

**RWE Renewables UK Dogger Bank
South (West) Limited**

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**Dogger Bank South Offshore
Wind Farms**

The Applicants' Responses to ExQ2

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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.
Bedforms	Features on the seabed (e.g. sand waves, ripples) resulting from the movement of sediment over it.
Closure depth	The depth that represents the 'seaward limit of significant depth change', but is not an absolute boundary across which there is no cross-shore sediment transport.
Collision Risk Model (CRM)	Quantitative means to estimate the number of predicted collisions between seabirds recorded in the Array Areas and rotating wind turbines.
Coastal processes	Collective term covering the action of natural forces on the shoreline and nearshore seabed.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
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).

Term	Definition
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).
Expert Topic Group	A forum for targeted engagement with regulators and interested stakeholders through the Evidence Plan Process.
Fish and Shellfish Ecology Study Area	The Fish and Shellfish Ecology Study Area for the Projects is defined as ICES Rectangles 36E9; 36F0; 37E9; 37F0; 37F1; 37F2; 38F0; 38F1; and 38F2. It covers a total of 26,858km ² , and includes the Offshore Development Area with a minimum buffer distance of 7km.
Fisheries Liaison Officer (FLO)	Primary contact point between the fishing community and the Applicant, with responsibility for disseminating relevant Project information.
Glacial till	Poorly sorted, non-stratified and unconsolidated sediment carried or deposited by a glacier.
Habitats Regulations	Conservation of Habitats and Species Regulations 2017 and Conservation of Offshore Marine Habitats and Species Regulations 2017.
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.
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.
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.
Mean High Water Springs (MHWS)	MHWS is the average of the heights of two successive high waters during a 24 hour period.
Mean Low Water Springs (MLWS)	MLWS is the average of the heights of two successive low waters during a 24 hour period.

Term	Definition
National Policy Statement (NPS)	A document setting out national policy against which proposals for NSIPs will be assessed and decided upon.
Nearshore	The zone which extends from the swash zone to the position marking the start of the offshore zone (~20m).
Numerical modelling	Refers to the analysis of coastal processes using computational models.
Offshore (Marine and Coastal Processes Only)	Area seaward of nearshore in which the transport of sediment is not caused by wave activity.
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 Cable Corridor	This is the area which will contain the offshore export cables between the Offshore Converter Platforms and Transition Joint Bays at the landfall.
Offshore Export Cables	The cables which would bring electricity from the offshore platforms to the Transition Joint Bays (TJBs).
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 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 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.
Outline Marine Written Scheme of Investigation (WSI)	Project specific document forming the agreement between the Applicants, the appointed archaeologists, contractors and the relevant stakeholders seaward of Mean High Water Springs (MHWS). The document sets out the methods to mitigate the effects on all the known and potential archaeological receptors within the Hornsea Four offshore Order Limits.
Preliminary Environmental	Defined in the EIA Regulations as information referred to in part 1, Schedule 4 (information for inclusion in environmental statements) which has been

Term	Definition
Information Report (PEIR)	compiled by the applicants and is reasonably required to assess the environmental effects of the development.
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.
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.
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.
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.
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
Suspended sediment	Wind-generated waves that have travelled out of their generating area. Swell characteristically exhibits a more regular and longer period and has flatter crests than waves within their fetch.
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).
Vessel Monitoring System (VMS)	Satellite tracking system using a device on a vessel which transmits the location, speed and course of the vessel.
Wind turbine	Power generating device that is driven by the kinetic energy of the wind.

Acronyms

Term	Definition
AA	Anti-aircraft
AEoI	Adverse Effects on Integrity
AIS	Automatic identification system
ALC	Agricultural Land Classification
ALO	Agricultural Liaison Officer
amsl	Above mean sea level
ANS	Artificial Nesting Structure
AyM	Awel y Mor
BMV	Best and Most Versatile
CAA	Civil Aviation Authority
CAH	Compulsory Acquisition Hearing
CBRA	Cable Burial Risk Assessment
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CfD	Contracts for Difference
CIMP	Compensation Implementation and Monitoring Plan
CO ₂	Carbon Dioxide
CTMP	Construction Traffic Management Plan
CWFG	Commercial Fisheries Working Group
dB SEL _{ss}	Decibel sound exposure level single strike
DBA	Dogger Bank A
DBS	Dogger Bank South
DCLG	Department for Communities and Local Government

Term	Definition
DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department of Energy Security and Net Zero
DIO	Defence Infrastructure Organisation
DL	Deadline
DML	Deemed Marine Licence
ECC	Export Cable Corridor
eDoB	extended Defence of Britain database
EDR	Effective Deterrent Range
EIA	Environmental Impact Assessment
EMF	Electromagnetic Field
EMP	Ecological Management Plan
ERYC	East Riding of Yorkshire Council
ES	Environmental Statement
ETG	Expert Topic Group
ExA	Examining Authority
ExQ1	Examining Authority's First Written Questions
ExQ2	Examining Authority's Second Written Questions
FCS	Favourable Conservation Status
FID	Final Investment Decision
FFC	Flamborough and Filey Coast
FLO	Fisheries Liaison Officer
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables Group

Term	Definition
GDA	Gun Defended Area
GES	Good Environmental Status
GHG	Greenhouse Gas
GW	Giga Watt
HAP	Humber Archaeology Partnership
HAR	Habitat Assessment and Restoration Ltd
HCC	Hull City Council
HDD	Horizontal Directional Drilling
HE	Historic England
HPAI	Highly Pathogenic Avian Influenza
HRA	Habitats Regulations Assessment
HS2	High Speed 2
IEMA	Institute of Environmental Management Assessment
IP	Interested Party
iPCoD	Interim Population Consequence of Disturbance
IPMP	In Principle Monitoring Plan
ISH	Issue Specific Hearing
JLAF	Joint Local Access Forum
JNCC	Joint Nature Conservation Committee
KCSG	Kittiwake Compensation Steering Group
km	Kilometres
KP	Kilometre Point
LAT	Lowest Astronomical Tide

Term	Definition
LCoE	Levelised Cost of Energy
LIR	Local Impact Report
LLFA	Lead Local Flood Authority
LMP	Landscape Management Plan
LoNI	Letter of No Impediment
LPA	Local Planning Authority
LSE	Likely Significant Effect
m	Metre
MCA	Maritime and Coastguard Agency
MCZ	Marine Conservation Zone
MEEB	Measures of Equivalent Environment Benefit
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MoD	Ministry of Defence
MRF	Marine Recovery Fund
MSL	Mean Sea Level
MW	Mega Watt
NAS	Noise Abatement Systems
NE	Natural England
NFFO	National Federation of Fishermen's Organisations

Term	Definition
NMS	Noise Mitigation Systems
NPS	National Policy Statement
NPSE	Noise Policy Statement England
NRMM	Non Road Mobile Machinery
NRW	Natural Resources Wales
O&M	Operation & Maintenance
OCoCP	Outline Code of Construction Practice
OCTMP	Outline Construction Traffic Management Plan
OEMP	Outline Ecological Management Plan
OLMP	Outline Landscape Management Plan
OMMMP	Outline Marine Mammal Mitigation Protocol
OPPP	Outline Pollution Prevention Plan
Ørsted IPs	Ørsted Hornsea Project Three (UK) Limited and Ørsted Hornsea Project Four Limited
OWF	Offshore Wind Farm
OWIC	Offshore Wind Industry Council
OWSI	Outline Written Scheme of Investigation
PA2008	The Planning Act 2008
PEIR	Preliminary Environmental Information Report
PINS	Planning Inspectorate
Projco IPs	Dogger Bank Offshore Wind Farm Project 1 Projco Limited, Dogger Bank Offshore Wind Farm Project 2 Projco Limited, and Dogger Bank Offshore Wind Farm Project 3 Projco Limited
PRoW	Public Rights of Way

Term	Definition
PSA	Particle Size Analysis
PTS	Permanent Threshold Shift
PVA	Population viability analysis
QA	Quality Assurance
RIAA	Report to Inform Appropriate Assessment
RR	Relevant Representation
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SEP & DEP	Sheringham and Dudgeon Extension Projects
SAR	Search and Rescue
SNCBs	Statutory Nature Conservation Bodies
SoCG	Statement of Common Ground
SoS	Secretary of State
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TCC	Temporary Construction Compounds
TJB	Transition Joint Bay
TPO	Tree Preservation Order
TTS	Temporary Threshold Shift
TWT	The Wildlife Trusts
UK	United Kingdom
USI	Unaccompanied Site Inspection
UXO	Unexploded Ordnance

Term	Definition
VHF	Very high frequency
VMS	Vessel Monitoring System
WR	Written Representation
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generator

1 Introduction

1. This document presents the Applicants' responses to the Examining Authority's Second Written Questions (ExQ2) issued on 13th May 2025 [PD-022].
2. This document includes appendices where this permits information to be displayed more clearly in response to questions.
3. Where new information has been produced, this is presented in technical notes, and with updates to chapters, separately to this document.

1.1 Air Quality and Health

Table 1-1 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Air Quality and Health

I.D.	Written Question	Applicants' Response
Air Quality		
AQ.2.1	Low emission vehicles The ExA notes your responses to ExQ1 AQ.1.8 [REP3-027] and to ERYC's responses to ExQ1 [REP4-087] on the same question. Does low emission non-road mobile machinery exist which would be suitable for the proposed construction work? Given that NPS EN-1 states that consideration should be given to making the use of low emission mobile plant mandatory in DCO requirements, and most DCO applications would not be developed to the point at which they would have detailed information on supply chains during their examination, why should this requirement not be imposed to any forthcoming DCO if it were granted, noting that ERYC considers it should be a mandatory requirement?	The Applicants propose to update the Outline Code of Construction Practice (OCoCP) (Revision 4) [REP4-040] to state that the use of low-emission Non Road Mobile Machinery (NRMM) will be mandatory to an agreed minimum standard (e.g. IIIB, IV), subject to maintaining an exemption clause. An exemption clause may be required for scenarios including: - Where low emission versions of specialist equipment are not available to the market; - Where NRMM cannot be retrofitted to reduce emissions (e.g. some specialist larger piling rigs); or - Where equipment is only required for rapid deployment and/or extremely short durations (<30days proposed) (e.g. pumping for surface water management). The Applicants will update the OCoCP to reflect this position, and to commit to providing an NRMM Strategy in the final Code of Construction Practice outlining the process by which the exemption clause could be utilised. This will be secured through Requirement 19 of the Draft Development Consent Order (Revision 8) [document reference 3.1]. This update will be captured within the updated OCoCP to be submitted into the Examination at Deadline 7.
AQ.2.2	Draft SoCG with ERYC The draft SoCG [REP4-059] between you and the applicants suggests that there are no matters of disagreement outstanding between you regarding air quality and health. Confirm whether you consider this to be the case? If not, set out where you consider any disagreements lie.	No response is required. Question directed to East Riding of Yorkshire Council.

1.2 Aviation, Radar, Military and Communications

Table 1-2 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Aviation, Radar, Military and Communications

I.D.	Written Question	Applicants' Response
ARMC.2.1	Military radar The ExA notes your response to Issue Specific Hearing 3 (ISH3) action point 3 [REP4-096], which explains a maximum turbine tip height of 452m above mean sea level (amsl) was considered during the Preliminary Environmental Information Report (PEIR) and subsequently reduced to 396m amsl to avoid impacts on the Staxton Wold radar. Within the Habitat Regulations Derogation Provision of Evidence [REP4-018], section 4.5.2], it explains the proposed development would not be commercially viable if the 34m air gap above sea level was increased. This is due to the resulting hub and blade heights and necessary foundation design, which are not available on the market. Further there are only a small number of vessels able of installing such large components. Can you confirm that section 4.5.2 [REP4-018] should be interpreted that turbines tips at 452m amsl would be unfeasible? Can the applicants reference examples of commercial scale offshore windfarms which have been constructed to blade tip heights in the realm of 452m amsl?	The Applicants do not know of commercial scale offshore windfarms which have already been constructed to blade tip heights in the realm of 452m above mean sea level (amsl). It is acknowledged that 452m amsl upper tip height is beyond the actual dimensions of the design currently envisaged for the DBS Projects. However, it is a standard approach for projects to adopt a Rochdale envelope approach to the consenting design, to allow for technological developments that may occur and to retain flexibility post-consent during the procurement process. This is more likely to be required if the Projects require multiple attempts to secure a Contract for Difference (CFD) or there are other fundamental changes to the business case (e.g. Hornsea Project 4), in order to avoid an additional drawn-out consenting process to allow for any design changes to be agreed. Numerous other projects have consented wind turbine parameters which extend beyond those considered feasible or commercially viable at the time of the Development Consent Order (DCO) application (e.g. Hornsea Project 4 secured a maximum tip height of 370m above LAT, having applied for its DCO in 2021). The Applicants highlight that designing and developing offshore wind farms is a complex, sequential process which involves dealing with and balancing a high level of uncertainty and risk, particularly in the pre-consent phases. In recognition of this, EN-3 has established a clear acknowledgement of the need for flexibility of project details under EN-3 2.6 and 2.8.74. The Applicants have identified a number of needs for flexibility in their designs to manage uncertainties. The turbine parameters are an excellent example of this given uncertainty relating to development timelines and the interplay of this with turbine technology progression. In recognition of this need for flexibility the Applicants have assessed a worst case envelope in line with Section 2.6 of EN-3.
ARMC.2.2	Military radar During ISH3 [EV8-002], the ExA noted ES Chapter 5 [REP1-009], section 5.5] sets out the maximum design parameters which may include 100 small wind turbines at 291.8m amsl or 57 large at 394m amsl. Small and large turbines are suggested to each have around a 15MW and 20MW installed generating capacity respectively [REP1-009], section 5.5.2]. Could you confirm the approximate installed generating capacity for each wind turbine generator with maximum blade tip heights of 310m amsl and 349m amsl?	MySE has publicly revealed plans for a 22 megawatt (MW) Wind Turbine Generator (WTG) with 310m rotor diameter. With a 34m lower tip clearance (amsl) this would equate to ~350m amsl upper tip height. Siemens Gamesa has recently completed erection of a 21.5MW prototype turbine with 276m rotor diameter. This illustrates the range of options that are foreseen today. However this is a snapshot in time that will evolve, and the commercial arrangements for such WTG options remains to be seen. In order to assess the impact of realistic 'worst case' scenarios, the project is required by the DCO process to adopt conservative assumptions for wind turbine parameters (hence a lower specific power consistent with other historic wind turbines is assumed to determine a conservative swept area for ornithology assessment) and conservative assumptions for the quantity of wind turbines (hence a lower power per wind turbine in order to assess a conservative seabed footprint). A design envelope and ability to consider other forms of radar mitigation are key to ensuring that the Projects have tools to maintain their competitiveness, without which projects are delayed or cancelled as has been seen in the last few weeks with Hornsea Project 4. Hence why the Applicants have a Rochdale envelope mentioned in previous responses. The Applicants highlight that designing and developing offshore wind farms is a complex, sequential process which involves dealing with - and balancing - a high level of uncertainty and risk, particularly in the pre-consent phases. In recognition of this, EN-3 has established a clear acknowledgement of the need for flexibility of project details under EN-3 2.6 and 2.8.74. The Applicants have identified a number of needs for flexibility in their designs to manage uncertainties. The turbine parameters are an excellent example of this given uncertainty relating to development timelines and the interplay of this with turbine technology progression. In recognition of this need for flexibility the Applicants have assessed a worst case envelope in line with Section 2.6 of EN-3.

I.D.	Written Question	Applicants' Response
ARMC.2.3	Military radar Staxton Wold Primary Surveillance Radar is reported to benefit from the Indra Lanza Long-Range Tactical Radar (LTR-25) system [APP-125, paragraph 128] and during ISH3 [EV8-002] the applicants explained the system may have the capabilities to mitigate the effects of the proposed wind turbine system. Can you confirm if the system has these capabilities? The ExA appreciates this information may be sensitive.	No response is required. Question directed to the Defence Infrastructure Organisation (DIO).
ARMC.2.4	Military radar During ISH3 [EV8-002 and REP4-086], the applicants explained that Programme Njord may be unable to provide mitigation for the intended first power generation from the proposed Dogger Bank South (DBS) West array in 2030/ 2031. Further, that interim mitigation may be required to enable commencement of energy generation prior to an enduring mitigation solution by Programme Njord. Can you advise what year Programme Njord would likely deliver operational capabilities of mitigating adverse effects on military radar capability? If this is beyond 2030/ 2031, can you advise what interim mitigation measures could likely be jointly pursued between the MoD and the applicants?	No response is required. Question directed to the DIO.
ARMC.2.5	Air Navigation Order 2016 CAA and DIO: The CAA and DIO are asked for their views as to the geographical extent of relevant provisions (articles 222 and 223) of the Air Navigation Order 2016. As the parties will be aware, s120 of the Planning Act 2008 (PA2008) allows for a DCO to include provision applying and/ or modifying a statutory provision which relates to any matter for which provision may be made in the DCO. CAA, DIO and the applicants: If either the CAA or DIO takes the view that the geographical extent of the Air Navigation Order does not extend to the proposed development site, should it be applied by express provision in the draft DCO [REP4-005]? The applicants are asked to liaise with the CAA and DIO in this regard and consider whether an additional article may be required to expressly apply relevant provisions of the Air Navigation Order (with modifications if necessary) to the draft DCO.	The Applicants understanding is that, whilst some aspects of the Air Navigation Order 2016 do extend beyond UK territorial waters (for example, where they apply to UK aircraft operating beyond territorial waters), the provisions of section 223 of the Air Navigation Order 2016 do not extend beyond UK territorial waters. The Applicants will review the Civil Aviation Authority (CAA's) and DIO's responses to this question and consider whether the provisions of section 223 should be expressly applied through the Draft DCO (Revision 8) [document reference 3.1].

1.3 Benthic and Intertidal Ecology and Relevant Habitats Regulations Assessment (HRA) Aspects

Table 1-3 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Benthic and Intertidal Ecology and Relevant Habitats Regulations Assessment (HRA) Aspects

I.D.	Written Question	Applicants' Response
BE.2.1	NPSs in relation to benthic and intertidal ecology Please explain why you have not included and explained in ES Chapter 9 [APP-085] how the relevant policies on NPS EN-1 have been met for benthic ecology, while it has been done for other ecological topics such as marine mammals?	The relevant policies of NPS EN-1 are included within Table 1-1 of Policy Compliance Assessment Tables [APP-227]. As the National Policy Statement (NPS) is overarching and policies not topic specific, they were not included within the majority the Environmental Statement chapters. However, policies of relevance will be included in the updated Chapter 9 Benthic and Intertidal Ecology [APP-085] and submitted at Deadline 7.
BE.2.2	NPS EN-3 in relation to benthic and intertidal ecology The ExA notes that ES Chapter 9 [APP-085] section 9.4.11 does not reference the following paragraphs of NPS EN-3. Can you explain why the following paragraphs of NPS EN-3 have been omitted? If they were omitted in error, can you explain how the application fulfils these policy requirements in NPS EN-3 in relation to benthic and intertidal ecology? a) 'The applicant should demonstrate compliance with mitigation measures identified by The Crown Estate in any plan-level HRA produced as part of its leasing round'. NPS EN-3 paragraph 2.8.123 b) 'applicants should follow guidelines for leasing transmission assets infrastructures, and any successor to it produced by The Crown Estate'. NPS EN-3 paragraph 2.8.124 c) 'applicants must always employ the mitigation hierarchy, in particular to avoid as far as is possible the need to find compensatory measures for coastal, inshore and offshore developments affecting SACs SPAs, and Ramsar sites and/or MCZs. It is essential that applicants involve SNCBs, other statutory environmental bodies (e.g. Historic England) and Defra, in conjunction with the relevant regulators, as early as possible in the planning process to enable discussions of what is and isn't a significant and/or adverse effect, subsequent implications, and, if required, mitigation and/or compensation.' NPS EN-3 paragraph 2.8.213 d) 'At the earliest possible stage, alternative ways of working and use of technology should be employed to avoid environmental impacts. For example, construction vessels may be rerouted to avoid disturbing seabirds. Where impacts cannot be avoided, measures to reduce and mitigate impacts should be employed, for example using trenching techniques or noise abatement technology'. NPS EN-3 paragraph 2.8.214 e) 'applicants should undertake a review of up-to-date research and all potential avoidance, reduction and mitigation options presented for all receptors'. NPS EN-3 paragraph 2.8.215 f) 'Only once all feasible avoidance, reduction and mitigation measures have been employed, should applicants explore possible compensatory measures to compensate for any remaining significant adverse effects to site integrity'. NPS EN-3 paragraph 2.8.216' g) applicants must develop an ecological monitoring programme to monitor impacts during the pre-construction, construction and operational phases to identify the actual impacts caused by the project and compare them to what was predicted in the EIA/HRA.' NPS EN-3 paragraph 2.8.221	Items b), e), f), j) and k) are not specific to Chapter 9 and so where not included in Table 9-4 of Chapter 9 Benthic and Intertidal Ecology [APP-085], however item l) was included. The Applicants note that items a), b), e) - l) were included within Table 1-2 of Policy Compliance Assessment Tables [APP-227], whereas items c), d), j) and k) were omitted in error. These have been included in Appendix A of this document. Items a), c), d), and g) – i) will be added to the updated Chapter 9 Benthic and Intertidal Ecology [APP-085] at Deadline 7. Regarding e) and f), the approach to mitigation has been established through the Applicants' EIA methodology approach (Chapter 6 EIA Methodology [APP-076] - section 6.8). The approach to the EIA accords with all relevant legislation and policy, in particular, the Planning Act 2008 and associated EIA Regulations.

I.D.	Written Question	Applicants' Response
	h) 'Should impacts be greater than those predicted, an adaptive management process may need to be implemented and additional mitigation required, to ensure that so far as possible the effects are brought back within the range of those predicted'. NPS EN-3 paragraph 2.8.222 i) 'Monitoring should be of sufficient standard to inform future decision-making. Increasing the understanding of the efficacy of alternatives and mitigation will deliver greater certainty on applicant requirements.' NPS EN-3 paragraph 2.8.223 j) 'Where HDD is proposed, the applicant should provide a mitigation plan to account for the possibility that HDD fails.' NPS EN-3 paragraph 2.8.229 k) 'The applicant should explain their justification for the alternative plan and ensure this is the least impactful method possible.' NPS EN-3 paragraph 2.8.230 l) 'Where cumulative effects on intertidal habitats are predicted as a result of the cumulative impact of multiple cable routes, applicants of various schemes are encouraged to work together to ensure that the number of cables crossing the intertidal/coastal zone are minimised, and installation and decommissioning phases are coordinated to ensure that disturbance is also reasonably minimised'. NPS EN-3 paragraph 2.8.231	
BE.2.3	Report to Inform Appropriate Assessment (RIAA) Habitats Regulations Assessment (HRA) Part 2 of 4 - Annex 1 Offshore Habitats and Annex II Migratory Fish Revision 4 The applicants have submitted an updated RIAA HRA Part 2 of 4 - Annex I Offshore Habitats and Annex II Migratory Fish Revision 4 into the examination at deadline (DL) 4 [REP4-014]. There were considerable updates to section 6.4.2.6.1 physical change (to another seabed / sediment type) of the Dogger Bank Special Area of Conservation (SAC). Please provide any comments you have on this updated section or any other parts of this document.	No response is required. Question directed to Natural England (NE), The Wildlife Trusts (TWT), Lincolnshire Wildlife Trust and The Marine Management Organisation (MMO).
BE.2.4	Likely recoverability of benthic receptors a) Respond to NE's advice in Appendix C4 [REP4-127] that the pathways of effect which have been considered do not address impacts from the creation of depressions from Unexploded Ordnance (UXO) clearance or jack-up operations in areas of coarse or mixed sediments and that these areas would need to be considered as permanent habitat change or loss unless it can be otherwise evidenced that they would backfill with similar sediment types. b) Can you provide further evidence in this regard? c) What enhanced monitoring do you propose for this effect and how is it secured in the draft DCO?	a) & b) 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 the seabed sediments, the 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 until it becomes completely infilled over a period of months to a few years (see below), after which seabed morphology and sediment transport regime returns to baseline conditions. The UXO clearance campaign referenced in 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], 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.

I.D.	Written Question	Applicants' Response
		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] shows 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], 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 SAC the total footprint would be 820m², adding 0.05% to the assessed footprint of permanent habitat loss. c) The In Principle Monitoring Plan (Revision 3) [REP4-052] includes provision for pre- and post-construction geophysical survey of the Array Areas and Offshore Export Cable Corridor (see Table 1-2), these surveys would pick up any changes to the seabed profile. These surveys are required under the DCO (conditions 20(4)(b) and 22(4)(b) in DMLs 1 and 2 and equivalent in the other DMLs). Any further survey requirements would be addressed via the separate marine license for UXO clearance.
BE.2.5	Benthic halo effects Respond to NE's advice in Appendix C4, Table 2 [REP4-127] that insufficient evidence has been provided by yourselves to address NE's concerns on this issue set out in Relevant Representations [RR-039] and Appendix C2.1 of NE's DL2 submission [REP2-065].	The Applicants have provided an Ecological Halo Effects Technical Note [document reference 15.7] at Deadline 5, which includes an expanded review of literature, implications for the Projects and footprint of effect provided without prejudice should the Secretary of State determine it contributes to AEoI. The Applicants reiterate that Natural England has had the opportunity to raise what is essentially an additional impact at Scoping and HRA Screening (in 2022), Section 42 consultation (in 2023) or during any of the ETG consultations since 2022. The Applicants note that this impact was never raised in relation to the conclusions of the Plan Level Habitats Regulations Assessment (HRA) or in any of the Steering Group meetings for the Strategic Plan (Round 4 Dogger Bank Strategic Compensation Plan [APP-060]).
BE.2.6	Flamborough Head SAC assessment for Annex I habitats a) The applicants have inserted a paragraph into the RIAA Part 2 of 4 page 66 [REP4-014] stating: 'As noted in Natural England's Advice on Operations for the Flamborough Head SAC (Natural England, 2025), the evidence base suggests that there is no interaction of concern between the feature 'Vegetated sea cliffs of the Atlantic and Baltic Coasts' and the potential pressures associated with the activity 'Power cable: laying, burial and protection' (i.e. installation of the Offshore Export Cable Corridor). As such, this feature has not been considered further in this assessment'. Do you agree with this statement from the applicants or have any comments you wish to make about it? b) The applicants submitted an updated Benthic Ecology Technical Note (Revision 2) [REP3-025] at DL3 to include the additional detail for the biotopes. What is your latest position on whether biotopes have been sufficiently considered and characterised within the Flamborough Head SAC, as this remains an outstanding point on your Risk and Issue log at DL4, reference C9/C19 [REP4-129]. Have the applicants satisfactorily considered the nature of secondary impacts, point 1 of Table 2 of Appendix C2.1 [REP2-065]? If not, explain what the applicants could do within the remaining examination time to resolve these issues.	No response is required. Question directed to NE.

I.D.	Written Question	Applicants' Response
	c) What is your most recent position on whether Adverse Effects on Integrity (AEol) can or cannot be ruled out for Annex I habitats of the Flamborough Head SAC? Please break this down by impact pathway and qualifying features. d) If AEol cannot be ruled out, explain in detail why and what the applicants could do within the remaining examination time to resolve this.	
BE.2.7	Flamborough Head SAC assessment and compensation proposals for Annex I habitats The ExA notes your response to BE.1.16 from the ExA's first written questions and that NE's response in point 1 of Table 2 of Appendix C2.1 [REP2-065] states the issues in question BE.2.6 above, should be readily resolvable. NE stated that without this information it is unable to provide advice with certainty on the likelihood of the conservation objectives of the Flamborough Head SAC being hindered. a) Explain how this issue has progressed since then. b) Given the stage of the examination, and the remaining outstanding concerns from NE in relation to this issue, the ExA believes it necessary to repeat the question in BE.1.16 asking, what compensation proposals you have for the situation in which NE, as the Statutory Nature Conservation Body (SNCB), were to advise it cannot rule out AEol for the Flamborough Head SAC in relation to Annex I habitats and the Secretary of States agrees with this position?	a) The Applicants can confirm this issue has been progressed, with Natural England confirming in REP4-129: C7 of the Risk and Issues Log for Deadline 4 [REP4-129] that: <i>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.</i> In response to this, the Applicants confirm that the updates presented in the Benthic Ecology Technical Note (Revision 2) [REP3-025] will be incorporated into the ES at Deadline 7. b) Natural England have confirmed via email dated 19th May 2025 that they will be ruling out AEol on Flamborough Head at Deadline 5 and do not consider that a derogation case is needed. As such the Applicants maintain the position that no compensation proposals are necessary in relation to the Flamborough Head SAC.
BE.2.8	Humber Estuary SAC assessment for Annex I habitats a) Noting the revisions the applicants have made to the RIAA submitted at DL4 [REP4-014], what is your most recent position on whether AEol can or cannot be ruled out for Annex I habitats of the Humber Estuary SAC? Please break this down by impact pathway and qualifying features? b) If AEol cannot be ruled out, explain in detail why and what the applicants could do within the remaining examination time to resolve this.	No response is required. Question directed to NE.
BE.2.8	Humber Estuary SAC assessment and compensation proposals for Annex I habitats a) Please confirm where your statement [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, is secured in the draft DCO. b) Given the stage of the examination, and the remaining outstanding concerns from NE in relation to this issue, the ExA believes it necessary to ask, what compensation proposals you have for the situation in which NE, as the SNCB, were to state it cannot rule out AEol for the Humber Estuary SAC in relation to Annex I habitats and the Secretary of States agrees with this position.	a) The 116m figure stated in The Applicants' Responses to Deadline 2 Documents [REP3-028] is an indicative calculation, which results from taking the longest possible straight line within the area between the 10m depth contour and 350m seaward of MWLS (in this case 1.16km) and taking 10% of this figure, in line with Condition 3(4) of Deemed Marine Licences (DMLs) 3 and 4 of the Draft Development Consent Order (DCO) (Revision 8) [document reference: 3.1] which states: <i>The 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 13 of the Order.</i> The 116m indicative length was presented to provide context to the Examining Authority and stakeholders as to what a realistic worst case scenario length of offshore export cable protection may present in the real world. Likewise, the 50cm height of cable protection is secured by conditions 15, 13 and 11 of DMLs 1 & 2, DMLs 3 & 4 and DML 5 respectively, wherein the Applicants would follow the guidance contained in MGN 654 in relation to cable protection, namely that cable protection would not change the charted water depth by more than 5%,

I.D.	Written Question	Applicants' Response
		unless otherwise agreed with the Maritime and Coastguard Agency (MCA) and Trinity House. Given this commitment, unless otherwise agreed with the MCA and Trinity House, the maximum height of cable protection measures would be 50cm at the 10m depth contour, with this maximum height reducing as the water depths decrease. Until the final pre-construction geophysical surveys and are carried out and the final cable burial risk assessments are, and, indeed, construction itself is, completed, the exact dimensions and locations of cable protection measures cannot be known, and therefore cannot be secured in the DCO at this time. The commitments outlined above, however, provide a mechanism for the length and height of cable protection to ensure the limitation of the final design of the Projects. b) With regards to the potential impacts on the Humber Estuary SAC, 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 budget, there will be no significant interruption to the existing sediment transport processes to the Humber Estuary SAC. The Applicants also highlight that no compensation proposals regarding the Humber Estuary SAC were 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 at a similar distance to the Humber Estuary SAC as that 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). As such, the Applicants to not propose to submit a without prejudice compensation proposal prior to the end of Examination. The Applicants also highlight that the updated physical processes modelling work and results were presented to Natural England in a meeting held on 8th May 2025, and are confident that following these discussions, Natural England has sufficient information to conclude no AEol on the Humber Estuary SAC. The Applicants have confirmed with Natural England via email dated 19th May 2025 that they will review the updated modelling and provide an update to their position at Deadline 6 of Examination.
BE.2.10	Decommissioning of cable/ scour protection within the benthic designated sites The ExA notes that section 5.5.13 of the project description [REP1-009] states that it is anticipated that all structures above the seabed or ground level would be completely removed and that section 5.5.13.2 related to offshore cables states that it is expected that most array and export cables (and any associated cable protection) would be left in situ. NE's advice at the relevant representation stage and since [RR-039; B68, C59] [REP2-065] has been to advise that 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, which has also been reiterated at DL4 in Appendix C4 [REP4-127]. The ExA notes the applicants' response to this advice [REP3-028]. The ExA would like to understand: a) Whether any further discussions have taken place between the applicants and NE on this matter and whether there is any change on either parties' position?	a) The Applicants and Natural England briefly discussed this matter during a meeting on 8th May 2025, but agreement has not been reached. The Applicants' position remains that decommissioning issues are most appropriately considered post-consent. As such, the Applicants have committed to considering the use of removable protection at that point. At this juncture detailed designs will be mature and the pros and cons of different scour and cable protection approaches can be balanced and weighed, in line with the mitigation hierarchy. It should be noted that the focus on removability is quite a narrowly focussed concern, as the impacts of different cable and scour protections techniques may have different impacts beyond permanency of deposition (which is just one factor to consider under the mitigation hierarchy). These can include, but are not limited to, the overall footprint, different renewal and maintenance periods, the potential for different seabed impacts to occur prior to installation. It is important that all impacts are considered and balanced in order that the mitigation hierarchy can be adequately applied.

I.D.	Written Question	Applicants' Response
	b) Whether the applicants could propose wording for a commitment in the commitments register which may satisfy NE in this regard? c) What assessments would be required to be undertaken immediately prior to the offshore decommissioning to assess the balance between potential environmental damage from cable and cable protection removal to any benthic ecology which may have established on top during the operational lifetime and the overall benefits of cable retention to the designated site. How and when is it envisaged this judgement would be made, by whom and under what legislative procedure? d) The applicants state that the assumption is that decommissioning effects would not be any greater than construction effects. What monitoring or assessments are secured to make this judgment at the time of decommissioning to validate this assumption? e) In the scenario that at the time of decommissioning it is demonstrated that this assumption would likely be incorrect and that the decommissioning effects would likely be greater than the construction effects in the designated areas, what adaptive management measures are secured which could be implemented to limit the effects to those assessed within the ES?	b) The Applicants would be happy to note in both the Cable Statement (Revision 4) [REP4-050] and Outline Scour Protection Plan (Revision 3) [REP2-051] that the use of removable cable and scour protection will be considered as part of the process of developing the Decommissioning Programme. c) Decommissioning guidelines for offshore renewable energy projects have been provided by Government in the form of <i>Decommissioning of offshore renewable energy installations under the Energy Act 2004: guidance notes for industry (2019)</i>. The Applicants note that it is the explicit position of Government in the Guidance that the Energy Act (2004) process should form a "one-stop shop" for decommissioning of offshore windfarms. The Applicants, accordingly, maintain that the DCO does not need to duplicate this regime and should not seek to do so given the clear position of Government that the Energy Act (2004) is the appropriate mechanism for securing and controlling decommissioning. In accordance with the Guidance the Applicants have included Requirement 7 in the Draft Development Consent Order (Revision 8) [document reference 3.1] which states: <i>(1) The DBS East 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.</i> <i>(2) The DBS West 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) (requirement to prepare decommissioning programmes) of the 2004 Act has been submitted to the Secretary of State for approval.</i> Through this Requirement the Applicants have demonstrated clear compliance with the Guidance which demands the submission of a Decommissioning Programme prior to the commencement of works. The Guidance lays out an eight-stage process for decommissioning planning and delivery which spans the life of a project. The process starts with preliminary discussions between a developer and the Secretary of State prior to the submission of a Decommissioning Programme, which can be, and is expected to be, updated through the life of a project, and ends with post-decommissioning reporting. Section 7.4 of the Guidance deals with environmental assessments and surveys. Section 7.4 of the Guidance notes that the initial Decommissioning Programme can be supported by the assessment completed for a consent application, going on to note that this assessment will need to be updated prior to the act of decommissioning. The updated assessment will need to consider the specifics of the infrastructure and the environment at the time of decommissioning, as well as contemporaneous legislation. It is this updated assessment which would ultimately strike the balance between potential environmental damage from cable and cable protection removal to any benthic ecology which may have become established during the operational lifetime and the overall benefits of cable retention to the designated site. The Secretary of State would form a view on the assessment and the final decommissioning programme, taking into account views from their advisers in accordance with the prescriptions of the Energy Act (2004). The Guidance notes that Appropriate Assessments and Marine Licences may be required for decommissioning activities, depending on the proposals and the legislation which applies at the time.

I.D.	Written Question	Applicants' Response
		d) Decommissioning will require less activity than construction and in some cases effect pathways will be absent. For example: • Piling will not be required – although a non-significant impact anyway for benthic receptors there would be less noise and vibration with the absence of piling • Seabed preparation – this is required to ensure that the seabed is suitable for the installation of foundations, this is not required when removing foundations. The absence of this activity reduces the disturbance of the seabed, suspension of sediments, and indirect effects from sediment transport • It is expected that most array and export cables would be left in situ. Exposed sections of cable are more likely to be cut and removed to ensure they do not become hazards to other users of the seabed. This would reduce the footprint of disturbance significantly from the footprint form installation of the cables. Therefore, it is evident that the magnitude of effects will be reduced from the construction phase (although most of the same effect pathways will arise, as shown in Table 9-27 of Chapter 9 – Benthic and Intertidal Ecology [APP-o85]). This is standard understanding from offshore wind EIA. As stated in section 5.5.13 of Chapter 5 Project Description (Revision 3) [REP1-009], The Energy Act 2004 requires that a decommissioning plan must be submitted to and approved by the Secretary of State, a draft of which would be submitted prior to the construction of the Projects. The decommissioning plan and programme would be updated during the Projects' lifespan in accordance with requirements. No monitoring is proposed at this time. Monitoring details would be included within the Decommissioning Plan in line with the prescriptions of the guidance laid out in <i>Decommissioning of offshore renewable energy installations under the Energy Act 2004: guidance notes for industry (2019)</i>. To take account of changing best practice and new technologies, the approach and methodologies employed at decommissioning would be cognisant of the legislation and policy requirements at the time of decommissioning. Such approaches may include additional assessment and monitoring. e) As stated above at (d), it is unclear what the legislation and policy requirements may be for decommissioning in future, but the Applicants must comply with those. This would include any provision for adaptive management should the effects of decommissioning be greater than those assessed within the ES, although the Applicants are confident, for the reasons given above at (d), that this will not be the case.

1.4 Broad, General and Cross-Topic Questions

Table 1-4 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Broad, General and Cross-Topic Questions

I.D.	Written Question	Applicants' Response
BGC.2.1	Potential errors The draft Statement of Common Ground (SoCG) with East Riding of Yorkshire Council (ERYC) [REP4-059] under section 3.8 Landscape and Visual Impacts at various points (eg 108, 109, 110, 111, 116, 118, 119) states, 'After discussion at the 03/04/2025 meeting, ERYC confirmed their agreement on this matter in a 22/04/2024 email.' The Examining Authority (ExA) assumes that the latter date should be 22/04/2025? If this is the case, amend the SoCG accordingly and check through all the submitted or forthcoming statements to ensure accuracy throughout.	The East Riding of Yorkshire Council Statement of Common Ground (Revision 3) [document reference 9.2] has been updated to amend the dates noted as incorrect by the Examining Authority from 22nd April 2024 to 22nd April 2025. The updated East Riding of Yorkshire Council Statement of Common Ground (Revision 3) [document reference 9.2] will be made available at Deadline 8.
BGC.2.2	Grid connection Further to your response to ExQ1 BGC.1.3 [REP3-027], have you applied for a connection queue position for the grid connection for the proposed development from the National Energy System Operator? If so, have you been offered a position and would this have any implications for the timescales for the delivery of the proposed development? If not, when do you expect to apply and when do you expect a response from the National Energy System Operator?	No, the project can only apply for a connection queue position under the Clean Power 2030 Action Plan in July 2025. In September 2025, the system operator is expected to publish the outcome of the connection queue reorder. Between October 2025 and Q2 2026, the new connection offers will be issued. Offers expected out in the last quarter of 2025 are expected to be projects with connection dates pre-2030. If the Dogger Bank South (DBS) Projects retain their current connection date, then the connection offer is likely to be received in Q1 2026.
BGC.2.3	Grid connection and generating capacity Your response to ExQ1 BGC.1.7 [REP3-027] states that the grid connection offer from the National Energy System Operator is for up to 2.9 gigawatts (GW), or 1450 megawatts (MW) per array area. However, in Environmental Statement (ES) Chapter 2: Need for the Project [APP-065], you set out that the proposed development could deliver 3GW of energy annually, or 1.5GW annually per array area, which is more than could be accepted by the grid. Therefore, should the ES as a whole, and particularly Chapter 2, setting out the needs case and associated benefits attached to the higher level of energy production, be updated to reflect what the grid connection would be able to accept for accuracy? If not, explain why.	The Projects will likely have a generating capacity of 3GW or possibly slightly higher depending on the eventual choice of turbine. All energy projects have the potential for 'losses' within the system during transmission, to power infrastructure (such as the offshore converter platforms) and to account for periods of lower wind speeds to maximise the electricity output and therefore 'overpower' relative to their export capacity to the Grid. The Development Consent Order (DCO) does not limit the capacity of the wind farm other than to provide a minimum capacity of 100MW per array to maintain its Nationally Significant Infrastructure Project (NSIP) status to ensure flexibility is maintained through the detailed design stage. The Applicants highlight that designing and developing offshore wind farms is a complex, sequential process which involves dealing with and balancing a high level of uncertainty and risk, particularly in the pre-consent phases. In recognition of this, EN-3 has established a clear acknowledgement of the need for flexibility of project details under EN-3 2.6 and 2.8.74. Whilst the Projects currently have a grid connection offer for 2.9 GW, that is not to say that it is not possible that the projects could not obtain a different grid offer with a different capacity at a later date, the flexibility of the DCO allows this. The Projects maintain that there would be no substantial difference with respect to the needs case set out in Chapter 2 Need for the Project [AP-065] and considered within the Planning Statement [APP-226] if 3GW was reduced to 2.9GW. The incorporation of the generating capacity in assessments is limited. In the Greenhouse Gas assessment, the amount of greenhouse gases saved via generation by offshore wind relative to gas for example, was calculated from an estimated annual energy production, incorporating periods of higher and lower wind, rather than a nameplate capacity, and thus it would not be affected by whether 3GW or 2.9 GW is utilised within the Projects' needs case.
BGC.2.4	Generating capacity Works No 1A and 1B of Schedule 1 of the draft Development Consent Order (draft DCO) [REP4-005] provide a minimum generating capacity of 100MW for each array area. This is substantially	The minimum generating capacity of 100MW per array area specified in Works No. 1A and 1B of Schedule 1 of the Draft DCO (Revision 7) [REP4-005] is not intended to reflect the expected or eventual commercial capacity of the Projects. Instead, it provides a flexible consenting baseline that supports phased delivery and reflects regulatory

I.D.	Written Question	Applicants' Response
	less than the maximum generating capacity of 1.5GW per array area assessed in the ES. Explain why the minimum generating capacity per array should not be 600MW (or more), in accordance with the generic minimum 600MW requirement from The Crown Estate in the Dogger Bank Bidding Area (see pages 16 and 25 of [REP3-038])? What is the minimum generating capacity for each array area agreed in your specific lease agreements with The Crown Estate – if this is higher than 600MW, why should this not be the minimum generating capacity for each of the array areas, noting the benefits attached to providing a higher level of renewable energy?	thresholds, while ensuring consistency with the Environmental Statement (ES), which assessed a maximum generating capacity of up to 1.5GW per array area. The figure of 100MW has been selected specifically because it aligns with the statutory threshold for NSIPs under section 15(3) of the Planning Act 2008. Projects generating 100MW or more of electricity fall within the regime for DCOs, and this threshold is therefore commonly adopted as the minimum for offshore wind projects seeking DCO consent. It provides a clear legal baseline without unduly constraining the Projects' ultimate design or delivery. There has been a recent move away from including maximum generating capacity within DCOs. This is largely due to numerous examples of applicants needing to amend DCOs (due to evolutions, leading to efficiencies, in technology) through the non-material change process which is laborious and can have uncertain timings. Instead, the maximum design parameters of the Projects have been assessed and are secured within the DCO. This approach has been accepted by the Secretary of State on recent offshore wind DCOs. In relation to the 600MW minimum generating capacity referenced by The Crown Estate in relation to the Dogger Bank Bidding Area ([REP3-038], pages 16 and 25), the Applicants note that this figure serves as strategic leasing guidance and may vary depending on project-specific circumstances. The actual generating capacity requirements applicable to this project are defined in the confidential terms of the lease agreements with The Crown Estate. While these lease terms cannot be disclosed due to commercial sensitivity, the Applicants will be under an obligation to comply with all lease provisions, including any applicable minimum capacity requirements. It is important to note that the minimum capacity included in the Draft DCO (Revision 7) [REP4-005] does not override or weaken any lease obligations. Setting a higher statutory minimum (e.g., 600MW) within the DCO could unnecessarily restrict delivery flexibility—particularly where projects may be built in phases or where early infrastructure may be delivered in advance of full generation capacity. This approach ensures regulatory robustness, supports the UK's renewable energy goals, and allows the Projects to respond to dynamic technical and commercial conditions.
BGC.2.5	Needs case: energy affordability ES Chapter 2: Need for the Project [APP-065] sets out the context around energy affordability and aspirations for energy poverty reduction in section 2.3.3. However, section 2.4 does not appear to specifically address how the proposed development would improve energy affordability. Can you provide more information on how the proposed development would address energy affordability and energy poverty in the United Kingdom (UK).	The development of the Projects would help address energy affordability and energy poverty in the United Kingdom in a number of ways. The development of large-scale offshore wind projects can reduce wholesale electricity prices by reducing the market share formed by other more expensive and environmentally damaging forms of generation, pushing them out of the market, and reducing prices overall. Domestic production of electricity in the UK such as that would be produced by the Projects when operational reduces the UK's reliance on volatile fossil fuel markets that can spike in price due to a series of wider factors which the UK does not have control over. This has previously led to large increases in energy prices and therefore reduction in energy affordability. Reducing the proportion of electricity in the UK generated by fossil fuels therefore helps to protect lower more stable energy prices and reduces energy poverty.
BGC.2.6	2025 revisions to National Policy Statements (NPS) EN-1, EN-3 and EN-5 On 24 April 2025, the Department for Energy Security and Net Zero published a consultation on draft updates to NPS EN-1, EN-3 and EN-5. What implications do these proposed changes have for the consideration of the application by the ExA or Secretary of State (SoS)? (You may wish to cross reference the answer to this question with IOU.2.3)	Please see Applicants' response to IOU.2.3.
BGC.2.7	East Marine Plan 'Issues with Supporting Evidence' final report	The East Marine Plan - Issues with Supporting Evidence report published by the Marine Management Organisation on 9th April 2025 presents a summary of what stakeholders view as the key challenges and opportunities facing the

I.D.	Written Question	Applicants' Response
	What implications does the publication of the East Marine Plan 'Issues with Supporting Evidence' final report have on the proposed development?	East Marine Plan area over the next 20-year period. The report categorises these challenges and opportunities under the following six core themes: 1. Enable the protection, recovery of the natural marine environment; 2. Enable evidence led, holistic and coordinated approach to marine management, strategic considerations and governance; 3. Contribute to climate change mitigation and / or adaptation; 4. Enable and promote sustainable economic development; 5. Maintain and enhance the social benefits associated with the marine area; and 6. Support coastal communities and create opportunities for sustainable local employment, investment and regeneration. It should be noted that these six themes broadly mirror the key objectives already detailed in the existing East Marine Plan, with the Projects directly and indirectly contributing to themes 3, 5 and 6 through the generation of renewable energy, the provision of new survey data from the offshore environment leading to improved recognition of historic assets within the Offshore Development Area (a key point identified by stakeholders under Theme 5) and the creation of new jobs in the East Marine Plan area, with the Projects expected to support 760 jobs in the Humber Region (as detailed in section 28.6.1.3.1.1 of Chapter 28 Socio-Economics [APP-217]). The report highlights the degree of inter-linking issues between these core themes and notes in the summary that: <i>'The issues identified as part of this process will feed into the preparation of the Vision and Objectives stage for the new East Marine Plan. The vision and objectives will inform the Options stage of plan development. We will assess how the East Marine Plan can best address the issues raised throughout the next stages of the marine planning process. Following the Options stage, we will begin the process of drafting marine plan policies.'</i> As no updates to the East Marine Plan itself have resulted from the publication of this report, there are no updates to make to the ES or its accompanying documents at this time regarding the 'Issues with Supporting Evidence' evidence report. The opportunities identified in the report with regards to potential monitoring and evidence collection proposals could potentially influence the development of the In Principle Monitoring Plan (Revision 3) [REP4-052] in the post-consent stage of the Projects, which will be developed in collaboration with stakeholders.
BGC.2.8	Operational lifespan and decommissioning The ExA notes your response to ExQ1 BGC.1.9 [REP3-027], which states that the 'ES assesses the realistic worst-case scenario and... is based on the indicative design of 30-32 years, although this might be extended further as technology advances.' The ExA notes that the Round 4 Leasing arrangements for offshore wind farms with The Crown Estate are for 60 years with a 25 year break clause [AS-163] – how likely is it that the turbines which would be utilised for the proposed development would have a longer lifespan than 30-32 years? Your response to ExQ1 BGC.1.9 also states 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 would be secured by Requirement 7 of the draft DCO.' However, this only relates to offshore elements, and the ExA therefore remains unclear that there would be mechanisms captured by the draft DCO or supporting documents to ensure that all the effects	The Applicants expect wind turbines will be offered with Type Certification for 25-30 year operational lifetime. However, based on a site-specific assessment it is quite possible that this duration could be exceeded. Any assessment of the feasibility of a life extension would require detailed monitoring of turbines and other plant associated with the operation of the Projects and would be undertaken at a far later stage. The Applicants are aware that Requirement 7 of the Draft DCO (Revision 8) [document reference 3.1] only applies to the offshore elements of the Projects. However, that decommissioning plan will include a schedule with the proposed timeframes for decommissioning of the Projects and must be approved by the Secretary of State. Once commercial operation of the Projects ceases, which would be in line with any agreed timings in the decommissioning programme submitted under Requirement 7 and the provisions of the Energy Act 2004, an onshore decommissioning plan must be submitted to the relevant local authority for approval within six months (in accordance with Requirement 27). There may therefore be a short gap between the cessation of commercial operation of the Projects and the submission of the onshore decommissioning plan, but that plan would secure the onshore decommissioning of the Projects, just as the decommissioning programme secures the offshore decommissioning.

I.D.	Written Question	Applicants' Response
	from the proposed development would not go beyond those assessed in the ES. Review this matter again in light of the above comments.	
BGC.2.9	Hornsea 4 What are the implications for the application given the recent decision by Ørsted to discontinue the Hornsea 4 offshore wind project in its current form. The ExA would refer you to question HRA 2.1. You may wish to provide single response to address both questions.	The Applicants have provided response to the specific question referenced in response to question HRA 2.1 outlining that the Projects will not be updating any assessments. Notwithstanding the points reflected in that response, the recent announcement by Orsted regarding the discontinuing of the Hornsea 4 offshore wind project does have direct relevance to the DBS Projects and highlights the current issues facing the offshore wind industry and the challenge it faces to assist the UK Government in meeting its National Policy objectives. The announcement from Orsted stated that the primary reasons for the decision included the '<i>increase of supply chain costs, higher interest rates, and an increase in the risk to construct and operate</i>'. In the decision to not develop Hornsea 4 at this time, the UK has lost 2.4GW of offshore wind which was planned to contribute to the policy goal of 50GW offshore wind capacity by 2030 and the Clean Power 2030 target. The consent phase of an offshore wind project can hugely influence future supply chain costs and construction risks. Within the DBS Projects, there are multiple instances where Statutory Nature Conservation Bodies (SNCBs) are pressing significantly over-precautionary interpretations of existing evidence of potential impacts and therefore pressing for mitigation that is not necessary to implement but would have potentially significant impacts on the Projects viability. The Applicants therefore re-iterate the importance of the Examining Authority weighing up the planning balance when considering the application and the evidence presented throughout the DCO Examination stage. Whilst areas of disagreement are likely to remain with SNCBs regarding some potential impacts, the need for mitigation that the Applicants have provided substantial evidence for being not necessary and potentially damaging to the Projects viability must be considered on the whole against the substantial benefit the Projects would provide. The Applicants consider the Projects to clearly meet the requirements of the national policy framework and that there are no un-mitigated or un-compensated for impacts that would outweigh the clear benefits the projects would provide as concluded by the Planning Statement [APP- 226].

1.5 Commercial Fisheries

Table 1-5 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Commercial Fisheries

I.D.	Written Question	Applicants' Response
CF.2.1	Cooperation agreements The applicants: ES Chapter 13 [APP-117] reports that cooperation agreements would mitigate the assessed moderate adverse effect for identified fishing receptor groups. During ISH3 [EV8-002] the applicants explained that cooperation agreements would be entered into prior to the proposed construction works within relevant areas. To provide certainty this mitigation can be relied upon, could DML1 Condition 15 (replicated in other DMLs as appropriate) [REP4-005] or the Outline Fisheries Liaison and Coexistence Plan [REP4-056] be redrafted to secure provision of evidence to the MMO of made cooperation agreements prior to the effect being realised? If not, should the assessment of residual effects be concluded as moderate adverse? The MMO: the ExA notes your position to not fulfil an arbitration role for commercial fishing receptors commercial negotiations. To provide certainty that the proposed mitigation of adverse effects could be achieved, would you agree to receiving evidence that an agreement has been reached?	The Applicant would like to reiterate that embedded mitigation measures are considered prior to the consideration of additional mitigation in the form of cooperation agreements. This includes but is not limited to: • Providing advance notifications of any works; • The use of guard and scout vessels to provide support and to manage and minimise fisheries interactions and risks throughout survey campaigns and construction where required; and • Ongoing communications regarding the Projects via the Fisheries Liaison Officer (FLO), through consultation and through Commercial Fisheries Working Group (CFWG) meetings. The Applicants may consider cooperation agreements with affected fishers (targeting fisheries identified in the Environmental Impact Assessment (EIA) to be significantly impacted by the construction phase of the Projects), on the basis of factually accurate and justifiable claims to achieve a position whereby fishing interests are neither advantaged nor disadvantaged, in accordance with the Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) (2014) guidance, ensuring that those who are impacted will receive fair payment in line with potential losses. Disruption payments may be considered as the last resort, where residual impacts remain once all other mitigations have been applied (embedded or otherwise). This approach is in line with FLOWW Best Practice Guidance (2014). The agreements reached with fishers contain commercial sensitive information that is confidential for both parties. Therefore, it would not be feasible nor appropriate to share evidence of any of the agreements reached with external parties. In fact, the terms of such agreements tend to include confidentiality provisions restricting parties sharing its content as well as its existence given its commercially sensitive nature. Furthermore, the Applicants approach and methodology is commercially sensitive, and the agreements contain details of the individual fishers' financial earnings. Making such agreements subject to regulatory scrutiny or submission of details in respect of these agreements to Marine Management Organisation (MMO) would compromise commercial confidentiality and could disincentivise open and constructive engagement between developers and fisheries stakeholders. Securing such documents as part of the consent process risks creating an unreasonable disclosure burden, undermining the very cooperative spirit that these agreements are meant to foster. The MMO are a named stakeholder involved in the development of FLOWW guidance and therefore should be familiar with the best practice advice regarding commercial agreements and disruption payments. Cooperation agreements are contingent upon bilateral cooperation and goodwill between the developer and the relevant fishing stakeholders and therefore the Applicants cannot unilaterally guarantee that an agreement will be reached, particularly where fishing parties may decline to engage or where commercial terms cannot be aligned. The Applicants are committed to proactive engagement as per commitments made in the Outline Fisheries Liaison and Co-existence plan which is secured in the Deemed Marine Licences (DMLs) under the Development Consent Order (DCO) and which states that <i>"the Projects will make every effort to minimise disturbance of fisheries stakeholders and liaise in line with best practice."</i> The residual effect would not be reassessed as moderate adverse if a cooperation agreement is not ultimately signed given it is made available as an option and therefore effective mitigation has been reasonably accounted for through its provision.

I.D.	Written Question	Applicants' Response
CF.2.2	Static gear impacts The National Federation of Fishermen's Organisations (NFFO) raises concerns that offshore static gear receptors may not return to fish within the proposed array areas during the operational phase [REP4-o88]. If the environmental impact assessment had assumed a high proportion of offshore static gear receptors did not return to commercial fishing during the operational phase, would that change the outcome of the ES? Further would you consider including monitoring of commercial fishing activity during the operational phase to evidence the assumed post construction fishing activity?	he Applicants cannot identify the National Federation of Fisheries Organisation's (NFFO's) concerns regarding offshore static gear returning to fish within the Project's Array Areas within The Applicants' Responses to Deadline 3 Documents and Additional Submissions [REP4-o88]. However, the Applicants acknowledge that the NFFO raises concerns regarding the 'return to fish' scenario, noting that offshore static fisheries are the dominant gear type within the Projects Array Areas, within ExQ1 REP4-105: CF.11. The significance of impact due to loss or restricted access to fishing grounds during the operational phase to offshore static gear is assessed as negligible, assuming that fishing will resume within the Projects' Array Areas once operational (section 13.6.2.1.1.2, Chapter 13 Commercial Fisheries [APP-117]). If the assessment had assumed that offshore static fishing could not resume within the Projects' Array Areas, the magnitude of impact to offshore static fisheries would be increased to Low, based on the limited offshore static fishing observed only within the western extent of the DBS West Array Area (this is described in more detail below), hence only a small proportion of static fishing grounds would be lost. The sensitivity of offshore static gear receptors would remain as Low, resulting in a Minor adverse significance of effect if offshore static fisheries could not resume within the Project's Array Areas during the operational phase. However, it was established during Preliminary Environmental Impact Report (PEIR) consultation and CWFG meetings that the offshore static gear receptor group would likely resume fishing within the Projects' Array Areas once operational; dependant on the final array layout. Fisheries stakeholders indicated that straight lines of turbines would be preferable (Appendix 13-1 Commercial Fisheries Consultation Responses [APP-119]). One independent static gear fisher noted that they view fishing within an operational wind farm as an additional safety measure due to reduced conflict with mobile fisheries. During CFWG meetings, two independent static gear fishers also confirmed that they fish within the Triton Knoll Wind Farm which has a minimum spacing that is less than for DBS East and DBS West. Hence, the assumption that static gear fishing can resume within the array areas was considered as the basis for the assessment presented in the ES. This is described in paragraph 260, section 13.6.2.1.1.2, Chapter 13 Commercial Fisheries [APP-117]. It is acknowledged within section 4 of Appendix 13-2 Commercial Fisheries Technical Report [APP-120] that with reduced mobile gear fishing within the the Array Areas (due to the Dogger Bank Special Area of Conservation (SAC) Byelaw), more static gear vessels will be able to move into these areas as a result of reduced conflict. However, it should be noted that offshore static gear activity is largely restricted to the western area of DBS West array area due to ground conditions, and no offshore static gear activity has been observed in the DBS East array area from scouting survey observations (Section 3.1 of Appendix 13-2 Commercial Fisheries Technical Report [APP-120]). The scouting surveys observed three potting vessels to be active within the northwest corner of the DBS West array area, with the highest number of pots recorded during the summer survey, in line with the greater abundance of brown crab during this season. The 2022 scouting survey observations of offshore static gear are illustrated in figure 3.1.1 and further supported by Vessel Monitoring System (VMS) data presented in figure 2.6.1 and figure 2.6.1 of Appendix 13-2 Commercial Fisheries Technical Report [APP-120]. Based on the above evidence, the Applicant disagrees with the NFFO's position that offshore static gear will not be able to resume within the Project's Array Areas during the operational phase as all other evidence shows that offshore static gear activity within the Project's Array Areas will continue and/or increase.
CF.2.3	Mitigation	The Applicants are not the appropriate organisation to develop educational materials to support fishers to safely navigate and operate within wind farm sites. The Applicant will make 'as-built' information available to fishers through KIS-ORCA, in line with FLOWW Guidance (2014) and will develop a Project Overview for fishers prior to the

I.D.	Written Question	Applicants' Response
	Would you consider including opportunities to educate the commercial fishing industry how to fish and navigate safely within array areas and if appropriate to do so, would you consider this as mitigation and enhanced benefits to the industry in accordance with EN3-2.8.251?	re-opening of the site once construction activities have completed, providing key project details (such as number of Wind Turbine Generators (WTGs), spacing between WTGs etc) as well as contact details and communication requests. This document will also outline existing guidance and safety information provided by relevant authorities and organisations (such as the Maritime and Coastguard Agency (MCA) and Seafish), as well as project-specific requests for safe working distances around infrastructure and affiliated vessels, which is anticipated to be in line with standard practice (i.e. 50m around infrastructure at all times and 500m around major maintenance work). The Applicant may consider opportunities to collaborate on the development of safety resources as appropriate, and are happy to continue engaging further with the commercial fishing industry on this subject and will continue engagement post-consent.

1.6 Draft Development Consent Order

Table 1-6 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Draft Development Consent Order

I.D.	Written Question	Applicants' Response
DCO.2.1	Definition of pre-commencement The definition of pre-commencement works as set out in Article 2 of the draft DCO [REP4-005] includes a list of works, some of which have the potential to result in significant effects. For example, the creation of site accesses, could have effects upon protected species, the erection of temporary screening or enclosure could result in isolation of land, and the creation of temporary hardstanding areas could be implemented without adequate drainage infrastructure in place. In this respect the ExA would refer the applicants to the Government guidance published 30 April 2024 on the content of a Development Consent Order required for a Nationally Significant Infrastructure Project. This identifies that typical examples of matters which are not acceptable preliminary works include major earthworks, clearance of trees and ground clearing, activities affecting protected species or archaeological remains. Review the definition and provide justification to support your position that all the works listed are pre-commencement and in accordance with the guidance.	The Applicants would firstly highlight that the definition of "pre-commencement works" is well precedented, with other recently granted offshore wind farms including very similar works (albeit the term "onshore site preparation works" is used in many other Development Consent Orders (DCOs) rather than "pre-commencement works", although the purpose of the definition is the same). The Secretary of State has therefore accepted multiple times that works such as the creation of site accesses, creation of temporary hardstanding and the erection of temporary means of enclosure are appropriate as pre-commencement works. With reference to the April 2024 Guidance, it is important to note that the examples listed are given with the caveat "unless appropriate controls are secured in another manner" (paragraph 005 Reference ID 04-005-20240430, April 2024). The Draft DCO (Revision 8) [document reference 3.1] already contains the necessary controls (explained below) in respect of the pre-commencement works and so it is the Applicants' position that the works included are justified and in accordance with the Guidance. The Applicants have also added wording to requirement 16 (construction and operational drainage) in the Draft DCO (Revision 8) [document reference 3.1] to secure the submission and approval of a specific drainage plan for any pre-commencement works that require associated drainage. Requirement 10(2) controls early planting of landscape works and provides that those works can only take place in accordance with a specific written landscape management plan for early planting of landscaping works (which accords with the relevant details for early planting of landscaping works in the outline landscape management plan) that has been submitted to and approved by the relevant planning authority. Requirement 12(2) states that pre-commencement site clearance works can only take place in accordance with a specific written ecological management plan for site clearance works (which accords with the relevant details for pre-commencement site clearance works in the outline ecological management plan) has been submitted to and approved by the relevant planning authority in consultation with the relevant statutory nature conservation body and (where works have potential to affect wetland habitat) the Environment Agency (EA). Requirement 19(4) provides that pre-commencement screening and fencing works must only take place in accordance with a specific plan for such pre-commencement works which must accord with the relevant details for screening and fencing security set out in the outline code of construction practice, and which has been submitted to and approved by the relevant planning authority following consultation with the relevant statutory nature conservation body. Requirement 29(1) states that pre-commencement remedial work and onshore works in respect of any identified ground contamination that is likely to cause significant harm to persons or pollution of controlled waters or the environment, must only take place in accordance with a scheme to deal with the contamination of that land (including groundwater), which scheme must be submitted to, and approved by, the relevant planning authority in consultation with the EA. The creation of site accesses is controlled by Article 13 and Requirement 15, which states that construction of any new permanent or temporary means of access to a highway, or alteration, or use of an existing means of access to a highway, must not commence until an access plan for that access has been submitted to and approved by the relevant planning authority in consultation with the relevant highway authority. This would apply to any site accesses created during pre-commencement works.

I.D.	Written Question	Applicants' Response
DCO.2.2	Deemed Marine Licence 1-5 conditions - archaeological Written Scheme of Investigation (WSI) In your DL1 submission [REP1-059] you raised concerns with regard to the proposed wording of the conditions relating to the archaeological WSI (offshore). The applicants' DL2 response [REP2-057] explained why they are not minded to amend the wording of the conditions. The SoCG [REP4-061] suggests this is still an outstanding matter, therefore, clarify whether you agree with the applicants' explanation? If not, explain why not and how this could be resolved.	No response is required. Question directed to Historic England.
Schedule 1		
DCO.2.3	Further Associated Development Within Schedule 1, Part 1 (Authorised development), the draft DCO includes details of Further Associated Development that is required for both DBS East and West. The ExA understands the principle of associated development, however the number of works identified within the definitions appears to be extensive and, from the way the wording is phrased, it would appear that the definitions do not represent closed lists, but instead provide examples of other works which may be necessary or expedient. Furthermore, there also appears to be duplication of works that have already been identified within the detailed Work Nos. The applicants are asked to review the Further Associated Development works identified for both DBS East and West, amend as necessary and provide an explanation and justification for the works identified as Further Associated Development.	The use of a non-exhaustive list of "further associated development" is well precedented and similar wording and lists of works have been included in all recently granted offshore wind farms, most recently Rampion 2, Sheringham Shoal and Dudgeon Extensions and Hornsea Four. There is also overlap between the types of works listed in the Draft DCO (Revision 8) [document reference 3.1] and the examples of works given in the Annexes to the Department for Communities and Local Government (DCLG) Guidance on associated development (April 2013). The principle of this provision has therefore been accepted by the Secretary of State on multiple occasions and is in line with relevant guidance. The Applicants submit that the works listed within the descriptions of "further associated development" (for both onshore and offshore) all meet the tests set out in the DCLG Guidance on associated development (April 2013) because: - There is a direct relationship between the works listed and the principal development; - The works either support the construction or operation of the principal development or help address its impacts; - The works are not an aim in themselves but are subordinate to the principal development; - The works are "typical of development brought forward alongside the relevant type of principal development" (demonstrated by their inclusion in other granted DCOs and the overlap with the Guidance examples); and - The works are proportionate to the nature and scale of the principal development. It is important to note that, whilst the list of works constituting "further associated development" is not exhaustive, works can only fall within the definition of "further associated development" if they "fall within the scope of work assessed by the environmental statement". It is not therefore possible for the Applicants to rely on the wording of this provision to carry out works that have not been subject to assessment and consideration by stakeholders and there is therefore a limit and control on the works that can be carried out under this provision. The Examining Authority has highlighted that there may be overlap between the works listed as "further associated development" and the works contained in the individual Work Nos. However, the Applicants would highlight that the description of "further associated development" makes it clear that the works listed are only included to the extent that they do not otherwise form part of any of the individual Work Nos. listed elsewhere. The Applicants therefore submit that there is no duplication. The Explanatory Memorandum (Revision 8) [document reference 3.2] contains further discussion of the principle of associated development in section 5 of that document and is not repeated here.
DCO.2.4	Requirement 25	The Applicants do not think that it is practical or feasible to expect the local planning authority to consult with the relevant landowners in order to discharge requirement 25. It would create a huge administrative burden for the local planning authority and would practically be difficult as the local planning authority would not hold the necessary

I.D.	Written Question	Applicants' Response
	The applicants: Requirement 25 in Schedule 2, Part 1 of the draft DCO [REP4-005], deals with the return of land that is temporarily used for construction to be reinstated to its former condition, subject to the approval of the Local Planning Authority (LPA). This approval would be given, depending on the location of the land, following consultation with the MMO and relevant drainage authority. Do you consider that the LPA should also be required to consult with the relevant landowner to ensure that they have all the necessary evidence to enable them to come to an informed decision? If you disagree, please explain why. ERYC: Provide your view on the above.	information in order to be able to identify and contact the relevant landowners. The Applicants may hold the relevant information as a result of ongoing engagement with landowners post-consent but may not be able to pass this information on without landowner consent and there may also be related General Data Protection Regulation implications of doing so. The Applicants discussed this matter with East Riding of Yorkshire Council (ERYC) representatives on 15th May 2025. ERYC confirmed that they would not wish to consult with landowners directly in order to discharge Requirement 25, due to the practicality reasons outlined above and that ERYC are content with the Applicants' confirmation that land had been reinstated to the satisfaction of the landowner. The Applicants note that other recently consented offshore wind farms (including Sheringham Shoal and Dudgeon Extensions, Awel y Mor, Hornsea Four and East Anglia One North) all contain almost identical requirements, none of which require consultation to be carried out by the relevant planning authority with the landowners. The Applicants would also highlight that Article 30(4) of the Draft DCO (Revision 8) [document reference 3.1] requires the undertaker to restore land that has been subject to temporary possession during construction to the reasonable satisfaction of the owners of the land (subject to the exceptions contained within that Article). Furthermore, the Option and Deed of Grant offers reassurance to landowners that <i>'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.'</i> It further provides a mechanism of dispute resolution that <i>'if a dispute cannot be settled between the parties the 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).'</i>

1.7 Ecology and Nature Conservation

Table 1-7 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Ecology and Nature Conservation

I.D.	Written Question	Applicants' Response
ENC.2.1	Hedgerow removal along roads with identified constrained widths ES Chapter 24 [APP-195] has identified and assessed roads of constrained widths within the study area. Proposed mitigation measures, including road/ junction widening, provision of passing places or using mobile traffic management, are set out in the outline Construction Traffic Management Plan (oCTMP) [REP4-046] and the detailed measures would be agreed as part of the final construction traffic management plan (CTMP). Clarify how the loss of hedgerows from these proposed road accessibility measures (such as on Eske Lane or Ings Road) has been considered as part of the assessment within ES Chapter 20 [REP2-019] and taken account of in the outline Ecological Management Plan (oEMP) [REP4-042] to ensure that only the minimum amount of hedgerows necessary would be removed along these roads of constrained widths? For example, the Tree Preservation Order (TPO) and Hedgerow Plan [REP4-004] currently shows the removal of the entire hedgerow on the eastern side of Eske Lane. However, this would not appear to align with the much less intrusive measures proposed as part of the oCTMP [REP4-046] and paragraph 5.4.35 of NPS EN-1 which requires the applicants to demonstrate that activities will be confined to the minimum areas required for the works? In addition, clarify if you are proposing any maximum removal requirements for hedgerows for road accessibility measures, similar to the maximum removal requirements as detailed in paragraph 43 of the oEMP [REP4-042] for crossings? If not, explain why not.	The Applicants assume that the question should refer to Chapter 18 Terrestrial Ecology and Ornithology (Revision 5) [REP2-019] rather than Chapter 20 Hydrology and Flood Risk (Revision 2) [REP1-014] and has answered the question on this basis. Chapter 24 Traffic and Transport [APP-195] identifies 5 roads of constrained width (defined as roads less than 5.5m wide) requiring mitigation measures to be provided to allow two Heavy Goods Vehicles to pass. As detailed within Chapter 24 Traffic and Transport [APP-195] and in section 4.4 of the Outline Construction Traffic Management Plan (OCTMP) (Revision 3) [REP4-046], a range of mitigation measures are presented including physical improvements (such as road widening, new or improved passing places) or traffic management measures (such as the use of escort/pilot vehicles or stop works signage). The final form of mitigation would be agreed in liaison with East Riding of Yorkshire Council (ERYC) through the development of the Construction Traffic Management Plan (CTMP), as secured under Requirement 14 of the Draft Development Consent Order (DCO) (Revision 8) [document ref 3.1]. In order to consider a worst case, the Projects' Order Limits have been drawn to show the maximum extents at the locations where physical widening could be provided, in order to provide flexibility to agree with ERYC as to where the widening is undertaken. To clarify, road widening is one option, and it may be that through agreement with ERYC traffic movements are instead managed via traffic management. Where road / junction widening or new / improved passing places are proposed, they would be contained within the public highway and the technical approvals for the designs would be submitted to and agreed with ERYC under Section 62 or 278 of the Highways Act 1980 or equivalent provisions under the DCO or other relevant powers (e.g. New Road and Street Works Act). Of the 5 roads requiring mitigation for constrained width only the following two are expected to require hedgerow removal (if physical improvements are selected): - Eske Lane – It would be proposed to widen the junction with the A1035 and provide up to four additional passing places and each passing place would be approximately 25m long. Therefore, a total length of road widening totalling 100m long has been assessed. However, the entire extent of hedgerow along Eske Lane (hedge H0077 on the Tree Preservation Order and Hedgerow Plan (Revision 6) [REP4-004]) is shown for removal to allow flexibility as to where the passing places are provided. - Ings Road - It would be proposed to widen/provide passing places on Ings Road from where it narrows (approximately 30m north of the junction with the A164) to access AC12, a distance of approximately 130m. The extent of the effected hedgerow H0096 is shown for removal on the Tree Preservation Order and Hedgerow Plan (Revision 6) [REP4-004]. The Applicants can confirm that these hedgerow loss extents have been assessed within Chapter 18 Terrestrial Ecology and Ornithology (Revision 5) [REP2-019]. Hedgerow removal is not required for the remaining three roads, noting that there is width within the highway verge to accommodate any widening/passing places. The Applicants will update the Outline Ecological Management Plan (OEMP) (Revision 6) [document reference 8.10] in order to reflect the commitments to maximum extents of hedgerow loss for Eske Lane and Ings Road as described above.

I.D.	Written Question	Applicants' Response
		The Tree Preservation Order and Hedgerow Plan (Revision 6) [REP4-004] shows the maximum extent of hedgerow loss in order to provide flexibility as to where the passing places are positioned. As detailed within the OEMP (Revision 5) [REP4-043] the Applicants will endeavour to minimise hedgerow loss where possible; and (as described in the OCTMP (Revision 3) [REP4-046] will seek to use alternatives such as pilot vehicles or stop works signage where possible.
ENC.2.2	Bentley Moor Wood - woodland management plan The oEMP [REP4-042, paragraph 150] states, with reference to Bentley Moor Wood ancient woodland, that 'it is proposed to produce and implement a long-term woodland management plan (if non-existent)'. The applicants further confirmed in their Written Summaries of Oral Submissions made at compulsory acquisition hearing 2 (CAH2), ISH3, ISH4 and ISH5 [REP4-086, paragraph 176] that 'the long-term management of the woodland would be secured through the OLMP (Revision 3) [REP2-031]'. Whilst the information in Section 1.7.2 'Longer Term Management' of the oLMP [REP4-044] are noted, clarify: a) Would the woodland management plan comprise of a separate document or form part of the final Landscape Management Plan (LMP) or final Ecological Management Plan (EMP)? How would this be secured? b) What are the timescales for preparation? c) Who would be consulted on the document? d) What is the proposed review mechanism?	It is important to note, that the long term management of woodland included in section 1.7.2 of the OLMP (Revision 3) [REP2-031] relates to woodland planted as part of the final Landscape Management Plan. a) The specific woodland management plan for Bentley Moor Wood will be included as an appendix to the final Ecological Management Plan (EMP) for approval post consent, and it is stated in the OEMP (Revision 5) [REP4-042] that 'The main objective regarding Bentley Moor Wood ancient woodland and LWS which is within the Onshore Substation Zone, is to maintain and enhance the existing woodland both during the construction phase and in the long-term. Proposed measures include: produce and implement a long-term woodland management plan (if non-existent).' The Bentley Moor Wood management plan will be secured through the OEMP (Revision 6) [document reference 8.10] which will provide wording to commit to producing the plan as an appendix to the final EMP, at Deadline 7. b) Preparation of the Bentley Moor Wood management plan would begin post consent. c) This will be in consultation with the relevant stakeholders (including EYRC) and as stated above and submitted as part of the final EMP for approval. d) The Bentley Moor Wood management plan would be valid for a minimum of 30 years, in line with the government's guidance on Biodiversity Net Gain and managing ancient and native woodland in England (available at: Managing ancient and native woodland in England - GOV.UK). This plan would be reviewed every five years in line with standard practice. However, the final review programme would be agreed with the relevant stakeholders in advance of submission.
ENC.2.3	Hedgerow re-location and re-use The applicants confirmed in their Written Summaries of Oral Submissions made at CAH2, ISH3, ISH4 and ISH5 [REP4-086, paragraph 173] that 'any hedgerows being replaced will be species rich. Any relocation of hedgerows will be considered on a case-by-case basis depending on the distinctiveness of the hedgerows to see if it would survive translocation. This mitigation is not currently included in the OEMP (Revision 4) [REP2-029]'. Do you propose to include any further wording on this in the oEMP [REP4-042]? If yes, confirm the wording. If not, how can any further consideration be given to the potential for hedgerow relocation or re-use if a commitment to undertake further research and assessment on this matter is not included in the oEMP [REP4-042]?	The translocation of any length of existing hedgerows is intended to encourage faster re-establishment of this linear habitat and to maintain the integrity of the original hedgerow. However, the translocation of hedgerows has not been included as a mitigation measure in the OEMP (Revision 5) [REP4-042], as suitable locations for either temporarily storing hedgerows or using them immediately to fill existing gaps cannot be identified until the detailed design stage, taking into account the limitations of the DCO boundary. At present, the Applicants do not intend to make further commitments to hedgerow translocation in the OEMP (Revision 5) [REP4-042] as the mitigation measures and reinstatement contained in sections 1.4 - 1.9 have been agreed with the ERYC but will reassess the situation upon completion of the detailed design.
ENC.2.4	Protected species licences The applicants confirmed at ISH4 that they are 'in the process of obtaining a letter of no impediment from Natural England. No definitive timescale for a response can be provided although it is hoped that it will be received before the close of the examination' [REP4-086, paragraph 178].	It should be noted that, based on survey results so far, Natural England (NE) [licensing team] have agreed a Letter of No Impediment (LoNI) is only required for bats and badgers as an outline mitigation licence has already been obtained for great crested newts.

I.D.	Written Question	Applicants' Response
	If a positive response and letters of no impediment (LONI) cannot be provided during examination, clarify how the ExA would be able to report to the Secretary of State that all relevant protected species mitigation licences have been granted, or are intended to be granted, in line with paragraph 5.4.45 of NPS EN-1?	NE were consulted on a LoNI application for both species in April 2024 and were happy with all information related to badgers but requested further information on potential for roosting bats. Following the acceptance of the Project Change Request 2 [AS-152] and the further request by the Examining Authority to update the Environmental Statement with the revised Order Limits, the Applicants are submitting a new request for advice regarding protected species licencing to NE and a response expected by mid-July 2025, although this will depend on the current response times of the [licensing] team. Requirement 23 of the Draft DCO (Revision 8) [document reference 3.1] also states: '<i>Any phase of the onshore works must not be commenced until final pre-construction survey work has been carried out to establish whether a European protected species is present on any of the land affected, or likely to be affected, by that phase of the onshore works or in any of the trees to be lopped or felled as part of that phase of the onshore works. (2) Where a European protected species is shown to be present, the relevant phase of the onshore works must not commence until a European protected species licence has been granted by the relevant statutory nature conservation body.</i>' Therefore, no work can take place until relevant licences have been obtained, should protected species be identified on site. A LoNI confirms that NE agree with the approach to all protected species as set out by the Applicants, however, a protected species licence cannot be obtained until much closer to construction due to the need to have up to date information to ensure validity of baseline data and to inform any licence application. The Applicants would be willing to update the Secretary of State during the determination period for the DCO application, if requested, on the status of obtaining the LoNI if not received during examination.
ENC.2.5	Burton Bushes Site of Special Scientific Interest (SSSI) and ancient woodland The DL4 submission from Dr Stephen Mounce [REP4-100] raises concerns with potential effects on Burton Bushes SSSI and ancient woodland. Confirm your views on the potential effects from the proposed development on Burton Bushes SSSI and ancient woodland. Do you consider the mitigation measures as currently proposed and included in the oEMP [REP4-042] and oLMP [REP4-044] would be sufficient? If not, explain why not and clarify what other measures you would like to see included?	No response is required. Question directed to The Forestry Commission, The Woodland Trust, and ERYC.

1.8 Fish and Shellfish Ecology

Table 1-8 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Fish and Shellfish Ecology

I.D.	Written Question	Applicants' Response
FSE.2.1	ES Chapter 9 Can you explain why you have not included and explained in ES Chapter 9 [APP-085] how the relevant policies on NPS EN-1 have been met for fish and shellfish, while it has been done for other ecological topics such as marine mammals, (with the exception of paragraph 5.4.22). Can you include this in your update to the ES chapters?	The relevant policies of NPS EN-1 are included within Table 1-1 of Policy Compliance Assessment Tables [APP-227]. As the National Policy Statement (NPS) is overarching and policies not topic specific, they were not included within the majority the Environmental Statement (ES) chapters. However, policies of relevance will be included in the updated Chapter 10 Fish and Shellfish [APP-091] and submitted at Deadline 7.
FSE.2.2	NPS EN-3 in relation to fish and shellfish The ExA notes that ES Chapter 10 [APP-091] does not reference the following paragraphs of NPS EN-3. Can you explain why the following paragraphs of NPS EN-3 have been omitted? If they were omitted in error, can you explain how the application fulfils these policy requirements in NPS EN-3 in relation to fish and shellfish? a) 'Monitoring must measure and document the effects of the development and the efficacy of any associated mitigation or compensation.' NPS EN-3 paragraph 2.8.84 b) 'This will enable an assessment of the accuracy of the original predictions and improve the evidence base for future mitigation and compensation measures, enabling better decision-making in future EIAs and HRAs'. NPS EN-3 paragraph 2.8.85 c) 'Monitoring should be presented in formal reports which must be made publicly available. Monitoring data should be provided to The Crown Estate's Marine Data Exchange.' NPS EN-3 paragraph 2.8.86 d) 'Where appropriate, applicants are also encouraged to consider monitoring collaboratively with other developers and sea users. Work is ongoing between government and industry to support effective collaboration and the development of monitoring at a strategic level.' NPS EN-3 paragraph 2.8.87 e) 'A range of research programmes are ongoing to investigate impacts of offshore wind farm development, including, but not limited to: BEIS SEA Research Programme, ORJIP, ScotMER, the ORE Catapult and OWEC. applicants should explain why their decisions on siting, design, and impact mitigation are proportionate and well-targeted, referring to relevant scientific research and literature as appropriate.' NPS EN-3 paragraph 2.8.107 f) 'applicants are expected to have regard to guidance issued in respect of Marine Licence requirements and consult at an early stage of pre-application with the MMO'. NPS EN-3 paragraph 2.8.108 g) 'applicants should have regard to duties in relation to Good Environmental Status (GES) of marine waters under the UK Marine Strategy and MPA target (including any interim target) in England, set under the Environment Act 2021'. NPS EN-3 paragraph 2.8.109	The Applicants note that items e) – g) are not specific to fish and shellfish, however they were included within Table 1-2 of Policy Compliance Assessment Tables [APP-227], whereas items a) - d) were omitted in error. These have been included in Appendix B of this document.
FSE.2.3	National Policy Statement (NPS) EN-3 in relation to fish and shellfish	References to paragraphs in NPS EN-3 will be amended in the updated Chapter 10 Fish and Shellfish [APP-091] submitted at Deadline 7.

I.D.	Written Question	Applicants' Response
	The ExA notes that section 10.4 of ES Chapter 10 [APP-091] gives incorrect paragraph numbers for many of the quoted paragraphs in NPS EN-3. For example, paragraphs 2.8.138 to 2.8.141 should be 2.8.148 to 2.8.151. Can you review and correct all references to the NPS as necessary?	
FSE.2.4	Atlantic herring heat map In the applicants' response to action point 16 from ISH5 [REP4-096] they suggest that Figure 2-2 [AS-105] showing extents of preferred and marginal potential spawning habitats should be used in preference to Figure 2-1 [AS-105] displaying potential spawning habitat heat map for Atlantic herring. In AS-105 the applicants explain that the information in Figure 2-2 is one of the inputs to the overall heat map in Figure 2-1. The applicants: Explain why you believe the other inputs use to create to the overall Atlantic herring heat map illustrating herring spawning potential in Figure 2-1 should be disregarded in preference of only considering the preferred spawning habitats for Atlantic herring in Figure 2-2? The MMO: Please provide the MMO's opinion on the applicants' use and comparison of Figure 1-2 and Figure 2-2 described above and their relevance to areas of medium and high potential herring spawning areas.	Figure 2-2 of the Heat Mapping Report: Atlantic Herring and Sandeel [AS-105] depicts the EMODnet 1:250k seabed sediment map, which represents the best available regional scale indication of the distribution of suitable sediments. This data layer differs from other constituent layers of the heat maps presented as sediment type can be considered a binary factor in determining suitability (i.e. where sediment is neither preferred or marginal, herring spawning is not viable and will not occur). In comparison, other data layers represent a continuous shift in suitability, which is best interpreted when considered together with all other datasets (i.e. the heatmapping overall). At a project-scale, the Particle Size Analysis (PSA) data collected on behalf of the DBS Projects represents the best available data to characterise seabed sediment type within the Offshore Development Area as it ground truths those data presented within Figure 2-2. PSA data are presented within Figure 2-6 of the Heat Mapping Report: Atlantic Herring and Sandeel [AS-105] for reference. A more detailed explanation of the above point is presented below, noting that this information is available within the of the Heat Mapping Report: Atlantic Herring and Sandeel [AS-105], and within the Kyle-Henney <i>et al.</i> (2024) publication: It is imperative to note that other data layers that form the overall heatmap, and the heat map itself, is not disregarded. The specific point being made by the Applicants is that the distribution of potential spawning habitat indicated in Figure 2-1 of the Heat Mapping Report: Atlantic Herring and Sandeel [AS-105], is over representative of potential spawning habitat within the Offshore Development Area. This is clearly illustrated by the underlying EMODnet 1:250k data, which must be considered as a binary data layer (indicating where spawning could or could not occur_ when considering spawning suitability (with appropriate understanding that interpolated data may not reflect current seabed sediment types in some locations). Overrepresentation is specifically noted in Kyle-Henney <i>et al.</i> (2024)¹, and the Applicants have presented additional site-specific PSA data to appropriately ground-truth the refinement in extent of potential spawning habitat in accordance with the Kyle-Henney <i>et al.</i> (2024) methodology. In this case, the Applicants are using the evidence available to improve and refine the extent of potential spawning habitat on the basis of the best available evidence, rather than disregarding information.
FSE.2.5	Atlantic herring heat map The applicants state in their summary of representations at ISH5 [REP4-086], that the 135dB disturbance threshold is inappropriate to the assessment of herring and dispute the claim that the 135dB limit establishes the best available scientific evidence but rather that it represents preliminary findings to inform a more comprehensive behavioural disturbance metric in future studies and that the greatest range at which an impact should be considered for herring is 186dB. The applicants state further in the same reference that there is no evidence in Hawkins <i>et al.</i> (2014) or Popper <i>et al.</i> (2014)² that shows that 135db would have an impact on herring spawning behaviour, going on to state that they do not consider that relying on Hawkins <i>et al.</i> (2014) is	No response is required. Questions directed to the Marine Management Organisation (MMO). However, the Applicants maintain the position that the 135dB limit should not be used as a threshold for Atlantic herring EIA and associated management of activities, in alignment with the scientific publication that originally presented the 135dB threshold for sprat, not Atlantic herring (Hawkins <i>et al.</i>, 2014). The 135dB threshold represents the underwater noise level at which 50% of a sprat (<i>Sprattus sprattus</i>) population altered their position in response to a controlled noise source. This altering of position was defined as a change in depth, or change in echo strength, or movement out of the sonar beam (cut-off) occurring during the trial. Changes in echo strength could not be quantified but were assumed to be changes in school density and orientation. The majority of responses for sprat to the noise source were a change in density or orientation (could not be determined as one or the other). It was noted

¹ Kyle-Henney M., Reach I., Barr N., Warner I., Lowe S., and Lloyd Jones D., 2024. Identifying and Mapping Atlantic Herring Potential Spawning Habitat: An Updated Method Statement. Available at:

² Popper A. N., Hawkins A. D., Fay R. R., Mann D. A., Bartol S., Carlson T. J., Coombs S., Ellison W. T., Gentry R. L., Halvorsen M. B., Løkkeborg S., Rogers P. H., Southall B. L., Zeddies D. G. & Tavorla W. N. (2014). Sound exposure guidelines for Fishes and Sea Turtles. Springer Briefs in Oceanography.

I.D.	Written Question	Applicants' Response
	appropriate or justified as the authors note themselves that it should not be used in the way purported by the MMO or NE. Please explain the MMO's view of the relevance of the 135dB disturbance threshold and the 186dB TTS threshold. Justify your response explaining what types of behavioural disturbance would likely be experienced over 135dB and how this could impact the existing herring population and spawning rates.	that the sprat schools only responded to extraneous sounds during the day when schooling against predators but did not respond to extraneous sound when feeding at night. There is no information available to 'translate' the behavioural responses for sprat in Hawkins <i>et al.</i> (2014) into behavioural responses for Atlantic herring. Beyond this, there is no evidence to indicate that this behavioural response (which did not result in sprat moving to avoid the source of noise) would prevent the spawning of herring either through preventing migration of herring to their spawning grounds, or through preventing spawning itself. Whilst Hawkins <i>et al.</i> (2014)³ describes potential effects of changes in behaviour in terms of metabolic cost and increase in vulnerability to predation, there is no assessment of how, if at all, this would affect a sprat population. Hawkins <i>et al.</i> (2014) goes on to state that: <i>"Closer study of the effects of disturbance of fish, in terms of the details of the actual behavior being exhibited and the bio-economic consequences of that behavior, is required if we are to understand fully the effects of exposure to man-made noise. Fish in different areas, at different times, with differing experience of previous sound exposure, may behave differently."</i> <i>"In this paper, data have been presented on the levels of impulsive sound to which sprat and mackerel respond. However, these data cannot yet be used to define the sound exposure criteria."</i> It is therefore evident that Hawkins <i>et al.</i> (2014) does not present sufficient detail to provide a threshold value / exposure criteria for sprat populations inside of Loch Hyne (a sheltered sea loch, the study area). Subsequently, it is not appropriate to assign this specific threshold value for behavioural effects to Atlantic herring (a different species) in the North Sea (and open sea environment exposed to a range of 'noisy' activities), especially for the purposes of management of noise-producing activities. Further information is presented within Appendix B of The Applicants' Responses to Deadline 2 Documents [REP3-028]. Considering the above, the Applicants do not consider that noise at or above 135db level would be likely to have any impact on the existing herring population. As referenced below in response to FSE2.15, the requested requirement for a ban on piling due to the overlap with herring spawning habitat under the 135db noise contour would be very damaging to the Projects commercially and has the potential to significantly affect the construction programme, with consequent effects on the delivery of the government's Clean Energy 2030 Action Plan. The Applicants re-iterate that they do not consider the evidence put forward for a restriction to be sufficiently robust, and that the imposing of such a restriction cannot be considered necessary or reasonable.
FSE.2.6	Seasonal restrictions for piling in the array areas in relation to potential impacts to herring and sandeel During questioning on this topic at ISH5 [EV10-005], the applicants stated that the authors of the paper on which you are basing your advice (Hawkins et al. (2014) or Popper et al. (2014)) specifically stated the paper should not be used for the purpose for which you have used it. Could you respond specifically to this point please, justifying the use of the paper in the way you have?	No response is required. Questions directed to Natural England.
FSE.2.7	Worst-case piling locations for herring In responses to questions on this topic at ISH5 [EV10-006] the applicants stated moving the worst-case location modelling location to the south-west corner might move the noise contours further south, so they overlapped less with the preferred substrates to the north on Figure 2-2 [AS-105].	The worst case scenario allows for the concurrent piling of no more than two Wind Turbine Generator (WTG) foundations at a given time. Concurrent piling of three foundations at one time is not included within the Rochdale Envelope of the Projects. Combining all three WTG locations into one envelope misrepresents the underwater noise impact of the Projects. Therefore, the underwater noise modelling should only consider two piling events.

³ Hawkins, A.D., Roberts, L. & Cheesman, S. (2014). Responses of free-living coastal pelagic fish to impulsive sounds. Journal of the Acoustical Society of America, 135(5), pp. 3101-3116. doi:10.1121/1.4870697

I.D.	Written Question	Applicants' Response
	This is based on the assumption that the worst-case noise modelling to produce contours for Figure 2-1 and Figure 2-2 is restricted to two locations only. Should the worst-case noise contour envelopes not be derived from all three locations, the two locations originally modelled and the additional modelling using the south-west location of the array area to produce the worst-case noise envelope contours?	To clarify, the worst case scenario for underwater noise impacts to sensitive fish receptors remains the DBS East south-west and DBS West north-west WTG locations, as this results in the greatest spatial footprint of underwater noise impact. The alternative modelling that includes the DBS East south-west and DBS West south-west WTG locations represents the greatest overlap with potential spawning habitat for Atlantic herring only but does not represent the greatest extent of underwater noise impact to the more noise sensitive adult Atlantic herring. This is discussed in more detail within the Modelling of underwater noise associated with alternative piling locations to inform potential impacts on Atlantic Herring spawning grounds [document reference 15.8] technical note, submitted at Deadline 5.
FSE.2.8	Commitments to noise abatement systems (NAS) for fish and shellfish In reference to question FSE.2.7 above regarding the commitments by Morgan Generation Offshore Wind Farm (OWF) (Project EN010136) and Morecambe Generation OWF (on a without prejudice basis) (Project EN010137) for use of NAS in the Outline Marine Mammal Mitigation Protocol (oMMMP) [REP4-054] and therefore applicable to marine mammals, do you intend to secure any commitments to NAS related to fish, specifically herring and sandeel and if so, how would these be secured in the draft DCO and draft DMLs?	The Applicants have ensured that the underwater noise modelling has included the Projects worst case scenarios without mitigation. Best endeavours to reduce the impact of underwater noise on marine receptors via the implementation of primary and secondary measures are being included within the Projects' procurement strategy as an optional element to allow them to be called upon should they be required based on the final design parameters. Where necessary, underwater noise modelling and assessments will be updated post-consent to determine the mitigation required for the Projects; this will include the finalised Projects design (primary measures) and secondary noise reduction measures (such as NAS) to provide the most accurate potential impact ranges. Modelling outputs with the final project design and mitigation proposals put forward for agreement will be presented at this juncture also. This work will be undertaken to inform the final MMMP for marine mammals and is also relevant to impacts on fish and shellfish. At a meeting on 15th May 2025 with the MMO and Cefas, the Applicants enquired as to what level of impact MMO and Cefas might deem acceptable and what further information could be provided to support the removal of any seasonal restrictions. These discussions included references to the results of impact range reductions demonstrated in Illustrative Underwater Noise Reduction Technical Note [REP4-094]. The MMO advised they would consider the matter further and 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. The Applicants are hopeful that further discussions with Cefas and MMO may result in the development of an agreed plan for the management of this issue. 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.
FSE.2.9	Export cable proposed through the Flamborough Head herring spawning ground The ExA is aware of the questions and responses between the applicants and the MMO regarding herring larval abundance mapping and presentation of the density data. a) Can you confirm if this issue has now been resolved and if it is satisfied with the quality and presentation of the data regarding herring larval abundance and density submitted into the examination by the applicants at DL4 [REP4-098]. If not, please explain why not. b) If so, what is your position on potential impacts of the construction and installation of the export cable corridor on spawning herring? c) What is your opinion on whether the applicants have fully adhered to the mitigation hierarchy on this issue?	No response is required. Questions directed to the MMO.

I.D.	Written Question	Applicants' Response
	d) Are the applicants' proposed mitigations sufficient and are you satisfied with the way they are secured in the DMLs?	
FSE.2.10	Export cable proposed through the Flamborough Head herring spawning ground The applicants state in paragraph 10 on page 8 of the applicants' Fish and Shellfish Response to the MMO [REP4-098] that high abundances of larvae (200-600 larvae per m²) have been recorded between KP50 - KP60, however this location is ground-truthed as being unsuitable sediment type for spawning and that it is likely that larvae have drifted from potential habitat outside of the Offshore Export Cable Corridor. The ExA notes that the applicants state larvae in the water column above the seabed are not considered to be at risk of potential impacts associated with the installation of cables [AS-105 paragraph 39 page 26]. The applicants: What impact could the export cable constriction and installation, such as but not limited to seabed disturbance and sediment plumes, have on drifting larvae at the developmental stage? Has this been assessed? If so, please provide a reference for where it can be found. The MMO: Please provide your position on the applicants' statements in paragraph 10 on page 8 of the applicants' Fish and Shellfish Response to the MMO [REP4-098] and [paragraph 39 page 26 of the Heat Mapping Report: Atlantic Herring and Sandeel [AS-105]. Please state whether you are in agreement or not with these statements and what impact the export cable construction and installation could have on drifting, developing herring larvae?	The impact pathways associated with the construction / installation of export cables, as assessed within Chapter 10 Fish and Shellfish Ecology [APP-091], include: - Temporary habitat disturbance to fish and shellfish species and spawning and/or nursery grounds (see section 10.6.1.1); - Increase in local suspended sediment concentrations and sediment settlement (see section 10.6.1.2); - Release of sequestered contaminants following sediment disturbance (see section 10.6.1.3); - Impacts on fish and shellfish species as a result of underwater noise and vibration (see section 10.6.1.4). Developing larvae within the water column are no longer associated with the seabed, therefore temporary habitat disturbance and the settlement of suspended sediments on the seabed will not represent an impact pathway to larvae at this stage. In addition, Atlantic herring larvae are generally tolerant of increased suspended sediment concentration in the water column (Griffin <i>et al.</i>, 2012⁴; Kiørboe <i>et al.</i>, 1981⁵; Messieh, Wildish and Peterson, 1981⁶); however larvae near the seabed with visible yolk in their yolk sacs are expected to be more sensitive than larvae drifting in the water column. The back-calculation presented in the Heat Mapping Report: Atlantic Herring and Sandeel [AS-105] makes this distinction when considering the temporal extent of risk to eggs and larvae. Results of this back-calculation indicate a theoretical 'stand-down' period of 27 days (3rd-30th September inclusive) should any detrimental (to the productivity of the overall stock) effect be predicted. If a temporary restriction upon the Projects is required, it should be limited to this 27 day period, rather than the three month period originally proposed. Whilst the release of sequestered contaminants following sediment disturbance was assessed within the ES, all fish and shellfish receptors are considered to have a low sensitivity, and the magnitude of effect was considered negligible. Therefore, the conclusion of negligible (non-significant) effect was determined for drifting larvae at the developmental stage. Eggs and larvae are less sensitive to underwater noise than adult Atlantic herring, which are represented by the highest underwater noise sensitivity group in Popper <i>et al.</i> (2014). The sensitivity of eggs and larvae is considered similar to that of fish with a swim bladder not used in hearing (Popper <i>et al.</i>, 2014) and was assessed as such in Chapter 10 Fish and Shellfish Ecology [APP-091].
FSE.2.11	Export cable proposed through the Flamborough Head herring spawning ground Respond in detail to NE's response to action point 57 from ISH5 [REP4-126] which states, '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. 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	The Applicants have responded to Natural England in detail on this matter in REP4-126:57 of The Applicants' Responses to Deadline 4 Documents [document reference 15.3]. Additional detail to this response has been provided below. The worst case scenario of permanent impacts to spawning grounds from structures being left in situ was assessed within section 10.6.2.6. of Chapter 10 Fish and Shellfish Ecology [APP-091] (permanent loss of habitat and/or change in habitat type as a result of changes in substrate composition). The assessment assumed that, as exact methods of decommissioning and extents of removal of infrastructure are yet to be confirmed, habitat loss from the installation of seabed of foundation scour protection and cable protection is considered permanent, and therefore by default left <i>in situ</i>.

⁴ Griffin, F.J., DiMarco, T., Menard, K.L., Newman, J.A., Smith, E.H., Vines, C.A. and Cherr, G.N., 2012. Larval Pacific herring (*Clupea pallasii*) survival in suspended sediment. *Estuaries and Coasts*, 35: pp. 1229-1236

⁵ Kiørboe, T., Frantsen, E., Jensen, C. and Sørensen, G., 1981. Effects of suspended sediment on development and hatching of herring (*Clupea harengus*) eggs. *Estuarine, Coastal and Shelf Science*, 13(1): pp. 107-111.

⁶ Messieh, S.N., Peterson, R.H. and Wildish, D.J., 1981. *Possible impact from dredging and spoil disposal on the Miramichi Bay herring fishery*. Biological Station.

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	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'.	Should removal of these infrastructure be undertaken, this is considered within the EIA within section 10.6.3. of Chapter 10 Fish and Shellfish Ecology [APP-091] noting that details of decommissioning would be developed closer to the time to ensure compliance with concurrent legislation and guidance. It is anticipated that any impacts would have a magnitude no greater than as assessed during the construction phase. As stated within RR-039 of the Response to Natural England's Relevant Representations [AS-048], The Applicants have not yet developed designs detailing the extents of cable protection required, or its location along the Offshore Export Cable Corridor. Development work is currently ongoing to provide an update on these topics. Any updates that become available during the examination process will be shared with all interested parties and the ExA. It should be noted, however, that the final extents of cable protection to be deployed will not be fully understood until detailed design has been completed post-consent and until cable installation is completed. Final Cable Statements required to discharge conditions in each Deemed Marine Licence (e.g. condition 15(i) in Deemed Marine Licence 1 of the Draft Development Consent Order (Revision 8) [document 3.1] will be presented for the approval of MMO and their advisors prior to construction. The Final Cable Statements will contain the final Cable Burial Risk Assessments which will demonstrate why the volumes to be deposited during construction are needed and cannot be refined down further. Thus, Natural England will be afforded a clear opportunity to bear witness to, and comment on, the final quantities and location for deposit of cable protection The Applicants note that developing and designing offshore wind farms is a complex task that requires design flexibility at the consenting stage to account for uncertainties relating to site information and construction technique. In line with this principle, they are seeking to consent a worst case scenario design envelope which gives account to current uncertainties relating to matters such as the volumes of cable protection required to deliver resilient, reliable critical national infrastructure that makes a positive contribution to the UK's Net Zero targets and which does not present avoidable risks to other sea users that might be presented in circumstances where cable protection is inadequate. The principles of design flexibility are clearly established under policies 2.6 and 2.8.74 of EN-3. The Applicants believe that the quantities of remedial cable protection put forward in the Application represent realistic worst cases given the stages of the Projects and cannot commit to any further reductions in the numbers presented than have already been made through reductions secured in Change Request 1 and through the commitment to cable bundling – both of which have substantially reduced the footprint of the Projects during the course of Examination. Please see the Applicants response to MCP 2.9 for further details of the Applicants position relating to the cable protection worst case scenario brought forward for consent, as well as the risks and implications of making premature reductions to these quantities. Due to the presence of higher potential sandeel habitat present across large areas of the Offshore Development Area, a commitment to not install cable protection in these areas is not possible. As noted above, during Examination revisions to project design have included cable bundling and reductions in cable quantities which have both reduced the footprint of any cable protection required helping to mitigate any potential impact. These reductions are over and above those delivered by the Applicants since the Preliminary Environmental Information Report was published, through reductions in platform numbers and cable numbers. Should other optimisation opportunities be identified, these will be integrated into project design as appropriate, noting that the applicants desired approach to securing cable protection is always through burial and not through the deployment of remedial cable protection and that the Applicants have made a clear commitment to minimise the deployment of cable protection in the Cable Statement (Revision 4) [REP4-050]. As stated within section 10.6.3. of Chapter 10 Fish and Shellfish Ecology [APP-091] details of decommissioning will be developed closer to the time to ensure compliance with concurrent legislation and guidance, noting that this may be contrary to the recommendation for the removal of all infrastructure presented

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		here. Please see the response to BE.10 for a summary of the Applicants' position in relation to decommissioning and considerations of the removability of protection.
FSE.2.12	Potential effects on sandeel and herring populations The ExA would welcome a <u>brief, high level</u> summary of the MMO's, NE's and the applicants' latest positions on the following issues including positions on whether proposed mitigation from the applicants is adequate. Cross references to other documentation submitted into the examination which give the detail would also be helpful: a) Potential impacts on fish from underwater noise from piling in the array areas for: i) Herring ii) Sandeel b) Potential impacts on fish from construction activity along the export cable corridor through the Flamborough Head spawning ground for: i) Herring ii) Sandeel c) Potential impacts on fish from underwater noise from UXO clearance in the array areas and along the export cable corridor through the Flamborough Head spawning ground for: i) Herring ii) Sandeel d) Potential effects on fish spawning areas from benthic ecological halo effects associated with above ground structures including cable protection installed on the sea bed for: i) Herring ii) Sandeel e) Potential effects on fish spawning areas from EMF effects and the localised heating of sediment within the array areas and along the export cable corridor for: i) Herring ii) Sandeel f) Potential cumulative effects from the proposed development in combination with other planned projects on: i) Herring ii) Sandeel g) Potential long term or permanent effects if cable protection was not removed from the export cable corridor post decommissioning within areas of high - very high potential spawning habitat for: i) Herring	See response provided in Appendix B .

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	ii) Sandeel If there are other potential impacts on fish that remain a concern, please list them and provide a brief outline of your latest position.	
FSE.2.13	Intra-project cumulative assessment For intra-project cumulative effects, whilst noting the content of Table 10-30 of ES Chapter 10 [APP-091] (interactions between construction impacts), can you signpost the cumulative assessment of temporary habitat loss and disturbance of fish and shellfish species and their spawning or nursery grounds with the connected impacts on adjacent and wider parts of the receptors associated with sediment suspension and settlement?	Table 10-30 of Chapter 10 Fish and Shellfish Ecology [APP-091] relates to interactions between impacts associated with the DBS Projects alone. This table does not indicate an interaction between "Temporary habitat disturbance to fish and shellfish species and spawning and / or nursery grounds" and "Increase in local suspended sediment concentrations and sediment settlement". Whilst an overlap of these impacts may occur, the short term and highly localised nature of suspended sediment impacts (much of which will overlap with regions of habitat already undergoing temporary disturbance) means that any interaction is not anticipated to result in a cumulative increase in significance. When considering intra-project effects, both "Temporary habitat disturbance to fish and shellfish species and spawning and / or nursery grounds" and "Increase in local suspended sediment concentrations and sediment settlement" are screened out of assessment within Table 10-26 of Chapter 10 Fish and Shellfish Ecology [APP-091] as these impacts are of limited spatial and temporal extent, relative to the identified fish and shellfish receptor groups within the Fish and Shellfish Ecology Study Area.
FSE.2.14	Seasonal restrictions for piling in the array areas in relation to potential impacts on herring and sandeel NE has maintained its advice at DL₄ that as the behavioural threshold of 135dB SEL_{ss} (decibel sound exposure level single strike) overlaps a significant area of the high and very high spawning habitat potential sites when piling in the array areas a seasonal restriction on piling may be required and defers to the Centre for Environment, Fisheries and Aquaculture Science (Cefas) for advice on timing on any such restriction. The MMO's DL₄ submission states on page 15 that it agrees with NE's conclusions and agrees that a seasonal restriction is needed to reduce population impacts on the Banks Herring population. a) What is Cefas's advice on the timing of a potential seasonal restriction for piling in the array areas to reduce the potential impacts on herring and sandeel? b) Please update the examination on the latest discussions with the applicants regarding any seasonal piling restrictions if discussions have taken place since ISH₅ and DL₄ submissions. c) During ISH₅ the ExA suggested [EV10-006] the applicants and the MMO discuss the herring piling restriction in condition 26 of the Rampion 2 made Order to see whether a similar condition could be used for the DMLs for the proposed development as a way to resolve this issue. Have discussions taken place? Are there any further data you require from the applicants in order to move forward this issue? If so, please specify.	No response is required. Questions directed to the MMO.
FSE.2.15	Seasonal restrictions for piling in relation to potential impacts on herring and sandeel a) Please update the examination on the latest discussions with the MMO, Cefas and NE regarding any seasonal piling restriction if discussions have taken place since ISH₅ and DL₄ submissions. b) During ISH₅ the ExA suggested [EV10-006] you discuss the herring piling restriction in condition 26 of the Rampion 2 made Order with the MMO to see whether a similar condition could be	Please note that current restrictions relating to piling consider impacts on herring only. Sandeel are not hearing specialists, and any impacts to this species are considered not significant as assessed within 10.6.1.4. of Chapter 10 Fish and Shellfish Ecology [APP-091]. Therefore, discussions on seasonal piling restrictions are only relevant to herring.

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	used for the DMLs for the proposed development as a way to resolve this issue. Have discussions taken place? If so, please provide details of the discussions. c) If a seasonal restriction was deemed appropriate, please explain whether there would be an impact on the timescales for construction of the proposed development and the commercial or technical viability of the construction and operation of the proposed development. Justify your response and quantify as far as possible.	a) Discussions with MMO and Cefas relating to a hypothetical and without prejudice piling restriction were held on 15th May 2025. Discussions covered appropriate noise contours for consideration, the quality of potential spawning grounds to which a restriction might apply, the timing and duration of any restriction and the potential for the disapplication of any restriction post-consent on the basis of possible future noise reductions that the Projects may deliver through the delivery of primary and / or secondary noise reduction processes. The Applicants were advised that internal discussions with the Cefas and MMO were required before a position could be established, noting that they would undertake consultation with the EGL2 case team, which determined that a refined temporal restriction of 1 month was suitable. It is noted that the Applicants have supplied the MMO and ExA with the same ecological data used by EGL2 to perform their back calculation, with appropriate input parameters specific to the DBS Projects. Further discussions between the Applicants, MMO and Cefas relating to matters pertaining to a hypothetical piling restriction are scheduled to take place on 6th June 2025. b) Within the discussion described above the appropriateness of the Rampion 2 condition was explored. It was noted that the flexibility allowed by this licence condition would allow for further development of potential underwater noise mitigation to be implemented post-consent. However, Cefas and the MMO were unable to provide details relating to the limitations that this licence condition contained (i.e. what level of overlap with potential herring spawning grounds would be allowed; and at what noise contour). Whilst this has developed the Applicants' position outlined in Action Point 26, Table 5-1 of The Applicants' Responses to April 2025 Hearing Action Points [REP4-096] the suitability of this approach cannot be determined at this stage due to an absence of details made available by the MMO and Cefas. If a restriction is to be adopted, the Applicants assert that it would need to be clearly justified, based on clear evidence, and should have a clear basis for disapplication where agreed criteria are demonstrably met post-consent. c) The preferred time to complete offshore construction works, including piling, is through Spring, Summer and into early Autumn when weather and sea conditions can be expected to be at their most favourable. The Projects presently assume that piling would be conducted across two years, assuming a Spring start for each project over the two years. It is not expected that work would conclude by the start of the presently proposed restricted period in either year. Therefore, a temporal restriction between 1st August and 31st October would have a negative impact on construction. This is not just because it could cause breaks in the piling programme, but also because it very significantly reduces the availability of some of the most favourable construction weather to the Projects. If a restriction were included, the Applicants would either pause piling in July and recommence piling in November to complete the remaining locations or bring the start of the foundation campaign forward to around the start of November, to have a viable chance of completing before August. The alternative would be the Applicants extending the piling campaign over three years rather than two as per the present assumption, to maximise construction in favourable seasons. Any of these options would result in the Projects potentially incurring significant programme and cost impacts associated with weather downtime, additional mob/ demob for the main vessel and other associated vessels, and extended port lease costs. Programme-wise, the Projects could be delayed by up to 12 months, potentially jeopardising the delivery of national targets established as part of government's Clean Power 2030 Action Plan. The commercial impact of such a restriction would be likely to be in the range of 20-30% of foundation installation costs, being likely to run well over £100,000,000. It is important to highlight that foundation costs are a key Levelised Cost of Energy (LCoE) component, and this cost increase would be material in the cost competitiveness of DBS, and the ability of the Applicants to successfully secure a route to market. The potential maximum consequences of an interrupted installation that

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		the requested restriction could cause, with uncertainty over when contractors / vessels would be able to return, particularly when taken together with other constriction restrictions and mitigation that have been proposed, will be viewed very negatively by investors / technical advisors. It is important to stress in the strongest possible terms that the requested restriction would create a very significant project risk, with significantly increased foundation installation costs. The result of this could very well undermine the competitiveness and, ultimately, viability of the Projects. 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.
FSE.2.16	RIAA Part 2 - Annex II migratory fish The RIAA Part 2 [REP4-014] describes in Table 7-2 that 'Use of Low-yield methods will be utilised for the detonation of UXO where viable', as an embedded mitigation measure relating to Annex II migratory fish. Can you confirm whether the conclusions of no AEol for Annex II migratory fish presented in the RIAA Part 2 [REP4-014] rely on this measure? The ExA notes that the oMMMP [REP4-054] states low-order clearance is the default option for UXO clearance, but that some high-order detonation may need to be undertaken.	The Applicants confirm that the conclusions presented in the Report to Inform Appropriate Assessment Habitats Regulations Assessment Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4) [REP4-014] regarding the Annex II Migratory Fish features of the River Derwent Special Area of Conservation (SAC) and Humber Estuary SAC are not dependent on the embedded mitigation measure '<i>Low-yield methods will be utilised for the detonation of UXO where viable. This will have the effect of mitigating underwater noise impacts on any fish and shellfish species sensitive to noise</i>'. While the summary of assessment conclusions provided in section 7.4.2.3 and section 7.5.2.3 for the River Derwent SAC and Humber Estuary SAC respectively does indeed reference the embedded mitigation measure of the use of low-yield methods for Unexploded Ordnance (UXO) detonation, the assessment is based on a worst case of high-order clearance, resulting in a maximum mortality injury range of 890m (see Table 7-4). The primary contributing factors to this conclusion were the low number of predicted UXO requiring detonation in the nearshore environment (up to five as detailed in Table 7-5 of RIAA HRA Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4) [REP4-014]), little available evidence to suggest that river lamprey or sea lamprey are found in significant numbers within the vicinity of the Projects' Offshore Export Cable Corridor (given that the Humber Estuary SAC is 46km away), and river / sea lamprey's low sensitivity to underwater noise changes. The Applicants note that a separate licence for UXO clearance activities will be applied for in the post-consent stage of the Projects, which will be consulted on with the MMO before any licence is granted.

1.9 Geology and Ground Conditions

Table 1-9 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Geology and Ground Conditions

I.D.	Written Question	Applicants' Response
GGC.2.1	Mineral resource safeguarding The applicants' updated position is that mineral resources would not be extracted prior to construction and cable ducts are likely to be left in situ post decommissioning, resulting in a likely sterilisation until at least the end of the operational phase [REP4-096, AP51]. This is reported as a moderate adverse effect. Do you have any comments to make in relation to the updated position, the effects to mineral resources and the proposed mitigation?	This question is directed to East Riding of Yorkshire Council (ERYC). However, the Applicants would like to update the Examining Authority (ExA) that a meeting was held with the relevant planning policy officers at the ERYC on the 15th May 2025, regarding mineral resources. The Applicants proposed amendments to the Environmental Statement, set out in The Applicants' Responses to April 2025 Hearing Action Points [REP4-096, AP51] were discussed. ERYC confirmed at the meeting that their main concern was the Projects interaction with the 'Preferred Area of Sand and Gravel' to the South of Catwick, see Chapter 19 Geology and Land Quality Figure 19-7b [REP4-038]. The Applicants explained at the meeting the route was specifically located to minimise land take in this area to the most southerly extent possible, following consultation with the landowner (Yarrows Aggregates) and the ERYC planning officer, at an early stage of the Projects development. ERYC appreciated that the area had been avoided as much as possible and considering other constraints on neighbouring residential properties, it would not be practicable to extract minerals prior to construction. Therefore, they agreed the significance of effect should be increased to 'moderate' adverse, as no further mitigation could be committed to, and the land would effectively be sterilised for the duration of the Projects operation. The discussion and agreement of this matter will be captured in the ERYC Statement of Common Ground (Revision 3) [document reference 9.2] submitted at Deadline 8. The Applicants also confirmed Yarrows Aggregates has not objected to the Projects and intend to expand any further extraction to the north of their current operation, away from the Onshore Cable Corridor to the south. As stated in the Applicants response to Action point No.51, 'The East Riding of Yorkshire and Kingston upon Hull Joint Minerals Local Plan 2016 – 2023 (Adopted in November 2019) includes 'Area of Search for Sand and Gravel' and 'Preferred Area of Sand and Gravel'. Preferred Areas are where resources are known to exist and where planning permission might reasonably be anticipated. The Onshore Export Cable Corridor also passes through two other 'Areas of Search' to the north of Long Riston and Sigglesthorne, also shown on Chapter 19 Geology and Land Quality Figure 19-7b [REP4-038]. Areas of Search are where there is less certainty about the mineral resource. The officers also stated that a National Grid pipeline has been consented in the Minerals Search Area (MSA) to the North of the Projects previously, setting a precedent for this type of development in a MSA. In addition, the Policy EC6 'Protecting mineral resources', does not exclude all development in an MSA, given the large area of the county that has sand and gravel present. It was appreciated by ERYC a development of this nature could not avoid all MSA's and only 0.03% of the total MSA within the ERYC boundary were impacted. In addition, it is important to note that the safeguarding of mineral resources is not an indication that the resource will necessarily be worked in the future. In addition to the updates proposed by the Applicants ERYC asked for the percentage of 'Preferred Area' impacted compared to the total 'Preferred Area' within the ERYC boundary to be provided. The Applicants can confirm this will be added to Chapter 19 Geology and Land Quality (Revision 2) [document reference 7.19] at Deadline 7.
GGC.2.2	Environment Improvement Plan 2023 Would the proposed development hinder the delivery of the aims, goals, measures and targets of the Environment Improvement Plan 2023 [NPS EN1 paragraph 5.4.39]. This should focus on the specific issues covered within ES Chapters 19 and 21 [APP-158 and REP2-022].	The Projects would not hinder the delivery of the aims, goals, measures and targets of the Environmental Improvement Plan 2023, with particular reference to Chapter 21 Land Use (Revision 4) [document reference 7.21] and Chapter 19 Geology and Land Quality [APP-158] and its supporting document 7.19.19.2 Environmental Statement GeoEnvironmental Desk Study and Preliminary Risk Assessment Report [APP-161]. This is primarily due to the way that Ground Conditions, and in particularly the potential risk posed by Ground Contamination is

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		approached. Examples of how Chapter 19 Geology and Land Quality [APP-158] supports the relevant elements of the Environmental Improvement Plan 2023 are given below: - Goal 3 'Clean and plentiful water' discusses the impact of pollutants entering waterbodies. The GeoEnvironmental Desk Study and Preliminary Risk Assessment Report [APP-161] identifies the potential sources, pathways and receptors by which historical ground contamination could enter waterbodies. This is secured by Requirement 29 of Draft Development Consent Order (DCO) (Revision 8) [document reference 3.1] and the mitigation discussed in Section 6.2 of the Outline Code of Construction Practice (OCCoP) (Revision 4) [REP4-040]. - Goal 4 'Managing exposure to chemicals and pesticides' identifies that there are issues surrounding persistent chemicals in the environment. The GeoEnvironmental Desk Study and Preliminary Risk Assessment Report [APP-161] identifies potential former land uses which may be present within the Order Limits and up to 250m which may contain potential persistent chemicals and discusses ongoing legacies of contamination which can be problematic for health and water quality. If these are identified prior to construction, then ground investigation to fully understand the risk and in turn future exposure would be undertaken to assess the risk posed by potential contaminants. This is secured by Requirement 29 of the Draft DCO (Revision 8) [document reference: 3.1] and the mitigation discussed in Section 6.2 of the 8.9 OCCoP (Revision 4) [REP4-040]. - Goal 6 'Using resources from nature sustainably': Point 4. Improving and protecting soil health, this includes preventing valuable soil resources from being sent to landfill, the re-use of suitable site won material has been discussed within Chapter 19 Geology and Land Quality [APP-158] and will be managed through a Materials Management Plan. This is secured through the mitigation discussed in section 5.8.2, section 6.6.2.2 and Appendix A of the OCCoP (Revision 4) [REP4-040]. - Goal 10 'Enhancing beauty, heritage and engagement with the natural environment'. The 25-year goal is to conserve and enhance the natural environment. The GeoEnvironmental Desk Study and Preliminary Risk Assessment Report [APP-161] has considered sites of geological interest and whether they are present or not and how the Projects may impact them this in turn supports the goal of conserving and enhancing the natural environment. The Projects will avoid them in their entirety and this will be reflected in an update at Deadline 7 to the GeoEnvironmental Desk Study and Preliminary Risk Assessment Report [APP-161]. Examples on how the Chapter 21 Land Use (Revision 4) [document reference 7.21] supports the relevant elements of the Environmental Improvement Plan 2023 are given below: - Goal 1 'Thriving plants and wildlife': An aim of this goal is to evolve the Countryside Stewardship scheme to increase biodiversity. The goal will ensure the Government continues to incentivise farmers and land managers under agri-environment schemes to manage land in a way that improves and protects the overall health and structure of the soil. The Projects would not restrict this, and landowners would be able to sign up to new agri-environmental schemes on completion of the construction phase. Through assessing the Projects impact on land use the Applicants have an understanding of the land use type and quality within the Onshore Development Area to ensure the habitat is restored following construction, this includes habitats under existing agri-environment schemes. - Goal 6 'Using resources from nature sustainably': Point 4. Improving and protecting soil health as healthy soil will provide natural protection against the impacts of climate change. Chapter 21 Land Use (Revision 4) [document reference 7.21] considers the impact of the Projects on Agricultural Land Classification (ALC) grade soil within the Onshore Development Area. Detailed ALC surveys were undertaken in 2024 to establish a baseline to which the Applicants are committed to reinstate following construction and a period of aftercare to return land to its previous land use. Thereby ensuring that the goal of improving and protecting soil health is not compromised.

I.D.	Written Question	Applicants' Response
		This is specified within section 4.8 of the Appendix A, Outline Soil Management Plan of the OCoCP (Revision 4) [REP4-040] secured by DCO Requirement 19. Goal 10 'Enhancing beauty, heritage and engagement with the natural environment'. The 25-year goal is to conserve and enhance the natural environment, a key component of this encouraging managed access including to coastlines around England. Chapter 21 Land Use (Revision 4) [document reference 7.21] considered the impact to users of recreational routes Public Rights of Way (PRoWs) (including bridleways and footpaths), a marked way and National Cycle Network routes, as shown on Figure 21-5 (Revision 2) [AS-113]. To support this assessment within Chapter 21, which concludes minor adverse effects during construction and no change during operation, an Outline Public Rights of Way Management Plan (Appendix C) of the OCoCP (Revision 4) [REP1-025] has been produced that sets out PRoW which may be implemented during the construction of the onshore works and supporting programme of activity. The local community will be notified of any closure or changes to existing PRoW during construction as per the OCoCP (Revision 4) [REP1-025]. As such the Projects would not hinder the delivery of this goal of the Environment Improvement Plan 2023.
GGC.2.3	General query Concerns have been raised in relation to contractor adherence to the code of construction practice and soil management plan, and the ability of an agricultural liaison officer to effectively address issues during construction of a similar renewable energy infrastructure project [REP4-107]. How could these concerns be addressed to avoid similar issues with the proposed development?	The Applicants would like to deal with the points raised in this response individually as follows: a) Concerns have been raised in relation to contractor adherence to the code of construction practice and soil management plan. The Applicants cannot comment on the approach taken by other Projects, including Dogger Bank A and B, referenced by the Interested party in REP4-107:9. However, they have made a commitment to undertake the mitigation included in the OCoCP (Revision 4) [REP1-025] which is secured by Requirement 19 of the Draft DCO (Revision 8) [document reference 3.1] and this includes the Outline Soil Management Plan in Appendix A. This must be agreed by the ERYC prior to construction. Section 7 states that <i>'As part of the ongoing process for ensuring that impacts due to the construction of the onshore works are minimised, a monitoring strategy will be set out by the Projects. All Principal Contractor(s) and subcontractors will be required to comply with the detailed CoCP(s), to monitor compliance and report breaches.</i> <i>Project contact details will be made available to members of the public so that the general public can raise queries or complaints to a representative of the Projects.'</i> The Applicants are required to ensure the Contractors, when appointed adhere to the approved plans and deal with any complaints promptly to resolve them, where relevant to the Projects. If the Applicants do not undertake works in accordance with the approved Code of Construction Practice (CoCP) then this would be a breach of the requirements of the Draft DCO (Revision 8) [document reference 3.1] and the ERYC could take enforcement action. b) the ability of an agricultural liaison officer to effectively address issues during construction As detailed in section 6.6.2.5 of the OCoCP (Revision 4) [REP1-025] an Agricultural Liaison Officer (ALO) will be appointed to provide an interface between the Contractor and the landowners. <i>'A qualified ALO will be employed to ensure that information on existing agricultural management and soil / land conditions is obtained, recorded and verified by way of a detailed pre-construction condition survey. A Land Agent will undertake site inspections on behalf of the Projects during construction to monitor working practices and ensure landowners' and farmers' reasonable requirements are fulfilled. The Land Agent will also retain a function with regards to agreeing reinstatement measures during construction or following completion of the works.'</i> 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

I.D.	Written Question	Applicants' Response
		President of the Royal Institution of Chartered Surveyors or the President of the Central Association of Agricultural Valuers. The Option and Deed of Grant agreements state: <i>'if a dispute cannot be settled between the parties the 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.'</i> For those landowners which have not entered into a voluntary agreement, should a landowner consider that an ALO was not acting in accordance with the CoCP and a dispute was not able to be resolved through communication with the Contractor or the Applicants, this may be subject to enforcement action from the ERYC as there would be a breach of Requirement 19 of the Draft DCO (Revision 8) [document reference 3.1]. However, the Applicants would like to add that they would consider that a matter of this nature could be resolved through effective communication between all parties and this option would be as a last resort.

1.10 Good Design

Table 1-10 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Good Design

I.D.	Written Question	Applicants' Response
GD.2.1	Converter stations zone site selection and alternatives Whilst noting your response to ExQ1 GD.1.14 [REP3-027], the ExA is still unclear why Zone 4 remained in the site selection process and why other Zones were removed, given the constraints identified in your response. For example, ES Chapter 4 tables 4-11 and 4-12 [AS-017] appear to identify similar or fewer constraints for Zones 2, 7 and 8 compared to those identified for Zone 4. The ExA also notes that ES Chapter 4 paragraph 84 identifies similar constraints to those at Zone 4. Moreover, the wording of your response to ExQ1 GD.1.14 suggests that there were other constraints	The exercise that has been carried out with regards to site selection and alternatives is robust and comprehensive and has considered all of the information that was available at each stage of the process. This is documented in Chapter 4 Site Selection and Assessment of Alternatives (Revision 2) [AS-017]. The selection of the preferred Onshore Substation Zone was made based on a comprehensive multi-criteria assessment, including reviewing a range of environmental, technical, social, economic and planning considerations. The Applicants' previous response to GD.1.14 in The Applicants' Responses to ExQ1 [REP3-027] was intended to outline the range of different engineering, technical, environmental opportunities and constraints considered specifically in relation to Zone 4. This is to demonstrate the robust review of issues has been considered from the earliest stage and fed into the decision-making process. All Onshore Substation Zones considered throughout the site selection process have various constraints and opportunities associated with them, however, it is important to note that each decision was based on a balance of risks based on known information at the time, and it was also led by expert opinion and applying professional judgement in relative weighting of the different considerations for each Onshore Substation Zone. In addition, the Onshore Substation Zones site selection considerations were not considered in isolation, and wider infrastructure siting considerations (for example the onshore cable corridor, onward routing and Grid Connection considerations) were also considered as part of the wider decision-making process. Appendix C outlines the range of constraints identified for Zones 1, 2, 3, 5, 6, 7, 8 and 9 which fed into the decision-making process for the Onshore Substation Zones at different stages of the process. As Onshore Substation Zone 4 has been taken to the final stages of the site selection process, it has been subject to a more extensive review and micro-siting in order to optimise the design, and therefore there is much more known information available regarding this Onshore Substation Zone. Based on known information at the time, the detailed assessments for the Onshore Substation Zone identified opportunities associated with the Onshore Substation Zone 4 and on balance with the constraints has been selected as the preferred Onshore Substation Zone. - Some key opportunities associated with Onshore Substation Zone 4 are as follows: - Avoids some of the most sensitive landscape and visual receptors in the surrounding areas; - Is located in a relatively flat landscape, with some existing landscape structure in place and with few landscape features which could be lost to development. - It is considered that the landscape of the chosen site is capable of accommodating large scale development. - The site avoids the candidate Yorkshire Wolds Area of Outstanding Natural Beauty to the north, - The site avoids large numbers of residential receptors located at Beverley in the north-east. - The construction of the Projects on the site would not obstruct view of Beverley Minster, a key feature on the skyline, in views from the A1079. - Zone 4 offers the benefit of a single site for both Onshore Converter Stations ensuring a co-ordinated approach to the projects and keeps potential impacts localised to a single area, rather than being more widely spread across two separate locations.

I.D.	Written Question	Applicants' Response
		The Applicants can confirm that the list of constraints highlighted in their response to GD1.14 in The Applicants' Responses to ExQ1 [REP3-027] can be considered an exhaustive list of known constraints. Therefore, in accordance with National Policy Statement EN-1 (paragraph 4.3.15), the Applicants have included <i>"information about the reasonable alternatives that they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility."</i> Onshore Substation Zone 4 was considered the preferred option for the siting of the converter stations, given the overall balance of risks and opportunities associated with the Onshore Substation Zones based on known information at the time.
GD.2.2	Design review process Review the applicants' response to action point 24 [REP4-096] setting out their proposed approach to the detailed design review process for the converter stations and confirm if you agree with the proposed amendments. If you do not, set out what changes you seek to the design review process and why.	The Applicants note that this question is directed to East Riding of Yorkshire Council. However, the Applicants would like to update the Examining Authority that the Applicants discussed this with the ERYC at a meeting on the 15th May 2025. All proposed updates and responses, set out in The Applicants' Responses to April 2025 Hearing Action Points [REP4-096], Action Point No. 24 were agreed to be acceptable, except in relation to the 28 days review period, which is discussed in relation to GD.2.3.
GD.2.3	Design review process The ExA notes both the applicants' and ERYC's positions that the Design and Access Statement [REP2-027] should refer to a maximum 56 day or 28 day period for provision of comments on any outputs of any Design Panel review respectively. Consider whether a 42-day consultation period would allow sufficient time for ERYC to respond, whilst ensuring a timely response. If you do not agree, set out why this timeframe would not be suitable. If you do consider this to be a suitable consultation period, liaise with each other to seek agreement on this matter and update the Design and Access Statement accordingly.	The Applicants met with ERYC on the 15th May 2025 and discussed the issue of the 28 days review period. The Design and Access Statement (DAS) (Revision 2) [REP2-027], section 5 'Design Review' process, para 270 states: 'Comments on any outputs of any Design Panel review must be provided within 28 days to the Applicants, by the East Riding of Yorkshire Council and the relevant ward councillors.' The Applicants discussed this point with ERYC and they confirmed that the 28 day period would be acceptable to receive comments on the output of Design Review Panel reports. ERYC would still have 8 weeks (56 days) to agree the final design that must consider the outputs of the Design Review Process. This is secured by Requirement 9 in Schedule 2 Part 1 of the Draft Development Consent Order (DCO) (Revision 8) [document reference 3.1]. The eight weeks determination period is secured in Schedule 2 Part 2 paragraph 2(1) of the Draft DCO (Revision 8) [document reference 3.1] which states 'Where an application has been made to the discharging authority for any consent, agreement or approval required pursuant to a requirement included in Part 1 of this Schedule, or for any consent, agreement or approval further to any document referred to in any such requirement, the discharging authority must give notice to the undertaker of its decision on the application within a period of eight weeks...'. ERYC confirmed this clarification was helpful and addressed their initial concerns. However, they asked for paragraph 270 to be updated to confirm that the 28 day review period would commence from receipt of any reports which require their comments and should be accompanied by a presentation of the proposed design and outcomes of any reports to allow consultees to ask questions. The Applicants agreed to make this update at Deadline 7. It was also agreed that the methodology for undertaking a Design Review Process included in the DAS (Revision 2) [REP2-027] was outline at this stage and would be further developed post consent considering feedback and lessons learned from other RWE Offshore Wind Farms. The Applicants reiterated their agreement in their response to Action point 24 in The Applicants' Responses to April 2025 Hearing Action Points [REP4-096] that they will agree the 'detailed terms of reference guide for the Design Review Panel' with ERYC, this will be updated at Deadline 7. The Applicants also reiterated, that paragraph 270 already states: 'A programme for the Design Review Panel process and development of the detailed design process would be agreed with the relevant stakeholders post DCO consent'. ERYC raised a concern that the review of the Sustainable Drainage Systems design from the drainage team could take longer than 28 days. The Applicants

I.D.	Written Question	Applicants' Response
		confirmed that any instances of a technical team not being able to respond in 28 days could be considered when agreeing the programme with stakeholders but must be agreed between both parties and should be highlighted at the start of the process. Paragraph 270 will be updated at Deadline 7 to confirm this. ERYC also asked that confirmation is added to the DAS (Revision 2) [REP2-027] that a report would be provided on how any comments made by the stakeholders had been addressed, prior to the final design being submitted to ERYC to discharge Requirement 9. The Applicants agreed to add this further detail at Deadline 7, to clarify this point. Based on these updates being added to the DAS (Revision 2) [REP2-027] at Deadline 7, ERYC were happy to agree to the 28 days.

1.11 Historic Environment (Onshore)

Table 1-11 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Historic Environment (Onshore)

I.D.	Written Question	Applicants' Response
HE.2.1	Draft SoCG with Historic England Draft SoCG [REP4-061] ID.1 suggests that there has been a lack of engagement between you and Historic England on matters which Historic England has raised concerns over. Are you therefore able to demonstrate that you have attempted to reduce the effects from the proposed development to a minimum, given these comments from Historic England?	The Applicants agreed with Historic England (HE) (in the SoCG meeting of 5th March 2025 that HE do not identify a lack of engagement in terms of level of consultation, rather a disagreement over the Applicants' engagement with National Policy Statement (NPS) provisions relating to enhancement of heritage assets. This position was confirmed in a meeting held on 20th March 2025, when HE agreed that the 'EIA Consultation' (ID.1) in the Statement of Common Ground (SoCG) is considered 'agreed' for both offshore and onshore elements of the Projects, as evidenced in agreed meeting notes. The Applicants have provided an exhaustive list of consultation undertaken with HE before and after the submission of the Development Consent Order (DCO) application in the Historic England Statement of Common Ground (Revision 2) [REP4-061]. The disagreement with respect to the Applicants' engagement with policy relating to matters of public benefit / enhancement is in relation to scheme-wide engagement, as well as site specific enhancement and outreach at Butt Farm. This is more appropriately recorded at in Table 3.5.2 of the Historic England Statement of Common Ground (Revision 2) [REP4-061], at ID.19, ID.34, ID. 39, ID.40, and ID.47. With specific regard to proposals for archaeological outreach and engagement, the Applicant has engaged with HE , sharing proposals for project-wide engagement and outreach, in addition to specific proposals for interpretation and physical works at the Butt farm site between March and September 2024 and attended a site meeting at Butt Farm on 18th October 2024. The Applicants have amended the proposals for the scheme wide outreach and engagement strategy and proposals for works at Butt Farm set out at Appendix 3 of the Outline Onshore Written Scheme of Investigation (OWSI) (Revision 2) [REP4-048] to accord with HE's requests made at this site meeting. The Applicant attended HE's initial Cross-Project Heritage Engagement and Outreach Forum on May 22nd 2025, and are seeking a meeting with HE and the landowners and tenants at Butt Farm to discuss enhancement proposals (HE.2.13). With regards to the effects of the proposed development, the principal measure in minimising effects is to identify an appropriate site location for development. The site selection exercise was undertaken at an early stage of the Project and HE were consulted in this process. HE have subsequently confirmed agreement with the approach and findings of this exercise SoCG ID.4 [REP4-061]. HE have been consulted on the subsequent reduction in scale of the proposed Onshore Converter Station. The design mitigation proposals set out in the Design and Access Statement (DAS) (Revision 2) [REP2-027] have had regard to HE's requests in their Written Representation [RR-022] for '<i>...more naturalistic planting...</i>' using climate resilient species and their request to be consulted on the design panel report. The Applicants have agreed to update the DAS (Revision 2) [REP2-027] to include HE on the consultation on the Onshore Converter Station's Design Panel Report, following confirmation that HE are supportive of this approach to consultation on the detailed design (at a meeting on 20th May 2025). These proposals represent an appropriate response to local landscape character and the development of benefits for biodiversity as well as a mitigation of the effects of the proposed development.
HE.2.2	Draft SoCG with Historic England Draft SoCG [REP4-061] ID.7 states that regarding the appropriate consideration of relevant plans and policies, Historic England considers that paragraphs of NPS-EN1 dealing with public benefit	This point was noted as agreed in discussion with HE at the SoCG meeting held on 5th March 2025. At this meeting, ID.7 was discussed, and HE made specific requests regarding expanding the public benefit proposals in the OWSI (Revision 2) [REP4-048] and bringing all of the information discussed to date into one appendix in the Written

I.D.	Written Question	Applicants' Response
	have not been given due weight by the applicants. The position status is however marked as agreed, which does not appear to be the case. Review the draft SoCG and update it accordingly.	Scheme of Investigation (WSI). This has now been done, and the Applicants have requested confirmation from HE that this matter can now be considered agreed. The Applicants have always included an archaeological outreach strategy to achieve public benefit. It is important to note that any subsequent disagreement has been focused on the content of that programme.
HE.2.3	Draft SoCG with Humber Archaeology Partnership The draft SoCG between you and the applicants submitted at DL4 [REP4-076] suggests that all matters regarding onshore archaeology which you have been consulted on are agreed. Can you confirm that this is the case? If not, what matters do you consider are still outstanding and how would you suggest that they are resolved?	No response is required. Question directed to the Humber Archaeology Partnership.
HE.2.4	NPS EN-1 NPS EN-1 paragraph 5.9.12 states that the applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents. Historic England stated [REP3-043] that it does not know what the initial light level would be from the converter stations and therefore cannot judge the degree of harm it would cause to the scheduled ant-aircraft gunsite. At present, the ExA therefore does not consider that the requirements of NPS EN-1 paragraph 5.9.12 have been fulfilled. The ExA requests that a nighttime visualisation showing the potential effects from the converter stations on the gunsite, on a worst-case scenario basis is provided.	As previously advised to the examination, the Onshore Converter Station would not be lit during normal operation and agreement of controls on light emissions is secured by the Draft DCO (Revision 7) [REP4-005]. These points were set out in the Environmental Statement (ES) chapter and were discussed in some detail during the January 2025 ISH2 and April 2025 ISH4. Chapter 5 Project Description (Revision 3) [REP1-009], para 362 (page 143) states: '<i>Certain areas of the Onshore Substation Zone would have permanent light fittings; however, these lights would only be used when required for unscheduled maintenance or emergency repair purposes. Lighting during onshore operation and maintenance activities is expected to be minimal. External lighting would be directional and limited to essential security and safety requirements. There would be no continuous lighting. A detailed assessment of lighting requirements would be defined at detailed design. Lighting details are also included in the Design and Access Statement (Volume 8, application ref: 8.8).</i>' The DAS (Revision 2) [REP2-027] includes further details in section 4.3.3.7 – Lighting. Key points include: • The Onshore Converter Stations will only require lighting during maintenance and operational visits for health and safety and security reasons. Areas that will likely require lighting include: • Key routes; ○ Wayfinding; ○ Safety signage; and ○ Building entrances. • Lighting should only operate when required and be directional within the site boundary only • There would be a need to maintain dark corridors around the site for ecological and habitat Requirement 22 of the Draft DCO (Revision 8) [document reference 3.1] '<i>Control of artificial light emissions</i>' states: '<i>The Onshore Converter Stations must not be brought into operation until a written scheme for the management and mitigation of artificial light emissions during the operation of the Onshore Converter Stations has been submitted to and approved by ERYC. Any scheme approved must also be implemented as approved</i>'. With respect to the Examining Authority (ExA) request to undertake a nighttime visualisation of the potential effects of the lighting of the Onshore Converter Station on the gun battery – the Applicants maintain that this is not required because the Onshore Converter Station(s) will not be routinely lit at night. There are significant technical difficulties in producing such a night visualisation, which mean that it is difficult to place any reliance on any outputs, particularly where very limited levels of light are involved. To produce a visualisation, detailed location, type, specification and orientation of all light fixtures is required. This information is

I.D.	Written Question	Applicants' Response
		only available at the detailed design stage. Lighting is likely to be only required in winter, when working hours overlap with hours of darkness in the late afternoon. To produce a visualisation at the present time of year will need to use photography captured much later in the evening as sunset is around 9pm and is not the same light as experienced during the winter. It is also extremely difficult to capture photography which matches the experience of the human eye in low light levels. The Applicants believe the reasoning set out above provides a robust justification as to why undertaking a night visualisation is unnecessary and will not achieve the intended objectives, nor is required in order to fulfil the requirements of NPS-EN1 paragraph 5.9.12. Nevertheless, whilst the Applicants do not see the need for or benefit of providing an indicative night-time visualisation, the Applicants will produce and submit such a visualisation, as it has been requested by the ExA.
HE.2.5	Archaeology Do you have any comments regarding the Phase 2 Archaeological Evaluation Trenching Report [REP4-089 and REP4-090] submitted at DL4?	No response is required. Question directed to the Humber Archaeology Partnership, East Riding of Yorkshire Council (EYRC), and Historic England.
HE.2.6	Archaeology The Phase 2 Archaeological Evaluation Trenching Report [REP4-089] makes specific recommendations regarding archaeological mitigation measures in Section 10. Should these be incorporated into the outline Onshore Written Scheme of Investigation [REP4-048]? If not, why not?	The Phase 2 Archaeological Evaluation Trenching Report (Part 1 of 2) [REP4-089] makes recommendations for measures intended to minimise or avoid effects on archaeological remains. These apply primarily to detail design of the proposed onshore cabling and these recommendations will be taken into account during detail design. If, following detailed design, disturbance to any archaeological remains are unavoidable, proposals for more detailed investigation in accordance with the standards set out in the OWSI (Revision 2) [REP4-048] will be developed in consultation with Humber Archaeology Partnership (HAP). This process is set out at section 7.3 of the OWSI (Revision 2) [REP4-048] and is an accepted procedure. The OWSI (Revision 2) [REP4-048] does not require further updating as these recommendations apply to works defined by the Survey Specific WSIs in line with all relevant guidance.
HE.2.7	Hydrological effects on items of archaeological importance The applicants: ES Chapter 22: Onshore archaeology and cultural heritage [AS-092] acknowledges that the proposed development could affect below ground deposits of archaeological and geoarchaeological interest over a wider area than that of the footprint of the proposed development, through hydrological changes that may cause desiccation and drying out of wetland deposits and associated preserved waterlogged archaeological or geoarchaeological remains. How would the draft DCO [REP4-005] or the supporting documents mitigate any effects from changes to hydrology on items of archaeological importance, including any items outside the order limits, such as any within Burton Bushes SSSI, noting that the outline Onshore Written Scheme of Investigation [REP4-048] does not refer to mitigating effects from hydrological changes? Could the hydrogeological risk assessments identified as an embedded mitigation measures in ES Chapters 19 and 20 [APP-158, table 19-3 and REP1-014, table 20-3] be updated to include effects on groundwater flows and works near Burton Bushes SSSI? This is currently only for accidental spills and leaks of contaminants mitigation and not groundwater flows.	There are no known heritage assets that depend on waterlogging that share surface water or hydrogeological connectivity with the site of the proposed development for any potential effects to arise as a result of construction works associated with the Projects. Chapter 20 Flood Risk and Hydrology (Revision 2) [REP1-014] sets out that changes to the groundwater environment throughout construction and operation are assessed as negligible, therefore it is reasonable to conclude that there would be no effects on any buried archaeological remains or geoarchaeological features beyond the footprint of the proposed development. 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). 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 Burton Bushes Site of Special Scientific Interest (SSSI), approximately 120m away.

I.D.	Written Question	Applicants' Response
	Humber Archaeology Partnership: Do you consider that the draft DCO and supporting documents adequately protect items of archaeological importance inside and outside of the order limits from effects from changes to hydrology as a result of the proposed development? Why, or why not?	Chapter 20 Flood Risk and Hydrology (Revision 2) [REP1-014] para. 89 notes that there is '<i>no surface water connectivity to the designated site</i>' (Burton Bushes SSSI) and consequently there is no impact pathway between the project and the site. As a result of the evidence presented above, the Applicants do not believe that the hydrogeological risk assessments require updating. It is also important to note that the OWSI (Revision 2) [REP4-048] sets out the proposed approaches and commitments to archaeological survey and investigation to be undertaken post-consent. Therefore, mitigation from effects of hydrological changes (if any such mitigation was needed) would be developed following further investigation and included in the final WSI, secured through Draft DCO (Revision 8) [document ref 3.1] Requirement 18.
HE.2.8	Anti-aircraft gunsite at Butt Farm Provide comments on the applicants' responses to your comments in response to ExQ1 HE.1.16 and HE.1.21 [REP4-087].	No response is required. Question directed to Historic England.
HE.2.9	Anti-aircraft gunsite at Butt Farm Provide a plan or drawing showing the WWII defensive 'box' around Hull and the Humber and how the anti-aircraft gunsite at Butt Farm fitted within this, which identifies elements of the WWII defence network which Historic England refer to in response to ExQ1 HE.1.21 [REP3-043], with clarification if they survive to this day.	A figure showing the location of the anti-aircraft (AA) batteries forming the Humber Gun Defended Area (GDA or 'gun box') is provided at Appendix D. This shows the sites identified by Colin Dobinson as attached to the Humber Region (and the single battery at RAF Leconfield) in Appendix IV of his work AA Command: Britain's Anti-Aircraft Defences of the Second World War (English Heritage, Swindon 2001). These comprise the defensive scheme established in late 1941, following the Hull Blitz, which included the Butt Farm gun site. Dobinson (Figure 34, p359) reproduces a national map of the state of the UK's heavy AA defences in June 1942 that allows the Humber GDA to be seen in context. Locations of these sites are taken from the grid references cited by Dobinson, and information from the extended Defence of Britain database (eDoB) has been used to identify the status of the identified sites. Where the reference of the batteries is recorded by Dobinson, this is marked on the figure. Sites designated by Historic England as Scheduled Monuments are noted. A 12km buffer has been applied to the points to give an approximation of the range of the guns, and the approximate arc of fire of the Butt farm battery has been marked. Sites that formed part of the pre-1941 'Ideal Scheme' and the 1944 DIVER (anti V1) batteries have been excluded as these relate to different tactical schemes of which the Butt Farm site was not a part.
HE.2.10	Effects on the significance of the anti-aircraft gunsite at Butt Farm Historic England: The ExA notes your response to action point 31 from ISH4 [REP4-109]. However, confirm if you consider whether an <u>effect</u> on the significance of a heritage asset is the same or different to a <u>loss</u> (including any partial loss) of the significance of a heritage asset. Provide this answer with reference to your comments regarding the effects of the proposed development on the setting of the anti-aircraft gunsite at Butt Farm. The applicants: Provide a view on the question whether an effect on the significance of a heritage asset is the same or different to the loss (including any partial loss) of the significance of a heritage asset.	An effect on significance may be adverse, positive or neutral. Loss of the significance of a heritage asset would be considered an adverse effect. As noted in previous responses however, a negligible effect has been taken to refer to a change that would be experienced but would not be sufficient to affect significance.

I.D.	Written Question	Applicants' Response
HE.2.11	Effects on the significance of the anti-aircraft gunsite at Butt Farm Further to your response to ISH4 action points 27 and 28 [REP4-096], how long on a worst-case scenario basis do you consider that less than substantial harm to the setting of the scheduled anti-aircraft gunsite at Butt Farm would endure during operation of the proposed development? Moreover, how long on a worst-case scenario basis do you consider that there would be an adverse and significant effect on the setting of the scheduled monument during operation of the proposed development? The ExA notes that you consider it difficult to be able to quantify this, therefore on a worst-case scenario basis allowing for the landscaping to mature, should the duration of harm be considered as 10 years?	As noted in The Applicants' Responses to April 2025 Hearing Action Points [REP4-096], maturation rates of woodland are variable and gradual. It is considered that by year ten, any mitigation planting would be sufficiently mature to address any effect, but that any effect would be progressively reduced over the course of those ten years. The maximum duration of harm in a conservative estimate of the worst case would be ten years. As noted in the Outline Landscape Management Plan (OLMP) (Revision 4) [REP4-044] section 1.5.3, where practical, landscape mitigation planting will be established as early as possible in the construction phase. This includes the areas of planting along the northern boundary of the Onshore Substation Zone, which will be established at the commencement of construction works, to provide increased screening from the Butt Farm anti-aircraft gun battery as early as possible.
HE.2.12	Effects on the setting of the anti-aircraft gunsite at Butt Farm With reference to updated figure 23-15a4 Cultural Heritage Viewpoint 2: Anti Aircraft Battery at Butt Farm [REP4-039] showing part of the proposed access road to the converter stations, given the proximity of the access road to the scheduled monument, is the access road and the proposed landscaping either side of it likely to create a sense of enclosure around the gunsite? If so, what effect would this have on the setting of the heritage asset?	It is not considered that the construction of the access road and associated hedgerow would give rise to a sense of enclosure that would affect the significance of the gun battery. While the open landscape to the north of the gun site is important to the viewer's ability to understanding the designed function of the gun site, the access road and hedgerow would not obscure this open landscape in any way that would affect the significance of the gun site. Hedgerows will be maintained at a height of no more than 2.0m, similar to other hedges in the immediate surroundings of the gun site.
HE.2.13	Enhancements of the anti-aircraft gunsite at Butt Farm To what extent have you involved the owners and tenants of Butt Farm in the development of the proposed enhancement measures to the scheduled monument? If you have not, why not, given that their permission would be required to facilitate some of the proposed enhancements? If agreement with the owners or tenants has been established, provide evidence to support this. If agreement from the tenants and owners of Butt Farm for the proposed enhancements of the scheduled monument cannot be obtained during the course of the examination, what weight could the ExA and SoS offer these benefits?	The landowner and tenants of the Butt Farm site have both been consulted and have verbally agreed in principle to the proposed physical works at the site and are supportive of the nature and scope of proposed works. The tenants have further included comments from an individual who carries out historical tours at the site for various groups, who has made useful suggestions for physical enhancements including rectification of structural defects and clearance of vegetation. This matter was discussed with HE on 20th May 2025 and the Projects are seeking a meeting on site in June 2025 between the Applicant, Historic England, the tenants of Butt Farm, and the individual who conducts tours of the gun site, in order to further develop the physical enhancement proposals and to agree a scope of works, confirm any consent requirements and landowner agreement. Developed proposals will be secured through agreement of the Outreach and Engagement strategy required by the Onshore Archaeological WSI secured by Requirement 18 of the Draft DCO. The Applicants are actively working towards obtaining the agreements required in order to progress the physical enhancement works at the anti-aircraft gun site at Butt Farm but acknowledge that only limited weight can be placed on these measures by the ExA / SoS given that the agreements are not yet in place. However, the Applicant would like to reiterate that these are enhancement measures, rather than mitigation required to offset the effects of the Projects. The Applicants would also like to highlight that all other enhancement and engagement measures, including those pertaining to the off-site interpretation and engagement focused on the Butt Farm site detailed within Appendix 3 – Public Outreach and Community Engagement Strategy of the OWSI (Revision 2) [REP4-048] are wholly within the Applicants' control to deliver.
HE.2.14	Detailed design of the converter stations The ExA notes your DL3 response [REP3-043] and request to be consulted by ERYC on the detailed design plans which would be submitted to the Local Planning Authority to discharge requirement 9 of the draft DCO, if development consent was granted for the proposed development. The	No response is required. Question directed to Historic England.

I.D.	Written Question	Applicants' Response
	applicants have however proposed that Historic England be consulted during an earlier stage of the design review process (see [REP4-096] action point 24 page 27). Provide a view on this suggestion.	
HE.2.15	Public outreach/ community engagement strategy Provide a view of the public outreach/ community engagement strategy in appendix 3 of the outline Onshore Written Scheme of Investigation [REP4-048]. In your view, should any amendments be made to these, and if so what and why? What weight should be offered to the proposed enhancements as 'public benefits' given their outline nature, notably regarding the anti-aircraft gunsite nearby to Butt Farm?	No response is required. Question directed to Historic England.
HE.2.16	Decommissioning The ExA has been presented with the following information: - ES Chapter 22 [AS-092] table 22-15 states that decommissioning impacts would be <u>similar in nature</u> to those of construction. Paragraph 327 suggests that the worst-case scenario outlined for the construction phase in relation to temporary changes to the setting of heritage assets is <u>unlikely to be exceeded</u> due to decommissioning activities. - ES Chapter 22 [AS-092] paragraph 326 suggests that the direct physical effects from decommissioning could be <u>worse than construction</u> and that "the worst-case scenario regarding decommissioning <u>cannot be ascertained</u> until the Decommissioning Plan is finalised". - Your written summary of oral submissions made at ISH4 [REP4-086] states that the effects during decommissioning would be <u>significantly lower than construction</u>. The ExA remains unclear on the potential effects during decommissioning given this conflicting information presented in the ES and during the hearings. Potential effects should be presented consistently and be properly evidenced. Provide a clearer explanation of the potential effects from decommissioning on onshore heritage assets and update the ES if this is necessary.	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] represents the most refined understanding of decommissioning effects. The categorisation of effects as 'significantly lower' relates only to direct disturbance of archaeological remains. The text in Chapter 22 Onshore Archaeology and Cultural Heritage (Revision 2) [AS-092] reflects an understanding that grubbing out of foundations in deeply stratified deposits may lead to a slight increase in effect where archaeological deposits survive below the maximum depth of construction disturbance, but archaeological works carried out to date have confirmed that this circumstance would not arise. The cable ducts would not be removed on decommissioning and there are no deeply stratified deposits identified at Onshore Converter Station or Landfall. Similarly, change to setting would be less than that noted during construction, with works taking place over a shorter period, with the benefit of mature landscape mitigation and resulting in the progressive removal of any perceptible elements of the proposed development. The ES to be submitted at Deadline 7 has been updated to reflect this understanding.

1.12 HRA General (HRA aspects specific to a topic are covered in that topic area, for example Offshore Ornithology)

Table 1-12 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - HRA General

I.D.	Written Question	Applicants' Response
HRA.2.1	Hornsea 4 announcement The ExA is aware of the announcement Hornsea 4 has made to discontinue the Hornsea 4 offshore wind project in its current form and not deliver Hornsea 4 under the Contracts for Difference awarded in AR6 and instead seek to develop the project later. Do you consider there to be any implications from this announcement to the in-combination assessments for birds, marine mammals, fish and shellfish and any other relevant offshore and onshore HRA aspect, bearing in mind the DCO is still in place for the Hornsea 4 development, granted on 12 July 2023 and is valid for seven years?	The Applicants consider that until such time as Hornsea 4 is discontinued entirely and there being no reasonable prospect of it being constructed, the only valid assumption with regard to its impacts is that these could still occur up to the worst case assessed (and consented). At present Hornsea 4 should be treated as per any other consented project which has yet to commence construction. For any temporary construction related effects (the key effects on marine mammals or on prey species) the conclusions would be unchanged by any slippage in assumed construction windows or changes to the Hornsea 4 design. For operational effects, which are of greatest relevance to the ornithology assessment, whilst the precise mortalities assigned to in-combination effects (such as collisions or displacement) could change with a redesign or removal of Hornsea 4, it is unlikely that these would result in a change on conclusion of adverse effect on integrity.
HRA.2.2	Scottish sites It is noted that whilst NE is authorised to exercise the JNCC's functions as a statutory consultee in respect of applications for offshore renewable energy installations in offshore waters (0-200nm) adjacent to England, this authorisation does not extend to sites in Wales, Scotland and Northern Ireland. UK National Site Network sites in Scotland for which JNCC has joint or sole responsibility have been identified in the application documents for the proposed development, specifically the Moray Firth SAC. Could you submit your position on the applicants' conclusions in the RIAA [APP-047] for the Moray Firth SAC?	No response is required. Question directed to the Joint Nature Conservation Committee (JNCC).
HRA.2.3	Scottish sites Could you confirm whether you are in agreement with the applicants' conclusions presented in the Screening Assessment [APP-049] and RIAA [REP4-016] for ornithological receptors and RIAA [APP-047] for marine mammal receptors, for the relevant Scottish sites?	No response is required. Question directed to NatureScot.
HRA.2.4	HRA screening Your response to ExQ1 HRA 1.2 [REP3-027], refers to the in-combination assessments presented for sites screened in for assessment in the RIAA. The ExA's question [HRA 1.2, PD-014] was in relation to sites screened out at the screening stage. Specifically, sites designated for terrestrial ecology and marine ornithology features for which a likely significant effect (LSE) was excluded from the project alone and you did not go on to consider in-combination effects at screening stage (eg Hornsea Mere Special Protection Area (SPA)). Therefore, for all sites for which a LSE has been excluded from the project alone, can you provide a robust rationale for the conclusion of no LSE from the project in-combination with other plans or projects?	The rationale for screening out designated sites on the likelihood of the risk of LSE was based initially on project alone effects but also on the potential for a contribution from the project to in-combination effects. Although in-combination effects were not explicitly detailed in the screening rationale presented in Appendix A - Habitats Regulations Assessment Screening [APP-049], the basis for screening out project alone effects (e.g. absence of connectivity) was considered to also rule out the risk of contributing to an LSE in-combination with other plans and projects. The Applicants also note that no comments were received on this matter from stakeholders in the two rounds of consultation held for Appendix A - Habitats Regulations Assessment Screening [APP-049] (firstly for four weeks from 13th December 2022, and subsequently in conjunction with the Projects Preliminary Environmental Information Report (PEIR) in Summer 2023), with Natural England confirming in the first round of consultation they agreed with the sites screened in / out for both sites designated for marine ornithological features and for terrestrial ecology (such as the Hornsea Mere SPA, see Table 1-1 of Appendix A - Habitats Regulations Assessment Screening [APP-049] for further information).

I.D.	Written Question	Applicants' Response
HRA.2.5	Designated nature conservation sites with features for which outstanding concerns remain The ExA thanks NE for submitting Table 5-1 in Annex 2 of NE's DL3 cover letter [REP3-059] at DL3 in response to ExQ1 HRA.1.7 [PD-014]. The ExA requests an update to this table at DL5 to confirm whether there are any changes to your position on any designated site listed in this table. The ExA requests that this table also separates out whether concerns relate to the project alone, in-combination or both.	No response is required. Question directed to Natural England.
HRA.2.6	Indirect effects from impacts on forage fish prey species a) Regarding marine ornithology, can you confirm whether your concerns regarding indirect effects from impacts on forage fish species [REP4-129], NE12, G66] relate only to qualifying features of Flamborough and Filey Coast (FFC) SPA? If this concern also relates to other marine ornithology sites and features, please can you specify which? b) If on review of 'Effects on Prey Species Technical Note', to aid resolution of this issue [REP4-093], and you consider that your concerns regarding indirect effects on forage fish prey species are not resolved for offshore ornithological and/ or marine mammal features, please could you provide specific advice as to how the applicants could expand their assessments to address this point?	No response is required. Question directed to Natural England.
HRA.2.7	Flamborough Head SAC, the Humber Estuary SAC and the Holderness Inshore Marine Conservation Zone (MCZ) In the circumstance that NE cannot rule out AEol to the Flamborough Head SAC, the Humber Estuary SAC and effects to the Holderness Inshore MCZ in relation to Annex I habitats from effects from siltation from the cable construction, or the Humber Estuary SAC and in relation to Annex II migratory fish from UXO clearance from cable construction, and the Secretary of State agrees with these positions, could you explain what alternative cable routes have been considered to avoid these effects in the first instance?	The process of the Applicants' route selection for the Offshore Export Cable Corridor and all potential alternative routes considered through the pre-application process are presented in section 4.11 of Chapter 4 Site Selection and Assessment of Alternatives (Revision 2) [AS-017]. The avoidance of direct impacts to sites designated for nature conservation as far as possible (SACs, SPAs, MCZs) was one of the core underlying principles that underpinned the Applicants' decision making regarding the development of the routing of the Offshore Export Cable Corridor. The final routing options presented in the Environmental Statement (ES) (which remain the same at the time of writing) were consulted on with stakeholders in September 2023 in the form of a summary report detailing the site selection decision making for the Projects Landfall and Offshore Export Cable Corridor options. This report detailed the Offshore Export Cable Corridor options to be assessed in the ES and provided an opportunity for stakeholders to provide feedback on these options prior to their finalisation. As stated in Table 4-18 of Chapter 4 Site Selection and Assessment of Alternatives (Revision 2) [AS-017], no notes of disagreement from stakeholders were received regarding the final proposed routes, with Natural England welcoming that the final export cable corridor options would avoid routing through the Smithic Bank sandbank and the Holderness Inshore MCZ. In consideration of the information presented in section 4.11 of Chapter 4 Site Selection and Assessment of Alternatives (Revision 2) [AS-017], the Applicants maintain that a rigorous and transparent site selection process was followed for the selection of the final Offshore Export Cable Corridor route with regards to the avoidance of direct effects on the Flamborough Head SAC, the Humber Estuary SAC and Holderness Inshore MCZ. In addition, the Applicants highlight the other relevant commitments made by the Projects and secured in the DCO which seek to reduce the effects on designated sites within / in the vicinity of the Projects: Within the area between MHWS and 350 metres seaward of MLWS, all Offshore Export Cables must be buried, and must not have cable protection (secured within Condition 3(3) of Deemed Marine Licences (DMLs) 3 and 4 of the Draft Development Consent Order (DCO) (Revision 8) [document reference 3.1];

I.D.	Written Question	Applicants' Response
		• The 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 13 of the Order (secured within Condition 3(4) of Deemed Marine Licences (DMLs) 3 and 4 of the Draft Development Consent Order (DCO) (Revision 8) [document reference 3.1]; and • As detailed in the Outline Marine Mammal Mitigation Protocol (Revision 4) [REP4-054] (itself secured under Conditions 15(g) of DMLs 1 & 2 and 13(g) of DMLs 3 & 4 of the Draft DCO (Revision 8) [document reference 3.1]), if UXO detonation is required, low-order clearance would be the default method.

1.13 Hydrology and Flooding

Table 1-13 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Hydrology and Flooding

I.D.	Written Question	Applicants' Response
HF.2.1	Existing land levels Your response to ISH4 action points [REP4-096, AP5] explains the updated oCoCP [REP4-040, section 6.3.2] states "structures including temporary haul roads and Temporary Construction Compounds (TCCs) in Flood Zone 3 are not raised on average above existing ground levels so not to alter surface water flow paths (excluding the stock piling of topsoil and subsoil)". Can you explain what is meant by 'on average' and how the effects of locations where land is raised have been assessed?	The Applicants have added the wording 'on average' for several reasons: 1. The construction area would be surveyed prior to the strip of topsoil and subsoil to confirm the existing ground level. Following removal of the topsoil the existing ground level would be reduced to a suitable subsoil surface with sufficient bearing capacity (0.1-0.5m of topsoil assumed). This means certain sections of haul road or Temporary Construction Compound (TCC), could be constructed below the existing ground level. However, this cannot be confirmed until the detailed design stage when the Contractor will undertake the design on a site-specific basis, cognisant of the functional requirements, ground conditions and topography. 2. Topsoil and subsoil will be stockpiled adjacent to the Onshore Export Cable Corridor, Haul Road and the TCCs and would remain above ground level. However as agreed with the Environment Agency and detailed in the Outline Code of Construction Practice (OCoCP) (Revision 4) [Rep4-040] the stock piles would be designed to not block flood water. Para 196 states: 'As detailed in Volume 7, Appendix 20-4 Flood Risk Assessment (application ref: 7.20.20.4) where TCCs and the Onshore Export Cable Corridor are located in Flood Zone 2 and 3 temporary spoil storage would be located to avoid blocking or diverting surface water flow paths.' 3. Although the TCCs and Haul Road would not be generally raised above ground level, there will be specific instances where elements of the Projects are required to be above ground level to facilitate the construction i.e. storage areas for sensitive equipment and materials and welfare units within the TCCs, or utilities protection and ground protection for archaeological or ecological reasons etc. As above, these areas cannot be confirmed until the detailed design stage when the Contractor is onboard. 4. Any areas of TCC or Haul Road surveyed above ground level would have a corresponding volume provided below ground level within the Order Limits, should this be required after consideration of the topsoil and subsoil stripping which may have lowered the existing ground level significantly enough to mitigate this risk. Therefore, the Applicants do not consider the use of the term 'on average' in relation to raising existing ground levels for TCCs and Haul Roads, would cause any increased flood risk. In addition, The Environment Agency were specifically asked if further modelling and assessment was required for these works in flood Zone 3 but given the temporary nature of the works this was not requested and it was considered the mitigation measures proposed in the original OCoCP [APP-234] were sufficient. This was discussed in an Expert Topic Group meeting on the 13th December 2023 where the Environment Agency were informed no modelling was proposed in Flood Zone 3. Further detail on the flood risk at the TCCs shown as being located in Flood Zone 3, on the Flood Map for Planning, is included in the Flood Risk and Climate Change Technical Note [document reference 15.5], submitted at Deadline 5. It is important to note that the Flood Map for Planning does not take into account / ignores the presence of defences. As such, the Flood Risk and Climate Change Technical Note [document reference 15.6] includes a more detailed review of the applicability, conclusions and outputs from Environment Agency modelling studies comprising the 2013 River Hull and Holderness Drain Flood Mapping Study. This is also in accordance with the clarification provided by the Environment Agency in their Response to Issue Specific Hearing 4 Action Points and Rule 17 letter [REP4-108] which notes that "... 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." The Flood Risk and Climate Change Technical Note [document reference 15.6] noted that, based on the 2013 River Hull and Holderness Drain Flood Mapping Study, during the Defended, present day scenario the modelled in-channel

I.D.	Written Question	Applicants' Response
		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 one in 100 year event, there is no mechanism for fluvial flooding to affect the TCCs, especially given the elevations of the intervening ground levels. On this basis, the Applicants consider that the above clarification on land levels and approach proposed to the TCCs is proportionate given the limited potential for flood risk to affect them during their temporary lifetime.
HF.2.2	Existing land levels Appendix 20-1 - Flood Risk and Hydrology Consultation Responses [APP-165] states, 'where temporary access roads and compounds are required during construction, existing ground levels will be used so as not to alter surface water flow paths'. Can you signpost where this is secured or if it isn't, where the effects of altering land levels on surface water flow paths have been assessed?	See response to HF 2.1. This is secured by section 6.3.2 of the OCoCP (Revision 4) [REP4-040], paragraph 190 that states 'Mitigation measures will include leaving gaps in soil stockpiles to allow water to drain, and ensuring any structures including temporary haul roads and Temporary Construction Compounds (TCCs) in Flood Zone 3 are not raised on average above existing ground levels so not to alter surface water flow paths (excluding the stock piling of topsoil and subsoil), unless further detail can be provided by the Contractor at the detailed design stage.' Additionally, as discussed in the response to HF 2.1 it is not considered that any temporary infrastructure located in Flood Zone 3, based on the Flood Map for Planning, would have a significant effect on flood risk with the measures set out in the OCoCP (Revision 4) [REP4-040]. This is supported by the assessment and further details related to flood risk at the TCCs which has been provided in the Flood Risk and Climate Change Technical Note [document reference 15.5], submitted at Deadline 5. It concluded that, based on the 2013 River Hull and Holderness Drain Flood Mapping Study, 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 Flood Risk and Climate Change Technical Note [document reference 15.5] concludes that, during the present day one in 100 year event, there is no mechanism for fluvial flooding to affect the TCCs, especially given the elevations of the intervening ground levels. On the basis of the above, taking into account the measures proposed and that these are secured by the OCoCP (Revision 4) [REP4-040], it is the Applicants' position that this has been adequately considered and will be appropriately mitigated during the detailed design stage.
HF.2.3	Watercourse crossing assessment methodology Your response to ISH4 action points [REP4-096, AP10] sets out several changes to the assessment methodology, the assessed magnitude of impact and significance of effect related to temporary and haul road watercourse crossings in ES Chapter 20 [REP1-014]. Given the implication of these changes, the ExA requests the referenced updated ES Chapter 20 is submitted for DL5, not DL7, to provide IPs with sufficient opportunity to review and provide comments.	The assessment methodology for Impact 1 Direct Disturbance of Surface Water Bodies has been updated to more formally assess the 23 temporary haul road watercourse crossings. This has resulted in some very minor changes to impact magnitude and effect significance for some catchments. However, the changes have not resulted in any significant effects on any of the receptors assessed. The Chapter 20 Flood Risk and Hydrology (Revision 3) [document reference 7.20] will be updated and submitted at Deadline 5.
HF.2.4	Discharge rates What is your position on the proposed increased runoff rates from the proposed development for the 1 in 1 and 1 in 2 year storm events and any effect on local hydrology and flood risk downstream [REP4-096, AP12].	No response is required as the question is directed to the Environment Agency and Lead Local Flood Authority (LLFA). However, the Applicants had a meeting with East Riding of Yorkshire Council (ERYC) on the 15th May and it was agreed that a discharge rate either calculated from the greenfield run off rate of 1.4 l/s/ha or a minimum discharge rate of 1l/s, if the greenfield runoff rate calculated was so small it may cause a block was acceptable. The ERYC did not consider that a discharge rate of 1l/s would increase flood risk for the 1 in 1 and 1 in 2 year storm events and were happy for the Outline Drainage Strategy (Revision 3) [REP2-033] to be updated to confirm this, at Deadline 7 as committed to by the Applicants in response to comments from the BNH Internal Drainage Board at Deadline 4.
HF.2.5	Pre- and post-construction land drainage	The Applicants can confirm that the definition of 'pre-commencement works' has been updated to include drainage works that may be required as a result of any other pre-commencement work. As detailed in HF2.6 this will allow any

I.D.	Written Question	Applicants' Response
	Your response to ISH4 action points [REP4-096, AP43] explains that land drainage would be put in place prior to construction to intercept existing agricultural drains and to keep the working areas dry. Can you confirm: a) if the definition of 'pre-commencement works' in the draft DCO [REP4-005, Article 2] includes for this or should it be updated? b) if the proposed land drainage work is included within the definition of pre-commencement works, would the commitments in the Outline Drainage Strategy [REP2-033] and Outline Code of Construction Practice (oCoCP) [REP4-040] apply? c) If the answer to b. is no, how can these commitments be appropriately secured for the pre-commencement works?	drainage works, required as a result of the specific drainage plan for pre-commencement works (required under the updated requirement 16 in the Draft DCO (Revision 8) [document reference 3.1]) to be undertaken. However, the use of the term "pre-construction" in The Applicants Response to ISH4 action points [REP4-096] No.43, concerning land drainage was not intended to mean the same as "pre-commencement". The pre-construction drainage works as referred to in the Applicants' response to ISH4 action points (distinct from the drainage works associated with pre-commencement works) would not fall within the definition of "pre-commencement" and therefore the detailed Code of Construction Practice and Construction Drainage Strategy would need to be agreed with the ERYC and/or relevant drainage authority in advance, prior to the commencement of that phase of the works.
HF.2.6	Creation of hardstanding during pre-commencement works The creation of temporary hardstanding is included in the definition of 'pre-commencement works' [REP4-005]. As this would likely alter the local hydrology and associated risk of flooding, should surface water drainage also be constructed and a design approved by the LPA and relevant drainage authority prior to pre-commencement works? If so, make amendments to the application documents as necessary. If not, explain how the ExA can be certain such works would not lead to adverse effects.	The Applicants would firstly highlight that the definition of "pre-commencement works" is well precedented, with other recently granted offshore wind farms including very similar works (albeit the term "onshore site preparation works" is used in many other DCOs rather than "pre-commencement works", although the purpose of the definition is the same). The Secretary of State has therefore accepted multiple times that works such as the creation of site accesses, creation of temporary hardstanding and the erection of temporary means of enclosure are appropriate as pre-commencement works. The Applicants have, however, added "any drainage works required as a result of any other pre-commencement work" to the definition of "pre-commencement works" and added wording to requirement 16 (construction and operational drainage) in the Draft DCO (Revision 8) [document reference 3.1] to secure the submission and approval of a specific drainage plan for any pre-commencement works that require associated drainage.

1.14 Infrastructure and Other Users

Table 1-14 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Infrastructure and Other Users

I.D.	Written Question	Applicants' Response
IOU.2.1	Oil and gas blocks In your response to ExQ1 IOU.1.14 [REP3-027], you confirmed that 13 new oil and gas blocks were awarded in the 33rd Licensing Round which wholly or partly overlap the offshore development area. Have you contacted the developers of these additional 13 oil and gas blocks to begin discussions on potential crossing and proximity agreements which would be necessary? If not, why not, or if so, what progress has been made?	The Applicants are in contact with each of the relevant licence holders and discussions will continue as our respective projects and interests develop. Limited discussions have taken place in relation to the specifics of any crossing and / or proximity agreements given that the Applicants do not yet possess the detailed design information to advance such agreements to a conclusion. Further, and perhaps more saliently, the Round 33 awards in the vicinity of the Dogger Bank South (DBS) array areas were largely for survey and exploration activities rather than development purposes. As such, neither party holds the information required to progress any agreement at the present time. Further, it is entirely possible that exploration activities will not progress to development activities. We understand that one licence holder has present plans to drill a well under their Round 33 licence, but the proposed location does not intersect with the DBS Offshore Development Area albeit there is the potential for interfaces with ancillary infrastructure. The Applicants are committed to maintaining an ongoing collegiate dialogue with all of their development neighbours to effectively manage any interfaces that may arise throughout construction and operation of the Projects.
IOU.2.2	Crossing methodologies IPs raised concerns regarding a lack of detail on how crossings and interactions with other existing infrastructure would be executed and managed (eg [RR-004, REP1-082]). Can you provide more information on potential options for construction methods for crossing existing offshore infrastructure and how construction and other impacts would be minimised and mitigated? For example, how have you dealt with these matters when constructing other offshore wind farms?	Crossing designs will not be developed or finalised until the post-consent phase of the Projects. It should be noted that a number of the Interested Parties that have raised concerns about this matter have not yet developed or constructed their assets. Notwithstanding the above, the design of crossings of live cables and pipelines would be determined in consultation with the owners of the infrastructure to be crossed. The crossing methodologies can differ depending on the asset, and will be dependent on: a) the burial depth (or exposure) of the live asset: this is not known by the Applicants at present. It will drive the external protection requirements for the live asset, to be installed before the export cables are laid on top of the asset. This protection can be in the form of concrete mattresses or rock placement and will be agreed with the asset owner. b) the minimum exclusion zone required by the asset owner (e.g. 100m either side of the asset), over which the export cables can be laid but no burial tool operations can take place. This will lead to a minimum distance where the cables will be unburied and will require external protection. External protection will generally extend beyond this exclusion zone to protect the export cables over the distances where the burial tool must grade out of the seabed before the exclusion zone and back into the seabed after the exclusion zone, to the required target Depth of Lowering to ensure the cables are protected adequately. Over such distances, a typical external protection method is the use of rock placement. At RWE's Sofia wind farm export cables also cross several live assets and crossing methodologies are of various designs, using concrete mattresses, rock placement or a combination of both, as per the agreement with the asset owner. The Applicants envisage similar crossing methodologies will be employed for the Projects, with this mixture being common industry practice.
IOU.2.3	2025 revisions to the energy NPSs – wake loss Provide your view on the following proposed changes to the energy NPSs, with regards to the implications on wake loss for the assessment of this application:	The April 2025 consultation forms part of the review of the Energy National Policy Statements (NPSs) launched in July 2024.

I.D.	Written Question	Applicants' Response
	- The inclusion of the government's Clean Power 2030 Action Plan. - The recommendation that at the design stages for proposed offshore wind farms, an assessment of inter-array wake effects should be undertaken to inform and support the consideration of potential mitigations. - The requirement that developers should make reasonable efforts to demonstrate that they have considered how to manage the impact of wake effects on other occupiers and set out non-exhaustive examples of what this could include, such as how the project configuration has been evolved during the design process to reduce the impact or avoid the most impactful configurations, or manage the planned layout of an offshore wind turbine array to select layouts with reduced long-distance wake impact on other occupiers. - The addition of paragraphs 2.8.176, 2.8.232, 2.8.233 and 2.8.316 to draft NPS EN-3. (You may wish to cross reference the answer to this question with BGC.2.6.)	MHCLG published non-statutory guidance on the NPS Review process in May 2021. This guidance summarises and explains the review process. It highlights that the relevant Secretary of State (SoS) has a duty to review an NPS in whole or in part where he or she considers it appropriate to do so. It cites section 6(3) PA2008 that in deciding when to review an NPS in whole or part the SoS must consider whether: <i>"(a) since the time when the statement was first published or (if later) last reviewed, there has been a significant change in any circumstances on the basis of which any of the policy set out in the statement was decided,</i> <i>(b) the change was not anticipated at that time; and</i> <i>(c) if the change had been anticipated at that time, any of the policy set out in the statement would have been materially different."</i> This is not an exhaustive list of considerations. The guidance states that the question of whether it is appropriate to review an NPS should be considered regularly, with an expectation that a public announcement is made on whether a review is required at least every 5 years. The relevant SoS should make a public announcement when a decision to review an NPS in whole or part is taken and provide reasons for this decision. The SoS has the power to suspend an NPS during the review period, which he has not exercised in this case. The SoS also has power to suspend an Examination during the review period, which he has also not exercised. The guidance expressly addresses the position where there is an emerging draft of a relevant NPS in relation to a live application, in paragraph 26, quoted in full below: "Transition between National Policy Statements <i>26. Where a review is undertaken and a decision is made not to suspend the existing National Policy Statement (in whole or in part), it will continue to have effect for the purposes of the Planning Act. Any emerging draft National Policy Statements are potentially capable of being important and relevant considerations in the decision-making process, but the extent to which they are relevant is a matter for the relevant Secretary of State to consider with regard to the specific circumstances of each Development Consent Order application."</i> The NPS Consultation The current consultation was launched on 24th April 2025 with a deadline for responses of 29th May 2025. The Department for Energy Security and Net Zero (DESNZ) sets out the reasons for consultation on page 4. In terms of the specific changes proposed it states: <i>"Following review of energy NPSs EN-1 to EN-5, government has drafted updates to EN-1 (overarching energy NPS), EN-3 (renewable energy infrastructure) and EN-5 (electricity networks). Some material updates have been made to these three draft energy NPSs which require consultation. This consultation is targeted to those material changes in policy.</i> <i>Other minor changes have been made to enhance clarity of the guidance; these are non material changes which do not pertain to changes in policy."</i> It is not entirely clear whether the SoS regards the wake-related proposed changes as representing a material change in policy or as clarifications. The Applicants note that: Wake effects as an issue is clearly a key topic/target of the consultation – it has its own section (one of only four on specific topics) and its own question (Question 4);

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		2. The language of the Offshore Wind section (page 11) uses the phrase "we propose that" in relation to the key aspects of the new wording (a recommended inter-array wake assessment by the applicants and that reasonable efforts by the applicants to demonstrate they have considered how to manage the impact of wake effects on other occupiers). This language suggests that what is being proposed is new and not currently required. On the other hand there is reference to providing "greater clarity" and to "insertions"; and 3. There is no express commentary on the SoS' view of the current wording of EN-3. The Applicants' position (with others in the offshore wind sector) has been to invite the SoS to reflect carefully on how the application of EN-3 does or does not apply as between offshore wind farms, and if so, exactly how. The Applicants' preference would have been for the EN-3 consultation to expressly clarify the interpretation of the current EN-3 as excluding wake effects and to propose changes to make clear that wake effects are outside of the planning regime, and to be addressed through the seabed licensing process. The Applicants have consistently argued that there were special considerations regarding wake effects that apply as between offshore wind farms, which do not apply as between offshore wind farms and other infrastructure and activities. It is clear that the SoS is not minded to do this (i.e. expressly clarify that wake effects are already outside the planning system and/or actively remove them), unless the consideration of responses to the current consultation leads to a fundamental change in approach. It is important to note, however, that if the SoS thought that the current EN-3 provided a clear position in relation to whether and how wake effects should be addressed then he would not have proposed these changes for future licensing rounds. He would simply have allowed his interpretation of the current EN-3 to become apparent through the decisions on the various current applications which are live in the system. It is notable that these changes have been proposed: 1. Only 15 months after the current EN-3 was formally designated; 2. After the most intense consideration of the topic across multiple Examinations, where it is reasonable to assume that a considerable amount of new information and argument will have been taken into account by the SoS in monitoring the progress of those applications; 3. Despite the assumption by some that the decision in Awel y Mor provided sufficient clarity as regards wake effects under EN-3; 4. After substantial engagement by DESNZ with developers on both sides of the issue in the last 6 or so months. The nature of the changes proposed strongly indicate (if they are not new policy), at the very least, that there are substantial uncertainties as to the correct interpretation of the current EN-3, otherwise they would not be required for new licensing rounds. The Applicants submit that the key themes which are apparent from the changes proposed in the consultation (in what are now paragraphs 2.8.176, 2.8.232, 2.8.233 and 2.8.316 in the consultation draft of EN-3) are as follows: Applicants which have been successful following future seabed licensing rounds should consider wake effects at the "design stage". 1. Such applicants are strongly encouraged to make an assessment of inter-array wake effects with "nearby" offshore generating stations which are planned, consented or operational.

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		2. Such applicants should use that assessment to consider available "reasonable steps" to "minimise as far as possible the impact of wake effects" on other offshore wind projects. 3. There is strong encouragement for applicants to work collaboratively with those who may be potentially impacted. 4. Where such an applicant has followed these steps then the existence of a residual wake effect impact is "unlikely to carry more than limited weight" against a project. 5. There is no expectation what wake effects can be "wholly removed" between developments. 6. There is no expectation that inter-project compensation arrangements are necessary. As has already been noted, the SoS has a substantial discretion as to how much weight to attach to the emerging EN-3 policy in the current consultation, when applying the current EN-3 to this and other current applications. This application may not be determined until mid January 2026. By that time it is reasonable to assume that the revised versions of the relevant energy NPSs will be in final draft form or in place depending on how quickly DESNZ drives the process. In the meantime the SoS will have made a series of Development Consent Order (DCO) decisions on other offshore wind farms, which will have necessarily required him to take a clear position on the interpretation of the current EN-3 and the extent to which that will also give weight to the emerging changes (depending at what stage they have reached at the relevant time). This response is submitted without prejudice to the Applicants' position as already submitted in relation to the application of EN-3. The Applicants address each of the Examining Authority's questions in turn below. <u>Inclusion of the Government's Clean Power 2030 Action Plan</u> The Applicants support the inclusion of the Clean Power 2030 Action Plan as part of the Government's broader decarbonisation strategy. The Plan underscores the urgency of accelerating offshore wind deployment and reinforces the importance of ensuring that planning policy enables delivery, rather than introducing complexity or risk that could slow progress. The Applicants position is that any consideration of inter-project wake effects must be balanced against the need to optimise overall system yield, reduce consumer costs, and maintain investor confidence. Policy should avoid imposing burdens that may reduce net national generation. As previously stated, as regards wake loss, the Clean Power Action Plan 2030 simply highlights that there is an industry issue, explains that an expert group is being convened to consider it and recites the facts of the AyM case. It does not set or confirm a policy. It is clear that the other proposed EN-3 changes do set out an express policy position regarding wake loss. Overall, the changes relating to the 2030 Action Plan are neutral in their implications for this application. There is already strong stress in EN-3 for the urgent need for renewable capacity and the need to maximise capacity. <u>Recommendation for assessment of inter-array wake effects at design stage</u> The fact that the proposed text expressly references a recommendation ("clear merits") for wake effects assessments implies that the SoS does not currently regard that as being required under EN-3, otherwise this drafting would not be needed. As noted above, the view of the SoS is not entirely clear from the consultation. The proposed text

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		recommends assessments for “nearby” offshore wind projects. This is not defined. The Applicants’ view on this is addressed at IOU.2.4 below. <u>Requirement for reasonable efforts to manage wake effects on other occupiers</u> The revised draft EN-3 consults on an express requirement for future applicants to demonstrate how their offshore wind farm design has evolved to address inter-array and external wake effects. Again, the need for new text implies this is not currently required, though the SoS does not make his view on this clear either way. There are a range of concerns with the text which would benefit from substantial further consideration. What is fundamentally lacking, in the Applicants’ view is a lack of acknowledgement of the wide range of other factors which feed into wind farm design and the lack of reasonable options for inter-project mitigation measures. For example, final layout specifications are subject to commercial and operational decision-making, which typically occurs post-consent. There is a risk of conflicts with future flexibility required to incorporate advancements in wind turbine technology and commercial considerations. Operational engineering decisions evolve throughout the development process, and the proposed wording in paragraph 2.8.232 could impede ongoing optimisations. Offshore wind projects rely on the Rochdale Envelope approach to maintain flexibility during the consent stage by outlining a range of design parameters, with final configurations determined closer to the Final Investment Decision (FID). Prematurely imposing a disproportionate consideration of wake effects at the DCO stage risks inefficiencies and increased costs, as layouts are subject to change due to ongoing site investigations, turbine availability, and construction logistics. In practice, in the Applicants’ experience, because wakes are bi-directional (both projects wake each other), the design of a project to maximise its own AEP normally means that the inter-project wake effects are simultaneously reduced as far as reasonably possible for a given project capacity, assuming aggregate AEP is to be maximised. Requiring fixed design parameters early could pressure developers into premature decisions, heighten non-compliance risks, and result in costly post-consent variations. This conflicts with established Planning Act 2008 policies and PINS guidance supporting flexibility in DCO applications for complex infrastructure projects. Notwithstanding the above, in response to the Examining Authority’s requests, and on a without prejudice basis, the Applicants submitted at Deadline 4 the details of the wake assessment in respect of Dogger Bank A (DBA) in Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099]. The Applicants have demonstrated that they have considered in great detail the question of inter-project mitigation options for projects generally and gave consideration to this in the case of DBA (see section 7.4). As outlined in Section 7.1 of Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099], mitigation was assessed against three reasoned and practical criteria proposed by the Applicants: <table><tr><th>Criterion</th><th>Description</th></tr><tr><td>Meaningful Impact</td><td>Must result in a measurable reduction in impact, beyond modelled uncertainty.</td></tr><tr><td>Net Positive Outcome</td><td>Must not significantly compromise generation from the Projects themselves.</td></tr><tr><td>Feasibility</td><td>Must be proven and available at the time of construction.</td></tr></table>	Criterion	Description	Meaningful Impact	Must result in a measurable reduction in impact, beyond modelled uncertainty.	Net Positive Outcome	Must not significantly compromise generation from the Projects themselves.	Feasibility	Must be proven and available at the time of construction.
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		No mitigation option currently satisfies all these criteria beyond continued use of buffer zones by The Crown Estate to manage spatial separation at the leasing stage. Options like yaw control, reduced density, or altered layout would result in significant loss of output, or deliver uncertain benefits, or rely on unproven technology. This position aligns with draft paragraph 2.8.233, which recognises that wake effects cannot be wholly removed and that compensation is not required. The Applicants approach to mitigation is consistent with the intent of the draft wording in EN-3 In essence, the Applicants have given careful consideration to available methods of mitigation and has concluded that none of them are reasonable. <u>Addition of paragraphs 2.8.176, 2.8.232, 2.8.233 and 2.8.316 in draft EN-3</u> The Applicants have summarised above the key themes from these changes and the discretion the SoS has in applying emerging policy to the current application. <i>Paragraph 2.8.176:</i> As noted above, the Applicants have, on request of the Examining Authority at the ISH3, submitted details of the assessment of wake effects on DBA on a without prejudice basis. The analysis focused on DBA as the most proximate receptor. As explained in the Deadline 4 submission, if impacts on DBA are negligible, impacts on other, more distant wind farms are expected to be an order of magnitude lower than negligible. (see paragraph 49 of Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099]) A negligible impact is not significant in EIA terms and therefore there is no need for consideration of additional mitigation (though the Applicants have in fact considered what mitigation may be available). <i>Paragraph 2.8.232:</i> The Applicants have undertaken a detailed review of potential mitigation methods, as referenced already above. As shown in Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099], none of the reviewed options meet the draft policy's concept of "reasonable" mitigation when tested against clear criteria. The analysis was transparent and reasoned and goes beyond current requirements. <i>Paragraph 2.8.233:</i> This paragraph acknowledges that wake effects are inevitable to some degree, and that compensation is not appropriate within the planning framework. The Applicants strongly agree with this policy position and support the continued use of buffer zones by The Crown Estate to manage spatial separation at the leasing stage as the key step available to mitigate inter-project wake effects. <i>Paragraph 2.8.316:</i> This paragraph introduces a new expectation around collaboration for wake effects. While the Applicants recognise the value of engagement across the sector, collaboration of the kind now being proposed for wake effects was not foreseen under the current NPSs, nor was any mechanism in place to support it at the time the Projects were being developed. Collaboration also requires reciprocal engagement. In practice, this would often be challenging. Developers are often at different stages of planning or commercial development and may take divergent legal or technical positions as has been the case on the various current live applications. Furthermore, meaningful collaboration should only be expected where there is something substantive to discuss. If there are no reasonable mitigation measures available then that should limit the expectation for collaboration.

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		An expectation of collaboration cannot fairly be applied retrospectively, and any future obligations must be made clear and prospectively applicable. That said, the Applicants have taken steps to engage with Projcos, including approaching Projcos directly in relation to data used in their Deadline 4 submissions.
IOU.2.4	2025 revision to NPS EN-3 – wake loss How do you interpret the word 'nearby' in draft NPS EN-3 paragraph 2.8.176 regarding the need to assess inter-array wake effects between proposed offshore wind farms and 'nearby' offshore wind generating stations? How would you apply this to the proposed development, and which planned, consented or operational offshore wind farms do you consider would be 'nearby' to the proposed development?	The Applicants consider that the most appropriate interpretation of "nearby" in the context of paragraph 2.8.176 of draft NPS EN-3 is a distance-based threshold aligned with the 7.5 km buffer set by The Crown Estate (TCE) for Round 4 leasing. This buffer was designed to reflect appropriate spatial separation between projects, taking into account wake effects among other technical and commercial factors. The 7.5 km distance represents an informed judgment by TCE on where the appropriate balance should be struck between enabling deployment and managing potential operational impacts, including wake interactions. This buffer was subject to consultation, and the Applicants are not aware of any concerted industry effort to extend it based on wake concerns. It was relied upon by developers in project site selection, including for the Projects under examination. The Applicants acknowledge that wake effects will extend beyond 7.5km. However, the issue is one of balance and materiality. Wake losses at greater distances are typically: smaller in magnitude; subject to greater modelling uncertainty and less likely to result in material operational or commercial impacts. It is for these reasons that the Applicants maintain that the 7.5km buffer remains the most appropriate threshold for identifying "nearby" projects. Accordingly, while the Applicants do not dispute the existence of wake effects beyond 7.5km, they maintain that none of the objecting offshore wind farms are "nearby" or "close" within the meaning of draft or existing wording of EN-3, when assessed against this balanced, evidence-informed standard. Therefore in the absence of a definition in the draft NPS, the term "nearby" must be interpreted in a way that is consistent with TCE's lease buffers, reflects technical feasibility and the diminishing materiality of wake effects with distance and avoids imposing disproportionate or impractical obligations on developers.
IOU.2.5	2025 revision to NPS EN-3 – wake loss Do the proposed changes to NPS EN-3 give direction on which party holds responsibility for carrying out a wake loss assessment? If so, what implication does this have for this examination?	The relevant draft provisions in paragraph 2.8.316 of EN-3 state that: "<i>The applicant should make an assessment of inter-array wake effects between their proposed developments, and nearby offshore wind generating stations that are planned, consented or operational.</i>" The Applicants accept that as currently drafted the proposed wording places the responsibility to assess wake effects from their own proposed project on other "nearby" offshore wind farms on the relevant applicant. The implications for this examination depend on the approach which the SoS chooses to adopt when applying his discretion (explained at IOU2.3 above) in relation to emerging changes to an NPS. In any event, the Applicants have provided a wake assessment (on a without prejudice basis) with a prediction as to the loss of AEP from the closest wind farm project (DBA) and provided high level expert commentary in relation to the other wind farms which have been the subject of submissions by the Projco IPs and Orsted (paragraph 49 of Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099]). The Applicants consider that no further wake assessments could reasonably be required under the draft NPS wording, even if it applied directly (i.e. was part of the current NPS). Accordingly, there are no implications for this examination. Nevertheless, as explained at IOU.2.6 below the Applicants are preparing an addendum to Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099] at the request of the Examining Authority on a without prejudice basis to provide an AEP conclusion regarding DBB, DBC, Hornsea 1, 2, 3 and 4 projects for submission in the coming weeks.

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		The Applicants would make the general point that if wake assessments are to be required from applicants it will be necessary for guidance to be developed as regards the inputs, methods and models which are to be used and the inputs to be required from the promoters of affected projects. Drafting, consulting on, and finalising such guidance will be a substantial exercise.
IOU.2.6	2025 revision to NPS EN-3 – wake loss Draft NPS EN-3 paragraph 2.8.176 specially considers wake loss and states, 'As with any new development, applicants should consider the impact of their proposal on other activities and make reasonable endeavours to address these.' Paragraph 2.8.232 of draft NPS EN-3 states, 'applicants should demonstrate that they have taken all reasonable steps to minimise as far as possible the impact of wake effects on other offshore industries.' With reference to the current version of NPS EN-3, do these proposed changes clarify the government's position regarding whether other offshore wind farms should be considered as 'other offshore infrastructure and activities' and thus whether paragraphs 2.8.192 – 2.8.203 apply to other offshore windfarms, and any associated wake loss effect? If not, why not? If so, demonstrate how you have complied in full with these policies, notably paragraphs 2.8.196, 2.8.197, 2.8.200, 2.8.201 and 2.8.203.	The draft NPS EN-3 published on 24th April 2025 provides a basis for consultation on updates to the NPS. The documentation consulted upon itself does not explain the SoS view of the current EN-3 or specify that it is providing clarification on the correct interpretation of the current NPS EN-3. Accordingly, as already noted in IOU.2.3 above, it is not entirely clear if the SoS regards the new wording as a change of policy or providing clarification. The nature of the changes are clearly material for future applications and highly specific to the wake loss issues debated across multiple examinations. The SoS has obviously decided they need to be made. Accordingly, pending a full decision letter on a current application which has considered wake loss (expected to be Mona) it is not possible to say with confidence what interpretation the SoS will place on the current wording of EN-3. Even if the SoS concludes that paragraphs 2.8.196 - 2.8.203 do apply, there are important secondary considerations regarding the precise interpretation of those paragraphs (e.g. his approach to the NPS advice to be pragmatic in paragraph 2.8.342). On a without prejudice basis, the Applicants' position on these paragraphs is as follows: Paragraph 2.8.196: factual background. Paragraph 2.8.197: the Applicants do not consider that any offshore wind farms are "close" within the intended meaning of this paragraph, for reasons the Applicants have already explained in previous submissions. In any event the Applicants have submitted (on a without prejudice basis) a wake assessment for the closest offshore wind project (DBA). The Applicants have also made high level expert comments on the other offshore wind farms which have been the subject of representations (paragraph 49 of Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099]). At the request of the Examining Authority, the Applicants are preparing an addendum to REP4-099 on a without prejudice basis, to provide an AEP conclusion for DBB, DBC, Hornsea 1, 2, 3 and 4. See IOU.2.18 below. The intent of this policy has already been met by the without prejudice wake assessment for DBA (Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099]), which will be supplemented by this addendum. The Applicants maintain their position that "activities" are different to infrastructure and apply to recreation, aviation and other 'mobile' matters, as to opposed to hard infrastructure in a specific location. This point is now secondary, in any event, given the without prejudice wake assessments which has been submitted by the Applicants (with the addendum just mentioned to follow). Paragraph 2.8.198: there is no "appropriate policy and guidance for offshore wind farm EIAs" in relation to the conduct of wake assessments. Nor could a wake assessment be meaningfully carried out for "all stages" of the proposed wind farm – the only stage which counts is operations. Both of these points have always supported the view that offshore wind farms (and certainly wake assessments) were not intended to be covered by EN-3. As previously submitted, wake assessments have not normally been submitted as part of offshore wind consent applications. Paragraph 2.8.199: this paragraph does not assist in relation to wake assessments. If an assessment is to be conducted then there are far better and specific sources of information to use to decide "where to target" the

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		assessment i.e. the location of actual or proposed wind farms. In particular, information from The Crown Estate regarding seabed licensing and from the public consenting process. Paragraph 2.8.200: the Applicants did engage with the Projcos and Orsted prior to the submission of the application on a range of matters. The Applicants are not aware of any concerns over engagement on matters other than wake loss. Regarding wake loss, there was preliminary engagement with the Projcos which was discontinued shortly before the start of the second part of the Preliminary Meeting. Wake loss issues have not been a normal part of pre-application discussions between offshore wind projects, save for projects within the relevant TCE buffer area. Accordingly, the Applicants do not consider they have departed from normal practice at the pre-application stage, which is what paragraph 2.8.200 relates to. Paragraph 2.8.201: this paragraph is of limited applicability. Wake loss issues will, in practice, be resolved at the detailed design stage and could not realistically be the subject of ongoing engagement. The Applicants do not accept that alterations to the operation of a constructed wind farm could ever be justified as regards the wake effect on another offshore wind farm. Paragraph 2.8.202: this is not relevant to wake effects i.e. government as a consultee. In the context of an Awel y Mor type requirement the SoS would be the determining body as to whether the requirement has been satisfied. Paragraph 2.8.203: this paragraph cannot reasonably be made to apply to offshore wind farms. It could not be clearer that it relates to co-existence between offshore wind farms and "other uses of the sea" i.e. not offshore wind farms. If this point is put to one side and the sentiment of seeking co-existence is applied then the Applicants have already made substantial submissions explaining that they have followed standard industry practice in this regard. As regards wake loss, this has meant, in particular, respecting the 7.5km buffer area fixed by TCE as part of the Round 4 leasing process in part to address the need to balance the interests of new and existing generation on this topic. This has been the accepted process, save where a project was inside the buffer when the existing project has had a veto. The Applicants have also considered available mitigation measures as explained in Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099], including mitigation specific to DBA (see section 7.4.1).
IOU.2.7	2025 revision to NPS EN-3 – wake loss The ExA notes your position [REP2-058, REP3-028, REP4-086] that the Round 4 licensing round buffer of 7.5 kilometres (km) is a fundamental point in consideration of the effects from wake loss. The ExA notes that in updated draft NPS EN-3, there is no reference to the Round 4 buffer zone in relation to the consideration of whether another offshore wind farm should be considered as nearby or not. To what extent does this impact your position on what should be considered as 'close' in reference to NPS EN-3 paragraph 2.8.197?	The 2025 proposed revisions to NPS EN-3 relate to future licensing rounds and not to Round 4 (save for the Secretary of State's ability to give weight to the emerging revisions as important and relevant). The revisions have been proposed in response to the attention which wake loss has received in recent offshore wind Examinations. The revisions (assuming they are designated in their current terms) will be the first time that express consideration has been given in the NPSs to wake effects. That is an important point of departure for policy in this area going forwards. The revisions, as already noted, apply to future licensing rounds and therefore it is not surprising that there is no express reference to the Round 4 buffer zone. The wording of the revisions does not alter the Applicants' view of what should be considered 'close' in reference to NPS EN-3 paragraph 2.8.197.
IOU.2.8	Wake loss If the ExA or Secretary of State (SoS) determined that wake loss does fall within the remit of NPS EN-3, to what extent could you demonstrate that you had complied with the mitigation hierarchy regarding this matter in reference to paragraphs 2.8.213 and 2.8.214, other than adhering to the Round 4 licensing round buffer of 7.5km?	It is not entirely clear whether, and how, the mitigation hierarchy is intended to apply to a topic like wake loss. The mitigation hierarchy is defined in the Glossary of EN-1 (page 173) as follows: <i>"A term to incorporate the avoid, reduce, mitigate, compensate process that applicants need to go through to protect the environment and biodiversity"</i>

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		Taken on its own, this would indicate (in its reference to protecting the environment and biodiversity) and in how it is used in paragraphs 2.8.213 and 2.8.214 (which refer to effects on Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites and Marine Conservation Zones (MCZs) and avoiding disturbing seabirds that the hierarchy does not apply to a topic like wake effects. There is no suggestion by any IP, for example, that wake effects are relevant to consideration of environmental impacts e.g. through turbulence affecting bird behaviour within or down wind of a wind farm. This point reinforces the point which the Applicants have previously made that wake effects are not within the ambit of Regulation 5 of the EIA Regulations. It is apparent, however, in some other places in the NPSs (e.g. paragraph 4.3.4) that the SoS appears to apply the phrase 'mitigation hierarchy' beyond the natural meaning in the glossary i.e. restricted to impacts on the environment and biodiversity. Without prejudice to whether the mitigation hierarchy applies to wake effects, the Applicants would highlight that adherence to TCE's 7.5km buffer distance is a fundamental point which addresses the avoid, reduce and mitigate stages in the hierarchy. This cannot be dismissed lightly. The Applicants gave further consideration to mitigation on a generic basis (through extensive research into available options) and specific to the impact on DBA (as the closest wind farm) as explained in Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099]. The resulting effects on DBA are negligible in EIA and planning terms (as the Applicants have submitted in Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099] without prejudice to their view as to the relevance of wake loss at all), and do not justify further mitigation (which in practice is not available on any reasonable basis as explained in Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099]). It is surprising that compensation is referenced in mitigation hierarchy definition without greater qualification. Normally compensation is seen as a completely separate concept from mitigation, and is applied extremely selectively – the classic example being HRA derogations driven by an express legal requirement. There is no justification for (financial) compensation in this case. In that regard it is notable that the SoS declined to include compensation in the Awel y Mor DCO, despite it being proposed by the affected project. The SoS has also indicated a strong policy against financial compensation in the current EN-3 consultation (new paragraph 2.8.233), which the Applicants entirely support.
IOU.2.9	NPS EN-3 paragraph 2.8.197 In your DL4 response [REP4-121], in the context of NPS EN-3 paragraph 2.8.197, you state that 'close' is not solely defined by physical distance, but also by the effects a development would have on other sea users. The wording of paragraph 2.8.197 states, 'Where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities.' If offshore wind farms fall within the definition of 'operational offshore infrastructure', does this wording suggest that the proximity of the existing operational offshore infrastructure should be determined in the first instance (ie whether it is 'close'), in order to then determine whether an assessment of potential effects of the proposed development should be undertaken? If not, why not? If so, which existing offshore windfarms in the Ørsted portfolio do you consider should be assessed for wake loss effects from the proposed development and why?	No response is required. Question directed to Ørsted Interested Parties (IPs).

I.D.	Written Question	Applicants' Response
IOU.2.10	Projco IPs DL4 submission on wake loss Provide a detailed response to the information provided by the Projco IPs [REP4-117] on wake loss effects to Dogger Bank A, B and C as a result of the proposed development. Ensure that you consider the following points: - Why do you consider that there is a difference of 2.1% between your stated 'worst-case scenario' wake loss effect on Dogger Bank A [REP4-099] and the Projco IPs suggested effect? - Do you consider the presented potential wake loss effects for Dogger Bank B and Dogger Bank C to be reliable and realistic – why/ why not? - Do you consider the Projco IPs suggested annual impact of wake loss from the proposed development of £20 million and £582 million for the total period of concurrent operations, using the Projcos IPs' Contract for Difference Strike Prices in 2025 to be reasonable and reliable – why/ why not? - To what extent do you agree with the Projcos IPs' consideration of the potential significance of effects from wake loss on Dogger Bank A, B and C? - To what extent do you agree with the Projco IPs' points on protective provisions and ability to secure financial compensation. Liaise directly with the Projco IPs to obtain additional information you may need to answer the above points.	The Applicants have sought information from the ProjCos via email on 15th May 2025 to better understand what exactly has been modelled. This information is required as such a large deviation from the Applicants' modelling results cannot easily be accounted for. Until this information is received it is quite difficult to comment on how the difference arose. Once details have been received an analysis of input data and modelling techniques will be undertaken, and an assessment of reasonableness and reliability can be provided. The ProjCos have advised that the requested information will be provided at Deadline 5. Assuming that the wake calculations on which the financial impact is based are accurate (which is not granted until the details of that calculation can be reviewed) the path to reach £20 million per year is comprehensible. It is noted that this calculation represents a snapshot of a single configuration, e.g. build out of further wind farms, and changes in performance of the involved wind farms over time will cause this figure to vary throughout the life. On its face the £582 million lifetime impact appears to be a result of multiplying 29 years of overlapping operation by £20 million per year. If that is indeed the case, this calculation does not account for tax, depreciation, time-value of money, variation of the wake loss with further build-out, or any of the other factors that would normally be accounted for in evaluating financial impact. At a minimum this calculation is quite simplistic. The Applicants do not agree with the conclusion of a major adverse (and therefore significant) effect as stated in paragraph 34 of the Post-hearing submissions including written summaries of oral cases and other documents requested by the ExA at the Hearings [REP4-117]. The Applicants have explained their position on EIA significance in previous submissions, including Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099], as per the key text below: <i>"Interference" is taken to mean direct interference with the receptor. The wake effects dimension of an offshore wind farm fall into an unusual category which, as noted, there is no guidance or custom or practice. The Applicants' headline position is that this cannot properly be regarded as an 'environmental effect'. Forced to bring it within this framework, the Applicants consider that the sensitivity to wake effects in an EIA context, the most applicable rating would be Low. This takes account of the context of The Crown Estate's buffer system, which has taken account of wake effects as a factor in the distance set.</i> <i>'The impact magnitude is assessed to be negligible. As shown above, the loss (worst case scenario wind farm buildout) is estimated to be ~2%. This is below the background level of environmental fluctuation in energy yield simply from variations in weather, which is 5.4%.</i> <i>As such, after the Projects have been constructed, DBA is still expected to see above pre DBS generation estimates over 35% of the time. The probability that the Projects will see above-average yield in a given year will reduce by only 15%.</i> <i>As stated already in paragraph 48 it would take on the order of 20 years of measurement of the annual production of DBA to be able to show, to a 95% confidence, that the impact of the Projects was not zero. Its impact is such that it would be 'lost in the noise' of the natural variation of the wind.'</i> In summary, in reviewing the information and supporting arguments provided by the Projco IPs to reach their conclusion on the potential significance of effects from wake loss on Dogger Bank A, B and C, the Applicants do not agree with the conclusion of major adverse significance. The Applicants accept that as a matter of legal mechanics (i.e. what could lawfully be included in protective provisions in a DCO) that protective provisions could provide for a process for further consideration of mitigation measures and for financial compensation. The Applicants do not accept that such protective provisions could be justified or are appropriate in this case. The Applicants do not accept that the tests in paragraph 4.1.16 of EN-1 are

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		met (which they agree do not strictly apply). Those tests cannot be fully considered without a detailed draft proposal, which the Projco IPs have not submitted. (Precision and enforceability, in particular, can only be judged by reference to a detailed proposal). Protective provisions of the type envisaged do not meet the necessity test – without prejudice to EIA and NPS interpretation the level of impact is negligible for the reasons the Applicants have explained in Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099]. Mitigation has already been secured through adherence to the 7.5km buffer zone. Furthermore, it is apparent from the Projco IPs conduct for the last 4 years (in bringing DBA, DBB and DBC) forward in the full knowledge of the Projects' scale, location and likely wake effects that protective provisions are not necessary to make the Projects acceptable in terms of any impact on DBA, DBB and DBC. It is plain that they will proceed to operation whether or not the Projects are constructed. The Projco IPs have always been aware of the risk that new projects might be promoted which could affect theirs – it is an industry risk, well known to the planning system. Protection of income in the circumstances proposed is not a relevant planning consideration. Namely the use of a free resource (the wind) by the Applicants, to which the Projco IPs have no legal right. Protective provisions fail the overall reasonableness test on multiple counts, including the unfairness of introducing such a concept in a mature industry where the NPS interpretation relied on is highly contested and such provisions might have been included previously if this were otherwise. The Applicants note the firm way in which the SoS rejects inter-project compensation in the draft NPS revisions, which is consistent with the stance of the previous SoS in Awel y Mor. The Applicants consider the SoS' position on this is the only reasonable one in all the circumstances. The Applicants note the silence on the point regarding compensation in the Projco IPs submission.
IOU.2.11	Deadline (DL)4 submission on wake loss The Projco IPs state in their DL4 comments regarding wake loss [REP4-117] that 'There has not been a project which has had such a significant effect in terms of wake losses on other nationally significant infrastructure projects which will deliver the same benefits, outside of an extension project where both projects are ordinarily controlled by the same underlying entity.' To what extent do you agree with these comments and why?	The Projco IPs are making a factual claim as to the scale of wake loss impact on a comparative basis across the UK. This claim is based on the AEP reductions in their DL4 submission [REP4-117]. For that reason alone, the Applicants disagree with the assertion by the Projco IPs. The Applicants' own assessment has reached a substantially different conclusion. The Applicants are not aware of any research which has attempted to calibrate the wake effects across the numerous wind farms involved, taking account the sequence of relevant events (date of award of seabed licence, date of consent, date of construction and operation). Accordingly, it is not clear what the Projco IPs are basing their claim on, even if their AEP reduction figures were correct.
IOU.2.12	DL4 submission on wake loss Provide the wake loss assessment which was carried out for Dogger Bank A, B and C in a report format which sets out the inputs and assumptions, method, results and conclusions of the wake loss assessment.	While this question was directed to the Projco IPs, the Applicants note that they contacted the Projco IPs via email on 15th May 2025 and 20th May 2025 to request information on the inputs and assumptions, and method of the Projco IPs' wake loss assessment and have proposed a meeting to discuss these points. The Projco IPs have advised that this information will be submitted at Deadline 5. The Applicants will review the information provided by the Projco IPs at Deadline 5 and engage further, if required.
IOU.2.13	DL4 submission on wake loss In paragraph 12 of your submission on wake loss [REP4-117], you suggest that an indicative estimate of the annual impact of wake loss from the proposed development could be £20 million and £582 million for the total period of concurrent operations. Clarify the following points: • Provide a detailed explanation of how these figures were calculated. • Provide more information on Contract for Difference Strike Prices and how much do they fluctuate annually.	No response is required. Question directed to Projco IPs.

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	To what extent would such losses impact the viability of the respective offshore windfarms – evidence your answer.	
IOU.2.14	Generating capacity The ExA notes your DL4 response [REP4-121] and comments regarding generating capacity. However, the ExA requests that generating capacity is provided for the offshore wind farms to understand the likely effects from wake loss and for reporting purposes.	No response is required. Question directed to Ørsted IPs.
IOU.2.15	Wake effects - response to ISH3 action points and greenhouse gas sensitivity analysis of wake effects Provide a view on the applicants' wake effects - response to ISH3 action points [REP4-099] and greenhouse gas sensitivity analysis of wake effects [REP4-095] . To what extent do you agree or disagree with the assessments and their findings, and why?	No response is required. Question directed to Ørsted and Projco IPs.
IOU.2.16	Wake effects - response to ISH3 action points To what extent do you agree with the stated background level of environmental fluctuation in energy yield from variations in weather of 5.4% referred to in Table 2 [REP4-099] , and the applicants' statement that effects from wake loss would fall within the natural variability of the weather and therefore, the impacts from wake loss would be "lost in the noise" of the natural variation of the wind?	No response is required. Question directed to Ørsted and Projco IPs.
IOU.2.17	Greenhouse gas sensitivity analysis of wake effects Provide answers to the following queries regarding the submitted greenhouse gas sensitivity analysis of wake effects [REP4-095] : - Provide the sensitivity test for the isolation development scenario as well as the sequential scenario. - Why is the sequential scenario determined as the worst-case scenario between the concurrent and sequential scenario? - Given draft NPS EN-3 paragraph 2.8.176 refers to the need to carry out an assessment of inter-array wake effects between the proposed development and nearby generating stations that are <u>planned</u>, consented or operational, should the sensitivity assessment have included net effects from wake loss on Dogger Bank D and Outer Dowsing? If not why not? If so, update the assessment accordingly. - Paragraph 16 states, 'These projects were selected as they are either in operation, under construction or have been consented, and sit either partially or wholly within 100 km of the Projects.' Why is a 100km zone of influence adopted by the sensitivity assessment, what is this based on? - Why were the potential wake effect scenarios of 0.5%, 1.0% and 2.0% modelled for the sensitivity test, and what are these based on? Should a higher scenario of 4.1% be modelled for completeness based on the wake loss assessment from the Projco IPs [REP4-117]? Paragraph 18 states that the 2.0% wake effect scenario at each offshore wind farm is highly conservative based on the distance and direction of a number of the offshore wind farms within its	Responses to the questions on the greenhouse gas (GHG) sensitivity analysis of wake effects are outlined below: The In Isolation development scenario assumes that just one of the Projects is constructed. It is therefore logical to assume that wake effects on neighbouring offshore wind farms in the In Isolation scenario would be half compared to the Sequential scenario. Therefore, Greenhouse Gas Sensitivity Analysis of Wake Effects (Revision 2) [document reference 14.10] has been updated at Deadline 5 to incorporate hypothetical wake effects scenarios for the In Isolation scenario. With respect to the GHG assessment for the Projects, the Sequential scenario is considered to be 'worst case' as there is predicted to be a higher level of emissions associated with the construction of the Projects under this scenario. As detailed in paragraph 30 of Chapter 30 - Climate Change [APP-222], this is because the Sequential Scenario involves more road vehicle movements and a longer overall construction programme, resulting in a very small decrease in the calculated value of avoided emissions. The draft NPS EN3 proposed changes were issued the day before Deadline 4 and it was not possible to take account of their implications in the time available. Assuming that they are ultimately designated in this form, the Applicants consider the new wording indicates the SoS's expected approach on this point of methodology generally. To assist the Examination, the GHG sensitivity analysis [REP4-095] has been updated to incorporate potential wake losses to Dogger Bank D and Outer Dowsing utilising the same scenarios originally proposed in that document (0.5, 1.0, 2.0% reduction in AEP) and has submitted this at Deadline 5. It is however noted that other offshore wind farms are situated directly in between the location of the Projects to both Dogger Bank D (Dogger Bank A, Sofia and Dogger Bank C) and Outer Dowsing (Hornsea 1, Hornsea 2 and Hornsea 4), which are likely to have far greater wake effects when compared to the Projects.

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	scope. How can you be sure that this is the case, given the evidence presented from the Projco IPs [REP4-117] that wake loss effects on Dogger Bank A could result in a 4.1% loss of annual energy production? You also refer to a review of other recent wake loss assessments completed for offshore wind farms during examinations. Were these comparable to proposed array area in terms of geographical relationships, climatology, wind farm configuration and wind turbine characteristics? If not, why are these suitable comparisons?	Validation of wake loss models is typically undertaken up to a distance of 50km. To provide a conservative assessment for the purposes of the GHG sensitivity analysis, this distance was doubled to 100km, and wind farms within this study area were considered in the assessment. As noted in the response to IOU 2.6, modelling of wake effects beyond 100km is subject to a number of uncertainties meaning little confidence could be attributed to model outcomes beyond 100km. As outlined in Greenhouse Gas Sensitivity Analysis of Wake Effects (Revision 2) [document reference 14.10] and below, hypothetical wake effect scenarios were considered in the assessment, based on applying uniform wake losses at all offshore wind farms within the 100 km study area. As noted in paragraph 13 of Greenhouse Gas Sensitivity Analysis of Wake Effects (Revision 2) [document reference 14.10], modelling of wake effects is a complex process and requires the use of commercially sensitive data to provide figures with a degree of accuracy. Therefore, hypothetical wake effect scenarios of 0.5%, 1.0% and 2.0% were included in the GHG sensitivity analysis to provide a range of outcomes based on potential wake losses at neighbouring offshore wind farms across the 100 km study area. For the sake of clarity, these scenarios assumed uniform wake effects at each of the identified offshore wind farms within the study area. The 4.1% wake loss figure provided by the Projco IPs is for the Dogger Bank A Project only [REP4-117], which is the closest neighbouring offshore wind farm. The 4.1% figure provided by the Projco IPs is disputed by the Applicants and further information has been sought from the Projco IPs, but as set out below, a 4.1% wake loss scenario for all relevant offshore windfarms is not considered to be reasonable. The Projco IPs have presented wake loss figures for Dogger Bank A (4.1%), Dogger Bank B (1.6%) and Dogger Bank C (0.6%) [REP4-117]. A detailed methodology for how these wake loss figures have been derived has not been presented, and therefore the Applicants cannot comment on the accuracy of these figures. The average of the wake loss figures across all three of these wind farms is 2.1%, which is very close to the 2.0% scenario considered in the GHG sensitivity analysis. The Dogger Bank A, Dogger Bank B and Dogger Bank C offshore wind farms, along with Sofia, are situated in closer proximity and downwind of the predominant wind direction to the Projects than the other neighbouring wind farms within the study area, which therefore supports the assertion that applying a 2.0% wake loss across all wind farms within 100 km of the Projects is a very conservative scenario. There are limitations to directly comparing wake effects between offshore wind farms due to geographical factors, and different sizes and layouts of the offshore wind farm projects within the 100 km study area of the GHG sensitivity analysis. The Wake Impact Assessment Report, submitted for the Outer Dowsing examination (ref: Wake Impact Assessment report) highlights that Wake Effects from the Projects would be less than 1% at 11 'existing windfarms' including those such as Hornsea 1 and Hornsea 2 that are directly downwind of the predominant wind direction. The Outer Dowsing wind farm site is within a similar geographical area as the Projects (i.e. the North Sea), and although direct comparisons cannot be made due to the size and layout differences of the Array Areas, this analysis further supports the assertion that 2.0% wake losses across a 100 km study area is a conservative approach.
IOU.2.18	Wake effects - response to ISH3 action points Provide answers to the following queries regarding the submitted wake effects - response to ISH3 action points [REP4-099]: Paragraph 7 states that the capacity factor for the proposed development is confidential. Why is this the case? How can the ExA and SoS be confident that an appropriate capacity factor has been applied to the proposed development and assessments in the 'wake loss - response to ISH3 action points' and greenhouse gas sensitivity analysis of wake effects, if this information is not provided?	The net capacity factor (NCF) is a commercially sensitive parameter and has therefore not been disclosed. The NCF is a core assumption underpinning the project's energy yield and financial modelling, derived from proprietary assessments of site-specific wind resource data, turbine technology, and operational strategies. Disclosure of this figure at this stage, especially prior to participation in a Contracts for Difference (CfD) Allocation Round, could compromise DBS's commercial position. It would allow competitors to infer key aspects of the design and potentially adjust their own auction strategies accordingly, thereby distorting competitive dynamics. Maintaining confidentiality of the NCF is therefore essential for protecting the integrity of the project's commercial strategy. The capacity factor is one of the key inputs in the calculation of the Contract for Difference (CfD) price in CfD auctions. It is therefore

I.D.	Written Question	Applicants' Response
	- Given draft NPS EN-3 paragraph 2.8.176 refers to the need to carry out an assessment of inter-array wake effects between the proposed development and nearby generating stations that are <u>planned</u>, consented or operational, should the sensitivity assessment have included net effects from wake loss on Dogger Bank D and Outer Dowsing. If not why not? If so, update the assessment accordingly. - Paragraph 14 of the document states that the worst-case scenario for wake impacts has been considered in the assessment – explain how this was determined. - Paragraph 12 suggests that all offshore wind farms partially or wholly within 100km of the proposed array areas that have been consented were included in the simulation. Why are only the wake effects on Dogger Bank A reported? Provide the likely wake effects from the proposed development on all of the offshore wind farms considered in the assessment.	standard practice to keep results of capacity factor calculations confidential. This is why the Applicants have relied on assumed capacity factors—as have the Projco IPs. The Examining Authority can have confidence that the capacity factors applied are reasonable (particularly the 55% mentioned in paragraph 7) given it is based on figures accepted by both the ProjCo IPs (as set out in the Projco IPs' Response to Examining Authority's First Written Questions (ExQ1) [REP3-063] (presumably taken as a representative figure by their team of experts) and by RWE's team of experts who also considered it to be generally reasonable. The Applicants assume this question is intended to relate to the wake assessment not the GHG sensitivity assessment. The draft NPS EN3 proposed changes were issued the day before Deadline 4 and it was not possible to take account of their implications in the time available. The cases considered utilised the same footprint and turbine locations ranging from 100 turbines of 15 MW each, to 72 turbines of 21 MW at each of DBS East and DBS West. The 15 MW turbine was considered worst case because experience has shown that the same capacity installed with more small turbines produces worse wake effects than the converse: fewer large turbines. The Applicants were asked by the Examining Authority to submit the wake assessment results which had originally been referenced in the Environmental Statement. This is what the Applicants have done, on a without prejudice basis to the need for a wake assessment at all. The conclusion of that assessment was that the impact on DBA was negligible. The Applicants concluded that in the light of that it was not necessary or appropriate to go beyond this as the other wind farms are further away and the effect would be less than this. As noted in the previous paragraphs the DBA assessment is considered by the Applicants to be the worst case and could therefore be applied to other wind farms on this basis. Nevertheless, the Applicants are preparing a response to this request for wake effects on DBB, DBC and Hornsea 1, 2, 3 and 4. Due to time constraints, it was not possible to prepare this information for this submission. The Applicants propose to provide an addendum to Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099] which provides calculated losses for the projects included in the modelling (DBB, DBC, Hornsea 1, 2, 3 and 4) to the Examining Authority and relevant IPs in the coming weeks. The Applicants would highlight that they have already provided expert high-level commentary in relation to these wind farms at paragraph 49 of Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points [REP4-099].
IOU.2.19	Wake loss assessment The ExA notes your DL4 response [REP4-121] and position that the applicants should be required to submit a wake loss assessment to demonstrate the likely effects from wake loss on the Ørsted portfolio of offshore wind farms. However, the ExA remains unclear whether you intend to submit a wake loss assessment on the likely effects on the Ørsted portfolio of offshore wind farms if the applicants do not – confirm if you intend to do so. The ExA highlights that it will only be able to report on the information it has available to it at the close of the examination to the SoS.	No response is required. Question directed to Ørsted IPs.
IOU.2.20	Wake loss and protective provisions Provide further information on why you consider that protective provisions, 'cannot be compared to protective provisions in place for statutory undertakers where there may be a physical impact on their infrastructure' [REP4-086].	It is plain that the circumstances of this case are highly unusual. Protective provisions in relation to statutory undertakers grew up principally to protect direct interference (e.g. damage, relocation and/or replacement) with the use of existing assets of a statutory undertaker delivering a public service. Here, protection is being sought for an effect which, at its closest, is 7.5km from the closest part of the affected projects, which are not even yet in operation. There is no direct interference with the project infrastructure. The effect complained of is, in practice, a financial one

I.D.	Written Question	Applicants' Response
		in relation to the proposed use by the Applicants of a resource (the wind) which is free to all and to which there is no legal right. Whilst all the parties involved are statutory undertakers, they are competitors and commercial rivals in a sophisticated energy market. However much the Projco IPs and Orsted IPs try to normalise the possibility of financial compensation for projects which have respected TCE's buffer area, it is plain that these facts are highly unusual and do not bear comparison to the situations for which protective provisions were developed or to which they normally apply. It is for that reason that if a financial compensation regime were to be introduced it would need full prior consultation and could not apply retrospectively, or through the opportunistic interpretation of the current NPSs (which were never generally accepted as governing wake loss, which is why wake assessments have never previously been provided). There are a range of examples of projects having been developed to date which will have had (and continue to have) financial implications through wake effects which are not compensated for. It would be unfair and inappropriate for protective provisions to be introduced in the way suggested.
IOU.2.21	Wake loss approach to requirements and protective provisions Paragraph 36 of your DL4 submission [REP4-117] reviews the potential of any requirement (and in turn protective provision) to deal with the effects from wake loss resulting from the proposed development against 'the 6 tests'. The ExA notes your comments on enforceability and reasonableness, however, given the difference in position between you and the applicants, do you think that it is likely that you would be able to find agreement in discharging a requirement following grant of a DCO (if approved)? If not, is any requirement of this nature reasonable and enforceable?	No response is required. Question directed to Ørsted IPs.
IOU.2.22	Wake loss – protective provisions Projco IPs, Ørsted IPs: submit a copy of draft protective provisions for consideration regarding the matter of wake loss. The applicants: submit a copy of draft protective provisions for consideration regarding the matter of wake loss on a without prejudice basis.	The Applicants have considered this request carefully, but do not consider it is appropriate to provide without prejudice protective provisions in these circumstances. There is such a fundamental difference of opinion between the parties and potential debate as to what any protective provisions might address that the Applicants are not prepared to 'second guess' this matter. The Applicants do not consider that protective provisions (presumably relating to wake assessment, potential mitigation measures and/or financial compensation) are justified. If the Projco IPs and Orsted IPs consider that they are, then it is for them to submit a detailed draft and justify their request in time for the Applicants to respond. If the Projco IPs and Orsted IPs provide draft protective provisions then the Applicants reserve their right to comment on them.
IOU.2.23	Wake loss – arbitration If the ExA or SoS determined that a requirement or protective provisions to address wake loss effects was necessary, to what extent do you think that arbitration would be useful or necessary in protecting the interests of all parties involved?	The Applicants' response to this question is without prejudice to its concerns regarding whether any requirement or protective provisions would meet the tests in paragraph 4.1.16 of EN-1. It is difficult to answer this question as it depends, in part, on the precise form of any requirement or protective provisions in which arbitration were included. If an AyM style requirement were imposed then there would be two main areas for potential dispute (a) the wake assessment methodology and resulting conclusions regarding loss of AEP and (b) the availability of mitigation measures and the reasonableness of a given measure being imposed. The Applicants consider that the judgments which would need to be made in the discharge of any requirement or protective provisions would be best made by the Secretary of State rather than by expert arbitration. Otherwise an important issue of public interest would be delegated to an expert, when it would be best retained by the SoS. Even if

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		a role were provided for arbitration, the Secretary of State would have to have a reserve role in agreeing the terms of any arbitration as even they are likely to be contentious.

1.15 Land Use and Agriculture

Table 1-15 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Land Use and Agriculture

I.D.	Written Question	Applicants' Response
LUA.2.1	Temporarily restricted access to agricultural land In your response to ISH4 action points [REP4-096, AP44], 71ha of land temporarily restricted for agricultural use for longer than two years is identified. Can you confirm if any of this land is identified as best and most versatile (BMV)?	Agricultural Land Classification (ALC) Grades 1, 2 and 3a are, from a policy perspective, regarded as Best and Most Versatile (BMV) which affords them a degree of protection in the planning policy framework. ALC Grade 1, 2 and 3 are present along the Onshore Export Cable Corridor to varying extents. The Applicants initially considered publicly available Natural England (NE) ALC Grade data, which is included in Table 21-11 of Chapter 21 Land Use (Revision 4) [document reference 7.21]. This shows the majority, 73%, of the Onshore Development Area is Grade 2 agricultural land, as shown in Figure 21-2 of Chapter 21 Land Use Figure 21-1 to 21-6 (Revision 2) [AS-113]. In addition, ALC surveys were undertaken within the area of the Onshore Substation Zone in February 2024 and in August 2024 for the Onshore Export Cable Corridor and Landfall Zone. These surveys also showed ALC Grade 1, 2 and 3 present within the Order Limits to varying extents. The results of the ALC surveys are included in the Outline Soil Management Plan (OSMP), Appendix A of the Outline Code of Construction Practice (OCoCP) (Revision 4) [REP4-040]. There are some differences between the NE data and the ALC survey results e.g. within the Substation Zone where the ALC surveys have identified a lower ALC Grade of 3b rather than 2. However, this is to be expected given the more thorough approach taken on site surveys for the Projects. When considering the differences between the two ALC data sets, the Applicants have taken a precautionary approach in Chapter 21 Land Use (Revision 4) [document reference 7.21] and applied a 'high' level of sensitivity for Impact 2 -Temporary Loss of Agricultural Land during construction and Impact 2 – Permanent Loss of Agricultural Land during operation. This is because Grade 2 BMV land has been identified within the Order Limits using both data sets and may be temporarily lost or impacted. To conclude, the Applicants can confirm that a proportion of the total area of land temporarily restricted for agricultural use for longer than two years would be BMV but the exact extent of this cannot be accurately quantified at this stage. The impacts of this have been appropriately assessed within Chapter 21 Land Use (Revision 4) [document reference 7.21].
LUA.2.2	Commitment to return land within two years In your response to ISH4 action points [REP4-096, AP46], Requirement 25 and Article 29(3) of the draft DCO [REP4-005] are referred to as effective security of land being returned to landowners within two years of construction commencement. Both however, refer to the return of land no longer than 12 months post-completion of the relevant phase or part of the proposed development and would therefore authorise land being unavailable for agricultural use for up to seven years. Can the applicants review the draft DCO wording and consider how the two-year return of land identified as embedded mitigation in ES Chapter 21 [REP2-022] can be effectively secured?	As detailed in the Applicants response to Action point No.46 in The Applicants' Responses to April 2025 Hearing Action Points [REP4-096], the commitment to reinstate land within two years between Jointing Bays is secured by the OCoCP (Revision 4) [REP4-040], which is secured by Requirement 19 of the Draft DCO (Revision 8) [document reference: 3.1]. The specific section of the OCoCP (Revision 4) [REP4-040]. which secures this is section 5.17, paragraph 101 which states '<i>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, improved, according with details set out in the OLMP, (Volume 8, application ref: 8.11) (see Table 3-3). <u>This will include works between jointing bays, where ducts are installed which would be reinstated within two years</u>, as detailed in Volume 7, Chapter 5 Project Description (application ref: 7.5) and Volume 7, Appendix 18-10 Biodiversity Net Gain Strategy (application ref:).</i> Chapter 5 Project Description (Revision 3) [REP1-009] also states in section 5.7.1.7 that: '<i>All land / habitats within the Onshore Development Area would be subject to temporary losses. In each Development Scenario, the Projects are committed to a rolling reinstatement between the Jointing Bays within two years of the start of construction</i>'. This is a certified document. The same commitment is also included in the Commitments Register (Revision 2) [REP2-025], see ref C145 which states that: '<i>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.</i>

I.D.	Written Question	Applicants' Response
		<i>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'.</i> All works not covered by this commitment to reinstate within two years would be reinstated 'as soon as reasonably practicable and in any event within 12 months of completion of the relevant phase of the onshore works'. As secured by the following in Draft DCO (Revision 8) [document reference 3.1]: - Requirement 25 (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'; and - Article 29(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). Given that the commitment to reinstate land between Jointing Bays is already included in the OCoCP (Revision 4) [REP4-040], which is secured by Requirement 19 of the Draft DCO (Revision 8) [document reference 3.1]. The Applicants do not consider the wording in Requirement 25 or Article 29(3) of the Draft DCO (Revision 8) [document reference 3.1] requires any update.
LUA.2.3	Restrictive covenants Where a landowner applies for consent contrary to the restrictive covenants in Schedule 7 of the draft DCO [REP4-005], would you consider updating the wording of the restrictive covenants to include a maximum determination period for the undertaker's decision?	The Applicants have sought restrictions to prevent landowners carrying out any activities within the easement strip that may have a material adverse effect on the Applicants' ability to exercise the rights granted by the Draft DCO (Revision 8) [document reference 3.1], or the Deed of Grant. Except where it has first obtained the consent in writing of the Applicants, such consent not to be unreasonably withheld or delayed provided that the Applicants are satisfied (acting reasonably) that there will be no material adverse effect on its ability to exercise the rights granted. The Applicants therefore do not think it is necessary to make any further commitment to a specific determination period for a decision, as it would depend on the merits and technical input of each request.
LUA.2.4	Loss of agricultural land assessment Your response to ISH4 action points [REP4-096, AP44 and AP45] sets out several changes to the assessed magnitude of impact and significance of effect related to agricultural land use in ES Chapter 21 [REP2-022]. Given the implication of these changes, the ExA requests the referenced updated ES Chapter 21 is submitted for DL5, not DL7, to provide IPs with sufficient opportunity to review and provide comments.	The Applicants can confirm they have updated Chapter 21 Land Use (Revision 4) [document reference 7.21] and submitted this document at Deadline 5. This has been updated to incorporate responses to actions raised at ISH4 and to incorporate any updates for Project Change Request 2- Onshore Substation Zone [AS-152]. As stated in The Applicants' Responses to April 2025 Hearing Action Points [REP4-096], Action No. 44. following a further review of Impact 2 -Temporary Loss of Agricultural Land and the assessment methodology, the magnitude of impact for agricultural land loss has been revised from a 'low' to 'medium' magnitude of impact. This is in response to comments raised by the Examining Authority at ISH4 and confirmation of the total area of land that would be unavailable for agricultural use over a two to six year period, during construction would exceed 20ha. The amendments made to the magnitude of impact assigned to Impact 2 - Temporary Loss of Agricultural Land, have resulted in a change in the overall residual significance to major adverse which is considered to be significant in Environmental Impact Assessment terms. In addition, the definitions associated with the magnitude of impact in Chapter 21 Land Use (Revision 4) [document reference 7.21], in Table 21-8 have been reviewed and revised as part of the overall update of Impact 2 -Temporary

I.D.	Written Question	Applicants' Response
		Loss of Agricultural Land to more clearly define the impact of temporary agricultural land loss related to a 'medium' and 'high' magnitude impact. Additional text has also been added to section 21.4.3.2.1 to justify why these changes have been made. It should be noted, that although the Institute of Environmental Management Assessment (IEMA) provide guidance ["Institute of Environmental Management & Assessment Guide: A New Perspective on Land and Soil in Environmental Impact Assessment" (IEMA, 2022)] on the permanent loss of agricultural land, there is not industry standard guidance available on the temporary loss of agricultural land. Therefore, the Applicants have applied professional judgment to the assessment methodology for temporary loss of agricultural land which has been revised following further consideration after Deadline 4 to provide a more robust assessment.
LUA.2.5	Erection of any temporary screening and means of enclosure during pre-commencement works The erection of any temporary screening and means of enclosure is included within the definition of 'pre-commencement works' [REP4-005]. Could you confirm: a) If this would allow for the enclosure of all the onshore works area during pre-commencement works? b) If access to land for agricultural use would be retained for landowners during pre-commencement works and how this would be secured? c) If the answer to b) is no, would the loss of agricultural land be for a period longer than that assessed in ES Chapter 21 [REP2-022]?	The Applicants respond as follows to address each point: a) At this stage of the design the Applicants cannot confirm the exact fencing requirements associated with the 'pre-commencement' works prior to the selection of a Contractor. However, they do not expect this would involve the fencing of all land within the Order Limits. If any fencing or screening is required for these works, it must be agreed as per Requirement 19(4) of the Draft DCO (Revision 8) [document reference 3.1] which provides that: <i>'pre-commencement screening and fencing works must only take place in accordance with a specific plan for such pre-commencement works which must accord with the relevant details for screening and fencing security set out in the outline code of construction practice, and which has been submitted to and approved by the relevant planning authority following consultation with the relevant statutory nature conservation body'.</i> b) Retention of access to agricultural land during pre-commencement works would depend on the 'pre-commencement' work that is being undertaken and how long in advance of the enabling or main works starting this work takes place. The Applicants would seek to retain access for landowners, wherever possible. However, at this stage the Applicants cannot commit to the landowners having access to all their land during 'pre-commencement' works, as it is not yet known exactly where and when they would take place and there could be health and safety implications with allowing unrestricted access. However, as described above it is not envisaged by the Applicants that 'pre-commencement' works would require restricted access to the whole working area. In addition, for those areas where access would not be possible during 'pre-commencement' works landowners would be financially compensated for the temporary loss of their land during any works. Advanced compensation would be secured by the Option Agreement or alternatively the Landowner would be entitled to submit a compensation claim to the Applicants for any proven losses incurred. In addition to any provisions privately agreed within the Option, 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. It should be noted, the Applicants have already been working closely with landowners to undertake both archaeological and geotechnical investigations and non-intrusive surveys under a short form of licence agreement, which captures the proposed works, timescales, and advanced compensation provision for any losses incurred. This has involved an Agricultural Liaison Officer (ALO) working closely with landowners to communicate when and where works would take place to reach agreement on access and any potential crop loss. The appointed ALO would work closely with landowners following the same approach for any 'pre-commencement' works.

I.D.	Written Question	Applicants' Response
		c) The Environmental Statement has assumed a six-year construction programme, as a worst case if a 'sequential construction scenario' is selected. This is set out in Table 5-33 of Chapter 5 Project Description (Revision 3) [REP1-009]. As discussed above in the Applicants response to point b, it is not considered that the pre-construction works would cause significant loss of access to agricultural land prior to the 'commencement' of works. However, notwithstanding this, all works including pre-commencement works will be completed within a six-year period. This is already an assumption in the Chapter 21 Land Use (Revision 3) [REP2-022].

1.16 Landscape and Visual Interest

Table 1-16 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Landscape and Visual Interest

I.D.	Written Question	Applicants' Response
LVI.2.1	Trees and hedgerows Do you have any outstanding concerns regarding tree or hedgerow removals, or proposed mitigation measures relating to retained trees and hedgerows? The ExA notes that you previously raised concerns [REP1-055] regarding the loss of T246 sycamore tree as a result of Works No. 16A/ B – do you still remain concerned regarding this tree?	The Applicants can confirm that a category B tree, T246, would be removed as a result of the Projects Temporary Construction Compound in this location and as such is unfortunately unavoidable. Trees which are removed will be replaced within the Onshore Development Area with locally native species to match those removed, as detailed in the Outline Ecological Management Plan (Revision 5) [REP4-042].
LVI.2.2	Hydrological effects on ancient woodland The applicants: How would the draft DCO [REP4-005] or the supporting documents mitigate any effects from changes to hydrology on ancient woodland inside and outside the order limits, such as ancient woodland in Burton Bushes SSSI? Could the hydrogeological risk assessments in the embedded mitigation measures in ES Chapters 19 and 20 [APP-158, table 19-3 and REP1-014, table 20-3] be updated to include effects on groundwater flows and works near Burton Bushes SSSI? This is currently only for accidental spills and leaks of contaminants mitigation and not groundwater flows. Woodland Trust, Forestry Commission: Do you consider that the draft DCO and supporting documents adequately protect ancient woodland inside and outside the order limits from effects from changes to hydrology as a result of the proposed development? Why, or why not?	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). Burton Bushes Site of Special Scientific Interest (SSSI) is not a wetland habitat which is reliant on specific groundwater levels, nor is it designated as such. 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 perched 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 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 Onshore Export Cable Corridor would disrupt shallow groundwater flow pathways because there is no evidence to suggest a shallow groundwater table is present. Therefore, there is no reason to update what will be covered by the hydrogeological risk assessments. To clarify, hydrogeological risk assessments, assess the potential effects on groundwater receptors, so do not cover accidental spills and leaks of contaminants as these affect surface water flows. It is therefore unclear why the written question refers to these risks in the context of groundwater flows. Section 3 of Appendix D, Outline Pollution Prevention Plan (OPPP) of the Outline Code of Construction Practice (OCoCP) (Revision 4) [REP1-040] includes measures for the protection of the surface water environment during construction. Section 6.2.2.2 of the OCoCP (Revision 4) [REP1-040] and section 4 of the OPPP include measures for the protection of groundwater including the requirement to undertake hydrogeological risk assessments.
LVI.2.3	Ancient woodland The applicants have updated the oEMP [REP4-042] to state that ancient woodland in the onshore converter station zone would be avoided via the use of trenchless crossing techniques such as horizontal directional drilling at a minimum depth of 5 metres, unless the applicants are able to demonstrate that a shallower depth is acceptable due to other constraints. Do you consider this wording to be acceptable and do you have any outstanding concerns regarding the protection of ancient woodland in any other regards? If so, set out what these are, and how the applicants could overcome them.	No response is required. Question directed to East Riding of Yorkshire Council (ERYC), the Woodland Trust, and the Forestry Commission.

I.D.	Written Question	Applicants' Response
LVI.2.4	Visualisations Whilst the ExA notes the applicants' response to ISH4 action point 10 [REP4-096], which states that owing to the distance and presence of intervening vegetation, it is unlikely that the significance of visual effects from relocating Viewpoint 6 would be significant, can you confirm whether you consider that there would be a minor adverse effect if Viewpoint 6 was relocated as discussed during ISH4?	The Applicants' landscape team undertook a repeat site visit to the location of Viewpoint 6 and walked the length of the Beverley 20 footpath south of Risby Woods on 16th May 2025. Approximately 90m north of Viewpoint 6, a section of the Beverley 20 runs roughly west to east (between grid reference TA 01298 34800 and TA 01431 34852). From this section, more open northward views are available across the field which slopes down to Dunflat Road. Risby Park Woods are seen beyond this field, as well as the clump of trees further east on Dunflat Road. Between Risby Park and the clump of trees, parts of the Onshore Converter Stations are likely to be visible at a distance of 1.7 km. These woodlands will help to screen views towards the Onshore Converter Stations and will provide a degree of screening even in winter due to the density of Risby Park Woods. Information provided by ERYC (Response to Issue Specific Hearing 4 action points [REP4-118] indicates that Ash Die-back will have negligible effect on the screening value of Risby Park Woods. Due to the elevation of the view, the Onshore Converter Stations are unlikely to break the skyline in this view (refer to the wireline view in Figure 23-12c of Chapter 23 Landscape and Visual Impact Assessment (LVIA) Figure 23-1 to Figure 23-17 (Revision 4) [REP4-039]). The viewpoint is on a footpath where people will be passing rather than spending time, and views towards the Onshore Converter Stations will only be available from a short section of the route. Views from this location to the landmark of Beverley Minster, as part of the open outlook to the north-east, would not be interrupted. The Applicants consider that the scale of change to the view from this location would be small, and the effect would be minor adverse and not significant.
LVI.2.5	Visualisations At DL4, ES Chapter 23 Landscape and Visual Amenity figure 23-7e (Viewpoint 1: Butt Farm) [REP4-039] was updated to reduce the leaf cover serving the trees, to be more representative of the winter tree cover. A comparison between the version of this visualisation provided at DL2 [REP2-024] and the DL4 submission shows that the converter stations would be more prominent in the winter at year 10 of operation in the updated visualisation. Does this amendment affect the findings of the ES regarding the residual effects from Viewpoint 1 at year 10 of operation? If not, why not? If so, the applicants should update the ES accordingly.	Compared to the version of Figure 23-7e of Chapter 23 LVIA Figure 23-1 to Figure 23-17 (Revision 3) [REP2-024] submitted at Deadline 2, the version submitted at Deadline 4 (Figure 23-7e of Chapter 23 LVIA Figure 23-1 to Figure 23-17 (Revision 4) [REP4-039]), with leaves removed, shows that more of the upper parts of the valve halls will be visible through the more open upper branches of the trees. The lower parts of the Onshore Converter Stations will remain largely screened due to the density and depth of the woodland plantation that will be established to the south of Butt Farm. It is concluded that the magnitude of change would not be greater as a result of the revised Figure 23-7e of Chapter 23 LVIA Figure 23-1 to Figure 23-17 (Revision 4) [REP4-039]. The amendment to the visualisation presented in Figure 23-e in [REP4-039] therefore does not affect the residual effects at year ten.
LVI.2.6	Visualisations In response to ExQ1 LVI.1.3 [REP3-037], ERYC queried the significance and purpose of the red dots that appear to be part of the switchgear, shown on figure 23-15a4 Cultural Heritage Viewpoint 2 [REP2-024]. These have now been removed from the latest version of figure 23-15a4 [REP4-039]: why is this the case? The ExA notes that the red dots are shown on figure 23-7d and should be shown on all visualisations if they would be visible from public vantage points.	Please refer to the Applicants' response to point REP3037: LVI.1.3 in The Applicants' Comments on the Responses to ExQ1 [REP4-087] which confirms at bullet 3 that: <i>"The red dots visible on some images do not indicate actual red features of the design, and are the result of an element of the 3D model not correctly rendering in the image. Colours to be used on the Onshore Converter Station will be determined as part of the detail design, as set out in the DAS (Revision 2) [REP2-027]."</i> The red dots were removed from the updated images included in the Chapter 23 LVIA Figure 23-1 to Figure 23-17 (Revision 4) [REP4-039] to correct this error. Only Figure 23-7e was updated in Revision 4 and so the red dots are still visible on Figure 23-7d of Chapter 23 LVIA Figure 23-1 to Figure 23-17 (Revision 4) [REP4-039].
LVI.2.7	Mitigation Do you have any outstanding concerns regarding the mitigation measures in the outline Landscape Management Plan (oLMP) [REP4-044]? If so, what are these and how could the applicants address them?	The Applicants discussed this with the ERYC at a meeting on the 15th May and no further comments were raised, the Applicants therefore consider all matters on the Outline Landscape Management Plan (OLMP) [REP4-044] are agreed.

I.D.	Written Question	Applicants' Response
LVI.2.8	Mitigation The ExA notes your response to action point 23 from ISH4 [REP4-096] regarding the consideration of a zoning plan or other potential solutions to identify maximum heights for different equipment areas of the converter station zone, and your inability to commit to this at this stage of the design of the proposed development. However, the ExA remains concerned that the draft DCO [REP4-005] and supporting documents do not specifically require that low level elements of the converter stations are screened, given that this is the basis from which the ES conclusions are drawn from and which the visualisations have been prepared on. Can the applicants give more consideration as to how screening would be provided which would be of a sufficient height and spread to screen the low-level elements of the converter station equipment. Would a possible solution be to update the oLMP [REP4-044] to include a commitment to the delivery of such screening?	The Environmental Statement conclusions and the visualisations are based on the proposals set out in the OLMP (Revision 4) [REP4-044]. The OLMP (Revision 4) [REP4-044] refers to Figure 23-6 of Chapter 23 Landscape and Visual Impact Assessment Figure 23-1 to Figure 23-17 (Revision 4) [REP4-039] which illustrates the landscape proposals that are shown on the visualisations. At paragraph 30 the OLMP (Revision 4) [REP4-044] describes substantive areas of woodland planting around the Onshore Converter Stations. The OLMP (Revision 4) [REP4-044] also includes indicative species lists for the different areas of planting e.g. hedgerows, native woodland and scrub. The indicative list of woodland species that would form the main screening plantations includes species such as hazel which grow quickly and would be expected to provide cover to screen the lower-level elements of the onshore substation within ten years. The final list of woodland species will be agreed with ERYC prior to submission of the final Landscape Management Plan and will be expanded to include species such as hawthorn and blackthorn which as common hedgerow species form more rapid growing low-level screening. The preparation and implementation of a Landscape Management Plan, in line with the OLMP (Revision 4) [REP4-044], is secured by Requirements 10 and 11 of the Draft Development Consent Order (Revision 8) [document reference 3.1]. The final Landscape Management Plan will be refined in response to the finalised design of the Onshore Converter Stations and will be subject to the approval of ERYC and must be implemented as approved. The Applicants are therefore of the view that delivery of screening, as described in the LVIA and shown in the visualisations, is already secured, and adding a further commitment to the OLMP (Revision 4) [REP4-044] is not required.
LVI.2.9	Compensation At ISH4 you confirmed that there are no committed landscape or visual compensatory measures proposed, given the localised impacts. Whilst the ExA notes that the oLMP [REP4-044] states that opportunities would be explored to deliver offsite planting and to develop partnerships with relevant organisations, such as the Humber Forest, to deliver offsite landscaping, this cannot be considered as 'committed'. NPS EN-1 paragraph 4.2.12 states that "applicants should set out how residual impacts will be compensated for as far as possible." Why should localised significant adverse effects not be compensated, given the wording of NPS EN-1? What more formal commitments could be made to provide landscape and visual compensatory measures?	National Policy Statement (NPS) EN-1 discusses compensation under certain specific topics. Section 5.4 on Biodiversity and Geological Conservation refers to compensation throughout. By contrast, section 5.10 on Landscape and Visual does not mention compensation at all. Instead, paragraph 5.10.5 states: "<i>Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation.</i>" NPS EN-1 does not appear to anticipate compensation for such adverse effects. The Applicant is not aware of other Nationally Significant Infrastructure Projects where compensatory measures have been required in relation to localised impacts on non-designated landscapes. The Applicants have made a formal commitment to explore opportunities to work with the Humber Forest. It is not possible to be more definitive, since any off-site planting will be subject to landowner agreement and therefore outside the Applicants' control.

1.17 Marine and Coastal Processes

Table 1-17 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Marine and Coastal Processes

I.D.	Written Question	Applicants' Response
MCP.2.1	Emergency intertidal access NE: Can you clarify why you consider an outline Contingency Plan should be provided during examination and confirm the detailed information you would like to see included as part of the document? In addition, explain why providing the information as part of the applicants' proposed Drilling Fluid Breakout Management Plan, post consent, and as part of the oCoCP [REP4-040], would not be appropriate. The applicants: Why do you disagree with NE and its requirement for an outline Contingency Plan to be provided during examination?	The Applicants reiterate their response provided to Natural England (NE) in REP2-064:1 of The Applicants' Responses to Deadline 2 Documents [REP3-028]: <i>'The Outline Code of Construction Practice (CoCP) (Revision 3) [REP1-025] submitted at Deadline 1 was updated to include a commitment for the Drilling Fluid Management Plan (which will describe the procedure and measures for dealing with drilling fluid from trenchless crossings) to include details and the design of the emergency intertidal access design. This Drilling Fluid Break Out Management Plan will be developed post-consent as part of the detailed CoCP(s) approved under Development Consent Order (DCO) Requirement 19, upon appointment of a Principal Contractor(s). This would be subject to approval by East Riding of Yorkshire Council in consultation with the Environment Agency, Marine Management Organisation (MMO) and Natural England, as required. As such paragraph 252 as referenced in Natural England's comment (amended to paragraph 254 in Revision 5 of Chapter 18 Terrestrial Ecology [REP2-019] submitted for Deadline 2), is unchanged. The Drilling Fluid Breakout Management Plan will include details and a design (for approval) of the Emergency Intertidal Access, which may require a temporary access ramp and / or ground protection matting shoreward of Mean High Water Springs to access over the cliff face. Chapter 5 Project Description (Revision 3) [REP1-009] was also updated for Deadline 1 to include additional details on the potential design of the emergency access. As stated in paragraph 253 of Chapter 5 Project Description (Revision 3) [REP1-009], as the cliff face is highly dynamic and constantly changing, the temporary access over the cliff would be designed when the Contractor is appointed to avoid abortive work at this stage.</i> <i>The Applicants do not therefore intend to finalise the design of the emergency intertidal access in advance of receiving consent and / or appointing a Principal Contractor. Should Natural England request further details of the design options these could be provided to Natural England at a later deadline but would be subject to change depending on the nature of the maritime cliff and slope habitat at the time of detailed design.'</i> Following a review of the OCoCP (Revision 4) [REP4-040], the Applicants can confirm they omitted to add that the Drilling Fluid Management Plan would be agreed with the Natural England, in addition to the Environment Agency, East Riding of Yorkshire Council (ERYC) and the Marine Management Organisation (MMO) at the detailed design stage of the OCoCP (Revision 3) [REP1-025], at Deadline 1. This was not intentional and will be rectified by updating Table 3-2 and section 6.3.2.1 of the OCoCP (Revision 5) [document reference 8.9] at Deadline 7. All other updates were made.
MCP.2.2	Sediment transport pathways In relation to the document 'Bed Mobility and Thermal Environment' [REP3-032], the applicants state in their Responses to DL3 Documents [REP4-088] that 'seabed morphology and mobility is characterised in section 4 of the report'. In addition, they consider that 'this is the same process as bedform crest mapping as recommended by NE, the only difference is the outputs are presented as grid instead of as lines on a map'. On that basis, why do you consider that no new information has been submitted? Why do you consider that the repeat bathymetry surveys to quantify seabed mobility and bedform migration speeds would not be sufficient? What is your view on the applicants' approach to bedform crest mapping and how the outputs have been presented?	No response is required. Question directed to Natural England.

I.D.	Written Question	Applicants' Response
MCP.2.3	Sediment transport pathways In your DL4 response [REP4-122] regarding the document 'Bed Mobility and Thermal Environment' [REP3-032], you state that the potential for seabed mobility, cable exposure and scour would require further investigation. Why do you consider that the information should be provided during the examination? Could it be provided post consent? If not, why not? What are the potential implications of the information not being provided now?	No response is required. Question directed to Natural England.
MCP.2.4	Sediment transport pathways The applicants' DL3 response [REP3-028] noted that 'a search of available evidence regarding regional sediment transport pathways along the Offshore Export Cable Corridor reveals no relevant information is available' and that they 'cannot provide more information on the identification of regional sediment transport pathways other than that referenced above'. At the same deadline, the applicants submitted the 'Bed Mobility and Thermal Environment' document [REP3-032] into the examination. However, NE considered [REP4-122] that the document would not change its current advice and provided guidance on the additional information required to address its concerns in [REP4-122] and [REP4-126]. Can you explain why it would not be possible to provide up to date additional information in line with the request from NE during the examination? Do you consider the information requested by NE could be submitted prior to commencement? If yes, how would they be secured? If not, explain why it would not be possible to undertake the requested additional surveys.	See the Applicants response to REP4-122: B4 of The Applicants' Responses to Deadline 4 Documents [document reference 15.3] included below for reference: <i>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.</i> <i>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.</i>
MCP.2.5	Sediment disposal The updated Cable Statement [REP4-051] states in paragraph 37 that '...they can commit to depositing like sediment on like sediment both within and beyond the boundary of the Dogger Bank SAC'. Can you clarify whether the commitment would therefore extend beyond the array area and would also cover the offshore export cable corridor? If not, explain which areas are excluded from the proposed commitment.	The Applicants can confirm that this commitment does extend beyond the Array Areas and also cover the Offshore Export Cable Corridor. This commitment is captured in the Cable Statement (Revision 4) [REP4-050].
MCP.2.6	Sediment disposal a) Are you aware of any dredgers suitable for DBS which may be equipped with your recommended disposal technology using a fall pipe? b) Do you consider the detailed information on the dredging technology (including the use of a fall pipe) could be agreed post determination as part of the final Cable Statement? If not, why not? c) Clarify any further discussions that have been held with the applicants on this topic and conclusions.	No response is required. Question directed to Natural England.

I.D.	Written Question	Applicants' Response
MCP.2.7	Sediment disposal NE stated in its response to action point 31 [REP4-126] that the use of a fall pipe within SACs as well as commitments to place sediment updrift and in similar habitat type has been committed to on both Five Estuaries and Outer Dowsing Offshore Wind Farms (OWF). a) Why do you consider a similar commitment could not be made for the Dogger Bank SAC? b) If the use of a fall pipe would be available, would you propose to use the technology and include this as part of an updated Cable Statement? If not, why not? c) Do you propose to commit placing sediment not just in similar sediment type, but also updrift? If not, why not?	It is not within the Applicants gift to know the minds of other projects. Whilst we cannot comment on the reasoning, it does appear that Five Estuaries have committed to using a fall pipe to dispose of dredge arisings. However, the Applicants note that, to the best of their knowledge, Outer Dowsing have made no such commitment. a) As stated previously, the Applicants' engineering team – who are both knowledgeable and experienced in these matters - do not believe that fall pipes or down pipes are available on the type of vessels that are likely to be used to complete the dredging for the Projects – namely trailing suction hopper dredgers. The Applicants cannot commit to delivering mitigation that they do not believe is technically feasible. The Applicants have asked Natural England to provide evidence of the existence of suitable fall pipes (for the deposition of seabed sediment, as opposed to the deposition of rock) on suitable dredging vessels on a number of occasions, but no direct response to this query has been forthcoming. b) If the technical feasibility of this request can be demonstrated then the Applicants will give this request further consideration, but would need to understand the details and implications before they could commit to this. As noted above the Applicants cannot commit to delivering mitigation that they do not believe is technically feasible as doing so would ultimately create a risk for their Projects. c) The Applicants have not proposed depositing sediment updrift of areas of dredging activity. In the Applicants' view, doing so would incur potentially avoidable environmental impacts. The reason for this is that there may be yet to be determined time lags between the completion of dredging in an area and the delivery of any associated construction activities. Logic dictates that, in such a scenario, the dredged sediment may well move through natural process into the previously dredged area. Should this happen further dredging would then be required. Self-evidently this additional seabed preparation would cause avoidable environmental effects.
MCP.2.8	Cable burial risk sites NE in its DL3 [REP3-051] and DL4 [REP4-122] responses has asked for an understanding of indicative locations for cable protection requirements and where key risk sites are located, in relation to any sensitive receptors or designated areas of seabed. The applicants' response to DL3 documents [REP4-088] refers to Appendix F of the offshore export cable corridor Cable Burial Risk Assessment (CBRA) (Appendix B of the Cable Statement [REP4-050]). However, the table would not appear to include distances or an explanation to nearest sensitive receptors or designated areas of seabed. Provide an update to the table to include the missing information and in addition, provide a plan indicating the location of the risk areas referred to in the table.	Appendix F of Appendix B of the Cable Statement (Revision 4) [REP4-050] provides the locations and extents of areas preliminarily deemed to potentially require some form of remedial cable protection. This information is imparted in the Remedial Protection column which notes kilometre point, or 'KP', ranges along the Export Cable Corridor that are baselined to oKP at Mean High Water Springs. Hence, by considering this information it can be understood, on a preliminary basis, where remedial protection might be required. As the requested information is already included in this table no updates are proposed. A plan showing the indicative remedial protection locations and protected site boundaries can be provided within an update to the Cable Statement at Deadline 6. The Applicants note that the remedial protection locations are preliminary and subject to future updates post-consent. Finalisation will occur within the Final Cable Statements to be submitted for decision-maker approval in line with conditions in each of the Deemed Marine Licences presented in the Draft Development Consent Order (Revision 7) [REP4-005], (for example Condition 15(i) Deemed Marine Licence 1) prior to the commencement of construction. Thus, decision makers and their advisors will be afforded an appropriate level of control over the final locations and quantities of remedial cable protection proposed for deposition during construction, as well as the evidence-base for additional protection presented in the form of the final Cable Burial Risk Assessments which will support the proposals made. The information available at the present time can in no way be regarded as final as site information continues to develop, the cable routes require further update and refinement, and design and installation work has also not been completed. Hence, protection may not be required in locations where indicated at present and, conversely, it may be required in areas where it is not indicated as being necessary at present. Thus, little weight can, or should be, afforded to the locations that are indicated at the presented time. The Applicants highlight that designing and developing offshore wind farms is a complex, sequential process which involves dealing with and balancing a high level of uncertainty and risk, particularly in the pre-consent phases. In recognition of this, EN-3 has established a clear acknowledgement of the need for flexibility of project details under EN-3 2.6 and 2.8.74. The Applicants have identified a number of needs for flexibility in their designs to manage uncertainties. The quantities and locations of cable protection

I.D.	Written Question	Applicants' Response
		proposed are an excellent example of this. In recognition of this need for flexibility the Applicants have assessed a worst case envelope in line with section 2.6 of EN-3.
MCP.2.9	Requirement for cable protection The worst-case scenario currently assumes that a maximum of 10% of the cable route within the Dogger Bank SAC and a maximum of 20% outside the Dogger Bank SAC would require remedial cable protection. NE has requested that further rationale and justification for the worst-case scenario is provided. The applicants indicate in their response to ISH2.4.4 [REP1-050] and which has been repeated in their DL4 response [REP4-088] that 'the array areas should not present areas of burial challenge. The site boundaries brought forward for examination were refined from the Agreement for Lease boundaries presented at the PEIR stage in part to exclude high density boulder regions which would have presented significant burial risk. Despite the removal of this area of potentially challenging ground conditions, an upper limit of 10% of remedial protection has been assessed on the basis of the level of uncertainty that currently exists prior to geotechnical survey outputs being available and prior to a specific array cable layout being developed.' Explain in more detail on what basis the 10% and 20% maximum limits of remedial cable protection have been chosen. Noting that the areas within the Dogger Bank SAC would be unlikely to present burial challenge, could the commitment here be reduced, for example to a maximum of 5%? If not, why not? In addition, provide clear reasoning for the 20% requirement along the offshore export cable corridor and why this could not be reduced further.	As noted in question MCP.2.9 , the Applicants have previously responded to similar questions and direct the Examining Authority to the response originally provided to ISH2.4.4 in The Applicants' Responses to Issue Specific Hearing 2 Supplementary Agenda Questions [REP1-050]. Quite simply, and to reiterate the response that was previously provided, the amount of cable protection needed cannot be accurately predicted at the present time as site information continues to be acquired and updated, cable routes, designs and installation method have not been developed, mobility studies have not been completed and burial has not yet been attempted. The Applicants note that designing and developing offshore wind farms is a complex, sequential process and it is for this reason that EN-3 has established a clear principle relating to the acceptability of flexible of project details within consent applications under EN-3 2.6 and also EN-3 2.8.74 which states: <i>Owing to the complex nature of offshore wind farm development, many of the details of a proposed scheme may be unknown to the applicant at the time of the application to the Secretary of State</i> As a result, for this complexity the Applicants have developed and assessed worst case scenarios within the Rochdale envelope that consent is being sought for. The worst case scenario are based on the partial information that is available at the present time. This envelope includes contingency values to account for the many unknowns relating to project delivery based on the Applicants experience of developing a number of offshore wind farms in the UK and internationally over a number of decades (the 10% and 20% figures). In the Dogger Bank Special Area of Conservation (SAC), the actual required volume of cable protection could be less than 10%. The actual quantum will not be known until construction is complete and, even then, the figure indicated incorporates allowances for additional protection require during the operational life of the Projects. If the applicant is constrained to a lower number than 10%, then there is a risk that installation activities cannot be completed or that cables remain unburied and present a risk to shipping and fishers, and are at greater risk and frequency of damage. Should they be damaged the export of electricity by the critical infrastructure that the Applicants are proposing to build to the national grid would be impaired. In addition, the increased frequency of cable breakages would necessitate the completion of more frequent cable repair works, which would bring their own environmental impacts. The Applicants have previously stated in a number of hearings and responses to representations that the primary means of cable protection is burial. They are not incentivised to deliver any greater quanta of remedial protection than is necessary. Indeed, the Cable Statement (Revision 4) [REP4-050] contains mitigation which requires the minimisation of the use of protection where practicable. However, the Applicants cannot commit to reductions in the proposed remedial protection quanta without having carried out an update to the DBS Array Area Cable Burial Risk Assessment (likely in Q3 2025 and, therefore, post-Examination), as explained in ISH2.4.4 of The Applicants' Responses to Issue Specific Hearing 2 Supplementary Agenda Questions [REP1-050]. Moreover, whilst burial is shown as feasible in the CBRA this does not consider potential for boulder fields that have not been identified by high level geophysical surveys completed thus far. The prevalence of boulders larger than 0.3m but smaller than 1m (which may not have been detected by the surveys completed to date) can hinder burial and it might not be possible to remove them using a boulder grab tool in case of highly dense coverage. In such a case, the cables may need to be surface laid in these areas, followed by installation of remedial cable protection. As for the remedial protection along the Offshore Export Cable Corridor, many of the points put forward in relation to the use of protection in the Dogger Bank SAC also stand. In addition, final routing is yet to be undertaken which may affect burial potential, as might assessments by the Export Cable contractor, with consideration of its proposed methods and burial tool capabilities. Final routing and contractor selection will not be complete until post-Examination.

I.D.	Written Question	Applicants' Response
		In summary, the Applicants believe that the quantities of remedial cable protection put forward in the Application represent reasonable realistic worst cases given the stages of the Projects. The numbers provide the Applicants with the flexibility that they believe they need to deliver Projects which are capable of reliably providing electricity to the national grid in a way which does not create avoidable risks to other sea users. The design and development offshore wind farms is a complex process and to accommodate this, the principle of consenting flexible designs and design envelope is firmly established and supported in EN-3. Whilst the Applicants aspire to deliver the Projects with reductions in these numbers - and have included mitigation in this regard in the Cable Statement [(Revision 4)] [REP4-050] - they cannot make reductions to the figures presented at the present time. Should any reductions be made in the consent it will cause increases of avoidable risks to other sea users and may well impair the export of low carbon electricity to the national grid by two substantial pieces of critical infrastructure repeatedly, and for periods of a number of months at a time. Further, reducing the volumes of protection available to the Applicants in the DCO may well cause an increase in instances of cable breakages requiring repairs which have their own impacts on the marine environment.
MCP.2.10	Cable protection licensing Noting the applicants' response in relation to cable protection licensing at ISH5 [REP4-086, paragraph 257], do you consider a change in the lengths to the proposed licensing period from the applicants' proposed 10 years for new cable protection on designated sites could be more appropriate? If yes, explain the suggested lengths and why? In addition, the response states that 'any replenishment would occur on 'lost' habitat so there is no real risk of new harm to licence in this scenario'. However, if there is a period of up to 10 years of no or limited interaction, what are the possibilities of the habitat being restored during that time?	The Applicants note that, to ensure the safe and continued operation of the Projects and to reduce avoidable risks to other sea users and / or risks of the reduction or interruption of the supply of 3 GW of low carbon electricity to the nation, they require pre-licensed cable and scour protection volumes for deposit as and when needed. Licensing every new deposit in protected areas, as requested by Natural England, is highly impractical as it would have a lead time of at least 12 months from the point of recognition of a need for remedial deposits to a point in time at which the deposits could be made. Within this period there would be an avoidable, increased likelihood of cable breakages, scour and foundation failures and / or disruption to the operation of critical national infrastructure producing 3 GW of low carbon electricity for the UK. Self-evidently this would threaten the UK's security of supply of cost-effective, low carbon electricity. It could also potentially threaten the safety, operations and activities of other sea users active in the vicinity of the Offshore Development Area. This is particularly pertinent given that – assuming the Projects are consented - the use of cable and scour protection up to the limits established in the Order will have already been accepted as having permanent impacts, will have been assessed and compensated for as part of the consents, and any protection installed post-consent would follow the mitigation hierarchy in line with the Outline Scour Protection Plan (Revision 3) [REP2-051] and Cable Statement (Revision 4) [REP4-050], ensuring that further deposits would be limited as far as is practicable. Repeating this process in a new Marine Licence application for a quantum of cable and / or scour protection that has already been consented would add little value and does not appear to be a proportionate approach to the management of environmental risk. The Applicants feel that the need to re-licence all additional deposits in protected sites is overly precautionary and will result in a lengthy administrative process that will deliver no appreciable environmental benefits, as any relevant habitats will have already been deemed as lost. In the case of remedial protection, the footprint of protection established at construction will have <i>actually</i> been lost already and cannot be impacted a second time. The Applicants highlight that for protection in new areas the Applicants have already conceded to an additional licensing process (as detailed in Table 2-3 of the Outline Offshore Operations and Maintenance Plan (Revision 3) [REP2-045], which itself is secured in the Draft DCO (Revision 8) [document reference 3.1] under Conditions 7(3) of DMLs 1 & 2, 5(3) of DMLs 3 & 4 and 3(3) of DML 5) and regulatory control can be achieved through this mechanism, even though the footprint concerned would also have been considered lost up to the footprints established in the application. Further, it should be noted that in each deemed Marine Licence in the Draft Development Consent Order (Revision 8) [document reference: 3.1] contains conditions which ensures the reporting of all new cable and scour deposits made by the projects during each year of operation e.g. Condition 23 in deemed Marine Licence 1. These conditions will allow effective and transparent oversight of the application of all new deposits of cable and scour protection made through the operational phase of the Projects. The Applicants note that they agree that further Marine Licences should be required should there be a need to exceed the limits established by the DCO.

I.D.	Written Question	Applicants' Response
MCP.2.11	Flamborough Front The applicants have submitted the 'Review of Flamborough Front Technical Note' [REP4-092] at DL4. a) Do you consider the updated assessment of significance to be appropriate? If not, why not? b) Do you consider the detailed monitoring proposals as explained in the updated In Principle Monitoring Plan (IPMP) [REP4-052] in relation to near-field and far-field monitoring to be sufficient? If not, explain any outstanding requirements. c) Do you agree with the conclusions of the document? If you have any outstanding concerns, explain what they are and how they could be addressed.	No response is required. Question directed to Natural England and the MMO.
MCP.2.12	Wave model assessment In your DL3 response [REP3-058], you requested that wave modelling should also include waves approaching from a south and south-west direction. The applicants in their response at DL4 [REP4-088] have acknowledged that there is a secondary wave component from the south and south-west and have explained in more detail why they consider the predicted changes in wave regime would not hinder conservation objectives of the Dogger Bank SAC. Do you agree with the applicants' explanation? If not, explain the additional information that should be provided to address your concerns.	No response is required. Question directed to Natural England.
MCP.2.13	Hornsea Project 4 cable crossing a) In line with NE's DL4 response [REP4-122], explain whether you would be able to commit to a cable crossing with Hornsea Project 4 to be located seaward of the 20m depth contour to the east of Smithic Bank. If yes, where is this secured? If not, why not? b) Why do you consider any location closer to shore would not negatively interrupt or affect sediment transport processes? c) What is the proposed distance from the proposed crossing location to Smithic Bank and the Holderness Offshore Marine Conservation Zone (MCZ)?	a) The Applicants direct the Examining Authority to the response provided on this matter in REP4-122: B8 of The Applicants' Responses to Deadline 4 Documents [document reference: 15.3] and repeated below for convenience: <i>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 microsite 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 microsite the crossings relative to the route selected by this third party project.</i>

I.D.	Written Question	Applicants' Response
		b) At the closest distance to shore, the DBS / Hornsea Project 4 cable crossing location would be 9.02km offshore of the landfall in water depths of 16m and located to the east of Smithic Bank. Sediment transport modelling at the landfall has been undertaken and the results are provided in the Assessment of Coastal Processes at the Dogger Bank South Landfall [document reference: 15.6], submitted at Deadline 4. The modelling shows the active zone of wave driven sediment transport is limited to water depths of less than 6m and the majority of longshore sediment transport occurs within 250m of the cliff line. The DBS /Hornsea Project 4 would be located outside this zone of wave driven sediment transport and tidal currents will be the predominant driver of sediment transport. Therefore, the distance to shore is not relevant in the case of the DBS / Hornsea Project 4 crossing as tidal processes will drive sediment transport irrespective of the location. c) As noted in the Applicants response to REP2-069:B28 in The Applicants' Responses to Deadline 2 Documents [REP3-028], the exact routing of the Hornsea Project Four offshore export cables would not be known until that project enters its detailed design phase. As such it is not yet known where exactly the Projects Offshore Export Cables would, or could, cross the Hornsea Project Four offshore export cable and therefore provide a proposed distance from this potential crossing to the Holderness Offshore Marine Conservation Zone (MCZ) or Smithic Bank. However, with regards to the indicative area where a crossing may be located (as presented in Figure D-1 in Appendix B of The Applicants' Responses to Deadline 2 Documents [REP3-028], this indicative crossing area is located approximately 1.16km from MCZ and 0.64km from Smithic Bank at its closest point.
MCP.2.14	Secondary scour a) With regard to NE's response at DL4 [REP4-122], can you explain whether secondary scour has been appropriately assessed and referenced in the IPMP [REP4-052]? b) Do you consider this should be explained further and included as part of the monitoring? If not, why not? c) Will the IPMP [REP4-052] need to be updated to align with the proposals set out in ES Chapter 8 [APP-080] in relation to secondary scour? If not, explain why you do not consider there to be a discrepancy.	a) The Applicants have not assessed the impacts from secondary scour as scour protection is included as embedded mitigation to minimise any effects of scour. The principal concern with secondary scour is scour around the scour protection which can cause an increase in suspended sediment concentration, although there is limited evidence from constructed offshore wind farms to support this. Any changes in suspended sediment concentration due to secondary scour would be considerably smaller in magnitude when compared with changes in suspended sediment concentration due to seabed preparation for foundation installation which covers the entire footprint of the scour protection. Modelling of changes in suspended sediment concentration due to seabed preparation for foundation installation showed a negligible significance of effect. As the effects from secondary scour would be much smaller, they would also have a negligible significance of effect. Whilst this is not significant in EIA terms, the Applicants have committed to monitoring of secondary scour. As noted in the Applicants response to REP4-122: B9 of The Applicants' Responses to Deadline 4 Documents [document reference: 15.3], 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) following the latest submission received from Natural England on this matter at Deadline 4. b) The Applicants have committed to modelling scour potential (pre-construction) and monitoring scour (including secondary scour) (post-construction) in the In Principle Monitoring Plan (Revision 4) [document reference: 8.23] (submitted at Deadline 5). c) The Applicants consider that the wording regarding secondary scour in the In Principle Monitoring Plan (Revision 4) [document reference: 8.23] (submitted at Deadline 5) and Chapter 8 - Marine Physical Environment [APP-080] is aligned in the commitment to the monitoring of secondary scour where relevant. ROV inspections are carried out 20% of all structures per year, or 100% every 5 years.
MCP.2.15	Coastal change monitoring Your DL1 response [REP1-055] requested that a 'coastal change adaptation plan should be put in place, setting out how the developer will monitor the risk to their assets from coastal erosion, their response should accelerated coastal erosion result in the exposure of the cables and their plans for decommissioning the pipelines at the end of their life. Furthermore, as the Shoreline Management Plan policy for this	No response is required. Question directed to ERYC.

I.D.	Written Question	Applicants' Response
	location is No Active Intervention, it is critical that any works (including the creation of an emergency beach access) do not impact on natural coastal processes. Monitoring should be undertaken to monitor this and action should be undertaken to mitigate any impacts e.g. through the manual relocation of sand.' The applicants responded at DL2 [REP2-058] that 'in relation to the request for a coastal change adaptation plan, as noted above, the Applicants have already considered coastal erosion based on the NCERM data sets, available at the time of the Design Freeze (late 2023) and have now undertaken a further check of the latest NCERM 2 data. This has confirmed the TJB's will be located a sufficient distance from the cliff edge for the operational lifetime of the Projects. The Applicants will monitor all potential risk to their assets over the lifetime of the development and this would include the consideration of coastal erosion at the landfall, should any intervention be required in the future the relevant consents would be applied for at that time in consultation with the ERYC.' Do you consider the response to be satisfactory? If not, please explain any outstanding concerns and requirements.	

1.18 Marine Archaeology

Table 1-18 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Marine Archaeology

I.D.	Written Question	Applicants' Response
MA.2.1	Direct Impacts on potential heritage assets - assessment of significance HE's response [REP3-043] to the first round of written questions [PD-014, MA.1.1] concluded, 'Therefore, we consider we can accept that the residual effect from a direct impact to an unknown heritage asset could be considered as 'minor adverse significance'. However, we are unsure as to why the ES Chapter 17 makes reference to the impact being "no worse than negligible magnitude". We remain of the opinion this would need to be explained by the Applicant, as this is inconsistent with the determination provided in Table 3-2 'Summary of Potential Likely Significant Effects on Offshore Archaeology and Cultural Heritage' within the Outline WSI (Offshore).' Whilst the conclusions on this matter in the SoCG [REP4-061] are noted, can you confirm whether you agree with the additional concerns raised by HE? Do you intend to update ES Chapter 17 [APP-133] in line with HE's suggestions by DL7? If not, why not?	Chapter 17 Offshore Archaeology and Cultural Heritage [APP-133] will be updated and submitted at DL7. The phrase "no worse than negligible magnitude" has been removed throughout to reflect the agreement reached between the Applicants and Historic England. Specifically, whilst impacts of a greater than negligible magnitude are possible, with the application of the additional, post-consent investigation and mitigation (as set out in the Outline Written Scheme of Investigation (OWSI) (Offshore) [APP-246]) the residual effect from a direct impact to an unknown heritage asset can be considered to be no worse than a 'minor adverse significance'.
MA.2.2	Public outreach and engagement Do you consider the initiatives to deliver public benefits in relation to the offshore elements of the proposed development as set out in the outline Written Scheme of Investigation (oWSI) (offshore) [APP-246] and the updated oWSI (onshore) [REP4-048] to be appropriate? If not, explain any outstanding requirements.	No response is required. Question directed to Historic England.
MA.2.3	Preservation by record In your DL1 submission [REP1-059], you raised concerns with the terminology 'preservation by record'. The applicants' DL2 response [REP2-057] sought to explain why the use of the terminology would be appropriate in this instance. Are you content with the explanation given? If not, explain why not.	No response is required. Question directed to Historic England.
MA.2.4	oWSI (offshore) for artificial nesting structures (ANS) The SoCG [REP4-061] suggests outstanding concerns in relation to the provision of WSIs for the installation of ANS. Do you consider the applicants' proposal for separate WSIs (offshore) for the pre-construction, construction, operation and maintenance, and decommissioning phases for the proposed locations for installation of the ANS (or any other compensation measures) alongside separate deemed marine licences to be appropriate? If not, explain why not.	No response is required. Question directed to Historic England.
MA.2.5	Underwater evaluation techniques Your DL1 submission [REP1-059] suggests the provision of a commitment, directed by the oWSI (offshore) to test recent or potentially even new underwater evaluation techniques. The applicants' response at DL2 [REP2-057] argues that this is already captured as part of the oWSI (offshore) [APP-246, Section 6.4]. Do you consider the information already provided to be sufficient? If not, explain any outstanding concerns.	No response is required. Question directed to Historic England.

I.D.	Written Question	Applicants' Response
MA.2.6	Survey Coordination - Holderness Coast You noted in your DL1 submission [REP1-059] that the WSI should consider coordinating survey and investigation measures to address possible impacts on the remains of towns lost along the Holderness Coast due to sustained coastal erosion. The applicants provided a detailed response at DL2 [REP2-057] to address this matter. Do you agree with the applicants' response? If you do not, explain why not.	No response is required. Question directed to Historic England.

1.19 Marine Conservation Zone Assessment

Table 1-19 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Marine Conservation Zone Assessment

I.D.	Written Question	Applicants' Response
MCZ.2.1	Holderness Inshore MCZ NE has advised at DL4 that if significant indirect impacts from cable installation on designated features of the MCZs cannot be excluded during examination then a without prejudice Measures of Equivalent Environment Benefit (MEEB) proposal and/ or commitments to invest in strategic compensation should be progressed and submitted into the examination [REP4-129 point B35/B53]. Do you intend to do this and if so at what DL can it be expected? If not, why not?	The Applicants direct the Examining Authority to the response on this matter provided in REP4-122: B7 of The Applicants' Responses to Deadline 4 Documents [document reference: 15.3] and repeated below for convenience: <i>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.</i> <i>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.</i> <i>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.</i> <i>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.</i> <i>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).</i> <i>Taking into consideration the volume of additional evidence provided 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.</i> As such, the Applicants to not propose to submit a without prejudice MEEB proposal prior to the end of Examination.

I.D.	Written Question	Applicants' Response
		The Applicants have confirmed with Natural England via email dated 19th May 2025 that they will review the updated modelling and provide an update to their position at Deadline 6 of Examination.
MCZ.2.2	Holderness Offshore MCZ Table 1 of Annex 2 of NE's cover letter at DL3 [REP3-059] refers to your DL3 risk and issue log regarding outstanding issues for the Holderness Offshore MCZ. The ExA is unable to find any specific references to the Holderness Offshore MCZ in the risk and issues log (only general references to the Maritime and Coastguard Agency (MCA) assessment). Could you provide a more precise reference to your outstanding concerns for the Holderness Offshore MCZ?	No response is required. Question directed to Natural England.

1.20 Marine Mammals and Relevant HRA

Table 1-20 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Marine Mammals and Relevant HRA

I.D.	Written Question	Applicants' Response
MM.2.1	NPS EN-3 in relation to marine mammals The ExA notes that ES Chapter 11 [APP-095] does not reference the following paragraphs of NPS EN-3. Can you explain why the following paragraphs of NPS EN-3 have been omitted? If they were omitted in error, can you explain how the application fulfils these policy requirements in NPS EN-3 in relation to marine mammals? a) 'It is likely that mitigation may include proactive measures to reduce the impact of deployment e.g., micro-siting of offshore transmission routes to avoid vulnerable habitats, alternatives piling or trenching techniques, noise abatement technology, collision avoidance methods or, if necessary, compensation for habitat loss. See Section 2.8.80 for Offshore Wind Environmental Standards.' NPS EN-3 paragraph 2.8.53 b) 'The British Energy Security Strategy included a commitment to introducing mechanisms to support strategic compensatory measures, including for projects already in the consenting process (where possible), to offset environmental impacts and reduce delays to individual projects. Only once all feasible alternatives and mitigation measures have been employed, should applicants explore possible compensatory measures to make good any remaining significant adverse effects to site integrity'. NPS EN-3 paragraph 2.8.55 c) 'applicants are expected to seek advice from SNCBs and Defra for projects in England, in conjunction with relevant regulators, Local Planning Authorities and/or landowners, on potential mitigation and/or compensation requirements at the earliest opportunity and comply with future statutory requirements and/or guidance once available.' NPS EN-3 paragraph 2.8.56 d) 'Where requested by the Secretary of State applicants are required to undertake environmental monitoring (e.g., ornithological surveys, geomorphological surveys, archaeological surveys) prior to and during construction and operation.' NPS EN-3 paragraph 2.8.38 e) 'Monitoring must measure and document the effects of the development and the efficacy of any associated mitigation or compensation.' NPS EN-3 paragraph 2.8.84 f) 'This will enable an assessment of the accuracy of the original predictions and improve the evidence base for future mitigation and compensation measures, enabling better decision-making in future EIAs and HRAs'. NPS EN-3 paragraph 2.8.85 g) 'Monitoring should be presented in formal reports which must be made publicly available. Monitoring data should be provided to The Crown Estate's Marine Data Exchange.' NPS EN-3 paragraph 2.8.86 h) 'Where appropriate, applicants are also encouraged to consider monitoring collaboratively with other developers and sea users. Work is ongoing between government and industry to support effective collaboration and the development of monitoring at a strategic level.' NPS EN-3 paragraph 2.8.87	Items b) - c) and j) – k) are not specific to marine mammals. The Applicants note that items b), c) and i) – k) were all included within Table 1-2 of Policy Compliance Assessment Tables [APP-227], whereas items a) and d) – h) were omitted in error. These have been included in Appendix A of this document. Items a) and d) – i) will be added to the updated Chapter 11 Marine Mammals [APP-095] at Deadline 7.

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	i) 'A range of research programmes are ongoing to investigate impacts of offshore wind farm development, including, but not limited to: BEIS SEA Research Programme, ORJIP, ScotMER, the ORE Catapult and OWEC. Applicants should explain why their decisions on siting, design, and impact mitigation are proportionate and well-targeted, referring to relevant scientific research and literature as appropriate.' NPS EN-3 paragraph 2.8.107 j) 'applicants are expected to have regard to guidance issued in respect of Marine Licence requirements and consult at an early stage of pre-application with the MMO'. NPS EN-3 paragraph 2.8.108 k) 'applicants should have regard to duties in relation to Good Environmental Status (GES) of marine waters under the UK Marine Strategy⁴⁹ and MPA target (including any interim target) in England, set under the Environment Act 2021'. NPS EN-3 paragraph 2.8.109	
MM.2.2	Updated embedded mitigation for marine mammals in light of Change Request 1 a) Is it correct to assume embedded mitigations related to the Export Cable Corridor (ECC) related to marine mammals are now irrelevant and should be removed from the relevant tables (Table 11-3 and Table 11-4) within section 11.3.3 of the ES Chapter 11 [APP-095] in light of Change Request 1? Examples are seasonal restrictions to piling activity within the ECC and no concurrent monopile installation for the Electrical Switching Platform in the offshore ECC with the Project Array Areas. b) Can you provide an updated table containing all relevant embedded environmental mitigation measures for marine mammals, in light of Change Request 1? If not, why not?	a) The Applicants confirm that is correct and all reference to piling in the Offshore Export Cable Corridor will be removed from Chapter 11 Marine Mammals [APP-095] at Deadline 7. b) Information on all relevant embedded environmental mitigation measures for marine mammals will be included in the updates to Chapter 11 Marine Mammals [APP-095] which will be submitted at Deadline 7.
MM.2.3	Migratory bats a) Can NE and the MMO clarify their position in regard to migratory bats so that the ExA can inform the Secretary of State when it submits its recommendation following the conclusion of the examination. Can NE and the MMO confirm whether or not they consider that the proposed development would result in any adverse effects on migratory bats. If not, why not? If so, what mitigation would be required, if any? b) Can you advise as to whether or not a licence would be required in relation to any disturbance or harm to migratory bats that might be associated with the proposed development. If a licence would be required, are there any known impediments to the issue of such a licence?	On this matter, the Applicants reiterate their previous response provided to MM.1.11 in The Applicants' Responses to ExQ1 [REP3-027]: <i>'Most bat species in the UK are not known to undertake large-scale migrations and so do not spend significant time over the sea. The exception to this is Nathusius' pipistrelle Pipistrellus nathusii, which is known to undertake long-distance migrations throughout Europe, including sea crossings. Notably, evidence indicates that the migratory corridors of the species are closely associated with coastlines and change depending on environmental conditions (Voigt et al., 2023⁷). Nathusius' pipistrelles are known to migrate to the UK from Europe, as evidenced by the UK Bat Conservation Trust's National Nathusius' Pipistrelle Project (NNPP) which recorded an individual in Essex that had been ringed previously in Latvia (BCT, 2023⁸). Broad migratory flyways are known to run from Russia to Spain, following the northern coastline of mainland Europe (Pravettoni and UNEP/GRID-Adrenal, 2015⁹). Narrower migratory flyways are known to branch off the coastal broad flyway into Germany, Switzerland and Czechia. Data on the migratory routes, patterns and behaviour of Nathusius' pipistrelles across the North Sea to/from the UK is minimal, with no known number of migrating individuals. The potential migration routes highlighted by the nationwide NNPP dataset were based on the long-distance data of only ten individuals, and therefore to date there is only evidence of ad hoc movement from Europe to the UK.</i> <i>With regards to information on the potential effects to migratory bats across the North Sea, available information is very limited and the majority of the existing literature on migratory bats over the North Sea focuses on Nathusius' pipistrelles,</i>

⁷Voigt, C.C., Kionka, J., Koblitz, J.C., Stolz, P.C., Petersons, G. and Lindecke, O. (2023). Bidirectional movements of Nathusius' pipistrelle bats (*Pipistrellus nathusii*) during autumn at a major migration corridor. *Global Ecology and Conservation*, 48, p.e02695

⁸ Bat Conservation Trust (2023) National Nathusius' Pipistrelle Project. Available at: [REDACTED]

⁹ Pravettoni, R. and United Nations Environment Programme/GRID-Adrenal (2015) Nathusius' Pipistrelle distribution and migration. Available at: [REDACTED]

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		concluding that the migratory corridors of bat species are closely associated with coastlines, and change depending on environmental conditions (DBEIS, 2022¹⁰; Voigt et al., 2023⁷). The focus on Nathusius' pipistrelles is reflected in offshore observations of species in the Dutch sector of the North Sea, as the species accounts for upwards of 76% of observations (out of a total 34 bats observed) at offshore platforms (Boshamer and Bekker, 2008¹¹). In relation to the altitude at which migratory bats fly across the North Sea, migratory offshore Nathusius' pipistrelles have been observed flying at 1-3m over the sea, with deviation from this low altitude being observed when hunting (Ahlén et al., 2007¹²). Based on this information, Nathusius' pipistrelle flight heights are expected to be generally lower than the Projects' turbine rotor swept zone which is 34m above mean sea level height. However, BEIS (2022) concluded that existing publications provide useful context but also reflect a continued lack of empirical data to support robust estimates of flight heights to better inform impact assessment.' The Applicants highlight that this matter was not raised in response to the Projects Scoping Report or Preliminary Environmental Information Report and has not been queried at any point in the Projects pre-submission or Examination stages by Natural England or the MMO.
MM.2.4	Commitments to the use of noise mitigation measures and acoustic deterrent devices and The Wildlife Trust Statement of Common Ground (Revision 2) The ExA notes a major outstanding issue in the TWT Statement of Common Ground Revision 2 issued at DL4 [REP4-072] and signed by the TWT, in relation to the use of noise abatement systems, a stronger commitment to the use of noise mitigation measures and acoustic deterrent devices. Given this document is signed by TWT, does this represent your final position on this matter?	No response is required. Question directed to The Wildlife Trust (TWT).
MM.2.5	Commitment to noise abatement systems a) NE's submission at DL4, Appendix F4 [REP4-123] included a statement that it believes that to reduce the noise that NAS would 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. The MMO's submission at DL4 [REP4-115] included a statement in paragraph 3.5.7 that: '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:	a) & b) The Applicants agree with the premise of the wording presented by the MMO and have incorporated the following wording into the Draft Development Consent Order (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 Marine Mammal Mitigation Protocol (MMMP) at least six months prior to the commencement of licensed activities is already captured in Condition 17 (1) of Deemed 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 Marine Management Organisation (MMO) and are engaging with Natural England on the condition wording submitted.

¹⁰ Department for Business, Energy & Industrial Strategy (2022) UK Offshore Energy Strategic Environmental Assessment 4 (OESEA4). Available at: <https://www.gov.uk/government/consultations/uk-offshore-energy-strategic-environmental-assessment-4-oesea4> (Accessed 13 March 2025).

¹¹ Boshamer, J. P. C. and Bekker, J. P. (2008) Nathusius' pipistrelles (*Pipistrellus nathusii*) and other species of bats on offshore platforms in the Dutch sector of the North Sea. Lutra 51(1), pp.17-36.

¹² Ahlén, I., Bach, L., Baagoe, H. J. and Pettersson, J. (2007) Bats and offshore wind turbines studied in southern Scandinavia. Swedish Environmental Protection Agency.

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	'(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'. How do you respond to the MMO's and NE's statements above and the inclusion of the above commitment by Morgan Generation OWF (Project EN010136) and Morecambe Generation OWF (on a without prejudice basis) (Project EN010137), bearing in mind these applications have not yet reached the Secretary of State decision stage? b) The ExA notes your response to action point 48 of ISH5 included the following statement: '...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'. (emphasis added). As you have stated that an appropriate suite of mitigation measures will be included in the final Marine Mammal Mitigation Protocol (MMMP) post-consent (emphasis added), please explain further your reluctance to include a commitment stating this in the commitments register?	b) The Applicants will update the Commitments Register (Revision 3) [document reference 8.6] with the below commitment at Deadline 7. <i>'The Applicants have identified appropriate primary measures and / or secondary mitigation options pre-consent, and are including them in the Projects' procurement strategy to ensure that an appropriate suite of measures will be included in the final MMMP post-consent.'</i>
MM.2.6	Department of Farming and Rural Affairs' (Defra) marine noise policy paper How do you respond to the MMO's points in its DL4 submission [REP4-115 page 12] that '...it would like to highlight that Defra is intending to publish further information and clarification in relation to the policy based on feedback from industry representatives and that the intention of the paper is that if noise thresholds are likely to be breached, alone or in-combination with other Projects, the proposed development may not get approval of the SNS SAC SIP without the use of Noise Abatement or Mitigation Systems (NAS/NMS) ... 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 would have demonstrated they have utilised best endeavours to secure a 'satisfactory alternative'?"	The Applicants refer the Examining Authority to the response provided to REP4-115:3.5 in The Applicants' Responses to Deadline 4 Documents [document reference: 15.3] and repeated below for convenience: <i>'The Applicants welcome news of clarifications from Defra on the marine noise policy and will consider further amendments if required after publication and review.</i> <i>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.'</i>

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MM.2.7	Wildlife licence How do you respond to the following statements from the MMO in its DL4 submission [REP4-115]: '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'. [REP4-115] page 12 paragraph 3.5.3] and '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'? [REP4-115] page 14 paragraph 3.6.5]	Regarding the first statement, the Applicants refer the Examining Authority to the response provided to REP4-115:3.5 in The Applicants' Responses to Deadline 4 Documents [document reference: 15.3] and repeated below for convenience: <i>'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.'</i> Regarding the second statement, the Applicants refer the Examining Authority to the response provided to REP4-115:3.6 in The Applicants' Responses to Deadline 4 Documents [document reference: 15.3] and repeated below for convenience: <i>'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.'</i>
MM.2.8	Wildlife licence The MMO has confirmed a wildlife licence would be required [REP4-115] page 12]. Could you submit letters of no impediment for the wildlife licences that would be required into the examination? If not, please explain why (a reference to a section of a previous submission is fine).	The Applicants are unaware of any offshore developments that have submitted letters of no impediment for the marine wildlife licence and is not a recognised practice in this instance. The application for the marine wildlife (or European Protected Species) licence is usually undertaken post-consent and submitted alongside the final MMMP and SIP. The requirement for a European Protected Species licence is already included in Other Consents and Licences (Revision 3) [REP1-023]. The application for a licence would include an updated assessment based on the final project design and incorporate all the agreed upon mitigation measures finalised through consultation with the MMO and SNCBs during the development of the final MMMP and SIP. This procedure would ensure there are appropriate measures to address the satisfactory tests.
MM.2.9	Underwater noise What response do you have to the MMO's statement that they and Cefas are content to discuss the inclusion of piling restrictions similar to those within the Rampion 2 Schedule 11, in response to action point 26 from ISH5 [REP4-115]?	The Applicants wish to clarify that the piling restrictions included in Rampion 2 Schedule 11 are for fish species only (primarily they relate to black seabream and herring) and not marine mammals. Whilst the Applicants do not concede that restrictions proposed for DBS are necessary or proportionate on an ecological basis, particularly in light of the highly significant impacts that they would have on the potential feasibility of the Projects, they welcome engagement with the MMO and Cefas aimed at identifying a mutually agreeable, scientifically justifiable and proportionate way forward. To this end, the Applicants confirm that the need for, scope and potential implementation of piling restrictions for herring spawning were discussed with the MMO and Cefas on 15th May 2025. For an overview of the discussions see the Applicants response to FSE.2.15 in Table 1-8. Further discussion is scheduled to take place on 6th June 2025. See the Applicants response to FSE.2.15 in Table 1-8 for the Applicants views on the impacts of the proposed restriction on the delivery and viability of the Projects.
MM.2.10	Underwater noise Provide a response to NE's statement in its response to ISH5 action points [REP4-126] that '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	The Applicants refer the Examining Authority to the response provided to REP4-126:48 in The Applicants' Responses to Deadline 4 Documents [document reference: 15.3] and repeated below for convenience: <i>'The Applicants welcomes news of clarifications from Defra on the marine noise policy and will consider further amendments, if required, after publication and review.'</i>

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	'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'.	<i>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' Responses to April 2025 Hearing Actions Points [REP4-096] submitted at Deadline 4, stating:</i> <i>"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.</i> <i>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.'</i> The Applicants note that the MMO provided suggested wording in their Deadline 4 submission to update the condition within the Draft DCO. 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) of DMLs 1 and 2, and Condition 15 (1) of DMLs 3 and 4, and therefore has not been duplicated here. <i>'(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;'</i> The Applicants consider this wording to be sufficient to satisfy the MMO and are engaging with Natural England on the condition wording submitted.
MM.2.11	Interim population consequence of disturbance (iPCoD) population modelling a) Provide a response to NE's advice in Appendix F4 at DL4 [REP4-123], that the predictions from the iPCoD population modelling (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%) all experience more than 1% decline, and potentially show a significant impact and therefore warrant further investigation.	a) The Applicants refer the Examining Authority to the response provided to REP4-123:2.1 in The Applicants' Responses to Deadline 4 Documents [document reference 15.3] and repeated below for convenience:

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	b) What further investigation could you propose within the examination timeframe to satisfy NE with regards to this issue? c) Provide a response to NE's advice in Appendix F4 at DL4 [REP4-123] that you should present results from the iPCoD modelling using a more conservative definition of significant impacts. Do you intend to do this? If not, why not?	<i>JNCC et al. (2010)¹³ 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.</i> <i>If as a result of 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 6 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). The 2023 position statement by NRW¹⁴ 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</i> <i>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 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.'</i> b) Further consideration of population level stressors has been presented qualitatively by reviewing the available evidence base at Deadline 5 in the updated RIAA HRA Part 3 of 4 - Annex II Marine Mammals (Revision 3) [document reference 6.1] with the amended assessment from the change request and updated results for the Interim Population Consequences of Disturbance (iPCoD) modelling and further justification to the approach used to define significance. The Applicants have added this information into the assessment to provide further evidence that there wouldn't be a significant impact. c) The Applicants refer to the response provided to a). The results from the population modelling have been presented within the latest available guidance and the Applicants consider a precautionary approach to the data included in the assessment has been undertaken. The guidance by NRW (2023) is widely accepted by NatureScot for Scottish windfarms and there is currently no other published guidance on the interpretation and application of the iPCoD modelling results, with exception to the JNCC et al (2010)⁷, therefore the Applicants feel the assessment is using a conservative approach. Other guidance by JNCC et al. (2010) state that for all cetaceans, 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.
MM.2.12	Harbour porpoise	

¹³ 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.

¹⁴ 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.	Written Question	Applicants' Response
	a) Provide a response to NE's advice that you should commit to using noise reducing technology and provide updated documents to show how implementing this will alter estimated impact ranges and significance conclusions with regards to 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 [REP4-123]. b) What enhanced monitoring do you propose for harbour porpoise given the above conclusions and how is it secured in the draft DCO?	a) The Applicants refer the Examining Authority to the response provided to REP4-123:2.2 in The Applicants' Responses to Deadline 4 Documents [document reference: 15.3] and repeated below for convenience: <i>'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 permanent threshold shift (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.</i> <i>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)⁴. 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 mitigation for underwater noise. Any additional mitigation will be dependent on the final project design and determined at the post-consent stage.'</i> Section 4 of the Illustrative Underwater Noise Reduction Technical Note (Revision 2) [document reference 14.9] presents the impact ranges for PTS from a single strike and cumulative PTS from sequential piling with a 10dB noise reduction, and show that the impact ranges are much smaller. For example, the impact range for instantaneous PTS for harbour porpoise from a single strike was 740m, with the 10dB reduction, the potential impact range is 150m. As the Applicants consider population modelling being the best tool to understand the impacts of the Projects, the Applicants won't be updating the documents to provide estimated impact ranges or significance conclusions incorporating the use of noise reducing technology. The Applicants note that the MMO provided suggested wording in their Deadline 4 submission [REP4-115] to update the condition within the Draft DCO provided in their Deadline 4 submission [REP4-115]. The Applicants agree with this text, with minor amendments. The updated Draft DCO (Revision 8) [document reference 3.1] (see Schedule 10 and 11, Condition 15(1)(g); Schedule 12 and 13, Condition 13(1)(g)) has been submitted at Deadline 5. The Applicants consider this is sufficient commitment at this stage and updated documents agreed during consultation will be provided post-consent once the Projects final design and mitigation measures are known. b) With the appropriate noise reduction and / or mitigation measures in place the Applicants maintain the significance of effect for both species would be minor adverse. Therefore, the Applicants are content that the monitoring outlined in section 1.6.6.3 of the In-Principle Monitoring Plan [document reference:8.23] is adequate and would be subject to approval post-consent and there would be no requirement for enhanced monitoring.
MM.2.13	Grey seals a) Provide a response to NE's advice that you should commit to using noise reducing technology and provide updated documents to show how implementing this will alter estimated impact ranges and significance conclusions with regards to the significance level of 'moderate adverse' for grey seals, calculated by the dose response method [REP4-123]. b) What enhanced monitoring do you propose for grey seal given the above conclusions and how is it secured in the draft DCO?	
MM.2.14	HRA conclusions for the Southern North Sea SAC, Humber Estuary SAC and Berwickshire & North Northumberland Coast SAC The ExA notes the applicants' response to MM.1.12 from ExQ1 [REP3-027] and that NE stated [REP3-059] that it did not consider the grey seal feature (and other features) of the Humber Estuary Ramsar site to be of immediate concern, however it could become a concern if impacts to the Humber Estuary SAC could not be ruled out. Given the stage of the examination, and the remaining	The Applicants are in ongoing discussions with Natural England on the requirements for the Projects to reach agreement of no AEol for the Southern North Sea SAC, Humber Estuary SAC and Berwickshire & North Northumberland Coast SAC. Following the meeting with Natural England on the 7th May 2025 and discussion on the potential noise impact ranges highlighted in the Illustrative Underwater Noise Reduction Technical Note [document reference 14.9] it is believed

I.D.	Written Question	Applicants' Response
	outstanding concerns from NE, the ExA believes it necessary to ask what compensation proposals you have for the situation in which NE, as the SNCB, were to state it cannot rule out AEol for marine mammals (grey seal and harbour porpoise) for the Southern North Sea SAC, Humber Estuary SAC and Berwickshire & North Northumberland Coast SAC and the Secretary of States agrees with this position? Can you provide a without prejudice derogations case for this possibility and submit this into the examination at DL5?	that with appropriate noise reduction methods and mitigation measures secured this would address the current concerns. The purpose of the SIP is to ensure there is no potential for AEol on the Southern North Sea SAC. The final SIP and final MMMP will ensure there is no AEol on the features of these sites, therefore compensation measures will not be required. It should be noted that the requirement for the final MMMP and SIP to be agreed with the MMO and the relevant statutory nature conservation body (i.e. Natural England) is secured in the Draft DCO (Revision 8) [document reference 3.1] under Conditions 15(1)(g) of DMLs 1 & 2 and 13(1)(g) of DMLs 3 & 4 for the MMMP and Condition 16 of DMLs 1 & 2 and Condition 14 of DMLs 3 & 4 for the SIP. Compensation measures for marine mammal SACs due to disturbance have yet to be required on any DCO project because impacts have been appropriately managed through the MMMP and SIP. As such, the Applicants do not propose to submit a without prejudice derogations case. 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) of DMLs 1 and 2, and Condition 15 (1) of DMLs 3 and 4, and therefore has not been duplicated here. <i>'(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;'</i> The Applicants await the MMO and Natural England's feedback on the proposed amendment, but consider this text to be sufficient to conclude no AEol for the Southern North Sea SAC, Humber Estuary SAC and Berwickshire & North Northumberland Coast SAC.

1.21 Noise and Vibration

Table 1-21 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Noise and Vibration

I.D.	Written Question	Applicants' Response
NV.2.1	Construction working hours Following discussions at ISH4 in April 2025, the wording in the oCoCP [REP4-040, paragraph 34] has been updated in line with your suggestions. Does the wording now appropriately address your concerns? If not, explain why not.	No response is required. Question directed to ERYC.
NV.2.2	Noise effects on tourism In your response to ExQ1 [REP3-027], you confirmed that the approach taken for the proposed development in relation to tourism facilities was similar to the approach used on other large infrastructure projects, such as HS2. Can you provide further details on how this was approached for HS2 and any other large infrastructure schemes and explain why you consider the approach to be relevant to DBS?	The High Speed 2 (HS2) Phase 1 and 2 Environmental Impact Assessment noise impact assessment focussed focused on residential and non-residential receptors (e.g. offices, theatres, places of worship etc.). However, the HS2 assessment does not assess impacts at caravan and camping sites and provides the following reasoning: <i>'Facilities that permit occasional overnight stays such as static moorings, camp sites or caravan parks but do not permit long term residential use are not considered to be significantly affected by noise due to construction or operation of the Proposed Scheme due to the short and irregular exposure to noise from the Proposed Scheme.'</i> It is considered that the same principle also applies to the noise from construction and operation of the Converter Stations, as people using any affected camping and caravan facilities will only be exposed to noise for short periods of time (i.e. when using the facility), it is therefore considered unlikely that significant effects could occur. The aim of Chapter 25 Noise (Revision 2) [REP1-019] is to identify if significant noise effects are likely to occur at noise sensitive receptors. The Noise Policy Statement for England (NSPE) has the following main aims: 1. Avoid significant adverse impacts on health and quality of life; 2. Mitigate and minimise adverse impacts on health and quality of life; and 3. Where possible, contribute to the improvement of health and quality of life The noise assessment has therefore primarily focused on the impact on health, wellbeing and quality of life. Camping and caravan sites were not included as noise sensitive receptors as, for the reasons stated above, it is unlikely that significant effects on people's health, wellbeing or quality of life will occur. It should also be noted that where caravans are defined as 'residential' in the mapping data, these have been included in the operational and construction noise assessment. Noise and vibration impacts at camping and caravan sites (i.e. Butt Farm Caravan and Camping Site and Strawberry Fields Holiday Park) have been considered in the Tourism and Recreation Chapter by using the residential receptors located on these sites as a proxy. However, the potential impact of noise on these facilities will be further reviewed based on predicted noise levels and qualitative noise data at the actual camping / caravan receptor locations. The findings of this review will be included in Chapter 29 Tourism and Recreation Chapter (Revision 2) [document number 7.29] to be submitted into the Examination at Deadline 6.
NV.2.3	Construction noise at landfall Table 25-30 of ES Chapter 25 [REP1-019] notes a medium sensitivity and medium magnitude of impact for construction noise at landfall. The pre-mitigation effect is considered to be minor adverse and no further mitigation measures are proposed. Whilst the explanation in Section 25.6.1.1 (Impact 1: On-site construction noise at landfall zone) is noted, explain why the conclusions drawn here	In Chapter 25 Noise (Revision 2) [REP1-019] impacts were assessed quantitatively and then effects were subsequently determined based on the magnitude of impact, the sensitivity of the receptor, and a range of additional factors (e.g. duration of impact, the timing of the impact, nature of the receptor, effectiveness of embedded mitigation etc.).

I.D.	Written Question	Applicants' Response
	would not be misleading in relation to the assessment of significance. Do you consider Section 25.6.1.1 or table 25-30 would need to be updated? If not, why not?	For the landfall, no additional mitigation measures are proposed due to the consideration of the embedded mitigation in the assessment of impacts (see Table 25-3). The embedded mitigation such as localised noise screening is qualitative, however, this type of embedded mitigation has been used routinely across similar construction sites and the Applicants are confident in their residual assessment of minor adverse effects. The embedded mitigation is secured through Draft Development Consent Order (Revision 8) [document reference 3.1] Requirement 19 and the Outline Code of Construction Practice (Revision 4) [REP4-040]. In order to provide clarity to the reader of Table 25-30, it is proposed that a note is added to the bottom of Table 25-30 to briefly outline this reasoning. This will be included in the updated Chapter 25 Noise (Revision 3) [document reference 7.25] to be submitted at Deadline 7.
NV.2.4	Noise sensitive receptors In your response to the January 2025 action points [AS-155] you helpfully provided a list of all properties that form part of each NSR as listed in table 25-16 of ES Chapter 25 [REP1-019]. Whilst the Unaccompanied Site Inspection (USI) in October 2024 showed two properties situated in close proximity to each other on Eske Lane, table E-2 in Appendix E of [AS-155] only references one property at receptor R59 (Low Burn, Low Burn, Eske Lane, Tickton, HU17 9SG). Is the adjoining property at 1 Eske Lane missing from the list? Also, can you explain whether this property formed part of R59 and has been appropriately assessed in relation to noise and vibration impacts?	Please refer to Figure 25-1f of Chapter 25 Noise Figure 25-1 [APP-202], page. The receptor R59 is an individual property (Low Burn, Eske Lane, Tickton, HU17 9SG) and is situated at the edge of the 300m construction noise study area for a potential trenchless crossing location. The property 1 Eske Lane is approximately 50m south from Low Burn and approximately 350m from the nearest construction works area. Therefore, the 1 Eske Lane property is outside of the construction noise 300m study area and is not included in the noise and vibration assessment as it is beyond the buffer zone for effects. However, it should be noted that both these properties are included in the assessment of construction road traffic noise effects for Eske Lane (Link 73) reported in Chapter 25 Noise (Revision 2) [REP1-019] and Appendix 25-3 Construction Road Traffic Noise Assessment (Revision 2) [REP1-021] due to their proximity to Eske lane.

1.22 Offshore and Intertidal Ornithology and Relevant HRA

Table 1-22 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Offshore and Intertidal Ornithology and Relevant HRA

I.D.	Written Question	Applicants' Response
OR.2.1	Ornithological assessment methodology Given there are still several months of the examination remaining and therefore further potential opportunities within the examination to resolve issues, the ExA asks both parties once again whether any movement by either party could be made to resolve the following disagreements by the close of the examination in order to attempt to reduce the potential number of outstanding issues at the close of the examination upon which the Secretary of State would need to make a decision. If there is no change in position a reference to a previous submission is fine rather than repeating the explanation. If there is a change in position, please explain the reasons for the change in full: a) Methodology for estimating species abundance. b) Methodology for estimating species displacement risk. c) Methodology for estimating species collision mortality risk.	The Applicants are not aware that there remain any fundamental disagreements with Natural England on the methods used to (a) estimate abundance, (b) estimate displacement risk and (c) estimate collision risks. The Applicants have provided assessments which present impacts following Natural England's advice. The only remaining areas of disagreement are primarily about the level of precaution that should be included in the assessment, and this manifests in the preferred values of certain parameters, such as the rate of auk displacement. These relate to interpretation of the evidence available, for example as discussed by the Applicants in response to the Examining Authority (ExA) first written questions (e.g. OR 1.3 and OR 1.7, REP3 027). Despite these disagreements, the Applicants have presented all estimates in line with Natural England's preferred approach alongside the Applicants' approach, to enable the Secretary of State to decide on the level of precaution to apply. The Applicants remain of the position that Natural England's approach to estimating ornithology impacts is over-precautionary and do not consider this position will change before the end of the examination.
OR.2.2	Displacement and mortality rates The ExA notes the differing positions of the applicants, NE and the RSPB regarding displacement and mortality rates. Can you comment as to whether applying these different rates would have any bearing on the outcomes of the HRA, ie whether an AEol (where not already conceded by the applicants or where a without prejudice derogations case has been presented) would exist under one parties preferred rates but not the other	The Applicants consider that the ornithology Adverse Effects on Integrity (AEol) are all as a result of in-combination effects. Therefore, unless a change in parameter values reduced the Projects' impacts to zero then there would still be a contribution from the Projects to the in-combination totals and this would result in the requirement to provide compensation. The only scenario that the Applicants can perceive under which a change in impact parameter value might remove the risk of an AEol is if the change was applied retrospectively to the contribution from all wind farms in the in-combination list. This could significantly reduce the total predicted impact and remove the risk of an AEol. However given Natural England's stated position on the parameter values and approach to assessment the Applicants do not consider this to be a realistic prospect.
OR.2.3	Ornithological digital aerial surveys The applicants: The RSPB state [REP4-113] that they would welcome more details of the independent external quality assurance on the digital aerial survey data that Dr Trinder stated had been undertaken during ISH5 [EV10-004]. Could the applicants submit into the examination the further information on the independent external quality assurance as the RSPB have requested? NE: Are you content with the applicants' digital aerial surveys for marine ornithology?	The Applicants would like to clarify the comments made on this matter at Issue Specific Hearing 5 (ISH5) as there appears to have been some misunderstanding. The external Quality Assurance (QA) which was referred to was in relation to the practices which were followed when digital aerial survey methods were first introduced as a survey method for offshore wind farm applications several years ago (see for example East Anglia ONE¹⁵, East Anglia THREE¹⁶ and Norfolk Vanguard¹⁷). It is the Applicants' understanding that these QA requirements are no longer considered necessary as the levels of error that were identified were very low and this external QA was therefore not required. The Applicants have provided further information on the quality assurance process of the digital aerial surveys at Deadline 5. Please see the Applicants' 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]. Whilst the second part of this question is directed to Natural England, the Applicants note that the underlying survey methodology is in accordance with Natural England's 'Phase I: Expectations for pre-application baseline data for designated nature conservation and landscape receptors to support offshore wind applications' best practice

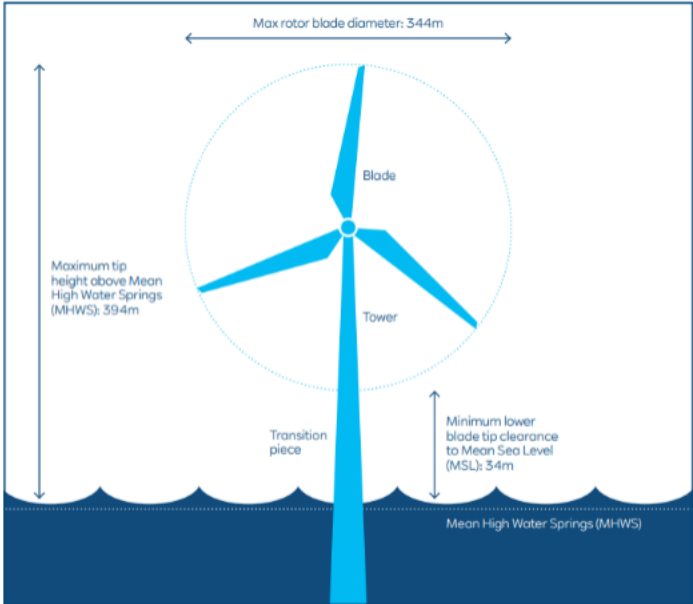
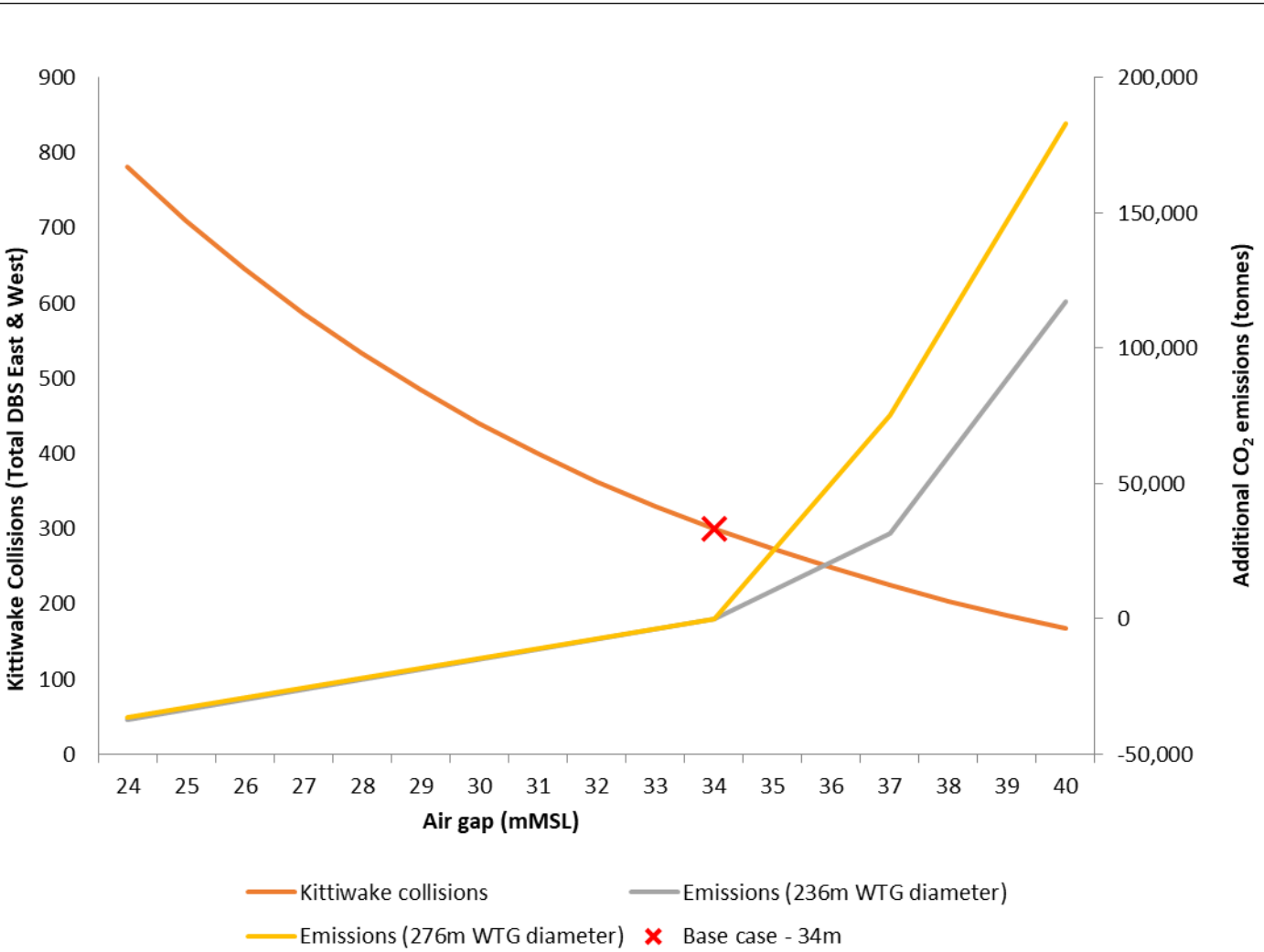
¹⁵ East Anglia ONE Offshore Windfarm Environmental Statement Volume 2 Chapter 12 Ornithology, Marine and Coastal Appendices Document Reference – 7.3.7b Appendix 12.1

¹⁶ East Anglia THREE Appendix 13.1 Offshore Ornithology Evidence Plan Volume 3 Document Reference – 6.3.13 (1)

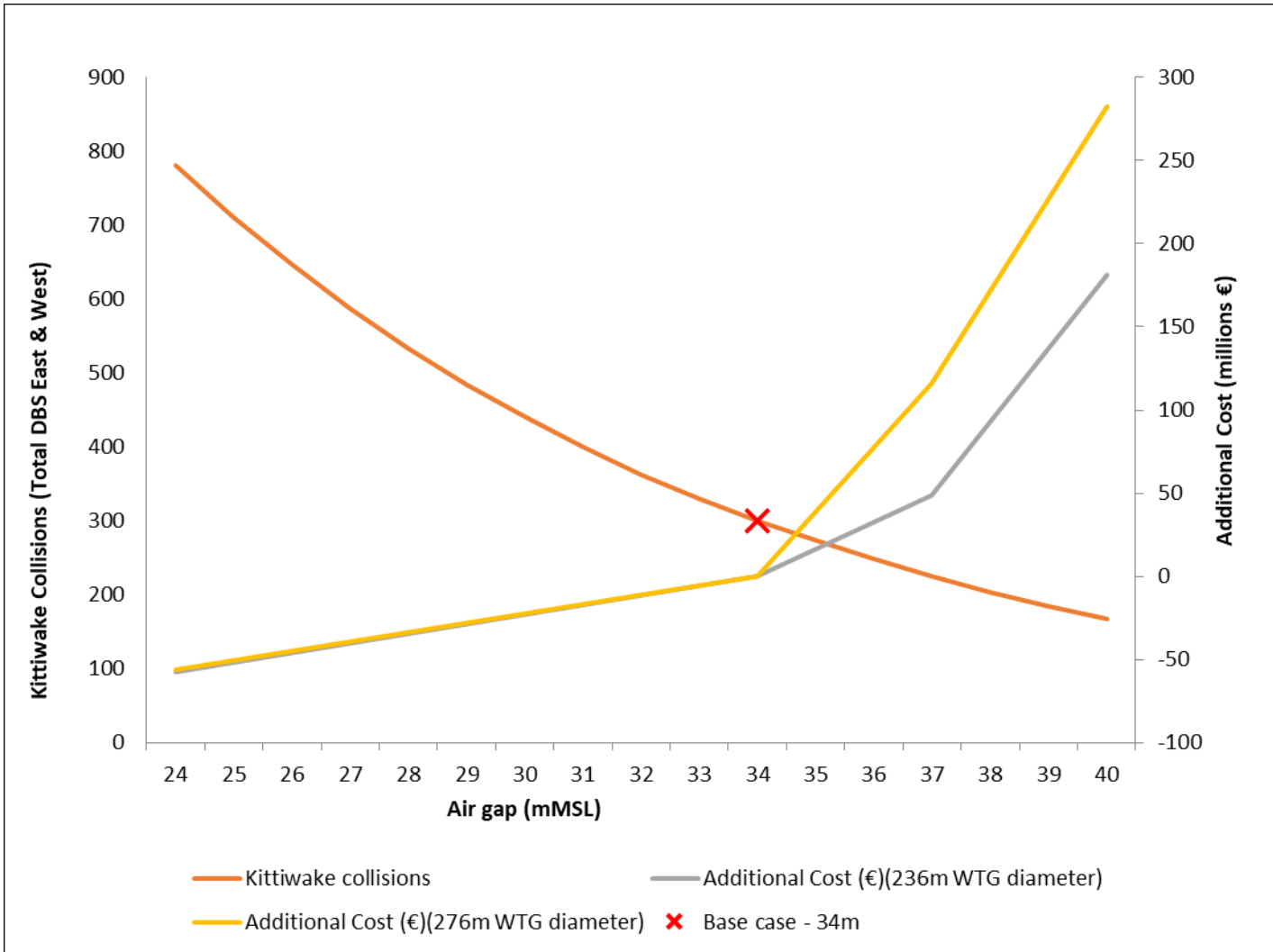
¹⁷ Norfolk Vanguard Offshore Wind Farm Appendix 13.1 Offshore Ornithology Technical Appendix Environmental Statement Volume 3 - Appendices

I.D.	Written Question	Applicants' Response
		guidance note ¹⁸ . In addition, the aerial survey methodology was discussed and agreed with Natural England and the RSPB during the first of the Expert Topic Group Meetings (13 th October 2021; Consultation Report Appendix F - Non-Statutory Consultation and Engagement [APP-043]).
OR.2.4	Ornithological mitigation In revision 3 of your ornithological mitigation report submitted at DL4 [REP4-081] and explanations in your written summary of ISH5 [REP4-086], increasing the air gap appears to be synonymous with increasing the hub height of the turbines. In your written summary of ISH5 [REP4-086] paragraph 195 onwards, you summarise the main reasons why increasing the air gap would be unfeasible as: a) 'the increased risk of impacts to MoD radar and the associated mitigation costs; b) the need for larger foundation sizes and the corresponding increases in steel and detrimental consequences for project design / cost; c) limited availability of vessels with the capacity to install the largest turbines and foundations which would be exacerbated by any increase in air gap'. Plate 5-4 in Chapter 5 of the ES, Project Description [REP1-009] indicates a 50m gap between Mean Highwater Spring (MHWS) and the blade tip when assuming the maximum rotor blade diameter of 344m at the maximum tip height above MHWS of 394m.	a) The assessment is based on a 276m rotor diameter wind turbine. With a 34m msl air gap the upper tip height with this wind turbine is 310m msl. With a 40m msl air gap the upper tip height is 316m msl. Note that the Applicants are only able to assess a Wind Turbine Generator (WTG) option for which information is currently available, rather than the realistic worst case (and larger) WTG options that are included in the design envelope assessed that are expected to come to market through technology progression. b) Two reports have been produced by the Applicants' design consultants in relation to increasing the air gap from 34mMSL to 37mMSL/40mMSL for a nominal 15MW wind turbine (236m rotor diameter) and a 21.5MW wind turbine (276m rotor diameter). The reports are focused on an indicative wind turbine layout at DBS West and represent a good indication of the impact of increasing the air gap. The reports are considered commercially sensitive as the basis for the assessment is variation to an initial design concept which is detailed throughout the reports. The quantity of steel inherent in the design is a key part of the Projects' business case, informing the competitiveness of the Projects in future CFD auctions, hence this information cannot be provided for dissemination to the wider public and the Applicants' competitors. The relevant outputs and interpretation are provided in the Applicants' responses here, as also stated at ISH5. The additional steel mass/cost for increasing the air gap has been provided in the response to c) below and Appendix E. The Applicants have also provided an estimation of the amount of steel that is attributable to this aspect of the Projects' proposed ornithology mitigation (i.e. with an air gap of 34m MSL rather than statutory minimum of 22m MHWS, approximated to 24m MSL). For clarity this figure has not been calculated with the same rigour as per the external consultant's assessment of the cost increases of further increasing the lower tip clearance. For this reason, the Applicants have provided figures based on an assumption that each part of the foundation requires stiffening to accommodate fatigue requirements, rather than also mitigating ultimate limit requirements i.e. the assumed costs provided are lower than those incurred in reality. The implication is that the DCO secured mitigation has already cost approximately 57 million EURO for DBS West and East. c) On average, 1.92 tonnes of CO₂ are emitted for every tonne of steel produced (according to the latest figures from the World Steel Organisation). Increasing the air gap from 34mMSL to 37mMSL and 40mMSL would lead to the additional carbon emissions as displayed in the graphs below and in Table C-1 of Appendix E: Please also note that the figures provided in the graphs below (and Table C-1 in Appendix E) only show the impact upon the foundation steel quantities. There would be additional steel increases associated with the increase in height of the wind turbine tower that have not been assessed at this stage. The difference in cost and CO₂ emissions from the base case has been plotted against adjusted kittiwake collisions per metre increase/decrease in air gap (see graphs below, with full details provided in Table C-2 in Appendix E). While there is a decrease in collisions as a result of increased air gap, there are proportionally smaller benefits derived from higher blade tip clearance. For example, increasing the lower tip elevation from 22m to 34m MSL there is a 68% decrease in predicted collisions, but the additional 6m increase in height (from 34m to 40m MSL) reduces this further by only 14%. Conversely, there is a significant cost burden associated with increasing the air gap, with an increase of approximately €4.8 million and €18.1 million respectively when moving

¹⁸ Parker, J., Banks, A., Fawcett, A., Axelsson, M., Rowell, H., Allen, S., Ludgate, C., Humphrey, O., Baker, A. & Copley, V. (2022a). Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards. Phase I: Expectations for pre-application baseline data for designated nature conservation and landscape receptors to support offshore wind applications. Natural England. Version 1.1. 79 pp

I.D.	Written Question	Applicants' Response
	 Plate 5-4 Indicative Wind Turbine Parameters⁵ ⁵ All measurements are provided to the nearest integer. Plate 5-4 labels a minimum blade tip clearance of 34 metre (m) to Mean Sea Level (MSL), equivalent to 32.8m to MHWS [REP3-027 OR.1.47]. This diagram and the dimensions it references which are specified in the draft DCO in Schedule 2, Article 3, Requirement 2(1)(a)(b)(d) [REP4-005] would indicate that if turbines were constructed to the maximum height permitted using the maximum rotor diameter permitted there would be an air gap significantly greater than 34m <u>without</u> increasing the overall hub height. The ExA would like clarification on a number of your points: a) In the Ornithological Mitigation Option Report [REP4-081] you state that the increased foundation sizes required for a 40m MSL air gap would lead to a corresponding increase in weight of approximately 35% for the largest monopile [REP4-081 paragraph 10 page 12]. Could you provide the overall height of the turbines in each of these scenarios i) with a 34 m air gap ii) with a 40 m air gap? b) Could you submit the full technical options appraisal you have undertaken on engineering feasibility to come to the decision on a 34m to MSL as described in ISH5, and upon which your ornithological mitigation option report is based [REP4-081], into the examination?	to a 37m and 40m air gap (236m rotor diameter) across DBS West and East. This increase is even more pronounced when assessing costs associated with a larger rotor diameter (276m) which would result in an escalated spend of approximately €116 million and €282 million respectively for a 37m and 40m MSL air gap. While the cumulative benefits of kittiwake collisions diminish with increased the air gap, the associated CO₂ emissions and additional costs increase substantially (see graph below), when considered in combination, there is no compelling ecological, environmental, or economic case for elevating the blade above the current base case for the Projects. The conclusion of this work remains that increasing the air gap beyond 34m is not currently feasible due to the increased consenting, engineering, and financial risks to such an extent as to potentially make the Projects commercially unviable. 

I.D.	Written Question	Applicants' Response																																																																								
	c) Did the full technical options appraisal you referred to during ISH5 regarding the size of the air gap, include an assessment of the change (reduction) to collision risk on birds, particularly kittiwake and the impact on embodied carbon and overall net change in carbon emissions for the proposed development over its lifetime if the air gap were larger than 34m to MSL with no change to the maximum permitted height? If so, the ExA expects it to be included in your submission. If these aspects were not included in the options appraisal on the size of the air gap, explain why not. d) Could you explain which of the technical feasibility reasons for not increasing the air gap given in the ornithological mitigation option report [REP4-081] are based on increasing the overall hub height rather than increasing the air gap without increasing the hub height? e) You stated in your responses to ISH5 [REP4-086 paragraph 201] that you have no intention of increasing the air gap as detailed in the application. Does it follow therefore, that the maximum height of any turbine would be 376.8m above MHWS? (32.8m above MHWS (the air gap) + 344m (maximum rotor blade diameter)). Why therefore have you specified 394m above MHWS as the maximum tip height in the draft DCO? Can you justify why the additional height is required in the draft DCO when it is not required to provide an increased air gap? f) In paragraph 17 of the ornithological mitigation report [REP4-081] you state, 'further increasing the minimum air gap does not meet the policy set out in paragraph 4.3.27 of NPS EN-1 - "alternative proposals which mean the necessary development could not proceed, for example because the alternative proposals are not commercially viable or alternative proposals for sites would not be physically suitable, can be excluded on the grounds that they are not important and relevant to the Secretary of State's decision'. Could you clarify whether this statement refers to increasing the air gap through increasing the overall hub height of the turbines or without increasing the overall hub height of the turbines or both.	<table border="1"><caption>Estimated data from the graph</caption><thead><tr><th>Air gap (mMSL)</th><th>Kittiwake collisions (Total DBS East & West)</th><th>Additional Cost (€)(236m WTG diameter) (millions €)</th><th>Additional Cost (€)(276m WTG diameter) (millions €)</th></tr></thead><tbody><tr><td>24</td><td>780</td><td>-50</td><td>-50</td></tr><tr><td>25</td><td>700</td><td>-40</td><td>-40</td></tr><tr><td>26</td><td>620</td><td>-30</td><td>-30</td></tr><tr><td>27</td><td>540</td><td>-20</td><td>-20</td></tr><tr><td>28</td><td>460</td><td>-10</td><td>-10</td></tr><tr><td>29</td><td>380</td><td>0</td><td>0</td></tr><tr><td>30</td><td>300</td><td>10</td><td>10</td></tr><tr><td>31</td><td>220</td><td>20</td><td>20</td></tr><tr><td>32</td><td>140</td><td>30</td><td>30</td></tr><tr><td>33</td><td>60</td><td>40</td><td>40</td></tr><tr><td>34</td><td>300</td><td>50</td><td>50</td></tr><tr><td>35</td><td>220</td><td>60</td><td>100</td></tr><tr><td>36</td><td>140</td><td>70</td><td>150</td></tr><tr><td>37</td><td>60</td><td>80</td><td>200</td></tr><tr><td>38</td><td>20</td><td>90</td><td>250</td></tr><tr><td>39</td><td>0</td><td>100</td><td>300</td></tr><tr><td>40</td><td>0</td><td>110</td><td>350</td></tr></tbody></table>	Air gap (mMSL)	Kittiwake collisions (Total DBS East & West)	Additional Cost (€)(236m WTG diameter) (millions €)	Additional Cost (€)(276m WTG diameter) (millions €)	24	780	-50	-50	25	700	-40	-40	26	620	-30	-30	27	540	-20	-20	28	460	-10	-10	29	380	0	0	30	300	10	10	31	220	20	20	32	140	30	30	33	60	40	40	34	300	50	50	35	220	60	100	36	140	70	150	37	60	80	200	38	20	90	250	39	0	100	300	40	0	110	350
Air gap (mMSL)	Kittiwake collisions (Total DBS East & West)	Additional Cost (€)(236m WTG diameter) (millions €)	Additional Cost (€)(276m WTG diameter) (millions €)																																																																							
24	780	-50	-50																																																																							
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I.D.	Written Question	Applicants' Response																																																																								
		<table><caption>Estimated data from the graph</caption><thead><tr><th>Air gap (mMSL)</th><th>Kittiwake collisions (Total DBS East & West)</th><th>Additional Cost (€)(236m WTG diameter)</th><th>Additional Cost (€)(276m WTG diameter)</th></tr></thead><tbody><tr><td>24</td><td>780</td><td>-50</td><td>-50</td></tr><tr><td>25</td><td>700</td><td>-25</td><td>-25</td></tr><tr><td>26</td><td>630</td><td>0</td><td>0</td></tr><tr><td>27</td><td>570</td><td>25</td><td>25</td></tr><tr><td>28</td><td>510</td><td>50</td><td>50</td></tr><tr><td>29</td><td>460</td><td>75</td><td>75</td></tr><tr><td>30</td><td>410</td><td>100</td><td>100</td></tr><tr><td>31</td><td>370</td><td>125</td><td>125</td></tr><tr><td>32</td><td>330</td><td>150</td><td>150</td></tr><tr><td>33</td><td>300</td><td>175</td><td>175</td></tr><tr><td>34</td><td>280</td><td>200</td><td>200</td></tr><tr><td>35</td><td>260</td><td>225</td><td>225</td></tr><tr><td>36</td><td>240</td><td>250</td><td>250</td></tr><tr><td>37</td><td>220</td><td>275</td><td>275</td></tr><tr><td>38</td><td>200</td><td>300</td><td>300</td></tr><tr><td>39</td><td>180</td><td>325</td><td>325</td></tr><tr><td>40</td><td>160</td><td>350</td><td>350</td></tr></tbody></table> d) The question is unclear as our understanding is that the only way of increasing the air gap without increasing the hub height is to reduce the maximum rotor blade diameter i.e. constrain the project design to a smaller capacity wind turbine than assessed and mandate an increased air gap. This is clearly what the projects are seeking to avoid. The technical feasibility reasons provided for not increasing the air gap can be summarised as: • Consenting – radar impact. The Applicants’ ability to avoid/mitigate the radar interaction is reduced if the air gap is increased. • Foundations installation – there is an increase in steel mass of the largest monopile, reducing available vessel options for installation. • Foundations design – to mitigate structural, fabrication or transportation & installation limitations, fundamental design changes to the concept could be needed.	Air gap (mMSL)	Kittiwake collisions (Total DBS East & West)	Additional Cost (€)(236m WTG diameter)	Additional Cost (€)(276m WTG diameter)	24	780	-50	-50	25	700	-25	-25	26	630	0	0	27	570	25	25	28	510	50	50	29	460	75	75	30	410	100	100	31	370	125	125	32	330	150	150	33	300	175	175	34	280	200	200	35	260	225	225	36	240	250	250	37	220	275	275	38	200	300	300	39	180	325	325	40	160	350	350
Air gap (mMSL)	Kittiwake collisions (Total DBS East & West)	Additional Cost (€)(236m WTG diameter)	Additional Cost (€)(276m WTG diameter)																																																																							
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I.D.	Written Question	Applicants' Response
		- Foundations seabed impacts – potential for additional scour protection, increased hammer energy and noise, increase in duration for piling activities. - Wind turbine installation – an increased hub height reduces the vessel options for WTG nacelle and blades installation. - Increased project costs – as a consequence of all of the above. - CO₂ emissions – an increase in steel equates to an increase in CO₂ emissions. If the question was intended to say '<i>...without increasing the upper tip height</i>', the Applicants then direct the Examining Authority to the response provided to question e). e) The dimensions provided in Plate 5-4 are 'indicative' and represent the basis of the impact assessment and do not represent the final WTG arrangements to be installed at DBS. The Applicants maintain that it is fully justified in retaining the 34m msl air gap that was agreed prior to the plan level HRA, for reasons described at ISH5 and further justified in this response. Consequently, the Applicants propose to reduce the maximum upper tip height from 394m above MHWS to 376.8m above MHWS (or 376m above msl). This has been updated in the Draft Development Consent (Revision 8) [document reference: 3.1] submitted at Deadline 5. This has the added benefit of further mitigating against the MOD radar interference. f) This statement referred to increasing the air gap through increasing the overall hub height of the turbines, as the Applicants do not intend to reduce the maximum rotor blade diameter.
OR.2.5	Ornithological mitigation a) In light of your position that the applicants should consider further ornithological mitigation, could you provide comment on the applicants' revision 3 of their ornithological mitigation report submitted at DL4 [REP4-081]. In particular, please provide comment on paragraphs 18 and 19 on page 14 which state: '18. The applicants have, in developing the design envelope, appropriately considered the air gap in relation to both mitigating impacts from bird collision risk and ensuring the technical and commercial viability of the Projects. This reflects a good compromise between bird collision mitigation, additional steel costs and carbon footprint, radar mitigation, piling noise and other environmental effects balanced with deliverability in terms of vessels that can install turbines of the size/air gap we are proposing and cost in terms of financial viability for forthcoming Contracts for Difference (CfD) auctions. The applicants do not expect to mitigate collision risk or any other risk to zero effect and do not believe they are required to do so. The applicants have applied a precautionary assessment in terms of collision risk and have proposed adequate compensation matters to account for this and do not propose to increase the air gap any further. 19. The applicants have, in recognition of the potential ornithological impacts, proposed a blade clearance significantly in excess of most consented and operational offshore wind farms (typically 22m above LAT), and have demonstrated why further increases would not be suitable and potentially risk the viability of the project. The applicants consider that they have met the tests of both the NPS and the Habitats Regulations in respect of the consideration of alternatives'. b) Given the additional information the applicants have submitted regarding ornithological mitigation at ISH5 and at DL4, could you give your latest opinion on whether you believe the	No response is required. Question directed to Natural England.

I.D.	Written Question	Applicants' Response
	applicants have fully followed the mitigation hierarchy in relation to the size of the air gap for the proposed development.	
OR.2.6	Population viability analysis (PVA) During ISH5 [EV10-004] you stated during questioning that the PVA models had been rerun. Can you confirm the latest versions of the PVA model runs have been submitted into the examination?	The Applicants can confirm the latest revisions to the PVA were issued at Deadline 4 as part of the following submissions: • Appendix 12-13 Population Viability Analyses (Revision 2) [REP4-034]; • Chapter 12 Offshore Ornithology (Revision 3) [REP4-032]; and • Report to Inform Appropriate Assessment (RIAA) Habitats Regulations Assessment (HRA) Part 4 of 4 – Marine Ornithological Features (Revision 4) [REP4-016].
OR.2.7	PVA results for gannet, kittiwake, guillemot and razorbill - impacts of Highly Pathogenic Avian Influenza (HPAI) and population trends You confirmed that density-dependence did not need to be incorporated into PVAs, but that realistic future seabird population trends needed to be considered in the interpretation of the significance of the results of PVAs and you advised the applicants to take a similar approach to the Sheringham and Dudgeon Extension Projects. The applicants [REP3-027, OR.1.9] [REP3-028, G49] [REP4-086] considered your advice to consider density dependence [AS-159, G49] contradicts your standard advice. This was discussed at ISH5 [EV10-003] for which there was an action point for you to respond to the applicants' comments. Can you confirm what actions you require are necessary to close this matter?	No response is required. Question directed to Natural England.
OR.2.8	Habitats Regulations Derogation: Provision of Evidence Guillemot [and Razorbill] Compensation Plan a) The ExA notes that the applicants' updated Guillemot and Razorbill Compensation Plan (Revision 4) [REP4-024] presents updated data in Table 4. Can you respond to state if this now fulfils your request? Do you have any further comments on the applicant's updated Guillemot and Razorbill Compensation Plan (Revision 4) [REP4-024]?	No response is required. Question directed to Natural England.
OR.2.9	Ornithological compensation advice from NE for auks How do you respond to NE's statements in Appendix H4 at DL4 [REP4-125] that: - The potential numbers of breeding pairs of razorbill you have estimated are likely to be unrealistically high and 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? - That the nesting densities used to estimate the potential number of breeding pairs that could be accommodated are very high? - Results using lower nesting densities should be included when assessing the habitat potential for the preferred sites presented in Tables 3-2 and 4-1?	The Applicants have responded to Natural England's statements in The Applicants' Responses to Deadline 4 Documents [document reference: 15.3]. 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. <u>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.</u>

I.D.	Written Question	Applicants' Response
	d) The outputs from the Isles of Scilly Seabird Recovery Partnership and the Defra Task and Finish group to quantify the benefits of a rat eradication on the Isles of Scilly to seabirds are not expected until Spring 2027 so it is unlikely that significant further progress can be made with this measure within the examination timeframe?	b) 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, 2025¹⁹). For the reasons stated above the Applicants do not intend to include lower nesting densities in the habitat assessment. c) 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. The Applicants consider that the survey results detailed in the Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment [REP4-097], further evidence submitted to date (<u>including the Applicants' estimate of compensation capacity of between 24,296 and 55,880 nesting spaces</u>), 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. d) While Natural England have commented that the outputs from the Isles of Scilly Seabird Recovery Partnership and the Defra Task and Finish group to quantify the benefits of a rat eradication on the Isles of Scilly to seabirds are not expected until Spring 2027, 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>Year 1 (April 2025- March 2026)</i> • 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 • Testing and analysis complete by March 2026 <i>Year 2 (April 2026 to March 2027)</i> • 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 • Data analysis on distribution surveys completed by March 2027
OR.2.10	Survey results for Worms Head	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. <u>This is due to the National Trust's reservations about the ability to implement</u>

¹⁹ 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](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)

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	The applicants: a) NE advises [REP4-125] that in addition to the additional surveys the applicants have committed to make during May/June 2025 at Worms Head, that consideration should also be made as to whether: i) rats can access the identified areas of suitable guillemot and razorbill nesting habitat and are therefore having a negative impact on auk populations and ii) prevention of re-incursions at this site is feasible given its connectivity with the mainland and high visitor use. Could the applicants consider these points and submit the results into the examination along with the survey results? b) Could the applicants confirm whether NRW have been and are being consulted regarding auk compensation proposals at Worms Head? NRW: The ExA would welcome your position on questions a) and b) above and any general points you wish to make on the applicants' proposals for auk compensation at Worms Head.	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. 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.
OR.2.11	Middle Mouse Could you update the examination on whether you intend to pursue project level compensation proposals at Middle Mouse any further?	The Applicants intend to maintain Middle Mouse as a potential compensation site option. Following consultation with Natural Resources Wales (NRW), 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.
OR.2.12	Redaction of habitat suitability for Middle Mouse and Worms Head If you plan to continue with project level proposals for compensation at Middle Mouse and Worms Head, could you submit the unredacted information from the habitat suitability surveys into the examination in order that the proposals can be fully examined? The ExA notes the RSPB's comment on this matter at DL4 [REP4-113].	The Applicants maintain that gathering the information for Middle Mouse and Worms Head has required significant financial investment and without having the sites legally secured, this information has significant commercial value. Therefore, at this stage the Applicants do not intend to enter unredacted versions into examination.
OR.2.13	Habitats Regulations Derogation: Provision of Evidence Guillemot [and Razorbill] Compensation Plan The ExA notes that the applicants' updated Guillemot and Razorbill Compensation Plan (Revision 4) [REP4-024] states in section 5.3.1.3.1 that, 'In March 2025 Defra confirmed that a task and finish group, comprising Defra, DESNZ, Natural England, The Wildlife Trusts, OWIC, The Crown Estate and the RSPB has been formed "to establish the mechanisms required to allow predator eradication to be delivered as a strategic compensation measure, noting the option for this to delivered by the Marine Recovery Fund". The statement went on to say "All parties agree that predator eradication on the Isles of Scilly has great potential to provide compensation for the impacts of offshore wind projects and would support its inclusion in project specific compensation plans. Offshore wind projects currently seeking consent might wish to submit this statement to the examining authority to demonstrate progress with this scheme, if they seek to use it as strategic compensation for unavoidable impacts to protected species likely to be impacted by their projects". In order to avoid delays while the MRF is developed, OWIC confirmed in March 2025 that they have "procured legal services to explore the establishment of a functioning developer-led delivery mechanism which would provide the offshore wind industry with a route to collaborative compensation whilst the	No response is required. Question directed to Natural England.

I.D.	Written Question	Applicants' Response
	Government-led MRF is in development". Therefore, the applicants consider that a strategic approach will be available to them in late 2025, either via the MRF in line with the guidance discussed in section 1.3, or an interim fund established by OWIC. To avoid delay in the event that an agreement cannot be reached regarding a strategic approach on the Isles of Scilly, the applicants will also continue to engage with the National Trust regarding Worms Head and the private landowner for Middle Mouse (project led) with the aim of progressing these locations as project-led compensation if necessary.' Could you provide comment as to whether you, as the SNCB, believe this approach to be sufficiently adequate to compensate for AEol of razorbill and guillemot from the FFC SPA and maintain the integrity of the national site network, if the ExA recommends and the Secretary of State agrees with NE that there is potential for AEol to the designated site?	
OR.2.14	Habitats Regulations Derogation: Provision of Evidence Guillemot [and Razorbill] Compensation Plan a) Provide your position on the applicants' updated Guillemot and Razorbill Compensation Plan (Revision 4) [REP4-024] which states in section 5.3.1.6 that, 'According to the statement provided by Defra, detailed plans for a strategic eradication are expected in spring 2027, with an eradication to follow within an unspecified timescale. This means that an eradication on the Isles of Scilly may not be implemented two years in advance of turbine installation. However, in line with EC guidance (2019), an eradication on the Isles of Scilly would provide significant over compensation to account for any delay in implementation. Delay to the eradication programme and the knock on requirements for the applicants to over compensate, would however reduce the ecological headroom available for other projects to utilise as compensation in the future. In addition, the Defra consultation on the operation of the Marine Recovery Fund (MRF) suggests that the applicants' responsibilities with regards to compensation will be considered to be met upon payment of the agreed fee.' b) Could you quantify the additional compensation that would be required for every year of delay to the implementation of the proposed compensation scheme?	No response is required. Question directed to Natural England.
OR.2.15	Kittiwake Compensation Plan The applicants: The potential location of a kittiwake artificial nesting structure (ANS) was discussed at ISH5 [EV10-003]. Have you considered the potential implications of siting an ANS close to array areas of the proposed development or array areas of other operational OWFs? Could the arrays pose a threat to the ANS derived kittiwakes? If so, might this reduce the predicted recruitment back into the population such that it might not be as effective or rapid as might otherwise be the case if the ANS was remote from any risk factor? How have the applicants considered this when siting their proposed ANS, and if or how is the matter is accounted for in the modelling in the document 'Reduction in Kittiwake Breeding Seasons Prior to Artificial Nesting Structure Installation' [REP4-083]? NE and the RSPB: Could you provide comment on this matter?	The Applicants have undertaken a rigorous ANS site selection process and has built upon the methods outlined by The Crown Estate's Kittiwake Compensation Steering Group (KCSG) in the Round 4 Kittiwake Strategic Compensation Plan [APP-053]. The proximity of ANS to offshore wind farm lease areas has been a key consideration for the Applicants, and a 15km buffer has been applied to all areas of hard constraints, including offshore wind farms (OWF) – this aligns with the approach signed off by the KCSG whose membership includes Natural England, the RSPB and The Crown Estate. The shortlisted candidate sites are all considered to have good connectivity to Flamborough and Filey Coast (FFC) SPA (based upon ecological constraints and the proximity of sites to existing and planned OWF projects was considered in the down selection process. Note that kittiwakes are not assessed for displacement impacts – for which the standard offshore wind farm buffer is 2km when assessing where birds might be displaced. As such, the 15km exclusion zone applied to OWF areas applies a suitable level of precaution to reduce risk. The Applicants have provided regular updates regarding the progress of the ANS site selection process through the pre-examination and examination phases via revisions to Appendix 1 - Project Level Kittiwake Compensation Plan (Revision 5) [REP4-020], submission of Project-Level Kittiwake Artificial Nesting Structure (ANS) Site Selection Report [PDB-007] and through direct engagement with Natural England (see Table 3-2 to Appendix 1 - Project Level

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		Kittiwake Compensation Plan (Revision 5) [REP4-020] . They have engaged with feedback on the location of candidate sites and considered any additional data sources suggested by Natural England to ensure robustness of the final candidate site. The Applicants have a further meeting planned with Natural England on 28th May 2025 to discuss the selection of the preferred ANS candidate site location and to engage on any points Natural England may have regarding the final stages of the ANS site selection process.
OR.2.16	Reduction in kittiwake breeding seasons prior to artificial nesting structure installation In the document labelled 'Reduction in Kittiwake Breeding Seasons Prior to Artificial Nesting Structure Installation', submitted at DL4 [REP4-083], you refer to the onshore ANS which has already been delivered which the ExA understands to be located at Gateshead, constructed in February 2023. The ExA understands this structure is used by other OWF developers. Can you confirm how many nesting sites would be available exclusively to the proposed development from this onshore structure?	The Onshore ANS 'the Kittiwakery' is currently wholly owned by the DBS Projects. It provides nesting spaces for over 240 pairs of birds currently with the potential, under the current planning permission, to double the nesting capacity though the addition of barn doors. The Projects have had positive discussions with a number of other development projects about sharing the benefits of the Kittiwakery and are open to sharing of the benefits but as things stand this relationship is not yet formalised and thus the Projects retain control of all nests the structure may provide. Should agreements be reached with all other parties who are currently in discussions regarding sharing the compensation benefit a minimum of 40% (c. 96 spaces) of available nesting spaces will be retained by the Projects (based on current capacity of 240).
OR.2.17	Anticipated timescales to achieve full kittiwake compensation At ISH5 [EV10-003] and in the document labelled 'Reduction in Kittiwake Breeding Seasons Prior to Artificial Nesting Structure Installation', submitted at DL4 [REP4-083], the applicants refer to anticipated timescales to achieve full kittiwake compensation as being between 13 years to 50 years following first generation (paragraph 23). Could NE, the RSPB and TWT provide their respective positions on this?	No response is required. Question directed to Natural England, The RSPB and TWT.
OR.2.18	Securing kittiwake compensation beyond the operational lifetime of the proposed development The applicants: In paragraph 25 of the 'Reduction in Kittiwake Breeding Seasons Prior to Artificial Nesting Structure Installation', submitted at DL4 [REP4-083], and in the 'Project-Level Kittiwake Compensation Plan' [REP4-020 paragraph 210], you state possibilities for the scenario where there could be remaining compensation debt after 30 years of operation. You suggest you could retain the option to maintain and monitor the ANS beyond the proposed development's operational duration, implemented as adaptive management. Can you state where in the DCO secures your commitment to continue kittiwake compensation beyond the operational lifetime of the proposed development if this is required? If not, could you suggest appropriate draft wording? NE: Could you provide your position on whether a Requirement is needed in the DCO to secure the commitment to continue kittiwake compensation beyond the operational lifetime of the proposed development if this is required, in addition to what is stated in the Project-Level Kittiwake Compensation Plan [REP4-020].	Part 2 of Schedule 18 to the Draft DCO (Revision 8) [document reference 3.1] requires the submission of the kittiwake Compensation Implementation and Monitoring Plan (CIMP) to the Secretary of State for approval, in consultation with the relevant statutory nature conservation body and, where relevant, the Marine Management Organisation (MMO). The kittiwake CIMP must be in accordance with the Outline Kittiwake CIMP (Revision 2) [REP4-022] and include details of the maintenance schedule for the ANS, details of the proposed ongoing monitoring and details of the adaptive management measures and the mechanism for these to be delivered. The measures set out in the approved kittiwake CIMP must then be implemented by the undertaker prior to operation of the turbines. The ANS must then not be decommissioned until written approval has been given by the Secretary of State, in consultation with the relevant statutory nature conservation body. As with other control documents, the Applicants submit that it is not necessary, proportionate or practical to secure each and every mitigation measure committed to within a control document within the DCO. This is particularly the case where there is not certainty that it will be necessary to continue kittiwake compensation beyond the operational lifetime of the proposed development – it is simply one of a number of potential adaptive management measures that will be delivered under the approved kittiwake CIMP if deemed necessary. It is sufficient that the production, approval and implementation of the kittiwake CIMP is secured, which will ensure that appropriate adaptive management measures are undertaken in due course if necessary, and the Applicants do not propose to make further updates to the Draft DCO (Revision 8) [document reference 3.1].
OR.2.19	Farne Islands SPA What is NE's latest position on the applicants' assessment of guillemot at the Farne Islands SPA since the assessment was updated? Can NE confirm whether or not it considers an AEol on guillemot and the seabird assemblage from the Farne Islands SPA can be excluded from the project	No response is required. Question directed to Natural England.

I.D.	Written Question	Applicants' Response
	alone? If the response to this is clear from your response to HRA.2.4 then there is no need to repeat the response	
OR.2.20	Farne Islands SPA Given the stage of the examination, and the remaining outstanding concerns from NE the ExA believes it necessary to ask what compensation proposals you have for the situation in which NE, as the SNCB, were to state it cannot rule out AEol for the Farne Island SAC in relation to for ornithological receptors and the Secretary of States agrees with this position? Can you provide a without prejudice derogations case for this possibility and submit this into the examination AT DL5.	The Applicants do not consider that Natural England has suggested they have any specific concerns in relation to the Farne Islands SPA that have not already been addressed. The RIAA was updated to include in-combination effects on guillemot and puffin at the Farne Islands SPA in Report to Inform Appropriate Assessment (RIAA) Habitats Regulations Assessment (HRA) Part 4 of 4 – Marine Ornithological Features (Revision 3) [AS-085] with additional outputs from PVA models added in (Revision 4) [REP4-016]. The Applicants consider that these additions have addressed the Natural England comments in the latest Natural England Risk and Issues Log [REP4-129] and that the Applicants' conclusions of no AEol for the project alone or in-combination on the Farne Islands SPA is robust and appropriate. Consequently the Applicants do not propose to submit a without prejudice derogation case for guillemot at the Farne Islands SPA. In an email from Natural England to the Applicants dated 19th May 2025, Natural England stated that: <i>'Without prejudice to our submission on Friday, it is very likely that we will be ruling out AEol alone and in-combination for Farnes kittiwake.</i> <i>We have previously advised regulators that we cannot rule out AEol in-combination on guillemot due to the substantial impacts of the Berwick Bank OWF. We have previously advised DBS that compensation for Farnes guillemot should be considered. We do not anticipate that this would require an additional derogations case, and advise that this could be managed through adjusting the quanta of the existing auk compensation proposals'.</i>
OR.2.21	Greater Wash SPA a) Have the applicants responded adequately [REP4-086] to the clarification you requested regarding how the move from intertidal to subtidal exit pits alters vessel and construction activity within and in the vicinity of Greater Wash SPA, and how this would impact red throated diver populations? b) Do you still advise restricting cable installation within 2km of the Greater Wash SPA during the over-wintering period (1st November to 31st March) to avoid adverse effects as stated in its Risk and Issue log at DL4 points G50/G64 [REP4-129]? If so, can you confirm whether this measure is required to avoid AEol of the red-throated diver and common scoter qualifying features?	No response is required. Question directed to Natural England.
OR.2.22	Greater Wash SPA a) In relation to potential displacement of red-throated diver of the Greater Wash SPA, you stated [REP3-028] that offshore cable installation activities 'would be restricted to a maximum of one non-breeding season'. Can you confirm how this is secured through the draft DCO? b) Given the stage of the examination, and the remaining outstanding concerns from NE the ExA believes it necessary to ask what potential impacts to construction timescales a restriction on cable installation within 2km of the Greater Wash SPA during the over-wintering period (1st Nov to 31st March) might have. How might this impact technical feasibility and commercial viability of the project?	a) The Applicants acknowledge that this is not currently secured within the Draft Development Consent Order (Revision 8) [document reference: 3.1] and are awaiting feedback from Natural England on the response provided in REP3-058: A.23 in The Applicants' Responses to Deadline 3 Documents and Additional Submissions [REP4-088] with regards to construction activity and potential effects on red-throated diver. The Applicants would also highlight that the Draft DCO (Revision 8) [document reference 3.1] already contains conditions (15(1)(d) in DMLs 1 and 2 and equivalent conditions in the other DMLs) requiring the project environmental management plan to include procedures, which must be adopted within vessel transit corridors to minimise disturbance to red-throated diver during the over-wintering period.

I.D.	Written Question	Applicants' Response
		b) The construction programmes for the installation of the trenchless crossing (e.g. Horizontal Directional Drill (HDD)) and Offshore Export Cables landfall pull-ins have not been finalised for either Project and will be dependent on the supply chain availability and overall project programme. The installation of the HDDs must be completed sufficiently in advance to be off the critical path of the cable installation operations, with the cable installation commencement being dependent on the cable lay vessel availability. The Applicants must retain some flexibility to avoid causing delays to the overall project programme. The individual impact of such a seasonal constraint upon the Projects' commercial viability is hard to ascertain, as it depends upon the cumulative impact of other external constraints that may be imposed or be out of the Projects' control, such as contractor availability and supply chain constraints. However, considering the known supply chain shortages currently being experienced by the industry, this restriction would certainly have the capacity to severely complicate the procurement process and increase costs of construction in a very competitive market. It is currently envisaged that cable installation works (not including the HDD works) could start mid-January, and postponing the start of cable installation activities to 1st April could delay the completion of the export cable installation, including the critical cable pull-ins at the Offshore Converter Station into the winter months, where the weather is least favourable for such weather dependent activities. This could delay in turn the commissioning of the HVDC systems and hot commissioning of wind turbines and could ultimately delay the overall delivery of 3GW of cost effective clean energy for up to 3 million homes which should be delivered promptly in line with the UK government's Net Zero policies. The Applicants re-iterate that consequences are difficult to ascertain at this stage given the uncertainty remaining regarding the Projects' construction programme, contractor availability, and supply chain constraints. c) The Applicants re-iterate that given the minimal overlap of the Offshore Export Cable Corridor in relation to the Greater Wash SPA as a whole (approximately 0.7%, The Applicants' Responses to Deadline 2 Documents [REP3-028]), the low peak density of red-throated diver individuals located within the overlapping area, and the low number of individuals expected to be displaced across the entire installation period, the Applicants consider a restriction on installation works within Greater Wash SPA plus a 2km buffer during the over-wintering period (1st November to 31st March inclusive) to be over-precautionary to the potential level of disturbance.
OR.2.23	In-combination assessments In your written representation (WR) [REP1-087] you highlighted concerns with the applicants 'de minimis' approach to assessing in combination effects. The applicants have since provided in-combination assessments of guillemot and puffins for the Farne Islands SPA and red-throated diver for the Greater Wash SPA [AS-085]. Do your concerns remain, and if so, can you confirm what further assessment(s) you advise are required?	No response is required. Question directed to the RSPB.
OR.2.24	Flamborough and Filey Coast SPA You have stated [RR-049] [REP1-087] you cannot rule out AEoI on the seabird assemblage of the FFC SPA, however the applicants [REP3-027, OR.1.11] noted you had not explained why you have reached this conclusion. Can you explain how you reached this conclusion and what your latest position is?	No response is required. Question directed to the RSPB.
OR.2.25	Flamborough and Filey Coast SPA	No response is required. Question directed to Natural England.

I.D.	Written Question	Applicants' Response
	a) What is your latest position on the applicants' assessment of potential effects on gannet and the wider sea bird assemblage at the FFC SPA? If the response to this is clear from your response to HRA.2.4 then there is no need to repeat the response. b) In your Relevant Representation, you advised that the proposed development was the highest impacting project on the FFC SPA kittiwake to date and would likely result in an AEol alone [RR-039]. Further to the assessment updates provided by the applicants, can NE confirm whether it considers there to be an AEol on kittiwake from the project alone?	
OR.2.26	Flamborough and Filey Coast SPA Given the stage of the examination, and the remaining outstanding concerns from NE, the ExA believes it necessary to ask what compensation proposals you have for the situation in which NE, as the SNCB, were to state it cannot rule out AEol for gannet and the wider sea bird assemblage at the FFC SPA and the Secretary of States agrees with this position? Can you provide a without prejudice derogations case for this possibility and submit this into the examination at DL5?	The Applicants have provided a comprehensive and robust assessment of gannet at the FFC SPA in accordance with Natural England's advice and this has concluded that the potential worst case in-combination effects would not result in an AEol. For this reason, the Applicants are firmly of the opinion that there is no requirement to provide a without prejudice derogation case. Although Natural England and the RSPB have cited HPAI as a reason for concern for gannets at FFC SPA, the fact is that although the population declined between 2017 (13,392) and 2022 (13,125) and the latter year was when HPAI was first observed in the gannet population, since then the population has recovered and increased to 15,233 (2023) and 15,794 (2024). Furthermore in 2024 it was reported that there were no observations of mortality that could be attributed to HPAI in any seabird species (Butcher <i>et al.</i> 2024²⁰). Natural England continues to advise that the Applicants should use density <u>independent</u> PVA (i.e. models which lack any regulatory feedback between rates of survival and productivity and population size) whilst also advising that the results of these models should be considered against reduced future growth rates that they expect will occur due to density dependent regulation (rather than simply advising the use of density <u>dependent</u> PVA). However, if such density dependent regulation does begin to slow population growth this would be due to competition for nest space, mates and prey. Under these conditions, any small additional impacts due to offshore wind farms would be in fact be absorbed by the density dependent responses and would almost certainly be undetectable. With respect to the seabird assemblage, all the species at the FFC SPA considered to be at risk due to wind farm impacts have been assessed individually and therefore there are no additional concerns for these species when combined with those that have been screened out (such as shag and herring gull for which there is no connectivity). Thus, there is no case for provision of compensation proposals for the seabird assemblage over and above that targeted at the individual species within it. The Applicants also highlight that in an email from Natural England to the Applicants dated 19th May 2025, Natural England stated that in relation to this response: <i>We do not currently anticipate there being an AEol on gannet.</i> <i>Compensation requirements for seabird assemblages are typically handled by the species-specific proposals, therefore additional derogations proposals are not needed. Existing plans/quanta would just need to be adjusted if requirements for other sites needed to be considered, however as indicated above this is unlikely to be required for Farne Islands kittiwake.</i>
OR.2.27	HRA screening For the FFC SPA, Table 4-10 of the HRA screening [APP-049] identified the 'potential for disturbance to breeding cormorant, shag and herring gull from operation & maintenance vessels'. Table 9-10 of the RIAA Part 4 [REP4-016] refers to these features, however no further mention is given to them.	The Applicants' response to Natural England in Table 9-10 [REP4-016] stated: <i>The operational displacement assessment encompasses potential displacement due to both the presence of turbines and also O&M vessels.</i>

²⁰ Butcher, J., Aitken, D., O'Hara, D. (2024) Flamborough and Filey Coast SPA Seabird Monitoring Programme 2024 Report. RSPB Report.

I.D.	Written Question	Applicants' Response
	Can you confirm if you consider there to be a LSE on these features, and if so direct the ExA to where potential effects on integrity are assessed?	This statement relates to the wind farm array areas, which are beyond the connectivity range of shag and cormorant and therefore these species were screened out. Herring gull is not considered to be at risk of displacement effects due to either wind turbines or vessels and therefore was also screened out. <i>Any additional effects due to birds avoiding vessels outside the wind farm would be small and short-lived, with birds rapidly relocating following vessel passage. Against the baseline of vessel traffic in the region the additional O&M vessel movements will make an insignificant contribution to this potential source of disturbance.</i> This statement makes it clear that the potential for Operation & Maintenance (O&M) vessel movements between the coast and the Array Areas to have any effect on these species is considered extremely small. Consequently, no Likely Significant Effect (LSE) is predicted for any of these species due to O&M vessel movements.
OR.2.28	HRA screening Paragraph 225 of [APP-045] states that the following were screened out: • breeding guillemot of St Abbs Head to the Fast Castle SPA • breeding guillemot, razorbill and puffin of the Forth Islands SPA • breeding herring gull of Forth Islands SPA However, a LSE for these feature is identified in Tables 1 and 4-7 and subsequently assessed in the RIAA Part 4 [REP4-016]. Can you confirm that paragraph 225 is therefore incorrect?	The Applicants can confirm that paragraph 225 of [APP-045] is incorrect and has been updated in the Report to Inform Appropriate Assessment Habitats Regulations Assessment Part 1 of 4 – Introduction and Terrestrial Ecology (Revision 3) [document reference: 6.1], submitted at Deadline 5.
OR.2.29	Highly pathogenic avian influenza (HPAI) The SoCG with RSPB [REP4-071] identifies two points regarding HPAI which the RSPB states the applicants have not addressed. Can the applicants explain how the following consequences of the HPAI outbreak have been considered in the assessment: - Alterations of the extent of interactions with wind farms, potentially related to physiological changes, and in the lethal and sub-lethal consequences of those interactions; and - Consequences in changes in the robustness of protected population to additional mortality arising through the presence of wind farms.	The Applicants have previously submitted their position on the significance of HPAI for seabird populations (e.g. REP2-057, REP3-028, REP4-087) in response to comments made by Natural England and the RSPB. Natural England (REP3-057) has also stated: <i>Natural England considers that sufficient information has been included with respect to HPAI</i> With respect to the specific points raised in this question: a) To the Applicants' knowledge there has been only one study that proposed there may be physiological changes caused by HPAI that might alter seabird movements. Jeglinski <i>et al.</i> (2024²¹) reported that, of five gannets breeding at the Bass Rock fitted with GPS tags, three undertook what were described as unusual trips that included visiting other colonies. The reasons for this are unknown, but the authors assume was related to the HPAI outbreak. However, the authors also note that this unusual behaviour was brief and coincided with the peak of infection. A short time later in that same summer breeding gannets were foraging as seen in years prior to the HPAI outbreak. Indeed, these latter observations noted shorter foraging trips, possibly due to reduced competition. It is therefore far from clear that there would be any material (or actual) change in gannet interactions with wind farms, and even if longer journeys was an established response this would not infer any change in that level of interaction (i.e. there is no reason for the spatial overlap of 'normal' and 'unusual' trips with wind farms to be any different, even if the actual wind farms encountered may be different). There is no evidence the Applicants are aware of that any other species exhibited unusual behaviour which may have affected interactions with wind farms. The Applicants consider the RSPB's comments on this matter to be for the most part unfounded, save the study noted above, and as a consequence largely speculative.

²¹ Jeglinski, J.W.E., Lane, J.V., Votier, S.C. *et al.* HPAIV outbreak triggers short-term colony connectivity in a seabird metapopulation. Sci Rep 14, 3126 (2024).

I.D.	Written Question	Applicants' Response
		b) This point appears to be based on the supposition that that all seabird populations are now less robust following the outbreak of HPAI and that the losses incurred from HPAI and those from offshore wind farms are of a similar scale. However, taking gannet as an example for which some HPAI mortality estimates are available, the closely monitored Bass Rock population was estimated to have declined from over 75,000 pairs to just under 52,000 pairs following the peak year of infection (2022), a 23,000 pair decline. The current estimated total gannet mortality in the North Sea from collisions and displacement is, at worst, 1,200 (Chapter 12 Offshore Ornithology (Revision 3) [REP4-032]), almost 20 times smaller than the losses at the Bass Rock. Furthermore, at FFC SPA the population only declined by a few hundred pairs (from 13,392 to 13,125 between 2017 and 2022) before recovering to over 15,700 in 2024, thus losses to HPAI were not the same at all locations. It is also important to note that wind farm mortality would be predicted to decline either in the same proportion as any population declines, or potentially to a greater extent if a reduction in competition for prey results in shorter foraging trips (e.g. Jeglinski <i>et al.</i> 2024) and less overlap of foraging areas and wind farms. Simply because a population has declined does not automatically mean it is less robust. Thus the Applicants do not agree that HPAI has necessarily made the seabird populations (assessed for the Projects) less robust or more vulnerable to wind farm impacts. Indeed, what the HPAI outbreak has demonstrated is that, as well as climate change mediated changes in forage fish populations and over-fishing, there is now a third potentially more serious source of seabird mortality than offshore wind farms: disease outbreaks. Wind farm impacts are easier to quantify than these other factors, but that should not be mistaken for assuming their impacts are of the same magnitude.
OR.2.30	Forth Islands SPA The RSPB: Your SoCG with the applicants [REP4-071] reiterates your DL1 position [REP1-087] that you cannot reach a conclusion as to the significance of impacts on the gannet component of the Forth Islands SPA. The applicants calculated an annual impact on four individuals in [REP2-057]. Can you comment as to whether you are able to exclude an AEol further to this information? NatureScot: Can you comment as to whether you are able to exclude an AEol of the gannet component of the Forth Islands SPA?	No response is required. Question directed to The RSPB and NatureScot.
OR.2.31	Statement of Common Ground with the RSPB Your SoCG with the applicants [REP4-071] refers to your DL1 response in respect of sites with puffin as a qualifying feature for which you are unable to reach conclusions as to the significance of effect. Can you confirm whether this position has changed for any of the sites and features listed, further to the information submitted by the applicants in the examination to date? If not, can you provide reasoning and identify any additional information you require from the applicants?	No response is required. Question directed to the RSPB.
OR.2.32	Gannets – macro-avoidance The ExA is aware of an outstanding issue in that the RSPB and NE do not agree on the macro-avoidance correction factor to be applied to the gannet collision assessment. The applicants revised their assessment in line with NE advice [RR-049, G16] and have also presented the collision risk modelling without the application of the macro-avoidance correction factor. However, the RSPB disagreed with NE's advice [RR-049], [REP1-087], [REP4-071] stating that the JNCC also do not accept NE's advised approach and considered this would have a material impact on resulting impact assessments.	No response is required. Question directed to the JNCC, The RSPB and Natural England.

I.D.	Written Question	Applicants' Response
	The JNCC: Could the JNCC submit its latest position on this matter along with justification and evidence into the examination at DL5? NE: Could NE submit the evidence upon which its advice to use an avoidance rate of 99.3% along with a macro-correction factor between 65-85% is based, into the examination at DL5? The RSPB: Could the RSPB submit justification and evidence for its position into the examination at DL5?	

1.23 Shipping and Navigation

Table 1-23 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Shipping and Navigation

I.D.	Written Question	Applicants' Response
SN.2.1	Navigation communication systems The MCA Relevant Representation [RR-031] states, 'due consideration for appropriate mitigation such as radar, Automatic Identification System (AIS) receivers and in-field, Marine Band Very High Frequency (VHF) radio communications aerial(s) (VHF voice with Digital Selective Calling (DSC)) that can cover the entire wind farm sites and their surrounding areas. It will be expected that the applicant will provide this AIS and VHF capability to the MCA with direct access to HM Coastguard systems'. Can the applicants confirm if these mitigations measures are deemed necessary, would this require the installation of communication equipment and has this been included in the DMLs? Further, can you signpost to the commitment for providing AIS and VHF capability to the MCA with direct access to HM Coastguard systems?	The Applicants will engage with the Maritime and Coastguard Agency (MCA) and HM Coastguard to determine the extent to which the equipment outlined in the MCA's Relevant Representation [RR-031] is required for Search and Rescue (SAR) purposes. This will occur as part of the SAR Checklist process undertaken post-consent (pre-construction) noting that the specific requirements and recommendations are agreed on a case-by-case basis. The need for the SAR Checklist to be completed is outlined in Section 2.2 and Appendix D of 'Offshore Renewable Energy Installations: Requirements, Guidance and Operational Considerations for SAR and Emergency Response' (Annex 5 to Marine Guidance Note (MGN) 654). MGN 654 compliance (inclusive of its annexes) is secured within the Deemed Marine Licences (DMLs) under the Offshore Safety Management condition – Condition 18/16/12 of DMLs 1-5 in the Draft Development Consent Order (DCO) (Revision 8) [document reference: 3.1]. It is also acknowledged that a key mitigation factor for SAR will be the final array layout, and this may inform MCA and HM Coastguard requirements for the use of equipment. The layout plan is secured within the DMLs under the Pre-construction Plans and Documentation condition – Condition 15/13/11 of DMLs 1-5 in the Draft DCO (Revision 8) [document reference: 3.1]. Compliance with MGN 654 and agreement of a layout plan are both also included as embedded mitigation measures in Table 14-3 of Chapter 14 Shipping and Navigation [APP-121] and Table 20-1 of Appendix 14-2 Navigational Risk Assessment [APP-124].

1.24 Socio-Economic Effects and Tourism

Table 1-24 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Socio-Economic Effects and Tourism

I.D.	Written Question	Applicants' Response
SET.2.1	Clean Industry Bonus If there is no requirement for consultation on the Clean Industry Bonus, can you explain how the Clean Industry Bonus scheme as part of the CfD would ensure compliance with section 5.13.6 of NPS EN-1 in that it can demonstrate that local suppliers have been considered in any supply chain?	Section 5.13.6 of National Policy Statement (NPS) EN-1 states that "...Applicants are encouraged, where possible, to demonstrate that local suppliers have been considered in any supply chain." The Applicants have provided information on how the Projects are compliant with section 5.13.6 of NPS EN-1 in Chapter 29 Socio-Economics [APP-217] which concludes that there are minor to moderate beneficial effects to the Humber Region economy, as a result of the Projects in isolation or together; subject to the implementation of a Supply Chain Plan or their replacement under the Contracts for Difference (CfD) regime. In The Applicants' Responses to ExQ1 [REP3-027] the Applicants confirmed in their response to SET1.1 that they will submit a Clean Industry Bonus (CIB) application (the direct replacement for Supply Chain Plans), as is now required for the CfD application. In order to qualify for the CfD Allocation Round the Applicants will need to commit to spending £100 million/ GW on contracts with companies and ports located within deprived areas in the UK (Criterion 1) or companies globally that are committed to more sustainable means of production (Criterion 2). This means that Dogger Bank South East and Dogger Bank South West would need to 'independently' deliver on £150m worth of investment benefit. To meet the threshold of assessment, the Projects would need to meet any of the following examples:- - Expanding supply chain capability. - Investment into infrastructure. - Sustainability benefits. Taking into consideration the CIB eligibility criteria and the capabilities of the UK supply chain, the shortlist of qualifying suppliers narrows down without the need for consultation. The Projects have taken the full benefit of the opportunity offered by the CIB framework to increase investment in the local supply chain. The projects have engaged with a wide range of companies located in the UK and placed the maximum allowable number of bids for contact subsidies to be potentially awarded to local companies. The Outline Skills and Employment Strategy [APP-230] (as secured through draft Development Consent Order (DCO) Requirement 26) includes measures specifically to ensure that local suppliers are considered in any supply chain, such as: - Providing support for jobs and skills in the local supply chain, and promoting training and employment opportunities for local residents (para 19); and - Increasing visibility of careers in offshore wind and the opportunities for the local supply chain (Table 7-1).
SET.2.2	Local skills and employment The applicants and ERYC: The updated SoCG between the applicants and ERYC [REP4-059] continues to highlight concerns regarding the proposed wording of Requirement 26, Local Skills and Employment. Can you explain the concerns raised, confirm whether this has been resolved and provide the agreed wording? ERYC: In addition, confirm if you are satisfied with the information provided as part of the proposed outline Skills and Employment Strategy [APP-230]? If not, explain any outstanding requirements.	The original comment was made by a previous East Riding of Yorkshire Council (ERYC) Planning Officer on the Projects, prior to submission of the DCO application in June 2024. The Applicants responded at the time to state they considered that the wording of Requirement 26 was sufficient and that they would not be updating the DCO but were happy to discuss the outline Skills and Employment Strategy during the examination phase. The Applicants met with ERYC representatives on the 15th May 2025 specially to discuss Requirement 26 of the Draft DCO (Revision 8) [document reference 3.1] and to discuss the remaining comments in the Statement of Common Ground (SoCG). ERYC did not raise any specific concerns at the meeting with the wording of Requirement 26 or the Outline Skills and Employment Strategy [APP-230] and confirmed that they are now happy to agree the wording in its current

I.D.	Written Question	Applicants' Response
		format. It is important to be note that the Applicants have been engaging with the ERYC on the Outline Skills and Employment Strategy [APP-230] and other key industry stakeholders through the 'Skills and Employment Working Group', which is described in the plan and already active. ERYC agreed at the meeting on the 15 th May 2025 to discuss with their colleagues involved in the working group, as they are in a separate team and provide confirmation that they are in agreement with the Outline Skills and Employment Strategy [APP-230] at Deadline 5. All agreements will be updated in the ERYC SoCG at Deadline 8.
SET.2.3	Assessment of effects on tourism As previously raised in ExQ1 [PD-014], your Local Impact Report (LIR) does not make reference to the appropriateness of the assessment of effects on tourism with particular regard to the close vicinity of the proposed development to the Yorkshire Wolds and various coastal towns, as well as a number of caravan and camping businesses situated along the onshore export cable corridor, near the landfall and onshore converter station. Do you have any comments in relation to the potential effects of the proposed development on tourism as detailed in ES Chapter 29 [APP-219]?	No response is required. Question directed to ERYC.

1.25 Traffic and Transportation Including PRow

Table 1-25 - Applicants' Response to the Examining Authority's Written Questions 2 (ExQ2) - Traffic and Transportation Including PRow

I.D.	Written Question	Applicants' Response
TT.2.1	Outline Public Rights of Way (PRow) Management Plan The applicants provided a detailed response [REP2-057] to your DL1 submission [REP1-072]. Clarify if the response has addressed all your previous concerns raised. If not, explain any outstanding matters and how you would wish to see them addressed.	No response is required. Question directed to East Riding of Yorkshire and Kingston Upon Hull Joint Local Access Forum (JLAF).
TT.2.2	PRow - community benefits package The applicants' response [REP2-057] to the East Riding of Yorkshire and Kingston Upon Hull JLAF states that, 'No enhancement of PRow is proposed as the DCO application considered the National Policy Statement (NPS) requirements and has not identified any significant effects with the measures proposed in the Outline Public Rights of Way Management Plan. A Community benefits package was discussed with the JLAF during the ETG meetings, to confirm that the detail of any community benefit package offered, will be developed following engagement with the local community and remain separate from the planning process.' Provide further information on the proposed community benefits package. How and where is this secured? Explain how it would be ensured this is delivered successfully if the proposal would remain separate from the planning process. How much weight should the ExA and Secretary of State (SoS) give to this, if it is not secured as part of the DCO?	Community benefits are not a legal or Development Consent Order (DCO) requirement and are quite distinct from the consenting process, a point reiterated in the Government's (Department for Energy Security and Net Zero) Community Funds for Transmission Infrastructure: Guidance (2025), which stated: <i>"The community funds outlined within this guidance document are separate from and not a material consideration for planning authorities in England, Wales and Scotland. They will not be a consideration in the planning process or in the decision to approve or reject a proposed project."</i> Notwithstanding this, if consented, the Projects will be a permanent neighbour in the East Riding of Yorkshire community and the Applicants intend to develop and implement a community benefits package to support the local community. The Applicants will, therefore, be consulting key stakeholders on a package of proposals to benefit East Riding of Yorkshire communities which may include a range of initiatives to benefit businesses and education establishments alongside a community fund associated with the Projects' proposed above-ground onshore infrastructure, as defined in the Government's (Department for Energy Security and Net Zero) Community Funds for Transmission Infrastructure: Guidance (2025). The Applicants welcome the guidance issued by government that recommends levels of community benefit developers should consider contributing to communities located in the vicinity of specific above ground energy infrastructure. For the Projects, the Applicants plan to follow the guidance and will consult with communities later this year; this will include the Joint Local Access Forum (JLAF). The consultation will help the Applicants to understand more about community priorities and local peoples' views about how they would like the proposed benefits to be managed if the Projects are consented and move into construction. The Examining Authority (ExA) should therefore not give any weight to the 'community benefits package', as discussed in the responses provided at the Expert Topic Group (ETG) meetings to the JLAF. This is not part of the DCO application and is being developed separately. The Environmental Statement (ES) does not reference the 'community benefits package' or rely on it as secured mitigation, compensation or enhancement in relation to Public Rights of Way (PRow) or any other receptor and it is therefore, not secured. The Applicants wish for the ExA to consider the Applicants primary response on this matter to the JLAF quoted in TT.2.2 and also provided in section 2.3 of The Applicants' Responses to Written Representations [REP2-057] 'No enhancement of PRow is proposed as the DCO application considered the National Policy Statement (NPS) requirements and has not identified any significant effects with the measures proposed in the Outline Public Rights of Way Management Plan.' The JLAF were made aware at an ETG with the East Riding of Yorkshire Council (ERYC) on the 14th March 2024 of a forthcoming consultation on the proposed community benefits package that would involve some skills and supply chain initiatives. The Applicants would like to clarify, It may be possible for the JLAF to apply for funding for PRow

I.D.	Written Question	Applicants' Response
		improvements through the community benefits fund, but this has not yet been developed. As mentioned above they will be included in any consultation. The Applicants have not changed their overall position that enhancement is not required as the effects are temporary except for a very minor diversion within the Onshore Substation Zone. No PRowS are proposed to be permanently stopped up or significantly permanently diverted, impacting the journey times of walkers.
TT.2.3	Assessment methodology – driver delay (capacity) Following discussions at ISH2, and as requested at EXQ1 [PD-014], are you satisfied with the approach towards the identification and modelling of sensitive junctions in relation to driver delay effects? If not, explain any outstanding concerns and the work required by the applicants to address them.	No response is required. Question directed to Hull City Council (HCC).
TT.2.4	Outline Travel Plan measures Your response [REP3-037] and the applicants' response [REP3-027] to question ExQ1, TT.1.13 [PD-014] in relation to outline travel plan measures are noted. On the basis of the applicants' response, do you consider the oCTMP [REP4-046] sufficiently captures the required elements of an outline Travel Plan? If not, can you clarify the information you consider is missing? Do you agree that further details could be agreed as part of the final CTMP? If not, explain why not?	The Applicants note that this question is directed to ERYC but also wish to respond. The Applicants would reiterate that, as outlined in the Applicants previous responses in The Applicants' Comments on the Responses to the Examining Authority's First Written Questions [REP4-087] and The Applicants' Responses to ExQ1 [REP3-027], it is not considered necessary for a separate Travel Plan Requirement, as the requirement to produce a final Construction Traffic Management Plan in accordance with the Outline Construction Traffic Management Plan (OCTMP) (Revision 3) [REP4-046] (which includes an outline of travel planning measures and the approach to monitoring, reporting and enforcement of employee travel) is secured by Requirement 14 of the Draft DCO (Revision 7) [REP4-005]. The Applicants have sought to clarify this matter via email with ERYC on a number of occasions, and received an email response from ERYC on 15th May 2025 stating that, whilst the measures included within the OCTMP (Revision 3) [REP4-046] are an acceptable base for an enhanced Travel Plan, some further amendments are required to ensure that the travel planning measures included in Table 3-1 of the OCTMP (Revision 3) [REP4-046] are utilised. The Applicants have arranged a meeting with ERYC on 27th May 2025 to agree an acceptable way forward and are confident that agreement on this matter can be reached during the Examination.
TT.2.5	Emergency beach access The proposed emergency beach access was discussed at ISH2, when it was agreed that the applicants would consult with the local authority on the detailed design (such as any ramp, matting or access road as required). No response on this matter has been received from ERYC following ExQ1 [PD-014]. Have there been any updates on the discussions? What has been agreed with the applicants? In addition, as explained in the applicants' response to ExQ1, TT.1.15 [REP3-027], do you consider the proposed Drilling Fluid Management Plan, part of the oCoCP [REP4-040], appropriately captures the proposed way forward and requirement for consultation on the emergency beach access? If not, explain why not and any outstanding concerns.	The Applicants met with ERYC on the 15th May 2025 to discuss the emergency beach access. ERYC confirmed they had no further comments and agreed with the proposal to include the detailed design of the emergency beach access in the Drilling Fluid Management Plan, to be prepared by the Contractor undertaking the trenchless crossing works at the landfall. This would be approved by the ERYC in consultation with the Environment Agency, the statutory Nature Conservation Body and the Marine Management Organisation (if required) as detailed in Table 3-2 of the OCoCP (Revision 4) [REP4-040] and detailed in section 6.3.2.1: <i>'The Drilling Fluid Break Out Management Plan will be completed upon appointment of a Principal Contractor(s) as part of the detailed CoCP(s). The Drilling Fluid Breakout Management Plan will include details and a design (for approval) of the Emergency Intertidal Access, which may require a temporary access ramp and/or ground protection matting shoreward of Mean High Water Springs to access over the cliff face.'</i> Following a review of the Outline Code of Construction Practice (OCoCP) (Revision 4) [REP4-040], the Applicants can confirm that the Drilling Fluid Management Plan would also be agreed with Natural England, in addition to the Environment Agency, ERYC and the Marine Management Organisation at the detailed design stage in the OCoCP (Revision 3) [REP1-025], submitted at Deadline 1. This omission will be rectified by updating Table 3-2 and section

I.D.	Written Question	Applicants' Response
		6.3.2.1 of the OCoCP (Revision 5) [document reference 8.9] at Deadline 7. See also the Applicants' response to MCP.2.1. The Applicants have no outstanding concerns with the consultation on the emergency beach access as part of the proposed Drilling Fluid Management Plan.
TT.2.6	Cumulative effects assessment Following your response [REP3-027] to ExQ1, TT.1.16 [PD-014], the ExA notes that the application for Peartree Hill Solar Farm was accepted for examination on 21 March 2025. Does the additional information now publicly available have any implications in relation to the assessment of traffic and transport cumulative effects? If not, explain why not.	The Applicants have undertaken a review of the ES Chapter 14: Traffic and Assess [Peartree Hill Solar Farm Examination Library Reference: APP-050] and Chapter 15: Cumulative Effects [Peartree Hill Solar Farm Examination Library Reference: APP-050]. Table 15-8 of the ES for the proposed solar farm scheme presents the "Inter-project cumulative effects assessment". This assessment includes the potential for cumulative effects with the Projects (Dogger Bank South) and concludes that for traffic and access that: <i>"...it is not expected there would be a significant effect on construction transport and access as a result of the other existing and/or approved development and the Proposed Development [the solar farm] after additional mitigation is in place".</i> The Applicants have also undertaken a review of the recently submitted ES Traffic and Access chapter for the solar farm. This review has noted that the assessment includes consideration of the effects upon ten links, six junctions, two collision cluster locations and National Cycle Route 1. The residual effects are identified in the ES for the solar farm as greater than negligible adverse for Meaux Lane, Meaux Road, Carr Lane, Arnold Lane West and Black Tup Lane and the junction of the A165/A1035. No traffic for the Projects is proposed to travel via Meaux Lane, Meaux Road, Carr Lane, Arnold Lane West and Black Tup Lane, therefore noting there is no spatial overlap, it can be assessed that there is no potential for cumulative effects along these links. The only location where there is a potential spatial overlap is the junction of the A165/A1035 which is identified to experience minor adverse effects upon road safety in the ES for the solar farm. This junction was also identified in the ES for the Projects as a collision cluster and assessed to be of high sensitivity. The magnitude of change was however assessed as negligible noting that a forecast peak change in traffic of up to 8.7% (8.7% on the A165 to the south, 4.3% on the A1035 to the east and 7.7% on the A1035 to the west). With the addition of the peak traffic from the solar farm this would result in a change of traffic to the south of the roundabout of 10.5% on the A165, 5.2% on the A1035 to the east and 8.5% on the A1035 to the west. Noting forecast change in peak cumulative flows averaged across all arms would be less than 10% (for the worst case where both the solar farm and Projects peak traffic co-inside) the impact would on balance be assessed as negligible on a receptor of high sensitivity. The resultant cumulative effect is therefore assessed as minor adverse, i.e. not significant in Environmental Impact Assessment (EIA) terms. The Applicants therefore conclude that cumulative effects with the Pear Tree Solar Farm would not be significant in EIA terms and consequently that there are no implications in relation to the assessment of traffic and transport cumulative effects as presented within Chapter 24 Traffic and Transport [APP-195].
TT.2.7	Requirement 14 - CTMP The SoCG between the applicants and HCC [REP4-062] suggests outstanding disagreement on the wording of Requirement 14 and queries on the appropriate consultation of the relevant highway authorities as part of the oCTMP [REP4-046]. The applicants have updated the oCTMP [REP4-046] in response to your concerns raised. Can you clarify if the updated document has addressed your concerns? If it has not, explain why not.	The Applicants note that this question is directed to HCC but would also wish to respond. Prior to submission of the OCTMP (Revision 3) [REP4-046] at Deadline 4, the Applicants shared the proposed updates with HCC on 24th March 2025 and requested a response on two further occasions. HCC however did not provide a response until the 24th April 2025. This response confirmed that HCC agreed with the amendments to the OCTMP (Revision 3) [REP4-046] but wished to see minor amendments to Requirement 14 wording to explicitly clarify the range of scenarios (for ERYC, Hull and National Highways) that may be consulted on elements of the final Construction Traffic Management Plan. Due to the timing of this response, it was not possible to discuss and agree changes to Requirement 14 of the Draft DCO (Revision 7) [REP4-005] prior to Deadline 4 (25th April 2025).

I.D.	Written Question	Applicants' Response
		Following the submissions at Deadline 4, the Applicants have issued suggested changes to the requirement wording to HCC (email on 9th May 2025 and followed up on 16th May 2025) and await a formal response. Due to not having any feedback on the suggested amendment to Requirement 14 from HCC, the Applicants have not been able to provide this update to the Draft DCO (Revision 8) [document reference 3.1] at Deadline 5, as originally planned. Assuming that feedback is received on the Requirement 14 wording, the Applicants are confident that the suggested changes shared with HCC address their concerns and are confident of reaching an agreement on this matter during the course of the Examination.

Appendix A - Response to BE.2.2

Table A-1 NPS for Renewable Energy Infrastructure EN-3 (NPS EN-3) Table of Compliance

Relevant NPS Section	Topic & Relevant Paragraph	Assessment	Relevant Documents
2.8.53	It is likely that mitigation may include proactive measures to reduce the impact of deployment e.g., micro-siting of offshore transmission routes to avoid vulnerable habitats, alternatives piling or trenching techniques, noise abatement technology, collision avoidance methods or, if necessary, compensation for habitat loss. See Section 2.8.80 for Offshore Wind Environmental Standards. 2.8.54 Further guidance can be found in Sections 4.3 and 5.4 of EN-1.	This is noted and an embedded mitigation section is included within each Environmental Statement chapter and if required, additional mitigation detailed.	Chapters 8 to 30 (application ref: 7.8 to 7.30)
2.8.83 – 2.8.87	Where requested by the Secretary of State applicants are required to undertake environmental monitoring (e.g., ornithological surveys, geomorphological surveys, archaeological surveys) prior to and during construction and operation. Monitoring must measure and document the effects of the development and the efficacy of any associated mitigation or compensation. This will enable an assessment of the accuracy of the original predictions and improve the evidence base for future mitigation and compensation measures enabling better decision-making in future EIAs and HRAs. Monitoring should be presented in formal reports which must be made publicly available. Monitoring data should be provided to The Crown Estate's Marine Data Exchange. Where appropriate, applicants are also encouraged to consider monitoring collaboratively with other developers and sea users. Work is ongoing between government and industry to support effective collaboration and the development of monitoring at a strategic level.	The In-Principle Monitoring Plan (IPMP) (Revision 3) [document reference 8.23] sets out the proposed approach to pre and post-construction monitoring, which is secured in the Draft DCO (Revision 8) [document reference 3.1 (conditions 20, 21, 22 and 29 of DMLs 1 and 2 and equivalent conditions in other DMLs)].	IPMP (Revision 3) [document reference 8.23]
2.8.213 – 2.8.214	Mitigation Applicants must always employ the mitigation hierarchy, in particular to avoid as far as is possible the need to find compensatory measures for coastal, inshore and offshore developments affecting SACs SPAs, and Ramsar sites and/or MCZs. It is essential that applicants involve SNCBs, other statutory environmental bodies (e.g. Historic England) and Defra, in conjunction with the relevant regulators, as early as possible in the planning process to enable discussions of what is and isn't a significant and/or adverse effect, subsequent implications, and, if required, mitigation and/or compensation. At the earliest possible stage, alternative ways of working and use of technology should be employed to avoid environmental impacts. For example, construction vessels may be rerouted to avoid disturbing seabirds. Where impacts cannot be avoided, measures to reduce and mitigate impacts should be employed, for example using trenching techniques or noise abatement technology.	This is noted and details on how these matters have been addressed are detailed throughout Table 1-2 of Policy Compliance Assessment Tables [APP-227] and an embedded mitigation section is included within each Environmental Statement chapter. Stakeholders were consulted with through the pre-application phase of the Projects through the Evidence Plan Process, with details of this consultation being provided in dedicated consultation appendices to Chapters 8 – 30 of the Environmental Statement and the Consultation Report [APP-034] and its appendices.	Policy Compliance Assessment Tables [APP-227] Chapters 8 to 30 (application ref: 7.8 to 7.30) Report to Inform Appropriate Assessment Habitats Regulations Assessment (application ref: 6.1) Consultation Report [APP-034]

Relevant NPS Section	Topic & Relevant Paragraph	Assessment	Relevant Documents
2.8.229 – 2.8.230	Where HDD is proposed, the applicant should provide a mitigation plan to account for the possibility that HDD fails. The applicant should explain their justification for the alternative plan and ensure this is the least impactful method possible.	The works at the landfall will use trenchless techniques, such as horizontal directional drilling to safely install the offshore cables under the intertidal zone to a transition joint bay compound. Further information can be found within the Cable Statement (Revision 4) [REP4-050].	Cable Statement (Revision 4) [REP4-050]

Appendix B - Response to FSE.2.12

The ExA would welcome a brief, high level summary of the MMO's, NE's and the applicants' latest positions on the following issues including positions on whether proposed mitigation from the applicants is adequate. Cross references to other documentation submitted into the examination which give the detail would also be helpful:

a) *Potential impacts on fish from underwater noise from piling in the array areas for:*

- i) *Herring*
- ii) *Sandeel*

7. Potential impacts to herring and sandeel from underwater noise are assessed within section 10.6.1.4. of **Chapter 10 Fish and Shellfish Ecology** [APP-091]. Impacts to sandeel, as non-hearing specialists are not considered significant, and no additional mitigation measures are considered to be required.
8. When considering herring, impacts are also considered to not be significant. Despite issues with the 135dB contour highlighted throughout examination (Appendix B of **The Applicants Response to Deadline 2** [REP3-028]), consideration has been given to this impact range within both the **Illustrative Underwater Noise Reduction Technical Note** [REP4-094], and when considering alternate piling locations within the **Modelling of underwater noise associated with alternative piling locations to inform potential impacts on Atlantic Herring spawning grounds** [document reference 15.8] technical note. When considering all factors to date, it is acknowledged that the 135dB contour overlaps with between 466km² and 986km² of higher (<0.05) potential spawning ground depending on the piling scenario examined. This represented up to 30.4% of available higher (<0.05) potential spawning ground with the Fish and Shellfish Ecology Study Area. However, there is no evidence to indicate that impacts beyond the 186dB contour will result in likely significant effect on herring caused by a reduction of herring spawning success, either through limitations to migration to spawning grounds or limitations to spawning behaviour itself.
9. When considering a reduction of 10dB as presented within **Illustrative Underwater Noise Reduction Technical Note** [REP4-094], overlap with areas of higher (<0.05) potential spawning grounds is entirely mitigated in the worst case scenario.
10. Further, current requests for restriction from MMO and Cefas focus on a three month restriction period, despite the adjacent EGL2 development being granted a refined one month works restriction based on back-calculations relating to the Banks spawning population. The Applicants do not understand this apparent discrepancy and no evidence has been presented as to why the DBS Projects should be held to a different standard than neighbouring projects affecting the same receptors.

11. Therefore, the proposed mitigation is considered to be greatly over precautionary, and both spatial and temporal refinement is necessary to remain proportional, to preserve the commercial viability of the DBS Projects, and to preserve their ability to make a timely contribution to Clean Power 2030 Action Plan targets.
- b) ***Potential impacts on fish from construction activity along the export cable corridor through the Flamborough Head spawning ground for:***
 - i) *Herring*
 - ii) *Sandeel*
12. When considering restrictions relating to construction activity along the export cable corridor, herring remain the key receptor. Impacts to sandeel are presented within **Chapter 10 Fish and Shellfish Ecology** [APP-091] and are considered to be accurate and proportional. Integration of NSSS data has been undertaken on request of Natural England and will be incorporated in the update to the EIA chapter to be presented at Deadline 7.
13. When considering herring, the requested restrictions remain over precautionary, and contrary to precedent set by the EGL2 Project. Current proposed mitigation indicated a restriction on all construction activity throughout the 3 month spawning period. As stated above, this was refined to a 1 month period for the EGL2 Project. When investigating IHLS data from 2007-2023, herring larvae numbers were consistently lower along the DBS Projects Export Cable Corridor (ECC). The DBS Projects ECC also passes over a reduced area of preferred and marginal substrate when compared to EGL2. During discussions with Cefas and the MMO on 15th May 2025 this disparity was noted, and despite requesting what data EGL2 provided to permit this refinement, no rationale was provided by the MMO at the time. In the absence of rationale, the proposed temporal restriction is considered to be over precautionary, and not in line with previous advice provided by the MMO to neighbouring projects impacting the same receptors.
14. The Applicants also request for consideration to be given to a refinement in the current licence condition to specify which sections of the ECC this restriction would apply to. Both Cefas and the MMO have indicated that this refinement is likely a pragmatic approach to licencing, with a restriction relating only to those areas where preferred or marginal sediments are available to herring.
15. The Applicant would also request that low footprint activities be exempt from any licence condition. This would allow for higher footprint activities (e.g. sandwave clearance) to occur outside of the spawning period, and would not prevent lower footprint activities (e.g. cable lay) from being undertaken during the spawning period. Both Cefas and the MMO were receptive to this suggestion in the meeting on 15th May 2025.
- c) ***Potential impacts on fish from underwater noise from UXO clearance in the array areas and along the export cable corridor through the Flamborough Head spawning ground for:***
 - i) *Herring*

ii) Sandeel

16. No concerns exist surrounding UXO clearance for either species, and the position given within section 10.6.1.4. of **Chapter 10 Fish and Shellfish Ecology** [APP-091] is maintained.

d) *Potential effects on fish spawning areas from benthic ecological halo effects associated with above ground structures including cable protection installed on the sea bed for:*

i) Herring

ii) Sandeel

17. No concerns exist surrounding ecological halo effects, this was assessed as part of section 10.6.2.6 of **Chapter 10 Fish and Shellfish Ecology** [APP-091]. In summary, the infrastructure footprint represents a very small area when compared to the large areas available for spawning across the southern North Sea.

i) In terms of herring, the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105] Figure 2-1) shows that the Array Areas, where the majority of above ground structures (i.e. foundations and scour protection) are located in areas of lower potential for herring spawning. Areas of higher spawning potential are restricted to the Offshore Export Cable Corridor, inshore of Dogger Bank.

ii) Halo effects have been associated with large infrastructure that provide a substrate for colonisation (see **Ecological Halo Effects Technical Note** [document reference 15.7]) (which in turn provides input of organic matter, faeces, shell etc), therefore if any halo effect were occurring at the Projects this would be associated with the towers, foundations and scour protection. Cable protection (if required) will be short stretches with a maximum of 1.4m height above the seabed (see Table 5-17 **Chapter 5 Project Description (Revision 3)** [REP1-009], there would not be much above ground infrastructure to colonise and then cause subsequent halo effects.

18. The Array Area are areas of higher potential for sandeel spawning. However, from a review of the evidence for halo effects in the **Ecological Halo Effects Technical Note** [document reference 15.7], it is considered unlikely that significant changes to the sediments or benthos would occur outwith the permanent change from the footprint of infrastructure. Whilst ranges for change have been hypothesised, the recent evidence suggests that in European scenarios and in sediments similar to the Dogger Bank there would be no effect or effects would be limited to the immediate vicinity (<50m) from the foundations (see **Ecological Halo Effects Technical Note** [document reference 15.7] for details). Given the no to limited effects on the sediments, it is considered that they would not be any additional effect on spawning potential over and above the loss from the presence of hard substrate.

e) *Potential effects on fish spawning areas from Electromagnetic Field (EMF) effects and the localised heating of sediment within the array areas and along the export cable corridor for:*

i) Herring

- ii) Sandeel*
- 19. No concerns exist surrounding EMF effects and the localised heating of sediment for either species, and the position given within section 10.6.2.7. of **Chapter 10 Fish and Shellfish Ecology** [APP-091] is maintained.
- f) *Potential cumulative effects from the proposed development in combination with other planned projects on:*
 - i) Herring*
 - ii) Sandeel*
- 20. No concerns exist surrounding cumulative effects from the proposed development in combination with other planned projects, and the position given within section 10.7.4. of **Chapter 10 Fish and Shellfish Ecology** [APP-091] is maintained.
- g) *Potential long term or permanent effects if cable protection was not removed from the export cable corridor post decommissioning within areas of high - very high potential spawning habitat for:*
 - i) Herring*
 - ii) Sandeel*
- 21. No concerns exist surrounding long term or permanent effects if cable protection was not removed from the export cable corridor post decommissioning within areas of high - very high potential spawning habitat, and the position given within section 10.6.2.6. of **Chapter 10 Fish and Shellfish Ecology** [APP-091] is maintained.

Appendix C - Response to GD.2.1

Introduction

22. This appendix outlines the range of different constraints identified for each Onshore Substation Zone which fed into the site selection decision-making process. The Onshore Substation Zones have been listed below in order of when they were discounted in the process, as presented within **Chapter 4 Site Selection and Assessment of Alternatives (Revision 2)** [AS-017].

Onshore Substation Zone 2

23. Based on known information at the time, the constraints associated with the Onshore Substation Zone 2 are as follows:

- No direct road access, the nearest road access would be from the A1079 to the north but new access from this road would face strong opposition from ERYC. New access from the A164 would be unlikely to be permitted and access would need to consider the use of an existing route which would also require a new access. Project would likely be required to coordinate and agree to share access with the Hornsea 4 project rather than take new access off the A1079.
- Areas of steeper slopes with Onshore Substation Zone at < 1 in 50 to >1 in 30 topography and therefore construction may require some earthworks with extent of earthworks dependant on final substation location.
- Wind turbine located within Substation Zone limiting space available for substation footprints.
- The Onshore Substation Zone identified to only be able to accommodate a single HVDC footprint.
- Cable route options connecting to this Substation Zone limited by existing constraints including INEOS high pressure ethylene pipeline and requirement to route past the original proposed National Grid connection point from cable routes from the west.
- The Onshore Substation Zone location is within a Source Protection Zone (SPZ) 1.
- The site is immediately adjacent to three sides of Poplar Farm which is likely to experience close proximity views of the site, as well as a number of further properties within 250m. The site wraps around the west, east and south sides of Poplar Farm. There are a number of further surrounding farms and properties including Jillywood Farm to the north-east and Burn Park to the south within 250m, and Wanlass Farm to the south-east within 500m.
- Two footpaths cross the site connecting Poplar Farm, Burn Park and Jillywood Lane, and a further footpath follows a small section of the northern site boundary.
- Moderate to high potential for significant archaeology associated with prehistoric sites nearby.

24. Substation Zone 2 was discounted at the long list stage of the project based on the constraints noted above as this was much less preferable to all the options retained at that time. Further project information has since become available which further confirms unsuitability of this Substation Zone:

- Significant extent of Substation Zone is within area of a solar farm planning application
- Northern Gas Networks High Pressure Gas Main routes through the south of the substation zone limiting space available
- National Grid proposed Birkhill Wood Substation is located in the east of this zone.

Onshore Substation Zone 8

25. Based on known information at the time, the constraints associated with the Onshore Substation Zone 8 are as follows:

- Confined nature of the site limits space for micro siting of footprints and other required infrastructure
- Topography across majority of Substation Zone has slopes steeper shallower than 1 in 50, area steeper than 1 in 30 in the south.
- Local roads unlikely to be suitable for construction traffic or AIL deliveries and significant length of permanent access road required.
- Engineering constraints associated with the onward routeing crossing Hornsea 4 and major gas mains and requirement to route past the Proposed National Grid connection point from cable routes doubling the number of crossings of these other assets
- Minor areas of Flood Zone 2 and 3 recorded on the boundaries of the Substation Zone.
- Identified as Moderate Risk on Zetica UXO Risk Map
- There are close proximity views of the site from surrounding properties and the public right of way that follows part of the site boundary, and there is limited space for landscape mitigation.
- Significant access constraints have been identified that would potentially impact upon the size of transformers that could be accepted. In addition, there would likely be a requirement for widening of Park Lane and construction traffic would be required to route through the community of Cottingham where there are high concentrations of sensitive receptors.

26. Substation Zone 8 was discounted at the long list stage of the project based on the steep southern boundary of the site reducing available space for siting of footprint. The multiple crossings required of the Hornsea 4 project and high-pressure gas main were also considered a significant factor in discounting this substation option.

Onshore Substation Zone 3

27. Based on known information at the time, the constraints associated with the Onshore Substation Zone 3 are as follows:

- Entire extent of Substation Zone 3 within extent of solar farm planning application

- Topography within Onshore Substation Zone 3 generally slopes shallower than 1 in 50 with minor area of steeper slopes within Onshore Substation Zone at >1 in 30 and therefore construction may require some earthworks with extent of earthworks dependant on final substation location
- Area of Flood Zone 2 and 3 in the northwest
- Significant access constraints have been identified.
- Potential direct effects on ancient woodland, also potential direct effects upon UKHPI and local designations, and potential indirect effects upon International designations which require further assessment. HRA required in relation to functionally-linked land.

28. Substation Zone 3 was discounted at the short list stage of the project based on the site being within the extents of a solar farm planning application meaning it was no longer a viable option. This application is now approved (Land South of Creyke Beck Substation, Solar Farm 21/02335/STPLF).

Onshore Substation Zone 7

29. Based on known information at the time, the constraints associated with the Onshore Substation Zone 7 are as follows:

- Topography across significant areas of Substation Zone has slopes steeper than 1 in 30 with some areas shallower than 1 in 50 and therefore construction has potential to require significant earthworks to form substation platforms and drainage depending on final location within the zone.
- Engineering constraints associated with the onward routeing crossing Hornsea 4, Jocks Lodge and solar farm planning application.
- Areas of alluvium recorded within the substation zone.
- The site is located within the Yorkshire Wolds Important Landscape Area and is located to the east of the village of Walkington.
- Properties within close proximity to the option.

30. Substation Zone 7 was primarily discounted at the short list stage of the project based on the site being an elevated location. This is a generally flat site with a higher elevation within the northern part of the site. There is a relatively open nature of the site and the lack of surrounding woodland or screening options. The site would make the substations themselves more prominent in the surrounding landscape and being within the Yorkshire Wolds Important Landscape Character Area.

Onshore Substation Zone 9

31. Based on known information at the time, the constraints associated with the Onshore Substation Zone 9 are as follows

- Farm buildings recorded within Substation Zone
- Topography across majority of Substation Zone has slopes steeper shallower than 1 in 50, minor areas steeper than 1 in 30

- Access from A1174 potentially difficult to achieve due to existing residential buildings.
 - Flood Zone 2 and 3 along northern boundary
 - Engineering constraints associated with the onward routeing crossing A1079 and railway line
 - Alluvium recorded in the north of the substation zone
 - In an area of high archaeological potential. Heritage setting considerations. Options for undertaking archaeological evaluation and mitigation works.
32. Substation Zone 9 was discounted at the short list stage of the project based on the proximity to the settlement of Woodmansey from which there would be limited options mitigation and screening from the substation zone. The onward route to the national grid connection is significantly constrained by the requirement for crossing of the railway line compared to all other substation options. The crossing of the railway line is higher risk for the onward connection compared to crossing on the main section of the route as the onward connection requires more and larger ducts to be installed beneath the railway line with higher chance of settlement affecting the railway line.
33. It should be noted that Substation Zone 9 would only generally be a favourable substation zone if one of the eastern cable route options to access the area between Beverley and Hull were taken forward. These eastern routes have been discounted by the Project as outlined within **Chapter 4 Site Selection and Assessment of Alternatives (Revision 2)** [AS-017] and therefore any cable route to Substation Zone 9 would need to route past the proposed National Grid connection point on route to Substation Zone 9 and require an additional railway crossing (3 railway crossings in total compared to all other substation options).

Onshore Substation Zone 6

34. Based on known information at the time, the constraints associated with the Onshore Substation Zone 6 are as follows:
- Topography across significant areas of Substation Zone has slopes steeper than 1 in 30 with some areas shallower than 1 in 50 and therefore construction has potential to require significant earthworks to form substation platforms and drainage depending on final location within the zone.
 - This site sits at a slightly higher elevation. Within the lowest point of the site, a farm track and public right of way pass through connecting Coppleflat Lane to the east with Park Lane to the west. Open views are available from the farm track and public right of way that pass through the site. Views from the recreational assets at the lake. There would be only partially screened views from the Beverley 20 recreational route as well as views from receptors of Walkington.
 - This is a generally flat site with a higher elevation within the northern part of the site. Due to the relatively open nature of the site and the lack of surrounding woodland, landscape mitigation would be required to provide screening. The site offers sufficient space for landscape mitigation, particularly if the site was located centrally within the southern half of the site.

- When zone reduced to remove areas of very steep slopes in the north the zone could only accommodate single HVDC project.
 - Overhead utilities lines present within more developable areas of this zone and may require diversion.
 - Engineering constraints associated with the onward routeing crossing Hornsea 4, Jocks Lodge and solar farm planning application.
 - Within immediate proximity to the Scheduled Jacobean Garden, Scheduled Moated Site, Grade II Listed Building and Grade II Registered Park and Garden of Risby Hall and Park. Within 2km of Walkington Conservation Area and Skidby Conservation Area and associated Listed Buildings.
 - Moderate to high potential for features and finds associated with nearby medieval and later Scheduled Monuments.
 - The site is contained by woodland, it is still relatively high in the landscape and visible. The area is also less developed than in other zones.
 - Landowner feedback taken into account at the time was Onshore Substation Zone 6 was not favourable compared to other alternatives in the site selection process.
35. Substation Zone 6 was discounted at the short list stage of the project based on the site having a much higher potential for significant landscape, visual and settings impacts in comparison to Substation Zones 1 and 4 due to comprising a relatively prominent area of high ground and being a relatively small size only allowing for a single HVDC footprint. The Zone is within immediate proximity to the Scheduled Jacobean Garden, Scheduled Moated Site, Grade II Listed Building and Grade II Registered Park and Garden of Risby Hall and Park and within 2km of Walkington Conservation Area and Skidby Conservation Area and associated Listed Buildings with high potential for direct visibility and alteration to setting. In addition, there is also high potential for unknown archaeology to be present.

Onshore Substation Zone 5

36. Based on known information at the time, the constraints associated with the Onshore Substation Zone 5 are as follows:
- Topography across significant areas of Substation Zone has slopes steeper than 1 in 30 with some areas shallower than 1 in 50 and therefore construction has potential to require significant earthworks to form substation platforms and drainage depending on final location within the zone.
 - Overhead utilities lines present within more developable areas of this zone and may require diversion.
 - Northern Gas Networks high pressure gas main recorded in the southeast.
 - Engineering constraints associated with the onward routeing crossing Hornsea 4, Jocks Lodge and solar farm planning application
 - Within immediate proximity to the Scheduled Jacobean Garden, Grade II Listed Building and Grade II Registered Park and Garden of Risby Hall. Within 1km of the Scheduled Moated site at Risby Park, Skidby Conservation Area and associated Listed

Buildings and Skidby Grade II* Listed Mill and associated Listed Building. High potential for direct visibility and alteration to setting.

- The site is located within the Yorkshire Wolds Important Landscape Area
 - Close proximity views from Park Farm within 250m to the north, and Wilson Hill Farm within 500m to the south are likely. Views from properties on the northern edge of Skidby are also likely. Views will also be available from the two sections of the Beverley 20 walking route that pass through the site.
 - Potential for significant landscape and visual impacts due to relatively prominent area of high ground.
 - High potential for unknown archaeology to be present.
37. Substation Zone 5 was discounted at the short list stage of the project based on the site having a much higher potential for significant landscape, visual and settings impacts in comparison to Substation Zones 1 and 4 due to comprising a relatively prominent area of high ground and proximity to sensitive designations. The Zone is within immediate proximity to the Scheduled Jacobean Garden, Scheduled Moated Site, Grade II Listed Building and Grade II Registered Park and Garden of Risby Hall and Park and within 2km of Walkington Conservation Area and Skidby Conservation Area and associated Listed Buildings with high potential for direct visibility and alteration to setting. In addition, there is also high potential for unknown archaeology to be present.

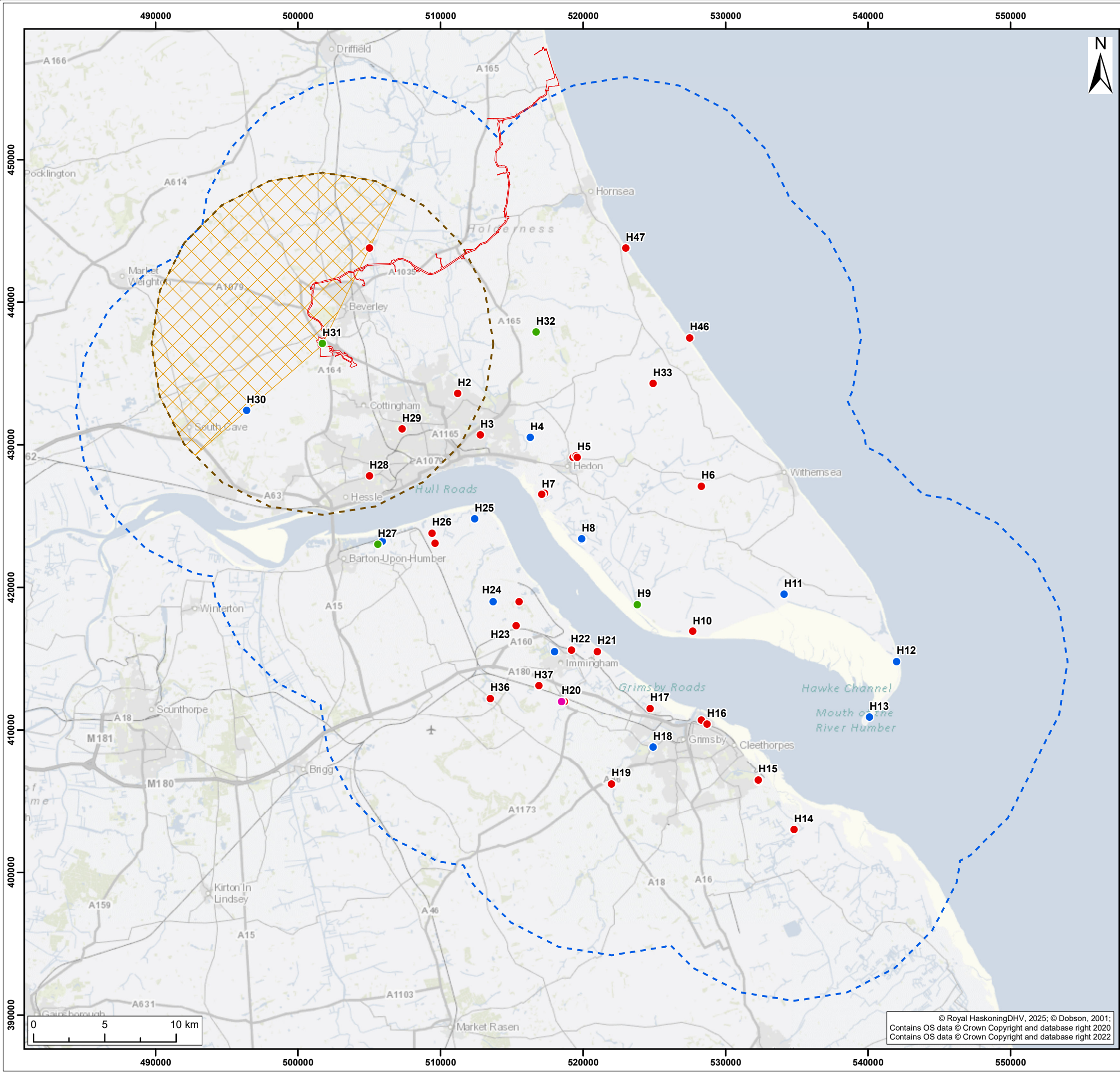
Onshore Substation Zone 1

38. Based on known information at the time, the constraints associated with the Onshore Substation Zone 1 are as follows:

- At PEIR stage Substation Zone 1 was identified as being suitable for a single HVDC footprint only
- Proposed solar farms in the south and east of the substation zone
- National Gas Transmission High Pressure Gas Main in the west of the substation zone
- Areas of Flood Zone 2 and 3 in the north and centre of the substation zone
- Area of alluvium in the north of the substation zone
- Watercourse in the north of the substation zone
- Substation zone crossed by 33kV overhead powerlines and diversions would be required
- Areas of steeper slopes with Onshore Substation Zone at < 1 in 50 to >1 in 30 topography and therefore construction may require some earthworks with extent of earthworks dependant on final substation location
- Linear geological feature identified in the east of the zone marking former coastline
- Engineering constraints associated with onward routeing including crossings of proposed solar farm, A1079 dual carriageway and INEOS ethylene pipeline
- Access route identified for this footprint option at PEIR would require AILs to cross over National Gas Transmission High Pressure Gas Main

39. Onshore Substation Zone 1 was presented during the Section 47 Consultation and the Preliminary Environmental Information (PEIR) stages to accommodate the option for maintaining HVAC technology option. A number of scenarios were presented at PEIR for both HVAC and HVDC solutions split across Zone 1 and Zone 4, however Zone 1 alone could not accommodate two onshore converter stations whereas Zone 4 could accommodate two HVDC Onshore Converter stations. As documented in **Chapter 4 Site Selection and Assessment of Alternatives (Revision 2)** [AS-017] the option for HVAC technology was removed from the Projects design envelope following PEIR consultation.
40. The remaining substation options were re-appraised (two HVDC converter stations in Substation Zone 4 (co-located), or One HVDC converter station in Substation Zone 1 and one HVDC converter station in Substation Zone 4), and an assessment undertaken to determine whether a co-located or split HVDC substation design was the better solution from an environmental, engineering and technical perspective. It was determined that the co-located substation option was more suitable when compared to a split design. This was primarily due to the following:
- Having two HVDC converter station construction sites would be less favourable from a health and safety management perspective;
 - Substation Zone 1 was considered less favourable than Zone 4 due to presence of 33kV overhead power lines, geological risk from a linear feature traversing the eastern part of the Substation Zone 1 footprint, crossing of the National Gas Transmission (NGT) High Pressure Gas Main, areas of poor ground associated with alluvium to the north of the Zone and small areas at risk of surface water flooding within the north of the Substation Zone 1 footprint;
 - A co-located option was the overall preference across all environmental topic areas; and
 - A split substation design was the least favourable from a construction costs and land rights perspective.
41. As such, it was decided to remove Onshore Substation Zone 1 from the site selection process and proceed with a co-located substation design within Onshore Substation Zone 4.

Appendix D - Response to HE.2.9



Legend:

- Onshore Development Area
- Butt Farm HAA Field of Fire
- 12km Buffer of Butt Farm HAA
- Humber WWII defensive 'box'

Heavy Anti-Aircraft Emplacement Locations in the Humber and Leconfield

Condition

- Extant
- Extant (Listed Building)
- Extant (Scheduled Monument)
- Removed

S2	P01	22/05/2025	Suitable for information	SM	JM	ND
SUI	REV	DATE	DESCRIPTION	DRW	CHK	APR

Title:
Mapped Heavy Anti-Aircraft Emplacement Locations (Derived from Dobson, 2001)

Figure: 1 Drawing No: PC2340-RHD-ON-ZZ-DR-Z-1079

Co-ordinate system: British National Grid Page Size: A3 Scale: 1:265,000

Project: Dogger Bank South Offshore Wind Farms Report: Written Questions



Appendix E - Response to OR.2.4

Table C-1 Implications to MP mass, Cost and CO₂ of increase/decrease in air gap from base case (34mMSL)

WTG Rotor blade diameter (m)	Lower Tip Elevation (Air gap) [mMSL]	DBS West Only			DBS West and DBS East		
		Additional MP Mass (tonnes)	Additional Cost (EURO)	Additional CO ₂ emissions (tonnes)	Additional MP Mass (tonnes)	Additional Cost (EURO)	Additional CO ₂ emissions (tonnes)
236m	24 mMSL	-9,697	-28,722,781	-18,618	-19,394	-57,445,561	-37,237
	34 mMSL	Base case	Base case	Base case	Base case	Base case	Base case
	37 mMSL	8,388	24,421,690	15,830	16,490	48,843,380	31,661
	40 mMSL	30,584	90,589,808	58,721	61,168	181,179,616	117,443
276m	24 mMSL	-9,524	-28,211,036	-18,287	-19,049	-56,422,072	-36,573
	34 mMSL	Base case	Base case	Base case	Base case	Base case	Base case
	37 mMSL	19,576	57,984,112	37,586	39,152	115,968,224	75,172
	40 mMSL	47,667	141,189,654	91,521	95,334	282,379,308	183,041

Table C-2 Total Kittiwake collision predictions for air gaps of 22-40m above MSL

Air gap	Proportion at collision height	Kittiwake collisions (EIA)	FFC mean	FFC U95%	Collision Difference
24	0.1124	781	497	982	71
25	0.1022	710	452	893	64
26	0.0929	646	411	811	59
27	0.0844	587	374	737	54
28	0.0767	533	339	670	48
29	0.0697	485	308	609	45
30	0.0633	440	280	553	40
31	0.0575	400	255	503	37
32	0.0523	363	231	457	33
33	0.0475	330	210	415	30
34	0.0432	300	191	377	27
35	0.0392	273	173	342	25
36	0.0356	248	158	311	23
37	0.0323	225	143	282	21
38	0.0294	204	130	257	19
39	0.0267	185	118	233	17
40	0.0242	168	107	212	-

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