metres from the restored surface of the Easement Strip to the top of the protective tile provided that the Grantee will be entitled to decrease this distance to a depth of not less than 1.1 metres where necessary and in accordance with industry practice due to there being rock concrete land fill sites or any other physical obstruction close to the surface from the restored surface to the uppermost part of the duct.'

In addition to this the Heads of Terms states that the cables will be located at a minimum depth of 1.35m to the top of the protective tole and no less than 1.6m to the top of the duct save for Horizontal Directional Drilling area where the depths may be up to 20m deep or where achieving a 1.6m depth is impracticable due to engineering or environmental reasons.

Schedule of Condition

- Please confirm that the Schedule of Condition to be undertaken prior to entry and any intrusive surveys will include soil sampling and testing for organic matter and topographical surveys for the works corridor?
  Please see the response that RWE has given on the written representations responses I.D., REP 1-073:14 to REP 1-073:15 which states that;

  Details on the soil management measures can be found in Appendix A OSMP (Revision 2) of the Outline Code of Construction Practice (Revision 3) [REP1-025] which is secured by Requirement 19 of the Draft DCO (Revision 5) [REP1-004]. Section 4 includes detailed measures for the protection of soils during construction, including monitoring of the site and soil conditions and soiling handling and reinstatement procedures. The Applicants have procured the services of Land Drainage Consultancy Ltd who have employed expert soil scientists who have acted in line with industry guidance and best practice to undertake an ALC of all land within the Order Limits. The Results are included in Appendix A-1 Soil Resource Assessment Survey Results of Appendix A OSMP (Revision 2) of the Outline Code of Construction Practice (Revision 3) [REP1-025]. The distribution of ALC grades on the route is shown in Appendix 2, Plans 1-57 and summarised in Table 5.3. The area of land occupied by Interested Party is shown on p.219 and is classed as grade 3b which is not BMV.

  The Applicants have provided all relevant technical details regarding the installation of the Onshore Cable Corridor, further details can be found in Chapter 5 Project Description (Revision 3) [REP1-009]. Appendix A OSMP (Revision 2) of the Outline Code of Construction Practice (Revision 3) [REP1-025] includes details of all proposed soil management measures and is secured by Requirement 19 - Code of construction practice of the Draft DCO (Revision 5) [REP1-004]. Section

4.7 provides details of how the soil would be reinstated. In addition, the Outline Code of Construction Practice (Revision 3) [REP1-025] has been updated in section 5.17 to state: 'Following completion of the Onshore Export Cable Corridor, the working area will be reinstated to a state commensurate with condition prior to the commencement of works, set out in a schedule of condition or subject to landowner agreement'. The restoration of land is secured by Requirement 25 of the Draft Development Consent Order (Revision 5) [REP1-004]. The Option and Deed of Grant offers the Interested Party further assurances on reinstatement in so far that the Applicants will, as soon as reasonably practicable following the exercise of the Rights reinstate the Interested Parties property to a standard no worse than as evidenced by the Schedule of Condition in accordance with the Regulations or (where in the opinion of the parties (both acting reasonably) reinstatement is not reasonably possible or the parties agree in writing that reinstatement is not required) will pay in accordance with the Compensation Provisions proper compensation to the Interested Party for any physical damage (including crop loss) caused to the property.

In addition to this the Heads of Term states that a pre-entry Schedule of Condition shall be undertaken by the Grantee prior to entry for intrusive works, the proposed works and any drainage works. Furthermore a pre-construction soil survey will be undertaken by a soil specialist to produce a specific soil resource topsoil and subsoil plans and restoration specifications for land which is to be occupied by the Grantee.

Compensation

- The UU on DBAB permits claims to be made for consequential losses including EMFs and heat dissipation on an annual basis. Please confirm that this can be included in the Voluntary Agreement for DBS?
  As set out in the Heads of Terms for your client the matter of compensation will be assessed and payable for any reasonable and mitigated loss to your client which has resulted as a direct consequence of the proposed works and will require reasonable supporting evidence to substantiate the amount of any such payment.

Indemnity for the Landowner

- The UU for DBAB requires the Project to provide the landowner with an indemnity against any issues associated with the use of the cables, negligence of the Developer/Operator or breach of covenant and fully indemnifies the landowner against costs, fees, charges etc. involved with pursuing the developer over a breach of their obligations. Please confirm that a similar clause can be included in the Voluntary Agreement for DBS?
  Within the Heads of Terms document for your client it confirms in clause D25 the indemnity position on the Dogger Bank South scheme, which states that the Grantee will indemnify your client against any claims, proceedings for demands in respect of any incident, loss or damage as a result of the Grantee's use, occupation or works of the option area, survey area/Grantor's Property, a breach/ non-observance of the provisions in the Option agreement and an act of omission or negligence of any person within the Option area acting on the Grantee's authority. The Heads of Terms also confirms that the Grantee shall not be liable for any consequential or economic loss or damage, indirect loss or damage.

Cable Removal

- On decommissioning the landowners are entitled to request that the cables are removed under the DBAB Scheme. Again, please confirm this can be included in the DBS Voluntary Agreement?
  The Heads of Terms document for your client sets out the decommissioning process for Dogger Bank South East and Dogger Bank South West in clause E11. This clause sets out that the Grantee will decommission or remove the cables by removing any part of the cable which is at a depth of less than 1.1m from the restored surface and reinstating the easement strip to no worse than its current condition which will be evidenced by a Schedule of Condition.

Use of the Electric Cables

- This DBAB UU limits the use of the cables to the DBAB offshore wind farm only. Please confirm the Voluntary Agreement and Option will provide the same restriction?
  The Heads of Terms in clause A2 confirms that all onshore infrastructure and associated works which includes the cables and underground cable Transition Joint Bays will be in accordance with the consented Development Consent Order.

Professional Fees

- The DBAB UU does not limit professional fees through 'aggregation'.
  My client has agreed that they will reimburse reasonable and proper Agents Fees on exchange of the Option Agreement which is subject to an initial cap of £3,000 for induvial landowner negotiations. My client has also confirmed that in terms of compensation they will pay any reasonable and proper Agents fees upon evidence of the time being properly incurred.

Limitation of the Grantor's (Landowner's) Liability

- Under the DBAB UU the landowner's liability is limited and capped at £1m. Please confirm DBS can offer the same?
  The Heads of Terms for your client sets out that the Grantee will not seek a reciprocal indemnity clause from the Grantor, however the Grantor will remain liable for breach of contract in the usual way, it if breaches its obligations in the option agreement and easement.

As per our recent telephone conversation, I would be happy to meet with you via Teams on the 5th March at 10.30am, please confirm if you would still like to meet with me to discuss the above further.

Kind regards

[redacted]

Appendix B East Yorkshire Concrete Email 9th May 2025 [REP4-107:8]

[redacted]

Subject: FW: Dogger Bank South -Voluntary Agreement and CPO Rights

From: [redacted]
Sent: 09 May 2024 09:15
[redacted]
Subject: RE: Dogger Bank South -Voluntary Agreement and CPO Rights

Hi [redacted]

As the LiG have chosen to act as a collective I felt it was only correct to copy in all members so everyone is receiving the same messages consistently.

We were hoping to issue populated HoT tomorrow 10th May as set out to the LiG previously. However we have paused the release in order to properly consider the 60+ comments received from the LiG Tuesday 7th May. DM are aiming to reply to the LiG by end of this week with comments in reply explaining whether the requested wording has been accepted in full / part or rejected with reasoning why. This will also incorporate a final draft of the template HoT to be populated and issued to landowners next week, copying associated agents to maintain program and ensure LiG and landowners have adequate time to consider the terms prior to the already deferred incentive deadline of 31st August 2024.

Unfortunately despite requesting on numerous occasions for the LiG to set our their commercial case, we haven't received any evidence to date in challenge to the baseline rate that DM have provided which is based on evidenced land value plus a proportionate percentage uplift to reflect the rights and constraints sought. The populated HoT will utilise these figures as a baseline for the LiG to demonstrate why their clients are due to suffer a loss in excess of these rates.

We were hoping to have draft Option and Deed of Grant available this week in parallel with the HoT, but drafting has been delayed to incorporate the volume of comments received where accepted. This will hopefully be available by the end of next week.

As is commonplace with offshore wind DCO's DBS will be seeking permanent rights in the order for the purposes of construction, installation, operation, maintenance and decommissioning of the authorised projects. The DCO will set out the various rights sought and will be available once it is submitted to PINs at the end of this month.

However for certainty, if we are unable to reach a voluntary agreement by the time the order is made (if consented circa Q4 2025) then we will look to serve a General Vesting Declaration which will automatically vest a high level number of rights and restrictions in title to enable the OFTO operator to construct, maintain and ultimately decommission the projects.

If this occurs we will no longer seek a voluntary Deed of Easement and rely on the rights automatically vested under the GVD. This is very different to the Notice to Treat / Notice of Entry you may have had experience of. For clarity a form of Deed of Grant wont be sought under GVD, the rights sought in the DCO will be vested against title as set out in each class of right in the application.

The above of course is a matter of last recourse and we would like to work with your clients to seek a voluntary agreement. We are happy to meet the LiG as required to explain the rights sought in the final HoT and clarify any questions that the LiG may have but we would urge the LiG to instruct their nominated legal representative so the HoT can be review alongside the Option / DoG and provide independent legal advice to the LiG

[redacted] lease can we have a quote ASAP from Mills & Reeve so we can consider a fee undertaking

Kind Regards

[redacted]

Appendix C Benthic Ecology and Physical Processes ETG Minutes 29th January 2024 [REP4-129: B21]

Minutes of Meeting

Benthic Ecology and Physical Processes ETG			
Document Number: 005014168-01			
Meeting with:	Benthic Ecology and Physical Processes ETG		
Location:	Online – Microsoft Teams		
Start Time of Meeting:	10am	**Date of Meeting:**	29th January 2024
Attendees	**Initials**	**Role & Organisation**	
Claire Mellett	CM	Principal Coastal Geomorphologist, RHDHV	
Rosie Foster	RF	Senior Environmental Consultant, RHDHV	
Charlie Cameron	CC	Environmental Consultant, RHDHV	
Paolo Pizzolla	PP	Principle Environmental Consultant, RHDHV	
Amelia Chilcott	AP	Offshore Consents Manager, RWE Renewables	
Daniel Brutto	DB	Offshore Consents Manager, RWE Renewables	
Harry Pizzey	HP	Consents Manager, RWE Renewables	
Christa Page	CP	Water and Sediment Quality Technical Lead, RHDHV	
Zoe Trott	ZT	Marine Licensing Case Manager, MMO	
Leah Cameron	LC	MMO	
Isobel Barnes	IB	Acoustic Processes Scientist, Cefas	
Joe Perry	JP	Cefas	
Paul McIlwaine	PM	Cefas	
Rebecca Pilkington-Vincett	RPV	Case Officer, Natural England	
Pearl Cousins	PC	Case Officer , Natural England	
Elizabeth Hopley	EH	Senior Specialist Coastal Geomorphology, Natural England	
Emma John	EJ	Marine Senior Advisor, Natural England	
Yolanda Foote	YF	Marine Senior Advisor, Natural England	
Louise Burton	LB	Principal Advisor, Natural England	
Elizabeth Hopley	EH	Offshore Industry Advisor, Natural England	
Lily Booth	LBo	Coastal Geomorphology Lead, Environment Agency	
Oliver Burns	OB	Principal Geomorphologist – East of England, Environment Agency	
Matthew Wilcock	MW	Planning Specialist, Environmental Agency	
Emma Thorpe	ET	Offshore Industry Advisor, JNCC	
Niki Piesinger	NP	Offshore Industry Advisor, JNCC	
Christina Platt	CP	Wildlife Trust	
Tania Davey	TD	Wildlife Trust	
Beth Fox	BF	Lincolnshire Trust	

Susi Bevans	SB	Graduate Environmental Consultant, RHDHV
Matthew Hopper	MH	Graduate Coastal Processes Consultant, RHDHV
Apologies	**Initials**	**Role & Organisation**

Meeting Agenda/ Objective(s):	• Project Update
	• Physical Processes
	  ○ Modelling update
	  ○ Summary of construction impacts and model results.
	  ○ Summary of operation impacts
	• Benthic and Intertidal Ecology
	  ○ Benthic Ecology Monitoring Survey Summary
	  ○ Impact results from the ES
	  ○ Results from the CEA
	  ○ Report to Inform Appropriate Assessment (RIAA) conclusions.
	• AOB

Item	Description/ Discussion	Presenter

1	**Project Design Update**
	• Intertidal works:
	  ○ A short HDD is a worst case scenario with an exit pit/cofferdams at MHWS then trenching to MLWS.
	  ○ Cofferdams used to control drilling muds if this is a stakeholder preference
	It was asked whether the cofferdams have been given any considerations during and after the 18 months, since they will be disturbing material. Have RWE considered the long-term impacts? Investigation of method impacts is ongoing and more info is discussed later in the presentation.
	
	No further questions/comments.
	
	Post-meeting note: Cofferdams have been withdrawn from the design envelope on response to stakeholder comments during the ETG, however exit pits currently remain within the intertidal, with a worse case location at MHWS. This note is relevant to where cofferdams have been mentioned throughout the minutes.
		DB

2.	**Physical Processes – Summary Approach:** PEIR was based on pre-existing data (from Dogger Bank A, B and C – ES in 2012), but based on feedback, site specific data was requested. Project ES Approach:	CM

- Bespoke numerical modelling has been undertaken
- Modelling has been run for the following scenarios:
    - Baseline - No offshore wind farms present (to inform the baseline for the environmental chapter); and
    - Baseline with parameters of DBS East and DBS West projects.

The impacts that those models provided were associated with:

- Construction effects in relation to changes in SSC and the fall out in bed level and the morphology of the seabed
- Operation effects in relation to wave and hydrodynamic regimes (due to the physical blockages in the water column).

A sensitivity test was done to understand the worst case layout for different elements of the assessment.

- Option 1: Relatively broad layout – distributed turbines across the two Array Areas (100 turbines in each Array).
- Option 2: Layout used the minimum spacing distance (830m) between the turbines within the Array Areas.

Feedback from previous ETG that Option 2 was not considered a realistic scenario, but the Projects consider it is realistic as it considers the navigation risk and minimum spacing of turbines. For the Projects approach, depending on the impact being assessed, we have considered both options as the worst case scenario. In terms of assessing the operational effects of physical structures within the water column, placing the wind turbines as close as they can be (Option 2) is the worst case scenario. Depending on the impact being assessed there may be a variation in which worst case scenario is being used.

Post-Meeting Note

NE maintains their previous advice that Option 1 presents a more realistic worst case scenario.

Modelling results:

Changes in bed level due to drill arising during foundation installation:

Most of the foundations are within the array areas, and one in the ECC.

- <2mg/l within 5km of disturbance, only 5% of all locations will need drilling, very low SSC concentration changes, changes in bed level immeasurable (<0.5mm)

Changes in SSC due to seabed preparation for foundations:

	The footprint of the foundations (monopile and GBS) and scour protection were also modelled and changes were of the same order of magnitude as for drill arisings. **Changes in SSC and transport due to cable installation:** The impacts identified were more laterally extensive when compared with foundation installation. Modelling was split into two phases: • Seabed preparation • The dredging/trenching of the cable corridor. Up to 20% of the cable corridor may need clearance and the model was run in locations where mobile bedforms are present as a realistic worst case scenario. Models run for seabed clearance in relation to cable installation in the following areas: • Offshore Export cable. • Inter-array cables (DBS East and West). • Inter-platform cables between both sites. ***Post-meeting note:*** *Up to 10% of the array cable / inter platform cable lengths and up to approximately 100km of the Offshore Export Cable Corridor may need clearance and the model was run in locations where mobile bedforms are present as a realistic worst case scenario.* **Modelling results from seabed preparation and levelling:** Results show changes for entire simulation period and the greatest changes occur over a larger distance during peak tides. This provides the worst case. Seabed prep for cable installation has been modelled to show up to SSC 25mg/l within the cable corridor itself. Further away, changes of up to 0.5mg/l are predicted at 10km from the cable route. The model shows that changes in bed level due to deposition of the SSC are restricted to within the cable route, with a maximum change of 0.03m/3cm change in bed level as a result of worst case seabed levelling clearance. This is relatively small in magnitude. **Modelling results from trenching:** covered the entire cable route. • Maximum change is 1000mg/l within cable route. • Saw changes reduce further along the cable route. Changes of up to 750 mg/l within 5 km of cable route and up to 0.5 mg/l within 20 km of cable route. Modelling revealed a sheltering effect from Flamborough Head, due to lower tidal currents not being able to disperse the plume as far. Stronger currents were identified along the cable corridor, with tidal currents reducing offshore, towards Dogger Bank.	

- Modelling was based 8 months simulation period (the predicted time it will take to install the cable corridor).
- Changes to bed level due to cable installation is predicted to be around 0.5cm change in bed level - relatively small and local.

Summary of construction impacts:

CM highlighted which impacts have been assessed using modelling, and what the predicted outcomes are expected to be.

- All changes in SSC, due to various activities, are small in magnitude and localised (with km of the disturbance area itself).
- Deposition of SSC results in very small changes in bed level.

In terms of significance effects, the impacts have been assessed as negligible and were all assessed as localised and temporary, apart from the landfall activities.

Landfall exit pits and cofferdams in the intertidal zone

- If landfall exit pits were excavated, the material deposited on the beach would be removed by the tide which could lead to an increase in SSC due to that activity.
- Sediment yields have been looked into to understand the volume of the sediment disturbed. Depending on the build scenario, there will be 3 pits (in isolation) or 6 pits (sequentially)– maximum sediment volume disturbed due to the landfall exit pits would be 3600m^3. This volume is a fraction of the amount that the Holderness Coast contributes in terms of sediment (due to erosion), and therefore, any changes in SSC are negligible to low due to the background levels being so large.

LBo asked if it is known that sediment movement is a problem, what else could you do to mitigate through engineering/mitigate the worst case scenarios? CM stated how the volumes are based on worst case scenario. She mentioned she has been doing research into this specific part of the coast and asks if anyone has any studies that could be used to assess or mitigate against this would be very helpful.

LBo queried on why the material can't be located higher up the cliff-line to allow the sediment to naturally replenish itself back into the sea over a longer time period. CM responds by stating that this is insightful and will be considered.

Interruptions to bedload sediment transport:

General long-shore sediment transport from N – S along the coast.

If cofferdams were put in place, there is the potential for this N – S movement of sediment to be interrupted.

	• This is being assessed separately in the ES. • Cofferdams: positioned 50m from each other will create a localised interruption to alongshore sediment transport. The assessment would likely result in low/negligible significance of effect. *LBo commented on the design of the cofferdams, can the engineers create a curved system for the cofferdams so it's less angular/groyne like, maybe more diamond shaped to promote sediment transport bypass?* *CM stated that discussions around this were ongoing and these potential mitigation options will be shared with the engineers.* *YF asked if cofferdams being demonstrated in modelling and if the effects of Spurn Point have been considered. CM stated cofferdams have not been modelled to date and requested further information on why Spurn Point specifically is of interest.* ***Post-meeting note:*** *due to the removal of cofferdams, interruptions to bedload sediment transport have been reassessed for exit pits only. Upon completion of trenchless duct installation and following export cable installation within the trench between the bore pits and MLWS, the trenches will be backfilled to reinstate the intertidal zone close to its original morphology. This activity would result in some localised and short-term disturbance of sediment on the beach, but there would be no long-term effect on sediment transport processes. Given that the impact on bedload sediment transport will be small and localised, the magnitude of impact is negligible.* **Enhancement of coastal erosion** The worst-case scenario for cofferdams is if the cofferdams were placed at MHWS which is located at the base of the cliffs. Under this scenario, there is the potential for enhanced coastal erosion and the destabilisation of the cliff. • Mitigation would be to move them away from the cliffs, or install them sequentially so minimise impact. CM stresses that mitigation options are being explored with engineers. *CM asked for feedback on this worst-case scenario in terms of coastal erosion:* • *LBo agreed with CM that this is a worst case scenario and that it being assessed in order to identify it not being a viable option. Good idea not have cofferdams near base of cliffs and sediment to be reinstated once cofferdams removed.* • *CM refers to YF previous question and asks for feedback on this point regarding modelling. The Project has an approach to understand SSCs, and there is potential to use particle tracking to model bedload sediment, but the cliff stability element is a lot more difficult. CM asked*	

	for feedback on appropriate modelling techniques to understand cliff stability and coatsal erosion due to cofferdams. • *OB agrees that it is hard to model (cliff recession) and advises less of a formal reliance on an individual model and more of a robust expert geomorphological approach along with the use of pre-existing modelling for the area.*	
3	**Physical Processes: Operational: Modelling results:** Modelling was set up for wave and hydrodynamic models for both DBS East and West. **Tidal Currents:** • Model based on worst case layout. • Based on the same parameters (100 wind turbines, 15m monopile diameter, four 65m GBS, one 65m GBS platforms in the export cable corridor. Changes in tidal regime were due to the presence of infrastructure. Changes in flood tide current speed were seen across the array area due to infrastructure. No impact was modelled on the coastal receptors. • Changes were mainly located around the platforms, 1km at worst case. This could result in a 4-5% +/- change in current speed (relative to the baseline). • The further away from the structures, smaller changes were seen – 0.01m/s and 2/3% of the baseline in tidal currents. • Slight variation across the Array Areas There were also no overlapping effects between DBS E and DBS W for both layout options. The worst case change in peak current speed, relative to the baseline, occurs during the spring flood. **Wave Regime:** Changes in wave regime due to the presence of infrastructure. It was highlighted modelling results were based on three return periods. • Advice was taken forward from PEIR, and the 50 percentile return period was assessed, in addition to the 1 in 1 year and 1 in 100 year return periods. • Maximum change seen in Option 2 and 1 in 1 year return period • Modelled in two directions, North (general wave direction) and East to consider changes in waves. A change in significant wave height of 0.16m was seen within 1km of the platforms (65m GBS) and reduced further way from Array Areas (0.04m at 60km). No changes were seen near the coast. There is potential overlap during RP1 (east and north) and RP100 (north), however, these are effects are small (0.04m) and within 2% of the baseline for	

	a 1 in 1 year event. No increase in significant wave height is predicted across all scenarios and no effect on coastal receptors is predicted either. **Changes to bed load sediment transport and seabed morphology due to the presence of infrastructure:** • Changes in bed shear stress output from the tidal modelling. At worst case, there are no overlapping effects between DBS East or DBS West for both options (1 and 2). The maximum change in bed shear stress of 0.02m^2 predicted is locally near the infrastructure and is predicted to be <3% of the baseline, and changes of <1% of baseline within 10km of the structures. Changes were small and localised in terms of bed change and bed shear stress. **Cable protection measures: Nearshore** Consultees requested that no cable protection measures are to be installed in water depths <10m below LAT. A plot showing areas where bedrock was less than 2m below seabed was shared to show the potential location of cable protection. This has been ground truthed with boreholes. • Engineering and geotechnical risk that the bedrock is shallow in the nearshore, and that's the reason for cable protection measures are currently in the PDE . • Cable protection may be needed as a result of this at a worst case, potentially in 9-10mLAT water depth. *LB commented on how the use of cable protection is seen as a significant showstopper from Natural England's perspective within 10m depth contour. She states that they have other projects in the vicinity who have committed to not use cable protection, and states there's a need for this project to find an alternative to avoid a groyne effect, suggesting how even cutting a groove could be of benefit, and that anything raised above the seabed would not be supported by Natural England due to sediment accumulation. Natural England would advise anything other than cable protection due to the concern of Spurn Point. It is a standardised approach (if within a 10m depth contour) along this area of the coast and has been adopted in other projects within the area to avoid implications on the surrounding coastline protected areas and features.* *CM The Project will look into this but what is the 10m depth contour based on from a coastal processes' perspective, and why this needed in this particular area? The ES has calculated closure depth as 6m water depth.* *LB stated that Dogger bank A and B looked into this, and it became a standardised approach that's been advised for Hornsea 4 and Northern Endurance. She states that sediment transport should reach Spurn Point and the various features in the intertidal habitats and Humber Estuary SAC/SPA.* • *LB stated an alternative must be found within this area.*	

	Lbo The Environmental Agency agrees and support Natural England's advice on this and asks what the return time is for the wave height, and quires how representative this information is. *CM The feedback is appreciated and this will facilitate discussion with engineers and the offshore team.* ***Post-meeting note*** *– Review of the Development Consent Orders (DCOs) for Hornsea Project Four and Dogger Bank A & B (formerly Dogger Bank Creyke Beck) confirmed these projects committed to the following in regards to cable protection in the nearshore:* ***Hornsea Project Four*** • *'No cable protection must be employed within 350 metres seaward of MLWS, measured as a straight line'. No commitments are made to use of cable protection within the 10m depth contour.* ***Dogger Bank A & B*** • *'No cable protection must be employed within 350 metres seaward of MLWS, measured as a straight line'; and* • *'Cable protection must be limited to 10% of the cumulative length of all cables laid between MLWS and the 10-metre depth contour as measured against lowest astronomical tide before the commencement of construction'.* *It is noted that the Northern Endurance carbon capture and storage project has committed to having no external protection within the 10m depth contour, given the pipeline for the project makes landfall in close proximity to the Spurn Head geological feature.* *Having reviewed the SI information obtained from site, and the project Cable Burial Risk Assessment material in addition to the different commitments made by previous projects in relation to this issue DBS proposed to commit to installing no burial protection within 350m of MLWS in addition to limiting remedial protection to no more than 10% of the cable length between MLWS and the 10m contour.* **Summary:** • Impacts are generally small/negligible and localised changes. • Various sources have been used to investigate the stratified area and expect the changes to be locally restricted and small. • Water circulation due to infrastructure was not modelled, with assessment being based on expert evidence. Various sources surrounding the stratification of the water have been reviewed. Nearshore, the cable protection measures are a ramp for the sediment to bypass (and will consider any studies undertaken for Dogger Bank A and B projects). In terms of cable repairs, CM states that they estimate 25% of the cable to require maintenance, repair and reburial during the operation phase – which is assessed as a negligible significance of effect.	

	A loss of seabed area due to the foundations and scour protection: a comparison was done between the footprint relative to the Dogger Bank SAC and Southern North Sea SAC – Minor adverse impact assessed. *LB: When considering SACs, minor adverse does not work for the assessment, it should be 'does or does not have adverse effect' in relation to integrity of SAC. There is a separate assessment for this, make sure consistent terminology and clearly signposted to relevant chapters throughout to avoid wrong messaging* *PP: Mentioned that there is a SAC assessment, and noted LB comments regarding terminology when referring to the SAC, and that EIA terminology shouldn't be used.* **AOB:** *EJ: Will a method statement for the modelling will be provided? CM stated that there is a stand-alone technical report, but due to the timings of the modelling it hasn't been send out yet but will be in due course.* *YF: Has the Dogger Bank Zone, as a whole, in terms of the cluster of windfarms been addressed in the ongoing research regarding the possible 'group effect' on that feature – Flamborough front. CM confirms that this will be assessed in terms of CEA and has further looked into literature. There has been conflicting research, and it has been challenging to have confidence in one study. The ES will provide a summary of the papers looked into, but there were not many to references as the work was still ongoing.* *YF: Looking at what is available now, e.g., satellite data, chlorophyll levels, can help understand the position of the front, this could be helpful whilst waiting for wider information and research to come available.* *TD: is it possible for RHDHV to provide a draft summary on research which will be included in the ES. CM stated she will take this away and see when this can be done.*	
4.	**Benthic Ecology Monitoring Survey Summary** The 2023 benthic ecology monitoring survey was summarised, highlighting how sediments across the DBS survey were mainly found to be sands, lesser extent gravel, and a small % of fines. On the Ecology side of the survey, one habitat and five biotopes were identified. The biotope 'piddocks with a sparse associated with fauna in Atlantic circalittoral very soft chalk or clay was found DBS East. 16 stations were evaluated for the potential of Annex I habitat 'Reef' (geogenic), and overall assessment for the aggregations of cobbles revealed that there was 'no resemblance' or 'low resemblance' to a stony reef. **Impact conclusions from the ES** Worst effect was minor adverse **Temporary physical disturbance:**	RF

	Habitats predicted to have a low-medium sensitivity. Piddock habitat has a higher sensitivity than other biotopes. Total disturbance of less than 25km² for the Array Areas and less than 18km² for the ECC for both Projects together, which represents a very small portion of the Dogger Bank and wider North Sea, and combined with the temporary nature of the disturbance, is considered to be of negligible magnitude. Therefore, a potential minor adverse significance of effect is predicted. **Increases in SSCs:** Modelling for physical processes as suggested that SSCs could be up to 1000mg/l within the ECC but deposition will be a maximum of 0.5-5cm. Impacts expected to be fairly localised around the point of discharge, negligible and predicted to be minor adverse in significant effect. **Remobilisation of contaminated sediment:** The sensitivity of the identified biotopes within the Offshore Development Area to chemical pressures have not been assessed by MarESA However, the majority of instances of elevated contaminants were located in the vicinity of ST161, were arsenic levels were elevated. ST161 was characterised by the biotope '*Mediomastus fragilis, Lumbrineris* spp. and bivalves in Atlantic circalittoral coarse sand or gravel'. The evidence for species typical of this biotope indicates a tolerance of low-levels of heavy metal contamination. *Mediomastus fragilis*, a key indicator species for the biotope, and is considered to be tolerant of contaminated sediments (Dean, 2008). Other species typical of the biotope, such as *Owenia fusiformis* and *Glycera. lapidum*, are noted as being tolerant of heavy metal contamination (Gibbs et al., 2000; Hiscock & Bell, 2004). **Noise impacts:** There is evidence to suggest that some benthic species perceive and react to noise and vibration. However, the MarESA sensitivity assessment for all of the biotopes recorded in the Offshore Development Area is that noise impacts are 'Not Relevant'. Studies have been done on crustaceans, but this is poorly understood. The studies stated that species have the potential to be impacted but the noise impacts should be localised. The significant effect has therefore been assessed as negligible. Based on the worst case negligible sensitivity of biotopes and the low magnitude of impact of underwater noise on benthic ecology receptors during the construction phase, the significance of effect is assessed as negligible. **Long-term habitat loss:** Habitats within the offshore development are predicted to have a high sensitivity to long term habitat loss. The estimated area of worst case habitat loss within the DBS East and DBS West Array Areas is 1.09 km² and 1.12 km² respectively, representing 0.31% and 0.32% of each Array Area and combined only 0.02% of the area of the Dogger Bank SAC.	

Estimated worse case of habitat loss of <1% each array area. This represents a small % of the Dogger Bank SAC (<0.02%) and has therefore been considered negligible despite being long term for the lifetime of the project.

EMF:

The effects of EMF on benthic communities are not well understood, although studies (suggest that benthic communities growing along offshore export cables routes are similar to those in nearby areas beyond the likely reach of EMF.

Jakubowska *et al* (2019) studied the effect of EMF on the behaviour and bioenergetics of the polychaete, *Hediste diversicolor*. No avoidance or attraction behaviour to EMF was shown, but burrowing activity was enhanced in EMF treatment, indicating a potential stimulating effect on bioturbation potential. The presence of increases EMF will last the entirely of the operational phase of the project and has been assessed as negligible significance in terms of effect due to the cable burial.

Colonisation of introduced substrate:

Habitats within the offshore development area have a 'not sensitive – high sensitivity' of introduced substrate, including invasive and non-native species.

- biosecurity measures will be introduced by employing industry standard advice and security measures.

Of the identified biotopes in the Offshore Development Area, four are considered not sensitive to the introduction of INNS, primarily due to the mobile nature of the sediments upon which the biotopes are based preventing non-natives from establishing themselves. The remaining three are considering highly sensitive:

- *Mediomastus fragilis*, *Lumbrineris* spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel (MC3212)
- *Abra prismatica*, *Bathyporeia elegans* and polychaetes in circalittoral fine sand (MC5212)
- *Abra alba* and *Nucula nitidosa* in circalittoral muddy sand or slightly mixed sediment (MC5214)

JP: Agreed that the contaminants are negligible and that the levels are expected in the North Sea. In terms of the ES, the THC data is less relevant, especially when the use of PAH data is being done. Regarding SQGs, are they the Canadian SQGs? RF confirmed this.

JP: Which laboratory was used for the contaminants analysis? RF clarified this was Socotec.

Conclusions from the CEA

Projects Screened-in listed on slide

	A 14km radius from the Offshore Development Area has been used to determine the list of projects considered for the CEA. This is based on the maximum tidal excursion ellipse Plans / projects have been assigned a tier level between 1 and 7, based on the most recent guidance from Natural England (2022). Dogger Bank A & B ECCs do not overlap but the 1km Construction Buffer Zone does. EMF and remobilisation of contaminant sediment were screened out. They were considered negligible and therefore no cumulative effects. **Temporary physical disturbance:** RF highlights how there is the potential to overlap with HOW4 during construction. • Due to known construction timings or lack of spatial overlap there is no pathway for cumulative temporary physical disturbance impacts with DB A&B, Northern Endurance or EGL2. • HOW4s ECC crosses the Projects ECC, as discussed on other slides the sensitivity of prevalent biotopes within the Offshore Development Area to temporary physical disturbance is considered to be low due to their high recoverability. • However, the biotope 'Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay', present at several stations within the Offshore Development Area has a higher sensitivity (medium) to temporary physical disturbance than others present and may be impacted by cumulative construction activities. This biotope was not recorded within surveys for the HOW4. • Given that there will be a small area of habitat disturbance and it is unlikely that a temporal overlap in export cable construction activities would occur, there are not predicted to be any significant cumulative effects. • The construction timelines for other projects are not known so it is not possible to undertake an assessment. **Increases in SSC:** Potential overlap with HOW4 and EGL2. As with temporary physical disturbance there is there is no pathway for cumulative temporary physical disturbance impacts with DB A&B, or Northern Endurance. • Sensitivity of biotopes across the development area is predicted to be low, apart from the Piddock habitat which was given a medium sensitivity. • Sediment plumes from the Projects foundation installation and drilling are expected to increase 2mg/l above background levels and travel a	CC

	maximum of 5km from the point of disturbance, lasting no more than a few days. • During cable installation, suspended sediment concentrations of up to 1000mg/l occur within 1km of the cable corridor with values returning to background levels within 5-7km of the cable corridor. From around 60km offshore, the extent of the plume reduces from 5km to around 2km within the Array Areas. • During cable installation it could go up to 1000mm, with the potential for the sediment plumes to overlap and have a cumulative effect. • However, the cumulative impacts of increased SSC are expected to be of local spatial extent, temporary duration, intermittent and reversible. Fine suspended sediment may be transported a further distance than coarse sediments, however this is likely to be widely and rapidly dispersed and within the range of natural variability within the region. Based on a medium sensitivity of habits and low magnitude of impact, a minor adverse significance of effect is predicted **Underwater Noise and Vibration:** The significance of effect for the Projects-alone during construction and decommissioning is negligible. Impacts would be localised to the immediate vicinity of the source and it would be unlikely there was a spatial overlap of activities. Therefore, the cumulative effect would be negligible. **Habitat loss:** • Other projects within the Dogger Bank SAC were also considered. • CEA: 0.117% of the Dogger Bank SAC could be impacted by long-term habitat loss. • Small % of biotopes within the SAC are small. The significance effect is minor adverse. *EJ stated that the predicted habitat loss in the PEIR in the Dogger Bank SAC for DBS East and West was 11.4km^2 and has now reduced to 2.2km^2. What has been done to the project scope for this to be reduced, perhaps reduction in loss from scour and cable protection? RF: The Offshore Development Area has been refined and the Array Areas are smaller. EJ: understood, but thought the maximum design parameters was staying the same. CC: suction bucket jackets and gravity-based foundations have been removed from the Array Areas, which has overall reduced the size.* • *Offshore platforms now only use monopiles as a worst-case* • *Suction buckets and gravity based have been removed from the entire Array Area.*	RF

	Post-meeting note: This 11.4km2 was for the Projects built together and represented the entire predicted habitat loss across the Offshore Development Area, not just the Dogger Bank SAC. The table presented shows the area in the Dogger Bank SAC only (which takes out a lot of the ECC). This in addition to the above discussion shows how the predicted habitat loss area has been reduced. *EJ: Welcomed the removal of gravity bases for platforms within the Array Areas, but highlighted that the marine processes modelling still included gravity base platforms in the arrays as the WCS. CM: modelling was undertaken when gravity based were worst-case scenario, and the design envelop changes with time. EJ: appreciates that the design has changed since the modelling was started, but stated that Natural England would likely disagree with this approach at this point and would recommend that the true worst-case and design parameters (monopiles) be assessed. The worst case scenario assessed should reflect the maximum design parameters of the project being applied for or it is unrealistic, we would recommend that the modelling is rerun based on the final design. CM: monopiles will be assed in the assessment, but the modelling will be including GBS for the Offshore ECC, and is therefore still valid in the model.* **Colonisation of introduced substrate:** The amount of hard substrate introduced to the wider region via these developments will be broadly similar to the long-term habitat loss areas calculated. Due to this very small area, it is unlikely that a 'reef effect' will occur in the Dogger Bank SAC due to introduced substrate, and therefore the magnitude of impact is negligible. As the sensitivity of the biotopes present within the Offshore Development Area is high but the magnitude of impact is negligible, the overall significance of cumulative effect from the colonisation of introduced substrate, including non-native species is minor adverse. **Draft RIAA conclusions:** Emphasis on that these are not the final conclusion - ongoing work is still being done to consider the Round 4 plan level HRA that has also been conducted. • Dogger bank SAC: Currently is assessing for a potential adverse effect for the abrasion/ disturbance of substate on the seabed, physical change to another seabed or sediment type. CC clarifies that they are assessing for a potential adverse effect on integrity (AEoI) for this project with other projects as well. For the project alone, there is no potential adverse effect. The standard mitigation hierarchy approach has been utilised when considering the potential for AEoI on any affected National Site Network sites. Two sites were also considered for the potential for Annex 1 habitats (Flamborough Head SAC and Humber Estuary SAC). After the assessment, neither site was at risk of AEoI for both the project alone and in combination with other projects. • Recent modelling states that any significant deposition will not reach the Flamborough SAC, and the only potential effect could be from	

	saltation rate changes. The designated features within the SAC are considered not to be sensitive light saltation rate changes. • The Humber Estuary had potential concerns with sediment transport, which could risk the supporting processes – CC states that ongoing conclusions are being done, but at the moment there are no potential adverse effects (from the project alone or in combination with other projects in the area). For the Humber Estuary, considerations are being taken for the cofferdams to ensure the conclusions stay valid. In terms of Dogger Bank, they are waiting for the EIA assessment to be finalised, and then they will consider the wording (linking back to LB's comment on terminology) throughout the assessment and make sure that it aligns with the plan level HRA. Another meeting ill be sent up to discuss the potential compensation options with stakeholders who have not been involved in this process. *EJ questioned whether the impact pathways for the DB SAC habitat loss was specific. CC stated that this has been considered under another seabed type and will be made clear in the assessment.* *EJ: Has the project come to a decision of whether it will be committing to remove cable and rock protection end of life. CC: The Project is not committing 100% at this moment in time and will look into potential options later. EJ queried whether this is being considered a permanent loss in terms of habitat in the assessment. CC confirmed it was.* **PEIR comments** *Regarding a PEIR comment from the MMO "The MMO recommended that consideration is given to the impact of paint flakes (as microplastic pollution), originating from maintenance and operation (specifically application, cleaning and scraping off of corrosion resistant paints) of the Projects, on benthic receptors." RF: The Projects understands that paint flakes will be dispersed as small particles, but wonders how an assessment can be done, and how the projects paint flakes could be separated from other projects. We suggest that this is perhaps broadscale research but not EIA.* *JP: states that any type of chemical should be considered early in the PEMP. This is usually how these types of impacts are considered,* *ZT: agreed with JP, but further conversations with the technical advisors are recommended. Agreed that this is a wider research question and that there is no baseline available.* *The PEIR comment from the MMO recommended that the potential increase in sediment contaminants from offshore infrastructure is considered as a part of the monitoring for the projects. RF: An updated paper looking into metal emissions in North Sea sediments from galvanic anodes, showed levels were mostly within the known variability of North Sea sediments. Therefore, monitoring has not been included in the IPMP. JP: has no comments on this immediately. Have read the paper, but can't see why they would disagree strongly.*	
5.	**AOB**	RF

	PM questioned if the extent of the piddocks habitat was known. RF: a drop-down camera was used, and then grab sampling was done, which only identified the species at two locations in DBS East. *PM asks whether there is any geophysical data to see the general overlap with installation works (piling). RF is unsure whether the turbines overlap due to lay-out unknown at the moment, but it would be difficult to pull out those habitats in particular due to overlap with other biotope and structure. In addition, there will be pre-construction monitoring which would identify the extent of habitats.*	
6.	**Summary and next steps:** • Carrying on with chapter finalisations • Updates will be made to the chapter based on this ETG. • Minutes will be drafted and sent out for review. • Marine modelling, geotechnical and benthic monitoring report will be sent out also. • ES to be submitted by May 2024.	RF
ID	**Action**	**Owner**
1.	Slide pack circulated after meeting with the modelling report, marine geotechnical and benthic monitoring report will be sent out also.	RF
2.	CM will define the wave return period in the ES	CM
3.	OB stated he would put his thoughts about the need for expert geomorphological expertise, in regard to cliff recession, in writing. This will be sent to the relevant people within the ETG.	OB

RWE Renewables UK Dogger Bank
South (West) Limited

RWE Renewables UK Dogger Bank
South (East) Limited

Windmill Business Park
Whitehill Way
Swindon
Wiltshire, SN5 6PB