DBS Offshore Wind

RWE Renewables UK Dogger Bank South (West) Limited

RWE Renewables UK Dogger Bank South (East) Limited

Dogger Bank South Offshore Wind Farms

The Applicants' Comments on Reponses 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.
Automatic Identification System (AIS)	A system by which vessels automatically broadcast their identity and key statistics including location, destination, length, speed and current status, e.g., under power. Most commercial vessels and United Kingdom/European Union fishing vessels over 15m length are required to carry AIS.
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.
Collision	The act or process of colliding (crashing) between two moving objects.
Collision Risk Model (CRM)	Quantitative means to estimate the number of predicted collisions between seabirds recorded in the Array Areas and rotating wind turbines.
Cumulative Effects	The combined effect of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor / resource.
Cumulative Effects Assessment (CEA)	The assessment of the combined effect of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor/resource.
Cumulative impact	The combined impact of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor / resource.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
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

Term	Definition
	value, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the EIA Directive and EIA Regulations, including the publication of an Environmental Statement (ES).
Environmental Statement (ES)	A document reporting the findings of the EIA and produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations.
Expert Topic Group (ETG)	A forum for targeted engagement with regulators and interested stakeholders through the EPP.
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 26,858km2, and includes the Offshore Development Area with a minimum buffer distance of 7km.
Glacial till	Poorly sorted, non-stratified and unconsolidated sediment carried or deposited by a glacier.
Gravel	Loose, rounded fragments of rock larger than sand but smaller than cobbles. Sediment larger than 2mm (as classified by the Wentworth scale used in sedimentology).
Groundwater	Water stored below the ground in rocks or other geological strata.
Habitats Regulations Assessment (HRA)	The process that determines whether or not a plan or project may have an adverse effect on the integrity of a European Site or European Offshore Marine Site.
Haul Road	The track along the Onshore Export Cable Corridor used by traffic to access different sections of the onshore export cable route for construction.
Horizontal Directional Drill (HDD)	HDD is a trenchless technique to bring the offshore cables ashore at the landfall and can be used for crossing other obstacles such as roads, railways and watercourses onshore.
Impact	Used to describe a change resulting from an activity via the Projects, i.e. increased suspended sediments / increased noise.

Term	Definition
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.
Light Vehicle	The term 'light vehicle' is used to describe the range of vehicles that would be used by construction employees, i.e. cars, vans, pick-ups, minibuses, etc.
Main River	Main Rivers are usually large rivers or streams that are designated under the Water Resources Act (1991) and are shown on the statutory Main River Map. They are managed by the Environment Agency, who carry out construction, maintenance and improvement works to manage flood risk.
National Policy Statement (NPS)	A document setting out national policy against which proposals for NSIPs will be assessed and decided upon.
Nationally Significant Infrastructure Project (NSIP)	Large scale development including power generating stations which requires development consent under the Planning Act 2008. An offshore wind farm project with a capacity of more than 100 MW constitutes an NSIP.
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.
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 Development Area	The Onshore Development Area for ES is the boundary within which all onshore infrastructure required for the Projects would be located including Landfall Zone, Onshore Export Cable Corridor, accesses, Temporary Construction Compounds and Onshore Converter Stations.
Onshore Export Cable Corridor	This is the area which includes cable trenches, haul roads, spoil storage areas, and limits of deviation for micro-siting. For assessment purposes, the cable corridor does not include the Onshore Converter Stations, Transition Joint Bays or temporary access routes; but includes Temporary Construction Compounds (purely for the cable route).
Onshore Export Cables	Onshore Export Cables take the electric from the Transition Joint Bay to the Onshore Converter Stations.

Term	Definition
Onshore Substation Zone	Parcel of land within the Onshore Development Area where the Onshore Converter Station infrastructure (including the haul roads, Temporary Construction Compounds and associated cable routeing) would be located.
Order Limits	The limits within which the Projects may be carried.
Outline Onshore Written Scheme of Investigation (WSI)	Project specific document forming the agreement between the Applicants, the appointed archaeologists, contractors and the relevant stakeholders landward of MHWS. The document sets out the methods to mitigate the effects on all the known and potential archaeological receptors within the Hornsea Four onshore Order Limits.
Radio detection and ranging (Radar)	An object-detection system which uses radio waves to determine the range, altitude, direction or speed of objects.
Sand	Sediment particles, mainly of quartz with a diameter of between 0.063mm and 2mm. Sand is generally classified as fine, medium or coarse.
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.
Silt	Sediment particles with a grain size between 0.002mm and 0.063mm, i.e. coarser than clay but finer than sand.
Special Area of Conservation (SAC)	Strictly protected sites designated pursuant to Article 3 of the Habitats Directive (via the Habitats Regulations) for habitats listed on Annex I and species listed on Annex II of the Directive.
Special Protection Area (SPA)	Strictly protected sites designated pursuant to Article 4 of the Birds Directive (via the Habitats Regulations) for species listed on Annex I of the Directive and for regularly occurring migratory species
Statutory Nature Conservation Bodies (SNCBs)	Comprised of JNCC, Natural Resources Wales, Department of Agriculture, Environment and Rural Affairs/Northern Ireland Environment Agency, Natural England and Scottish Natural Heritage, these agencies provide advice in relation to nature conservation to government
Temporary Construction Compound	An area set aside to facilitate construction of the Projects. These will be located adjacent to the Onshore Export Cable Corridor and within the Onshore Substation Zone, with access to the highway.

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

Acronyms

Term	Definition
AEoI	Adverse Effects on Integrity
AEP	Annual Energy Production
AIA	Arboricultural Impact Assessment
AIS	Automatic Identification System
ANO	Air Navigation Order
ANS	Artificial Nest Structures
AONB	Area Of Outstanding Natural Beauty
AyM	Awel y Môr
CAA	Civil Aviation Authority
CAAV	Central Association of Agricultural Valuers
CBRA	Cable Burial Risk Assessment
CfD	Contract for Difference
CIMP	Compensation Implementation and Monitoring Plan
CLO	Community Liaison Officer
CTMP	Construction Traffic Management Plan
DAS	Design and Access Statement
DBA	Dogger Bank A
DBD	Dogger Bank D
DBS	Dogger Bank South
DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department of Energy Security and Net Zero

Term	Definition
DIO	Defence Infrastructure Organisation
DL	Deadline
DMLs	Deemed Marine Licences
DSC	Digital Selective Calling
EA	Environment Agency
ECC	Export Cable Corridor
EIA	Environmental Impact Assessment
EMF	Electromagnetic Field
ERYC	East Riding of Yorkshire Council
ES	Environmental Statement
ETG	Environmental Technical Group
ExA	Examining Authority
FFC	Flamborough and Filey Coast
FLCP	Fisheries Liaison and Coexistence Plan
GDBA	Geoarchaeological desk-based assessment
GI	Geotechnical Investigation
GW	Gigawatt
Ha	Hectares
HAP	Humber Archaeology Partnership
HDD	Horizontal Directional Drilling
HDM	Highways Development Management
HPAI	Highly Pathogenic Avian Influenza
HRA	Habitats Regulations Assessment

Term	Definition
IDB	Internal Drainage Board
IHLS	International Herring Larval Survey
IPMP	In Principle Monitoring Plan
IPs	Interested Parties
ISH	Issue Specific Hearing
ISH6	Issue Specific Hearing 6
JLAF	Joint Local Access Forum
JNCC	Joint Nature Conservation Committee
LAT	Lowest Astronomical Tide
LLFA	Lead Local Floor Authority
LVIA	Landscape and Visual Impact Assessment
LWT	Lincolnshire Wildlife Trust
MarESA	Marine Evidence-based Sensitivity Assessment
MCA	Maritime and Coastguard Agency
MCZ	Marine Conservation Zone
MEEB	Measures of Equivalent Environment Benefit
MMO	Marine Management Organisation
MoD	Ministry of Defence
NAS	Noise Abatement System
NE	Natural England
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRW	Natural Resource Wales

Term	Definition
NSIP	Nationally Significant Infrastructure Project
O&M	Operation and Maintenance Plan
OCoCP	Outline Code of Construction Practice
OCS	Onshore Converter Station
OCTMP	Outline Construction Traffic Management Plan
OEMP	Outline Ecological Management Plan
OLMP	Outline Landscape Management Plan
OWF	Offshore Wind Farm
OWIC	Offshore Wind Industry Council
OWSI	Outline Written Scheme of Investigation
PAD	Protocol for Archaeological Discoveries
PEIR	Preliminary Environmental Information Report
PINS	Planning Inspectorate
PRoW	Public Rights of Way
PVA	Population Viability Assessment
RIAA	Report to Inform Appropriate Assessment
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SNCB	Statutory Nature Conservation Bodies
SoCG	Statement of Common Ground
SoS	Secretary of State
SPA	Special Protection Area
SPZ	Source Protection Zone

Term	Definition
SSSI	Site of Special Scientific Interest
SSWSI	Survey-Specific Written Scheme of Investigation
SuDS	Sustainable Drainage System
TCE	The Crown Estate
TJB	Transition Joint Bay
TTS	Temporary Threshold Shift
TWT	The Wildlife Trusts
UCL	Upper Confidence Limit
UXO	Unexploded Ordnance
VHF	Very High Frequency
WR	Written Representation
WSI	Written Scheme of Investigation

1 Introduction

1. This document presents the Applicants' comments on Interested Parties (IPs) responses to the Examining Authority's questions (ExQ2) [PD-021] at Deadline 5.

2. For ease of referencing and to facilitate future cross-referencing, the Applicants have used the existing Planning Inspectorate reference (e.g. REP5-001) and created a unique identifier for each response by itemising the document into paragraphs or sections (e.g. REP5-001:1.1). The ID numbers can be found in the first column of each table.

2 Responses to ExQ2

3. The Applicants' comments on responses from IPs to ExQ2 [PD-021] at Deadline 5 are provided in this section.

4. The Applicants have no comment on the response from the JNCC [REP5-047].

5. The Applicants have no comment on the submission from Dr Stephen Mounce [REP5-072] as this is a resubmission of REP4-101, which was addressed fully in Table 2-33 of **The Applicants' Responses to Deadline 4 Documents** [REP5-037] submitted at Deadline 5.

2.1 East Riding of Yorkshire Council (ERYC)

Table 2-1 – The Applicants' comments on ERYC's responses to ExQ2 [REP5-044]

I.D.	Question	ERYC Response	Applicants' Response
REP5-044: 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.	ERYC confirms we are happy with the amended SoCG	The Applicants acknowledge this comment and welcome ERYC's agreement on this matter.
REP5-044: DCO.2.4	**Requirement 25** 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 response on the above	The LPA are of the opinion that they should not be required to consult with landowners. The LPA believe this would be an onerous task and it would not be practical to consult with landowners in order to discharge the condition. It is understood there will be voluntary agreements in place with landowners with provisions for agreeing the restoration of their land, and where agreements are not in place there is a dispute resolution process within the OCoP and draft DCO. A requirement for LPAs to consult with landowners is likely to result in the LPA being seen as the dispute resolution channel, which is not the purpose of the condition. A requirement for the applicants to submit evidence of landowner agreement and to highlight any areas of dispute would be the LPAs preferred mechanism for dealing with the condition.	Please see **The Applicants Responses to the Examining Authority's Second Written Questions (ExQ2)** [REP5-036], see DCO 2.4 (p.36), which address the points raised by the ERYC: '*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 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 'following completion of the Proposed Works, the Grantee will reinstate the Option Area to the Pre-Works condition. The Pre-Works conditions is described in the Pre-Entry Schedule of Condition.' It further provides a mechanism of dispute resolution that 'if a dispute cannot be settled between the parties the 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.D.	Question	ERYC Response	Applicants' Response
			In order to discharge Requirement 25 the Applicants would confirm with the ERYC that land had been reinstated to the satisfaction of the landowner, providing evidence, where allowed in line with data protection regulations, as requested by the ERYC at the meeting on the 15th May and outlined in the Applicants response to DCO 2.4.
REP5-044: 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?	Burton Bushes SSSI is a biological SSSI, specifically its woodland features and undisturbed soil profile. We agree with the applicant that geological effects are not of relevance. The cable corridor lies outside of the zone of physical damage for trees and other cited features. It also lies outside the zone of influence for dust effects, >50m. Topographically, Burton Bushes SSSI lies above the cable corridor, therefore downstream hydrological impacts are unlikely to influence the interest features. Noise impacts of works are within the zone of influence; however, bird species are not a cited feature, proposed works align with the wider use of the area for farming and use of key road infrastructure routes. There will be no edge effects or fragmentation or impacts to the connectivity of the SSSI related to the proposal.	The Applicants acknowledge this comment and welcome ERYC's agreement on this matter.
REP5-044: 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?	Following meetings and subsequent correspondence between the Humber Archaeology Partnership and the applicant's archaeological representative in March and April 2025, the remaining matter concerning the use PADs (Protocol for Archaeological Discoveries) was discussed and an agreement was reached on how these would be utilised on the scheme. A draft wording for the PAD strategy that would be included in the Outline WSI was subsequently submitted to Humber Archaeology Partnership on 8th April 2025. The wording for the PAD strategy was approved by Humber Archaeology Partnership on 14th April 2025. Therefore, with the approval of the PAD and its inclusion in the Outline WSI, I can confirm that the Humber Archaeology Partnership on behalf of ERYC consider all onshore archaeological matters that we have been consulted on and that are outlined in the SoCG to be agreed.	The Applicants acknowledge this comment and welcome Humber Archaeological Partnership (on behalf of ERYC)'s agreement on this matter.
REP5-044: 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?	Humber Archaeology Partnership on behalf of ERYC have read through the Phase 2 Archaeological Evaluation Report and have the following comments on the document: • The report provides a thorough and detailed assessment of the results from the Phase 2 evaluation trial trenching works. The report meets the requirements and standards of the Humber Archaeology Partnership and those established by the Charted Institute of Archaeologists.	The Applicants acknowledge this comment and welcome Humber Archaeological Partnership (on behalf of ERYC)'s agreement on this matter.

I.D.	Question	ERYC Response	Applicants' Response
		• We are particularly happy that radiocarbon dates have been obtained at this stage of the archaeological programme and that the results from these have been utilised to further enhanced the understanding/dating of certain archaeological features. We are also happy that the report has attempted to provide preliminary comments on the research objectives.	
REP5-044: 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?	Humber Archaeology Partnership on behalf of ERYC acknowledge the archaeological mitigation measures outlined in Section 10 of the Phase 2 Archaeological Evaluation Report and agree that these should be incorporated into the Onshore Written Scheme of Investigation. In particular, we agree that the evaluation has recorded remains of high significance and that mitigation measures through micrositing/ engineering solutions or archaeological mitigation works to ensure preservation of the remains, should be considered. The archaeological mitigation strategies will be further informed by subsequent phases of trial trenching that are due to take place in 2025 and 2026. In particular, the key sites highlighted in paragraph 10.1.2 need to be given specific consideration given their potential archaeological significance. The prospective Mesolithic activity recorded in trenches 162 and 163 have the potential to be of particular interest due to the general lack of sites from this period recorded across East Yorkshire. The recommendations made in Section 10 regarding the artefactual and archaeobotanical assemblages should also be incorporated into the Onshore Written Scheme of Investigation. However, it is acknowledged that these recommendations are currently provisional and could change following an assessment of the results from subsequent phases of trial trenching work.	The Applicants acknowledge these comments and welcomes the agreement that has been reached on this matter in the meeting of 3rd June 2025 (see below) and in the Issue Specific Hearing 6 (ISH6) on 5th June. The **Outline Onshore Written Scheme of Investigation (WSI)** [REP4-048] sets out a process for the agreement of appropriate mitigation interventions with HAP and Historic England once all relevant information from phases of archaeological investigation and detail design is available. The **Outline Onshore WSI (Revision 2)** [REP4-048] sets out a process by which the findings of initial investigations, including those made in the **Phase 2 Archaeological Evaluation Trenching Report** [REP4-089 and REP4-090] can be considered and used to define detailed mitigation measures, which would be set out in the Survey-Specific WSIs (SSWSIs). The Applicants met with ERYC and Humber Archaeology Partnership (HAP) on 3rd June 2025 and agreed with HAP that any such detailed mitigation is most appropriately set out in the SSWSIs that would be subject to agreement. This process is secured by **Draft Development Consent Order (DCO) (Revision 9)** [document reference 3.1] Requirement 18. This would allow those recommendations to be understood in context and to be considered in the light of detailed design and the findings of subsequent archaeological works.
REP5-044: HE.2.7	**Hydrological effects on items of archaeological importance 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?	After examining the available information, Humber Archaeology Partnership on behalf of ERYC do not believe that the draft DCO and supporting documents provide enough information to allow an adequate assessment to be made on whether changes to hydrology would have an impact on archaeological and/or geoarchaeological remains inside and outside the order limits. In order to adequately assess the potential impact changes on hydrology could have on the archaeological resource, a desk-based geoarchaeological exercise should be undertaken and submitted alongside the existing supporting archaeological documents. This exercise should utilise geological, borehole/test pit data, historic mapping and lidar to provide an overview of potential areas of impact from hydrological changes.	The Applicants met ERYC and HAP on 3rd June 2025 to discuss this ExAQ response and confirmed that HAP's response to EXQ2 HE.2.7. was based on generic advice as to how to manage and assess such effects rather than any specific concern, and that this issue had been addressed prior to the DCO application. The Applicants drew HAP's attention to the reporting that had already been submitted in the DCO (and consulted upon with previous HAP representatives) which effectively resulted in HAP's response to HE2.7 being functionally superseded. HAP's confirmation of this position was confirmed at Issue Specific Hearing 6 (ISH6) on 5th June 2025. The information brought to HAP's attention is provided below. A geoarchaeological desk-based assessment (GDBA) has been produced, consulted with HAP at PEIR and submitted as part of the DCO examination as **Appendix 22-6 - Geoarchaeological Desk Based Assessment** [APP-179]. This did not identify any potential for significant waterlogged deposits within the Order

I.D.	Question	ERYC Response	Applicants' Response
		In areas assessed as having the potential to include archaeological and/or geoarchaeological remains that could be impacted by hydrological changes, further evaluation works should take place to build upon those which have already taken place, such as geophysical survey and test pits. The additional works should include coring, scientific dating and deposit modelling. If archaeological and/or geoarchaeological remains are identified as being at potential risk from hydrological changes, it could be necessary to identify the inputs and outputs of the water environment systems in order to understand the impact the proposed development could have, particularly in areas that fall outside the order limits where remains will be preserved in-situ and not subjected to archaeological investigative works. If it has been concluded that the development will have a negative impact on archaeological and/or geoarchaeological remains, mitigation options should be considered. These should involve preservation by record and/or design changes to the scheme. The applicants should consider the approaches outlined in Historic England guidance, such as 'Preserving Archaeological Remains', 'Deposit Modelling and Archaeology' and 'Environmental Archaeology'.	Limits or which might be affected by the proposed development. Subsequent archaeological and geoarchaeological field investigation has not identified any significant waterlogged archaeological remains within the Order Limits. The Environmental Statement assessments of hydrology (**Chapter 20 Flood Risk and Hydrology (Revision 3)** [REP5-017]) and Hydrogeology Assessment (**Chapter 19 Geology and Land Quality** [APP-158]) have not identified any connectivity to more extensive areas of waterlogging within the wider region. Any hydrological effects would be effectively managed through the adoption of the measures set out in the **Outline Drainage Strategy (Revision 3)** [REP2-033]. Consequently, any effects on waterlogged archaeological and geoarchaeological deposits would be restricted to localised change of very limited magnitude. The GDBA notes that '*While soils in the Onshore Study Area are frequently mapped as semi-waterlogged, the continued drainage of land across Holderness and the Hull valley from the medieval period onwards has reduced the once extensive wetland carr areas*' (**Appendix 22-6 - Geoarchaeological Desk Based Assessment** [APP-179], Section 34). While significant waterlogged archaeological remains have been recorded in carr deposits in the wider region, and there are localised waterlogged deposits, no such features have been identified within the Order Limits. The GDBA identified four Areas of Potential, based on mapping geomorphological character at a landscape scale, only one of which was noted as having the potential for peat deposits to be present; within the Order Limits, this area occupies approximately 120ha, or 25% of the Order Limits. Any such survival is predicted to be sparsely scattered within that Area of Potential. Connectivity of these deposits to existing hydrological networks is limited. The conclusions of the GDBA have been tested by Geotechnical Investigation (GI) work and geoarchaeological test-pitting undertaken as part of the wider trial trenching programme. A single occurrence of potential degraded peat deposits was recorded, in a sequence that was not waterlogged **Appendix 22-9 - Archaeological and Geoarchaeological Watching Brief and Deposit Model Report** [APP-190]. The potential for any drainage of potential archaeological deposits would be mitigated most effectively through the proposed use of Horizontal Directional Drilling (HDD) below larger watercourses, management of works in smaller watercourses and by the proposed Drainage Plan, which would effectively isolate the proposed works from the wider hydrological network. The Flood Risk and Hydrology chapter (**Chapter 20 Flood Risk and Hydrology (Revision 3)** [REP5-017], Table 20-14) notes no effect on Skipsea Bail Mere SSSI, which is known to preserve Holocene and Pleistocene deposits in waterlogged context. This chapter also notes the absence of any hydrological connectivity to Burton Bushes SSSI, in which the Burton Bushes scheduled monument is located. This monument is a late prehistoric settlement enclosure, a site type associated with settlement on ground. The Burton Bushes site is located on Till, which is noted in the GDBA as not having potential to preserve significant waterlogged deposits.

I.D.	Question	ERYC Response	Applicants' Response
			The Geology and Land Quality Assessment (**Chapter 19 Geology and Land Quality** [APP-158]) notes no geological sites designated for their preservation of Holocene and Pleistocene deposits in waterlogged contexts as being potentially affected.
REP5-044: 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?	The access road and screening trees, as shown in figure 23-15a4, would run in relatively close proximity to the Scheduled Monument, and would be an additional element of infrastructure within the open landscape in which the Scheduled Monument is experienced. It would be in closer proximity to the edge of the designated heritage asset than the buildings themselves, but would be of a scale and intensity that was considerably lesser than these buildings. Taken on its own, the introduction of a road in this location, with associated landscaping, could probably be secured in a manner that had a limited impact on how the Scheduled Monument is experienced particularly if care was taken with the finish of the road and any associated lighting. The soft landscaping edge would create a very minor sense of enclosure, but if considered sensitively any impact could be kept to a low level. However, the introduction of lighting along this stretch of road, or other associated paraphernalia such as signage, would have a detrimental impact on the significance of this heritage asset, by introducing distracting clutter into the wider setting in which the significance of the asset is understood and experienced, and creating a greater sense of modern development in the historically undeveloped landscape. However, it is important to note that it is difficult to separate out the impact of the road in isolation from the wider development as a whole. As there is an inherent functional interrelationship, and it will visually and physically read as an extension to the impact that the buildings themselves cause. As such, its impact (when considered holistically as part of the wider scheme) will be to marginally increase the impact of the development as a whole on the significance of the Scheduled Monument. However, its impact would be secondary and subsidiary to that created by the buildings themselves. Any assessment of the impact of the road will therefore need to be read along our previous conclusions about the impact of the substation development as a whole.	The proposed access road would be carefully landscaped, including use of a hedgerow to provide screening. There would be no signage to the access road except at the access point from the public road network and at the Onshore Converter Station Site Entrance. The proposed access route would not be lit, with PIR lighting at the site entrance only. Use of this access would be very limited in normal operation and would be confined to the use of the track by a light vehicle on a single return visit each week. As stated in Issue Specific Hearing 6, the **Design and Access Statement (Revision 2)** [REP2-027] will be updated at Deadline 7 to include a commitment stating that the access track will not include lighting, permanent signage, and that any other street furniture will be minimised.
REP5-044: 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	We believe the requested discharge rate from the IDB of 1l/s is acceptable and will not increase flood risk downstream, this is only slightly higher than the greenfield runoff of 1/4l/s/ha.	The Applicants acknowledge this comment and welcome the agreement that the 1l/s discharge rate will not increase flood risk. The **Outline Drainage Strategy (Revision 3)** [REP2-033] will be updated at Deadline 7 to confirm this response.

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	storm events and any effect on local hydrology and flood risk downstream [REP4-096, AP12].		
REP5-044: 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.	ERYC met with the applicants on 15/5/25 and discussed the changes made to the design review process and the consultation arrangements (see also response to GD 2.3 below). It has been noted that since that meeting Historic England have now confirmed their agreement to be included as a consultee. It was agreed that impartiality of the panel could be maintained by including a design champion from within the organisation with experience of designing similar schemes, subject to the other panel members remaining independent. These should include an architect. The inclusion of ERYC and Ward Councillors in the consultation on the recommendations of the Design Review Panel is noted and agreed this should be included. Discussion took place about how they would input into the design development to avoid being consulted on a scheme without any prior involvement, which could lead to conflicting opinions and delays. It was agreed that eryc would be included in the preparation of the Terms of Reference which would set out programmes for submission of review documents, together with pre-submission meetings to explain the design rationale at each stage. It is agreed that this will ensure design options are understood and give ERYC the opportunity to include other relevant technical officers where the design impacts on SUDS or landscape for example. Subject to the inclusion of these elements ERYC are now comfortable with the design review section of the DAS.	The Applicants acknowledge this comment and welcome the agreement with the approach presented by the Applicants at the ERYC meeting on the 15th May 2025.
REP5-044: 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 consultation period for responding to any outputs of the Design Review Panel were discussed on 15/5/25 with the applicants. ERYC recognised the applicants concerns that a 56 day period could delay the development of the scheme but remained concerned that in some instances 28 days would not provide sufficient time for ERYC to consult with technical officers where that was required, to carry out potential site visits, clarify reasons for design decisions with the applicants, and to respond. However, ERYC do accept that 28 days would be sufficient to respond in some cases, for example on materials or colour schemes. It would be matters where more technical advice is needed where there is an impact on SUDS or landscape for example where ERYC are not comfortable responding adequately in 28 days. The applicants suggested that the Terms of Reference and pre-submission meetings could include a requirement to	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 to the ERYC on the 15th May, except in relation to the 28 days review period. Please see the Applicants response to GD 2.3 in **The Applicants Responses to the Examining Authority's Second Written Questions (ExQ2)** [REP5-036], which stated '*The Applicants 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.*' Therefore, the Applicants consider this matter resolved with the ERYC.

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		agree where a longer consultation period (beyond 28 days) is required before submission of the details. ERYC are in agreement that this approach would be acceptable. It was also noted that HE will now be consulted and that would be carried out by the applicant. That approach is supported.	
REP5-044: 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?	We broadly accept the applicant's proposed response set out against Action 51 (REP4- 096), though we would want to highlight a couple of matters that could be incorporated into a revised response. First, as the cable route crosses a part of a SG-A Preferred Area for Sand and Gravel, it may be useful to quantify the potential total land take/tonnage in the context of all the Preferred Areas identified in the Joint Minerals Local Plan (5 in total), rather than just rely on the calculation for the take up of Minerals Safeguarding Areas. This is because these areas are in proximity to existing extraction sites and are where applications for extraction are more likely to be submitted. As such, extraction is more probable in the Preferred Areas. Second, the council has recorded a supply of sand and gravel of 3.58 years as set out in the 2024 Annual Monitoring Report. This is below the NPPF requirement for a 7-year supply of sand and gravel. As such, the potential loss of area is an important factor. A recent application was approved on the existing operation to extend the timeframe for working the quarry from 2024 to 2039 (23/03254/CME). This included an area to the north of the existing extraction area, which is currently in agricultural use, and away from the cable route. The loss/sterilisation of land for potential mineral extraction needs to be seen in the context of the above. However, we do not necessarily anticipate that the conclusion of a moderate adverse effect would be changed.	A meeting was held by the Applicants 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. It is acknowledged that extraction of minerals for future planning applications may be more probable in the Preferred Areas and in response to the first point calculations have been undertaken to identify the potential total land take in the context of all the Preferred Areas. These are summarised below: The Onshore Export Cable Corridor is located within SG-A which is 130 Hectares (Ha) in total and has a potential of up to 3,000,000 tonnes of sand and gravel. Of SG-A: During the Construction Period (4-6 years): • The Onshore Export Cable Corridor would temporarily restrict access to 2.77 Ha equating to 63,923 tonnes which is 2.13 % of the reserve in SG-A; • The temporary access road would temporarily restrict access to 0.96 Ha equating to 22,154 tonnes which is 0.74% of the reserve in SG-A; and • An adjacent triangular portion of land SE of Onshore Export Cable Corridor would temporarily restrict access to 2.54 Ha equating to 58,615 tonnes which is 1.95% of the reserve in SG-A. During Operation (up to 32 years): • The Onshore Export Cable and easement has a minimum and maximum land take based on a 24m easement, depending on where it constructed within the 75m wide construction corridor, this would temporarily restrict access to between 0.92 – 2.77 Ha, equating to 21,308 – 63,923 tonnes which is 0.71 – 2.13% of the reserve in SG-A; • The Onshore Export Cable, easement and adjacent triangular portion, described above has a minimum and maximum land take, depending where it constructed within the corridor based on a 24m easement of between 3.46 – 5.31 Ha equating to 79,923 – 122,538 tonnes which is 2.66 – 4.08% of the reserve within SG-A. In total there are five Preferred Areas (SG-A to SG-E, inclusive). Calculations have been undertaken to provide context in relation to mineral sterilisation of the Onshore Export Cable Corridor within these Preferred Areas:

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			The Preferred Areas SG-A to SG-E inclusive total 218 Hectares (Ha) and has a potential of up to 7,930,000 tonnes. During the Construction: • The Onshore Export Cable Corridor is 2.77 Ha equating to 1.27 % of SG-A to SG-E and 0.81% of the overall available tonnage; • The temporary Access Road is 0.96 Ha equating to 0.44 % of SG-A to SG-E and 0.28% of the overall available tonnage; and • The adjacent triangular portion of land SE of Onshore Export Cable Corridor is 2.54 Ha equating to 1.16 % of SG-A to SG-E and 0.74% of the overall available tonnage. During Operation: • The Onshore Export Cable and easement has a minimum and maximum land take based on a 24m easement depending where it constructed within the corridor between 0.92 – 2.77 Ha equating to 0.42 – 1.27% of SG-A to SG-E, inclusive and 0.27 – 0.81% of the overall available tonnage. • The Onshore Export Cable, easement and adjacent triangular portion has a minimum and maximum land take based on a 24m easement depending where it constructed within the corridor between 3.46 – 5.31 Ha equating 1.59 – 2.43% of SG-A to SG-E, inclusive and 1.01 – 1.55 of the overall available tonnage. In relation to the second comment regarding landbank percentages, planning application 23/03254/CME indicates that the extraction is being extended to the north of SG-A for an additional 15 years. The site boundary does not include the Onshore Export Cable Corridor, and the operator presently does not have consent for excavation in that area. All operations undertaken in SG-A are presently to the north of the Dyke and given the time extension it would seem that they intend on continuing to excavate northwards. This has also been confirmed by the landowner Yarrow Aggregates, who has entered into a land agreement [deed of grant] with the Applicants and has not objected to the scheme. This decision was undertaken by the quarry operators. The Applicants had planned to do GI within the Preferred Area located within the Onshore Export Cable Corridor, which would identify the depth of any sand and gravel but were unable to access the land as the land was too wet, at the time of survey. In the absence of ground investigation data it is not known if the material is of sufficient quality. Although the Projects would be impacting the area, as identified above. There are preferred areas within ERYC that could be extracted but, businesses and landowners are choosing not to bring forward planning applications, which is not something the Projects can control. In the meeting on 15th May 2025 with the ERYC they identified that although the preferred areas have been identified in the Joint Minerals Local Plan (Nov 2019), planning applications have not been coming

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			forward for these areas, hence why there is a shortfall recorded a supply of sand and gravel. It should be noted, planning applications in other areas are in progress. A planning application 24/01362/CME was submitted (to be determined) for the extraction of 2,200,000 tonnes (extend quarry life by 4-5years) at North Cave, the proposed area of excavation is beyond that identified as a preferred Area at Brook Farm, North Cave (SG-C). It is assumed that this additional tonnage is in addition to that already identified under SG-C which presently identifies up to 2,200,000 marketable reserves. This would therefore if permitted would bring EYRC proportionally closer to their landbank requirement. The Applicant agrees with EYRCs view that in light of the above the conclusion would still be that there is a moderate adverse effect in relation to the temporary sterilisation of minerals this is taking into account that although Projects are long lived but they are temporary in nature.
REP5-044: 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 remained concerned regarding this tree?	We would have liked to have seen its retention, where possible. The applicant's recent revision to the wider design to allow for retention of category A trees; T012 oak and T019 oak in the OCS zone is fully welcomed. The extent of avoidance of losses of category A and B trees on the scheme as a whole is noted.	The Applicants acknowledge this comment and welcome ERYC's comments on this matter. While the removal of T246 sycamore is unavoidable as it sits within a proposed Temporary Construction Compound, the loss has been accounted for within the **Biodiversity Net Gain Strategy (Revision 2)** [REP5-015] and as such would be replaced as part of the Projects commitment to deliver no net loss.
REP5-044: 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.	We consider that oEMP [REP4-042] adequately ensures that adverse impacts on the ancient woodland would be avoided. The applicants must demonstrate that a depth less than 5m is acceptable in terms of impacts on the ancient woodland, otherwise trenchless crossing must be at a depth greater than 5m. Tree protection and construction exclusion zones for the ancient woodland follow best practice.	The Applicants acknowledge this comment and welcome ERYC's agreement on this matter.
REP5-044: 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	Ref VP6, we understand that the applicant is taking new site photographs and will review upon receipt of those. ERYC would appreciate sight of any photos/visuals and would respond to the applicant's comments accordingly.	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. Photography was taken on site at grid reference TA 01310 34801, and the view towards the Onshore Substation Zone is shown below. The trees on the right are Risby Park Woods, and towards the centre is a separate group of trees on Dunflat Lane. Between the two, views are available towards the site.

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	would be a minor adverse effect if Viewpoint 6 was relocated as discussed during ISH4?		As set out in **The Applicants' Responses to ExQ2** [REP5-036] for LVI.2.4 it is considered that the scale of change to the view from this location would be small, and the effect of the Proposed Development would be minor adverse and not significant. The Applicant therefore considers that an additional photomontage is not necessary. The Photography is included in **Appendix A** of this document.
REP5-044: 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.	Ref VP1, we understand that the applicant is in the process of: a. reviewing the LVIA in the light of the reduced footprint and the most recent winter photomontage, and will consider the assessment of VP1 with that information in mind b. producing a photo/montage from the rear (south) of Butt Farm. The above will assist in reaching an assessment which takes into account the new information and is consistent in its presentation and assessment of effects from the area around Butt Farm.	a) The Applicants are preparing a revised **Chapter 23 Landscape and Visual Impact Assessment** [APP-192] to take account of the **Project Change Request 2 - Onshore Substation Zone** [AS-152], and this will be submitted at Deadline 7. b) A photomontage from the campsite to the south of Butt Farm has been prepared and submitted as an appendix to **Chapter 29 Tourism and Recreation (Revision 2)** [document reference 7.29]. This shows that at year 1 in summer the existing hedge will provide some screening of the Onshore Converter Station from the campsite. The Onshore Converter Stations are likely to be clearly visible from parts of the campsite. In summer the low-level infrastructure will be largely screened, and only the taller buildings will be visible. In winter and spring when there is less leaf cover it is likely the Onshore Converter Stations will be more visible than shown in the photomontage. The year 10 view indicates that the proposed mitigation planting will effectively screen views of the Onshore Converter Station, due to the relative proximity of the camp site to the northern plantation. Again, during winter and spring it is likely that the proposed screening will be less effective, but will still provide a degree of separation between the campsite and the Onshore Converter Stations.
REP5-044: 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?	ERYC has no outstanding concerns regarding mitigation measures.	The Applicants acknowledge this comment and welcome ERYC's agreement on this matter.
REP5-044: 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 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	Consider the applicants response to be satisfactory	The Applicants acknowledge this comment and welcome ERYC's agreement on this matter.

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	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 cli? 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.		
REP5-044: 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.	It is confirmed that the updated wording in Section 5.2 General Site Operations, paragraph 34, page 39 does address previous concerns and is acceptable.	The Applicants acknowledge this comment and welcome ERYC's agreement on this matter.
REP5-044: 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.	ERYC have agreed that the question of enforceability in the SoCG can be removed. Additional question - ERYC recognise that RWE has a history of delivering a successful programme of education and skills support activities in the Humber region. The business has actively engaged with various stakeholders from across the Humber to gather local intelligence, including East Riding of Yorkshire Council, which has helped to inform the outline Skills and Employment Strategy. We are therefore confident that the strategy identifies how positive outcomes can be achieved by the Project in relation to skills and employment opportunities, and we confirm that we are satisfied with the information provided as part of the proposed outline Skills and Employment Strategy.	The Applicants acknowledge this comment and welcome ERYC's agreement on this matter.
REP5-044: 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	From a wider economic development perspective we would not expect the project to have any major detrimental impact on tourism within the area. We assume that robust construction plans will manage any potential traffic flow disruption. The potential that emergency closure of access to areas normally	The Applicants welcome confirmation from ERYC that they would not expect the Projects to have: "*any major detrimental impact on tourism within the area*". The Applicants agree with ERYC that traffic movements will be managed through the construction plans and note that a comprehensive **Outline Construction Traffic Management Plan (OCTMP) (Revision 4)** [document reference 8.13] has been

I.D.	Question	ERYC Response	Applicants' Response
	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]?	used by visitors, whilst unavoidable, will provide alternatives were available or as a minimum be supported by clear and accurate communications. It is expected that the developer will directly engage with individual businesses operating within the vicinity of the project to thoroughly address any specific issues that may have a negative impact upon their operations.	submitted with the DCO application. The **OCTMP (Revision 4)** [document reference 8.13] includes details of measures to manage monitor and control the number and routeing of vehicles. The requirement to produce and agree a final CTMP with ERYC (in accordance with the OCTMP) is secured by Requirement 14 of the **Draft DCO (Revision 9)** [document 3.1]. With regard to road closures, the Applicants have made significant commitments to ensuring that all A and B roads, as well as five smaller roads and the railway line between Hull and Bridlington are crossed through the use of trenchless technology, e.g. HDD. These commitments would ensure that these main routes remain open and only minor roads need to be closed to install the Projects Onshore Export Cables (for a short period of up to two weeks per location). The **OCTMP (Revision 4**) [document reference 8.13] includes details of measures to minimise the effects of these closures, including, • Providing a safe route for pedestrians and cyclists through the closure; • Advanced signing to assist drivers in finding alternative routes and provide advanced warning of the closure; • Staggering closures to ensure that nearby roads are not closed at the same time to ensure alternative diversions exist; and • Engaging with affected local communities and stakeholders to provide advanced notification and identify if there may be periods which could be avoided. The **OCTMP (Revision 4)** [document reference 8.13] includes a commitment to the appointment of a Community Liaison Officer (CLO) who would be the first point of contact for the community to raise and concerns.
REP5-044: 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?	ERYC Highway Management have reviewed the O[C]TMP which provides some suggested measured to reduce workers single occupancy travel, however this is not robust enough to ensure that the best practice and measures identified are utilised. The principles of the measures are acceptable and should form the base towards a formal Travel Plan Note which HDM are happy to receive at a later date through a DCO requirement.	Subsequent to the drafting of this response, the Applicants have met with ERYC Highways Development Management (HDM) team on the 26th May 2025 to discuss this matter. During this meeting it was agreed between all parties that ERYC would not require a separate Travel Plan or Travel Plan Requirement and that construction employee movements can be managed through the measures, monitoring and control measures in the **OCTMP (Revision 4)** [document reference 8.13], which is secured by Requirement 14 of the **Draft DCO (Revision 9)** [document 3.1]. The Applicants have however agreed with ERYC to minor amendments to the **OCTMP (Revision 4)** [document reference 8.13] wording to strengthen the commitment to Travel Plan measures in section 3.2. These updates have been shared with ERYC for comment and ERYC have confirmed that the changes satisfy their comments. The updated OCTMP will be submitted to the examination at Deadline 6.

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REP5-044: 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	Discussions took place between ERYC and the applicants on 15/5/25. Previously there was a boat ramp in situ which over time has eroded due to coastal processes and we need to ensure that there can be no interference with the coastal processes at this location, by this we mean holding back sediment or preventing sediment flow along the coast. If hard engineering techniques were required, then they would need to consult with us to minimise any disturbance to coastal processes. During the meeting it was noted that the applicant is preparing a Drilling Fluid Management Plan as part of the Outline Code of Construction Practice (OCoCP), which is secured by Requirement 19 of the Draft DCO, and that further wording on emergency beach access have been added to section 5.6.3 of ES Chapter 5. ERYC are reviewing this wording but confirmed that the detailed design could be provided and agreed in the Drilling Fluid Management Plan.	The Applicants acknowledge this comment and welcome ERYC's agreement on this matter.
REP5-044: 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.	ERYC Highway Management have reviewed the information submitted to date and that of the Peartree solar farm submission and suggest that any cumulative impact assessment could be undertaken at the formal full construction traffic management plan submission. At this time the timeframes for construction are not fully understood, therefore any formal cumulative assessment may not be considered robust. A Full CTMP should form part of the requirements list along with an access management plan, as part of these assessments when a better understanding of timeframes are provided the agreed periods would aim to reduce Cumulative impact on the highway network, if any are apparent.	The Applicants refer to the comprehensive response to the ExA on this matter within, **The Applicants' Responses to the Examining Authority's Second Written Questions (ExQ2)** [REP5-036], I.D. TT.2.6. This response identifies (following a review of the Peartree Hill Solar Farm DCO documentation) there would not be the potential for significant cumulative effects between the Projects and Peartree Solar Farm. This assessment has been based upon a worst-case assumption of both projects peak construction traffic occurring at the same time. On this basis the Applicants consider the assessment represents a worst case (i.e. is robust) and it is not necessary for the Projects to revisit the cumulative assessment through the development of the final Construction Traffic Management Plan. The Applicants would note that the examination for Peartree Hill Solar Farm is in the pre-examination phase and any future material changes to the traffic data should be considered through that examination, excepting that ERYC are content with the conclusions of the traffic assessment for the Projects.

2.2 Environment Agency

Table 2-2 – The Applicants' comments on the Environment Agency responses to ExQ2 [REP5-045]

I.D.	Question	Environment Agency Response	Applicants' Response
REP5-045:1	**Action Points from ISH4** 11) To comment/ provide an opinion on the assessment of temporary watercourse access crossings and trenched cable crossings method in Environmental Statement (ES) Chapter 20 [REP1-014] and additional information submitted by the applicants in relation to action point 10 (EA & LLFA TO ANSWER) **Deadline 5**	We are struggling to understand the magnitude of impact assessment, and the answers provided in Action Point 10 (page 21 ad 22 of Doc Ref 14.11) as its not normally something we get involved in, however if there is a particular element you would like us to look at then please let us know. We have reviewed Chapter 20 as requested, paying particular attention to any mention of temporary watercourse crossings and trenched cable crossings. As far as we are aware **there will be no trenched crossings on main river**, therefore we do not have any comments on this matter. **We are only aware of one temporary crossing on Main River**, and that will be a temporary culvert on Meaux and Routh East Drain. For completeness we have included our answer to ISH4 Question 8 here: *8) To confirm its position on the proposed watercourse crossings Wx-029 and Wx-030 and the associated environmental impacts [REP2-014]* ***Deadline 4*** ***WX-029*** *will be clear span. The only additional requirement we have here is that the abutments for the crossing are located away from the embankment such that the clear span encompasses the bank on both sides of the watercourse.* ***WX-030*** *– this will be culverted. In principle we do not object to the culvert crossing, though the culvert must be appropriately sized to pass a flood flow.* *We have let the applicant know that the Meaux and Routh East Drain channel is deep and steep sided so it may be difficult to reinstate the channel when the culvert is removed.* *In relation to all watercourse crossings whether clear span or culverted we would expect that the sites are reinstated to the existing conditions once the temporary crossings are removed.* *Therefore, we have asked the applicant whether reinstatement and monitoring after the crossings have been removed could be included either in the proposals, or within the requirements of the DCO. We will be meeting with the applicants and our legal team to understand whether this is best secured through the requirements or through the protected provisions.*	The Applicants believe that the response to Action Point 10 and the updated to the Hydrology and Flood Risk Chapter, submitted at Deadline 5 are clear. As noted by the Environment Agency they have not specific comments to address on this matter and are only able to comment on impacts on Main Rivers, which have no open cut crossings and only one proposed temporary haul road crossing. The Applicants provided the following response in **The Applicants' Responses to Deadline 4 Documents** [REP5-037] to the Environment Agency comments, please see REP4- 108:3 on p.48 and 49, submitted at Deadline 5. The Applicants have repeated this response here for reference: **WX-029** would be designed and agreed with the Environment Agency as per the [proposed] Protective Provisions. The abutments for the crossing would be located away from the embankment such that the clear span encompasses the bank on both sides of the watercourse. This would be included as part of the crossing method statement as detailed in section 5.15 of the **Outline Code of Construction Practice (OCoCP) (Revision 4)** [REP4-040], secured by Requirement 19 of the **Draft Development Consent Order (DCO) (Revision 8)** [document reference 3.1]. **WX -030**: As detailed in section 6.3.2 of the **OCoCP (Revision 4)** [REP4-040]: *'It will be ensured that any culverts are adequately sized and have sufficient capacity to avoid impounding flows and are installed below the active bed of the watercourse, ensuring that a suitable flow rate is maintained so that sediment continuity and the movement of fish and aquatic invertebrates can be maintained as in CIRIA's C786 Culverts, screen and outfall manual (CIRIA 2019). A suitable flow rate will be maintained whilst crossings are installed through the use of pumps, flumes or equivalent, so that the temporary works remain safe and operational in times of flood.'* The Code of Construction Practice will be prepared by the contractor and approved by East Riding of Yorkshire Council (ERYC) in consultation with the Environment Agency as per Requirement 19 of the **Draft DCO (Revision 8)** [document reference 3.1]. It should also be noted the protective provisions for Environment Agency include ' *any work or operation authorised by this Order as is in, on, under, over or within 16 metres of a drainage work or is otherwise likely to— (a) affect any drainage work or the volumetric rate of flow of water in or flowing to or from any drainage work; (b) affect the flow, purity or quality of water in any watercourse or other surface waters or ground water; (c) cause obstruction to the free passage of fish or damage to any fishery; (d) affect the conservation, distribution or use of water resources.; or (e) affect the conservation value of the main river and habitats in its immediate vicinity; and "watercourse" includes all rivers, streams, ditches, drains, cuts, culverts, dykes, sluices, basins, sewers and passages through which water flows except a public*

I.D.	Question	Environment Agency Response	Applicants' Response
		We note Para 104 of Chapter 20 proposes some temporary culvert design solutions. Para 203 of Section 6.3.2.6 of the Outline Code of Construction practice also commits to a site-specific investigation at detailed design stage. We are satisfied with this, however when we met the applicant we suggested re-wording Requirement 19 of the draft DCO to specifically mention watercourse crossings and crossing methodologies. However, we will be meeting with the applicants and our legal team to understand whether this is best secured through a re-worded requirement or through the protected provisions. We require this to be clear to enable us to secure discussions ahead of any works taking place, to ensure our satisfaction with the proposals.	*sewer' in the definition of 'specified work'*. Schedule 15, Part 3 2(1) of the **Draft DCO (Revision 8)** [document reference 3.1] states that '*Before beginning to construct any specified work, the undertaker must submit to the Agency plans of the specified work and such further particulars available to it as the Agency may within 28 days of the receipt of the plans reasonably request. (2) Any such specified work must not be constructed except in accordance with such plans as may be approved in writing by the Agency, or determined under paragraph 11'*. Therefore, any proposed culverting of WX-030 cannot take place until a plan has been agreed with the Environment Agency. The Meaux and Routh East Drain channel would be reinstated following construction to the existing conditions once the temporary crossings are removed. The design will be agreed with the Environment Agency, as set out in the protective provisions, described above. The Contractor must propose a suitable methodology for agreement at the detailed design stage taking the 'deep and steep sided' nature of the Meaux and Routh East Drain channel into account. Any reinstatement would be designed to remain in place for the duration of the Projects operational life and would not require monitoring. However, if any failure was identified by the Environment Agency it would be the responsibility of the Applicants (undertaker) to carry out repair as soon as reasonably practicable to the satisfaction of the Environment Agency. In relation to the comment on the rewording of Requirement 19 in the DCO, the Applicants do not propose to make this amendment. Requirement 19 is for a Code of Construction Practice to be prepared at the detailed design stage and approved by the ERYC in consultation with the Environment Agency, prior or to construction. Specific wording to agree a Crossing Method Statement for watercourses with the Environment Agency is already included in section 5.15 and section 6.3.2.6 of the **OCoCP (Revision 4)** [REP4-040]. Therefore, as the Code of Construction Practice must be based on the OCoCP, the requirement to agree a crossing methodology with the Environment Agency is already secured by the **Draft DCO (Revision 9)** [document reference 3.1] and does not need to be specifically added to the wording of Requirement 19. It should be noted, specific wording was added into section 5.15 and section 6.3.2.6 in **OCoCP (Revision 2**) [AS-094], at the request of the Environment Agency in November 2024. This wording confirms that the depth of Main River crossings would be informed by the geotechnical site Investigation work, and that an appropriate Main River crossing depth will be agreed with the Environment Agency's Asset Performance and Projects team and include consideration of any potential vibration effects. The Protective Provisions for the Environment Agency in the **Draft DCO (Revision 9)** [document reference 3.1] , Schedule 15, Part 3 2(1) also state that: '*Before beginning to construct any specified work, the undertaker must submit to the Agency plans of the specified work and such further particulars available to it as the Agency may within 28 days of the receipt of the plans reasonably request.'*

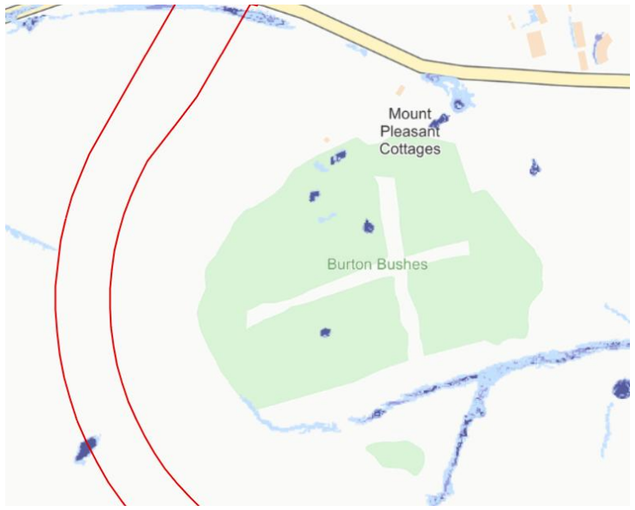
I.D.	Question	Environment Agency Response	Applicants' Response
			The Applications are arranging a meeting with the Environment Agency to discuss comments on the **Draft DCO (Revision 9)** [document reference 3.1] and protective provisions prior to Deadline 7.
REP5-045:HF2.4	**Response to Examining Authority's further written questions and requests for further information ExQ2** **HF2.4 - Discharge rates (For the EA and Lead Local Flood Authority (LLFA))** 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	We have reviewed the Outline Drainage Strategy (Revision 3) clean dated February 2025, alongside the answer to Action Point 12 in Rep4-096. From the report submitted there doesn't appear to be any surface water discharging directly to main river. We also note that surface water will be restricted to greenfield runoff rates and SUDs will be installed. Therefore, we have no comments to make on the above question and instead refer to the LLFA or IDB for comments. Please do not hesitate to contact me if you require any further information. We look forward to continuing to work with the applicant to resolve any outstanding matters and to ensure the best environmental outcome for this project.	We note that the Environment Agency have deferred to the LLFA or Internal Drainage Board (IDB) on this matter. Should a surface water discharging be required directly to Main River, this would be covered by the Protective Provisions for the Environment Agency in the **Draft DCO (Revision 9)** [document reference 3.1] , Schedule 15, Part 3 2(1) also state that: '*Before beginning to construct any **specified work**, the undertaker must submit to the Agency plans of the specified work and such further particulars available to it as the Agency may within 28 days of the receipt of the plans reasonably request.'* The definition of "specified work" means '*so much of any work or operation authorised by this Order as is in, on, under, over or within 16 metres of a drainage work or is otherwise likely to* *— (a) affect any drainage work **or the volumetric rate of flow of water in or flowing to or from any drainage work'***. Therefore, no surface water discharge could be made without agreement with the Environment Agency. It should be noted, the **Outline Drainage Strategy (Revision 3)** [REP2-033] is being updated at Deadline 7 to confirm that discharge rates would be restricted to greenfield runoff rates or, a minimum of 1l/s, to prevent blockages as agreed with the IDB and ERYC.

2.3 Forestry Commission

Table 2-3 – The Applicants' comments on Forestry Commission responses to ExQ2 [AS-182]

I.D.	Question	Forestry Commission Response	Applicants' Response
AS-182: 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?	The Forestry Commission wishes to highlight that Paragraph 180(c) of the NPPF states that, "*Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland) should be refused, unless there are wholly exceptional reasons". REP4-042 states that, in relation to areas of ancient woodland, "works associated with the Onshore Converter Station (s) will avoid direct impacts to this woodland.*". The document goes on to state, "*However, the Priority Habitat may be indirectly affected by activities which generate fugitive emissions (i.e. dust and emissions from an increase in construction traffic and road access)*". It appears that in this case "Priority Habitat" is referring to ancient woodland, an irreplaceable habitat, and that deterioration of the habitat may occur as a result of the planned works. In relation to ancient woodland and trenchless crossing/HDD, it is stated that "*the Applicants are committed to trenchless crossing techniques at depth greater than 5m as recommended by the Woodland Trust, unless following detailed geotechnical investigations clear evidence is provided to demonstrate that a shallower depth would not result in adverse impacts on roots, soils or rhizosphere along or above the proposed route.*". It is not clear how geotechnical investigation could provide clear evidence that a shallower depth would not have an impact on the roots, soils or rhizosphere associated with the ancient woodland. Geotechnical investigation may not be sufficient to ensure that no impacts would occur to biological and organic processes. REP4-044 references the Landscape and Visual Impact Assessment (LVIA) which highlights the importance of retaining and protecting existing woodland, including ancient woodland. The joint Natural England and Forestry Commission Standing Advice on Ancient Woodland advises that proposals in proximity to ancient woodland should have a buffer zone of at least 15m from the boundary of the woodland. Where assessment shows impacts are likely to extend beyond this distance, for example the effects of air pollution from increased traffic and/or industrial processes, the proposal is likely to require a larger buffer zone. We have not been able to find an assessment of whether a 15m buffer would be sufficient in this case. The Standing Advice also highlights that, "*Open ground, both temporary and permanent, is an important component of ancient woodlands.*". As such all open ground and individual trees within an area designated as ancient woodland, should be afforded the same protection as wooded areas.	There are no impacts on irreplaceable habitats expected as part of the Projects, woodland or otherwise. A suite of ecological surveys was undertaken following initial assessments and consultation with stakeholders during the Scoping, Preliminary Environmental Information Report, and Environmental Impact Assessment stages; the details of which are reported in **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019] with full results presented as appendices. Direct impacts to woodlands as well as other valuable terrestrial habitats have been avoided during the Onshore Development Area site selection process and through scheme design. The site selection process is detailed in **Chapter 4 Site Selection and Assessment of Alternatives (Revision 2)** [AS-017]. The Applicants are confident that the detailed arboricultural surveys carried out to British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction' identified and categorised each arboricultural feature likely to be impacted by the Projects. The results of this survey informed the **Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment and Outline Arboricultural Method Statement (Revision 3**) [REP3-017]. These documents identify potential impacts to all arboricultural features in relation to the Projects and set out measures to avoid them. Furthermore, the Applicants acknowledge the ecological importance of soils associated with ancient woodlands, particularly the rhizosphere, the volume of soil influenced by root activity. According to Forest Research, the top 0.6 metres of the soil profile is especially significant, containing approximately 80–90% of the widespread rooting structure. While Forest Research and supporting grey literature indicate that it is uncommon for roots to extend beyond a depth of 2 metres, the Projects will commit to a trenchless crossing at a depth greater than 5m beneath the ancient woodland. This commitment is intended to avoid potential impacts on both soil structure and hydrology, as outlined in the **Outline Ecological Management Plan (Revision 5)** [REP4-042] and the **Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment, and Outline Arboricultural Method Statement (Revision 03)** [REP3-017]. The Applicants would advise the Forestry Commission to review the **Outline Ecological Management Plan (Revision 5)** [REP4-042] which includes a comprehensive section on 'Protective Buffer Zones' in section 1.5.2.1 and ancient woodland at Bentley Moor Wood in section 1.6.2.3. The following text is included in para 86 which states: '*Buffer zones surrounding retained areas of woodland and mature broadleaved trees would be at least 15m in width or at least the width of the tree root protection zone (whichever is greater), as advised by an appropriately qualified arboriculturist*'. The protective buffer zones are based on standard industry guidance including BS 5837:2012 — Trees in Relation to Design, Demolition and Construction and as discussed with stakeholders that include Natural England and the Woodland Trust. With respect to veteran tree buffer zones, the Applicants confirm that the adopted buffer complies with the standing advice issued by Natural England and the Forestry Commission. Specifically, the buffer is based on the greater of either 15 times the stem diameter or 5 metres beyond the canopy spread. Full details of this approach are provided in

I.D.	Question	Forestry Commission Response	Applicants' Response
			the **Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment, and Outline Arboricultural Method Statement (Revision 3)** [REP3-017] and associated drawings. Potential impacts arising from changes to air quality are presented in C**hapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019] Sections 18.6.1 .1 Construction Disturbance to Statutory Designated Nature Conservation Sites, 18.6.1.2 for Non Statutory Designated Nature Conservation Sites, and 18.6.1.3 for impact on habitats. With regards to the area of the ancient woodland and other habitats, the Applicants have considered the footprint of Bentley Moor Wood as identified in MAGIC (Natural England's Ancient Woodland Inventory) and the North and East Yorkshire Ecological Data Centre, in agreement with stakeholders including Natural England and East Riding of Yorkshire Council. The Applicants confirm that the areas of ancient woodland to be protected include the footprint identified by these sources, along with the appropriate buffer zones as detailed in section 1.5.2.1 of the **Outline Ecological Management Plan (Revision 5)** [REP4-042] and the **Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment, and Outline Arboricultural Method Statement (Revision 3)** [REP3-017] and associated drawings. The Applicants have ensured that any potential impacts to the ancient woodland, veteran trees, woodland and individual trees have been avoided as far as practicable and where potential impacts could occur these have been adequately assessed, mitigated for and compensated where necessary.
AS-182: 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?	From reviewing the referenced documents, it is not clear whether the potential impacts to the ancient woodlands and ancient/veteran trees, from the changes in hydrology as a result of the proposed works, have been assessed.	Burton Bushes Site of Special Scientific Interest (SSSI) is 120m west of the Onshore Export Cable Corridor, and as stated in **Chapter 20 Flood Risk and Hydrology Revision 2)** [REP1-014], there is no surface water connectivity to the designated site (and therefore no trenched crossings of a watercourse that could affect the site). The SSSI is not crossed by any watercourses or surface water flow paths that connect to the Onshore Development Area. The only excavations at a distance of 120 m from the SSSI are for the export cables. These would be shallow (1.3 to 1.7 m) and only through relatively thick superficial deposits. Data from the British Geological Society show that superficial deposits are characterised by glacial till for a significant distance in all directions from Burton Bushes SSSI. Glacial till is clay-rich and not conducive to the transmission of changes in surface water hydrology for any significant distance beyond the immediate shallow cable trench excavations. There are no deep trenchless crossings into the underlying chalk bedrock – the nearest trenchless crossing is 2.3 km northeast of the designated site. As discussed in **Chapter 20 Flood Risk and Hydrology (Revision 3)** [REP5-017], the underlying Hull and East Riding Chalk groundwater body measures almost 2,000 km², which means that relatively minor trenchless crossings through the chalk are very unlikely to affect groundwater levels or the gross movement of water in the underlying aquifer. The groundwater body is overlain by clay-rich till deposits which will also act as an aquiclude, limiting connectivity between groundwaters and surface waters. As assessed in **Chapter 20 Flood Risk and Hydrology (Revision 3)** [REP5-017], impact magnitude for changes to surface and groundwater flows and flood risk (construction and

I.D.	Question	Forestry Commission Response	Applicants' Response
			operation) for the two surface water catchments that contain the SSSI, and underlying groundwater catchment, are negligible. In addition, the Natural England citation for Burston Bushes SSSI does not indicate this is a wet woodland site. This is confirmed by analysis of the most recent Environment Agency surface water flood risk data (updated January 2025 (see figure below)). There are only very small areas of ponding in the SSSI. If this was wet woodland it would be expected that for low return periods (3.3% AEP (dark blue on the figure below)) there would be extensive ponding or convergence of surface water flow paths in this area. No permanent watercourses or ephemeral surface water flow paths drain into the site. Due to the distance from the SSSI, lack of surface water connectivity, small scale of works, protective clay-rich local geology and no evidence of wetland species in the SSSI, impacts from the cable trench excavations are considered very unlikely to affect Burton Bushes.  Any local hydrological effects associated with excavations would be effectively managed through the adoption of the measures set out in the **Outline Drainage Strategy (Revision 3)** [REP2-033] for field drainage which is secured by Requirement 16 of the **Draft Development Consent Order (DCO) (Revision 9)** [document reference 3.1]. During the Construction Phase a Surface Water Management Plan would be prepared as part of the final Code of Construction Practice (which is secured by DCO Requirement 19). The aim of the Surface Water Management Plan and Outline Drainage Strategy is to make sure that surface water flows and field drainage are not adversely affected. The outcome of the detailed assessment presented in **Chapter 20 Flood Risk and Hydrology (Revision 3)** [REP5-017] indicate negligible or minor adverse effects across all catchments, including those overlapping or adjacent to sensitive environmental features. Chapter 20 also concludes that changes to surface and groundwater flows resulting from the creation of

I.D.	Question	Forestry Commission Response	Applicants' Response
			impermeable surfaces (such as access roads and substations) and trenchless cable crossings would have negligible to minor adverse impacts under all development scenarios. This assessment includes consideration of potential effects from soil compaction and localised flow diversion, indicating that the overall hydrological impacts are minimal. The Applicants have committed to avoiding impacts on all veteran trees and will compile a final Arboricultural Method Statement for the construction phase based on the Projects' **Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment, and Outline Arboricultural Method Statement (Revision 3**) [REP3-017]. The **Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment, and Outline Arboricultural Method Statement (Revision 3)** [REP3-017] describes mitigation measures such as micro siting to minimise impact on trees, installation of tree protection barriers around retained trees, implementation and safeguard of root protection areas and veteran tree buffer zones which would be adhered to. The Applicants can confirm there are no proposals for trenchless techniques beneath veteran trees.
AS-182: 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.	In relation to ancient woodland and trenchless crossing/HDD, it is stated that "*the Applicants are committed to trenchless crossing techniques at depth greater than 5m as recommended by the Woodland Trust, unless following detailed geotechnical investigations clear evidence is provided to demonstrate that a shallower depth would not result in adverse impacts on roots, soils or rhizosphere along or above the proposed route.*". It is not clear how geotechnical investigation could provide clear evidence that a shallower depth would not have an impact on the roots, soils or rhizosphere associated with the ancient woodland. Geotechnical investigation may not be sufficient to ensure that no impacts would occur to biological and organic processes.	As detailed in the Applicants response to ENC.2.5, above, the Applicants acknowledge the ecological importance of soils associated with ancient woodlands, particularly the rhizosphere, the volume of soil influenced by root activity. According to Forest Research, the top 0.6 metres of the soil profile is especially significant, containing approximately 80–90% of the widespread rooting structure. While Forest Research and supporting grey literature indicate that it is uncommon for roots to extend beyond a depth of 2 metres, the Projects will commit to a trenchless crossing at a depth greater than 5m beneath the ancient woodland. This commitment is intended to avoid potential impacts on both soil structure and hydrology, as outlined in the **Outline Ecological Management Plan (Revision 5)** [REP4-042] and the **Arboricultural Survey Report, Preliminary Arboricultural Impact Assessment, and Outline Arboricultural Method Statement (Revision 3)** [REP3-017]. As a reduced depth, less than 5m must be agreed with the East Riding of Yorkshire Council (ERYC), a mechanism for approval is already included in the **Outline Ecological Management Plan (Revision 5)** [REP4-042]. All constraints need to be considered as part of the detailed design and the Applicants require the flexibility to agree the most appropriate approach with the ERYC, in consultation with Natural England, where necessary. The geotechnical investigation is to provide information to inform the technical design of the crossing at detailed design, considering both the ecological constraints of the ancient woodland and considering the Source Protection Zone (SPZ) within the Substation Zone, which will be subject to a Hydrogeological Risk Assessment and is located in the chalk located beneath the ancient woodland.

2.4 Historic England

Table 2-4 – The Applicants' comments on Historic England responses to ExQ2 [REP5-046]

I.D.	Question	Historic England Response	Applicants' Response
REP5-046: DCO.2.2	**Question DCO.2.2** **Title: 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.***	We have carefully reviewed the matter and have concluded that as the DCO still requires submission of the final Offshore WSI to the MMO six months before commencement, this point is resolved.	The Applicants acknowledge this comment and welcome Historic England's agreement that this matter is resolved.
REP5-046: HE.2.5	**Question HE.2.5** **Title: Archaeology** ***Do you have any comments regarding the Phase 2 Archaeological Evaluation Trenching Report [REP4-089 and REP4-090] submitted at DL4?***	We are still reviewing the content and will be in a position to respond by the next deadline date (Deadline 6, 13th June, 2025).	The Applicants acknowledge that this is still under Historic England's review.
REP5-046: HE.2.8	**Question: HE 2.8** **Title: 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]***	We note the responses provided by the applicant in response to HE.1.16 and HE.1.21 HE.1.16: We maintain that it is not clear what archaeological remains may survive within the Order Limits, but we recognize that what may survive will be insubstantial. The aerial photography provided by Historic England indicates that features, admittedly ephemeral, related to the scheduled site survived into the modern period. We therefore drew attention to those features in order to indicate the original size and developed scale of the Butt Farm gunsite. However we agree with the applicant that the majority of structural elements are outside the Order Limits. HE.1.21: We consider that the clarification now provided by the applicant is acceptable. We would however ask the Examining Authority to note that the Butt Farm gunsite is extremely rare and a key site in the development of defensive infrastructure.	The Applicant acknowledge Historic England's comments, and no further response is required.
REP5-046: HE.2.10	**Question HE 2.10**	'Effects' can be positive or negative. We consider that the 'effect' on the significance of the Butt Farm gunsite generated by the proposed Onshore Converter Station (OCS) will be 'negative'. The significance of a place is	The Applicants have set out their assessment of the effects of the proposed development on the Butt Farm site at some length in previous submissions to the examination including AS-155, REP2-057, REP3-027, REP4-087. The Applicants

I.D.	Question	Historic England Response	Applicants' Response
	Title: Effects on the significance of the anti-aircraft gunsite at Butt Farm ***The ExA notes your response to action point 31 from ISH4 [REP4-109]. However, confirm if you consider whether an effect on the significance of a heritage asset is the same or different to a loss (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 sum of the values attached to it by people: significance defines what a place means to us now. The Historic England Conservation Principles (2008) identifies four value groups: Evidential (what we can find out about a place), Historical (what we know about a place), Aesthetic (how a place makes us feel) and Communal (who values the place and why). The Conservation Principles document was produced for Historic England use, but is widely used by other parties for the positive management of the historic environment. We agree with the applicant that there will be no physical impact on the scheduled monument, and therefore there will be no need for archaeological mitigation and therefore there is no harm to the Evidential value of the scheduled site. However, should it be possible to carry out archaeological evaluation of the gunsite as part of any public engagement or outreach work in the manner suggested by Historic England in RR-022 and Written Representations, some of the Evidential value attached to the site could be realised. We know a great deal about the Historical value of the site, in both its associative and illustrative components, and again the proposed OCS and associated works will not have a negative impact on the Historical value. However, we consider that the Historical value could be enhanced by public engagement and community outreach works (as above). The biggest negative impact on the significance of the scheduled monument will be the diminution of the Aesthetic value, generated by the presence of the OCS. Both we and the applicant agree that setting contributes to the significance of the Butt Farm gunsite. The proposed OCS is a large, prominent feature in the setting of the monument; it will change the setting, making it more limited and constrained: it will feel and look diminished, and the way we experience the scheduled site will change. The Communal value of the site is harder to calculate. There are people who have a close attachment to the gunsite, and care deeply about the structures and its history. There are people who are regular users of the adjacent camp site, who are drawn to it by its history and structures, as well as the open aspect. The construction and presence of the OCS will therefore have some negative impact on the Communal value. However, as is the case with Historical value, we consider that the Communal value can be enhanced through public benefit, outreach and engagement works. On the basis of this assessment of impact and significance, we remain of the view that the OCS will constitute 'less than substantial harm' to the significance of the scheduled gunsite. There will be loss to the Aesthetic value, and loss to the Communal value, but the loss to the Aesthetic value will be greater.	note that Aesthetic value is defined by *Conservation principles* (English Heritage, 2008) as '*Aesthetic values can be the result of the conscious design of a place, including artistic endeavour. Equally, they can be the seemingly fortuitous outcome of the way in which a place has evolved and been used over time. Many places combine these two aspects – for example, where the qualities of an already attractive landscape have been reinforced by artifice – while others may inspire awe or fear. Aesthetic values tend to be specific to a time and cultural context, but appreciation of them is not culturally exclusive.'* As previously noted in **The Applicants' Responses to Written Representations** [REP2-057] (REP1-059:4.6), any sense of awe on the part of a visitor is the result of viewer's understanding of the historic role of the asset rather than the experience of the site seen in any aesthetic sense.
REP5-046: HE.2.12	**Question HE 2.12**	We have reviewed the updated figure 23-15a4 (REP4-039) and consider that the proximity of the proposed access road and its suggested	The Applicants note that proposals for landscaping reflect specific requests made by East Riding of Yorkshire Council's (ERYC's) landscape team and the detail of

I.D.	Question	Historic England Response	Applicants' Response
	Title: 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?***	landscaping will increase the sense of enclosure in this part of the site. This will add to the sense of enclosure generated by the OCS to the south of the scheduled gunsite and will therefore add to the diminution of the Aesthetic value. Because planting is subject to seasonal change, it does not form a permanent barrier, and therefore the road and movement along it will be visible from the scheduled site.	these arrangements will be subject to agreement with ERYC and Historic England through the process for approval of the Landscape Management Plan and the Design and Access Statement (DAS). The Applicants further note evidence given at ISH6 that there would be no lighting (other than security lighting at the entrance point) or requirement for permanent signage or street furniture along the access track, which would be used for site visits by individual staff in a light vehicle on a weekly basis. The Applicants have agreed to update the **Design and Access Statement (Revision 3)** [document reference 8.8] at Deadline 7 to include this commitment.
REP5-046: HE.2.14	**Question HE 2.14** **Title: 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 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.***	We can confirm that we have discussed this matter with the applicant on 20th May 2025 and have agreed that the proposal to consult Historic England during an earlier stage of the design review process is acceptable to us. As this can be agreed, a provision should be made in the DCO for this to be secured as a requirement.	The Applicants acknowledge this agreement. The Applicants will be submitting an updated **Design and Access Statement (Revision 3)** [document reference 8.8] at Deadline 7 which will confirm that Historic England will be consulted as part of the Design Review Panel process as set out in the DAS. Requirement 9 of the **Draft Development Consent Order (DCO) (Revision 9)** [document reference 3.1] ensures that the detailed design must be in accordance with the DAS and so the Applicants do not propose updating the wording within the DCO requirement itself.
REP5-046: HE.2.15	**Question HE 2.15** **Title: 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?***	Historic England welcomes the public outreach / community engagement strategy set out by the applicant in Appendix 3 of REP4-048. We consider that if adequately resourced and initiated these proposals could deliver lasting 'heritage benefits'. We recognise that not all the ideas proposed by Historic England and identified in REP4-048 can be delivered by the applicant, owing to the privately owned nature of the site. Similarly we accept that not all the ideas can be delivered during the life of the project build, but will be 'legacy' projects, which will in turn rely on the enthusiasm of local curators and the public to sustain engagement. Historic England will meet with the applicant, agents and local curators on 22nd May in order to discuss this issue, and seek solutions, and thereafter host a series of meetings in order share knowledge and experience between the several NSIP projects in this geographic area, with the aim of delivering better, more engaged cultural heritage practice. The strategy presented in REP4-048 needs to strike a balance between initiatives which treat the public as a passive audience receiving	The Applicants attended the cross-project forum meeting on 22nd May 2025, with representatives of other DCO projects in the region, and it was agreed that this would be a useful forum for knowledge sharing and coordination of aspects of outreach and engagement projects, both between projects and with external stakeholders. The Applicants are engaging with Historic England to agree next steps on this initiative. The strategy presented in the Outline Onshore Written Scheme of Investigation (WSI) sets out a process for agreeing outreach activities and the measures identified represent a sample of approaches that could be taken. Any proposals would be subject to agreement with Historic England and Humber Archaeological Partnership. The Applicants met Historic England, the tenant farmer and a representative of the group who provide interpretation of the remains on site at Butt Farm on 4th June 2025, the meeting referred to in the Applicants' response to Written Question HE.2.13 [REP5-036]. The aim of this meeting was to discuss proposals for physical works to the monument aimed at providing enhancements to security, works to slow deterioration of the surviving gun emplacements, consolidation of the partially restored gun emplacement and command building and potential

I.D.	Question	Historic England Response	Applicants' Response
		information from experts, and those initiatives which are about genuine engagement, co-creation and participation. To this end the public information aspect of the first half of the strategy could also serve as the mechanism to identify what it is that people might be interested in and what projects or ideas they might want to initiate. The suggested enhancements of the Butt Farm gunsite are very welcome and positive. Again there are opportunities here to deliver more, by, for example, using any conservation work as a training exercise in the conservation of modern materials. This would enhance the public benefit through conservation of the fabric and the increased experience for conservation practitioners. Historic England considers that there are considerable possibilities, opportunities and public benefits in the proposed strategy, and we are keen to work with the applicant and other partners to give definition and certainty to the presently outline proposals. Subject to the outcome of those discussions, an update will be provided.	engagement activities. A number of potential viable options were discussed for enhancement of the gun site; which will be further developed as discussions with the landowner progress on this matter.
REP5-046: MA.2.2	**Question MA 2.2** **Title: Public outreach and engagement** ***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.***	We are of the opinion that through the provision of the Outline Offshore WSI and reference C020 of the Commitments Register (REP2-025) opportunities to realise public benefit from the project will be established post-consent in consultation with key stakeholders, including Historic England.	The Applicants acknowledge this comment.
REP5-046: MA.2.3	**Question MA 2.3** **Title: 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.***	In a meeting with the Applicant and their consultants on 5th March 2025 we discussed this specific point and are therefore content with the broader meaning of how recording material of archaeological interest that is to be impacted by the project can go some way to preserving a site, object or features material integrity. In more specific terms, we consider the content of the Outline WSI Offshore (APP-246) section 5.4 provides a good starting point for focusing archaeological investigations on heritage assets that pose a development constraint. Through schemes of evidence gathering for the purposes of interpretation and advance understanding of significance – not simply on 'recording' alone. Furthermore, we consider the provision of utilising archaeological specialists as part of the survey team on board (ROV) or in the water (Diver) - as alluded to in paragraph 136 - may be invaluable. Providing us	The Applicants acknowledge this comment and welcome Historic England's agreement with the **Outline Written Scheme of Investigation (Offshore)** [APP-246].

I.D.	Question	Historic England Response	Applicants' Response
		confidence that any such investigations have the prospect to develop a full appreciation of the research potential of a site. This is a provision we would therefore wish to see translated, and elaborated upon where possible, into a finalised Offshore WSI – should consent be granted.	
REP5-046: MA.2.4	**Question MA 2.4** **Title: 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.***	It has been agreed that a separate WSI (marine) will be produced to support marine licence application for the any Artificial nesting Structures, and Historic England will be consulted on its content.	The Applicants acknowledge this comment and confirm this agreement.
REP5-046: MA.2.5	**Question MA 2.5** **Title: 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.***	We are of the opinion that the response provided by the Applicant on this matter is sufficient. It is important that there is provision for agreement being sought from the archaeological curators for archaeological method statements produced prior to survey or construction work within the Outline Offshore WSI.	The Applicants acknowledge this comment and welcome Historic England's agreement on this matter.
REP5-046: MA.2.6	**Question MA 2.6** **Title: Survey Co-ordination – 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.***	In a meeting with the Applicant and their consultants on 5th March 2025 we discussed this specific point. We accept that through the provision of the Outline Offshore WSI (APP-246) this area of seabed can be investigated utilising an archaeological method statement (with specialist local archaeological input) in a suitable timeframe prior to construction.	The Applicants acknowledge this comment and welcome Historic England's agreement on this matter.

2.5 Kingston upon Hull Joint Local Access Forum (JLAF)

Table 2-5 – The Applicants' comments on JLAF's responses to ExQ2 [REP5-047]

I.D.	Question	JLAF Response	Applicants' Response
REP5-047: 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.	**ExQ2/ TT.2.1** The JLAF considers to be satisfactory the agreements and promises made by The Applicant in its responses (REP2-057) to the following issues raised by JLAF in its Representations (REP-072): REP1-072-1 REP1-072-2 REP1-072-3 REP1-072-4 REP1-072-5 REP1-072-7 The JLAF is disappointed with The Applicant's response to: REP1-072-6 This is for the following reasons: On the question of the **enhancement of PRoW under advisement of National Planning Policy Framework paragraph 105 and National Energy Policy Statement EN-1 paragraph 5.11.30,** there are opportunities both within the Development Area as well as proximal to it, such as: replacement of stiles with suitable gates (bearing in mind the needs of all PRoW users, including the disabled and horse riders); installation and/or upgrading of bridges that cross the ubiquitous waterways of low-lying Holderness; provision of benches and information boards at viewpoints; and local improvement of surfaces at sites that are prone to severe poaching, especially in winter. All these seem like 'small beer' in the context of the costs and rewards of the development proposal; but The Applicant should not underestimate the huge public relations advantages that can be gained, especially given the potential annoyance that will inevitably arise from the extended duration of nuisance that PRoW users will experience (for no apparent immediately local benefit). A catalogue of potential enhancements could be developed through liaison between The Applicant and the East Riding of Yorkshire Council's Countryside Access Team, which itself could liaise with affected parish councils.	The Applicants wish for the Examining Authority (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 PRoWs 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 Environmental Technical Group (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 that it may be possible for the JLAF to apply for funding for PRoW improvements through the community benefits fund, but this has not yet been developed. They will be included in any consultation. Although the Applicants appreciate the comments made by the JLAF, they do not intend to provide '***annual ringfenced monetary contribution*** *to the East Riding of Yorkshire Council (ERYC) for use by its Countryside Access Team to effect improvements to rights of way'.*

I.D.	Question	JLAF Response	Applicants' Response
		To accomplish **enhancement of PRoW**, JLAF suggests that The Applicant commit to provide during the period of development construction, an **annual ringfenced monetary contribution** to the East Riding of Yorkshire Council (ERYC) for use by its Countryside Access Team to effect improvements to rights of way within parishes in the Development Area. JLAF suggests an annual contribution of £100k. This commitment should be included in the DCO.	
REP5-047: 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 PRoWs 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?	**ExQ2/TT.2.2** On the question of a **Community benefits** package that would extend through the lifetime of the Consent, this is currently being addressed to The Applicant by the ExA and JLAF will be very interested in the response. Here, as with PRoW enhancement, JLAF draws attention to the immense potential for public relations benefits that can be gained from offering 'sweeteners' to local communities which are subjected to amenity losses (in this case, during the construction phase of as many as 6 years, or so, and well beyond as ground recovery occurs). As far as JLAF is concerned, it would wish that funds provided through a Section 106 agreement would be available not only to improve and enhance PRoW in parishes that are traversed by the cable corridor and affected by the Development Area in general, but also to improve those which are proximal to, and beyond, the Development Area, given that most PRoW were established historically to provide connection not only locally but also between distant rural communities and are currently used for such purpose, now largely for recreation, leisure and the promotion of well-being. De facto, the impacts of the proposed development on PRoW users will extend well beyond the Development Area itself.	Please see the response to REP5-047: TT.2.1.

2.6 Lincolnshire Wildlife Trust (LWT)

Table 2-6 – The Applicants' comments on LWT's responses to ExQ2 [REP5-048]

I.D.	Question	LWT Response	Applicants' Response
REP5-048: BE2.3a	**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.	**The Lincolnshire Wildlife Trust's response to the Examining Authorities second written questions (ExQ2) for the Dogger Bank South Offshore Wind Farms.** Lincolnshire Wildlife Trust (LWT) welcomes the opportunity to provide comment on the ExQ2 question BE.2.3 regarding the 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. This response pertains to section 6.4.2.6.1 physical change (to another seabed / sediment type) of the Dogger Bank Special Area of Conservation (SAC). It should be noted that the LWT supports the sustainable development of marine renewable energy generation as part of the UK's energy policy and ambition to deliver 50 GW of offshore wind by 2030 and to reach the legally binding net zero target by 2050. However, development should not be done at the expense of the environment, and LWT strongly advocates a 'right technology, right place' approach. There are a few critical points regarding the above question that LWT would like to highlight as areas that will need further mitigation or reconsideration.	No response is required.
REP5-048: BE2.3b		**Over-Reliance on Rapid Recovery Claims and Population- Level Risk to Sandeel** The Applicant repeatedly references high and medium recoverability of benthic biotopes (MarESA criteria), implying that any disturbance will be short-lived and ecologically insignificant. However, this fails to fully consider: • "Rapid recovery" of physical sediment structure should not be used as a proxy for ecological recovery. • The vulnerability of the impacted species – particularly sandeel, which, despite the potential for habitat recovery, may not exhibit equivalent ecological recovery due to their small, site-faithful populations. • The cited recovery rates do not account for genetic diversity loss or recolonisation challenges faced by small, localised populations following disturbance which could lead to population bottlenecks or loss of resilience. • Point 47 suggests that the Applicant is claiming that due to the removal of the previous pressures from sandeel fishing in the area, their lesser impacts are acceptable. The closure of the sandeel fishery	In terms of the benthic ecology of the sediment biotopes of Dogger Bank Special Area of Conservation (SAC), unless there is a change of sediment or where there is replacement by hard substrate (which provides a barrier to recolonisation) there is high recoverability of both physical and ecological components. This is reflected in the MarESA assessments which the Applicants have used as the basis of their assessment of recoverability. Table A1 of **Review of Evidence on Recovery of Sandbank Habitat Following Habitat Damage (Revision 2)** [REP3-021] reproduces the relevant text from the MarESA assessments for the biotopes found within the Array Areas within the Dogger Bank SAC. When considering impacts to sandeel at a population level, recovery of the population resulting from lost individuals will be dictated in large part by the availability of suitable habitat. As such, the rapid recovery of sediment structure, combined with the recovery periods noted for each impact within the assessment, is determined as allowing for ecological recovery to baseline conditions. When considering the presence of sandeel across the Fish and Shellfish Ecology Study Area, areas of higher habitat potential for sandeel generally fall outside of the Offshore Development Area, notably to the north and south of the Array Areas. Habitat suitability is notably lower along the Export Cable Corridor (ECC). The considerable availability of habitat (which is in many cases more suitable) outside

I.D.	Question	LWT Response	Applicants' Response
		was based on evidence that any disturbance hinders recovery of the feature and it is therefore not valid to suggest that their disturbance is acceptable simply because a more destructive activity (i.e., fishing) has ceased.	of the Offshore Development Area indicate that the overall sandeel population will remain fit, and potential for recolonisation of impacted sediments will be high. As noted in section 6.4.1.1.3 of the **Report to Inform Appropriate Assessment (RIAA) Habitats Regulations Assessment (HRA) Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014], fisheries impacts on the Dogger Bank SAC were considered to have affected 8,700km² of the SAC (70.5% of the SAC) based upon Vessel Monitoring System (VMS) data from 2016 alone (BEIS, 2019[1]). Given the difference in scale, repetition, and intensity between the potential impacts of the Projects (up to 25km² of disturbance impacts, representing 0.3% of the total area affected by fisheries), the Applicants believe the comparison with fishing impacts is a valid one to draw, noting that vast majority of the Dogger Bank SAC will remain in recovery even during the construction phase of the Projects.
REP5-048: BE2.3c		**Misrepresentation of Affected Area and Habitat Compensation** • Volume 7, Chapter 10 claims the area affected is limited compared to the broader North Sea. This regional comparison is misleading and inappropriate for evaluating impacts on protected, site-faithful species within a designated conservation area. • The claim that only 5.7% of medium-high potential habitat is impacted still represents a substantial spatial footprint within a protected area. Given sandeels' high site fidelity, the availability of habitat outside the project footprint is not a valid form of compensation. • The claim that only 0.2% of the Dogger Bank SAC will be impacted does not reflect realistic ecological halo of impacts beyond the defined project area. In practice, seabed disturbance often extends beyond mapped infrastructure, and cumulative effects of cable installation, anchor scour, and remedial work can compound the effective footprint. • The 0.2% figure is misleading: while proportionally small, it represents 25 km² of disturbance in a protected and ecologically important environment, which is a significant area.	1) As discussed above, sandeel are not a 'site faithful feature' of the Dogger Bank SAC. Whilst individuals would be affected by the Projects that inhabit this area, they do not form a genetically distinct population. Therefore, placing the impact in the wider context of the larger area available is appropriate. In addition, whilst sandeel are included as being part of the 'characteristic communities' of the SAC, the SAC boundaries were not based upon consideration of their presence or the location of distinct spawning areas. 2) It is not claimed that 5.7% of the medium to high habitat potential for sandeel found within the boundary of the Dogger Bank SAC may be impacted by the Projects. This 5.7% figure represents the total area of the DBS East and DBS West Array Area boundaries within the medium to high habitat potential for sandeel found within the boundary of the Dogger Bank SAC. In reality, as noted in section 6.4.2.1.1 of the **RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014]: *'The worst case for footprint activities that may result in abrasion / disturbance of the seabed will be during construction and are estimated to impact approximately 25km² within DBS East and DBS West combined, representing 0.2% of the area of the Dogger Bank SAC and 0.2% of the medium to high potential habitat for sandeel of the SAC.'* 3) The 0.2% figure represents a hugely conservative estimate of the potential area of disturbance resulting from construction activities within the Dogger Bank SAC boundaries. The figure is based on the total worst case assumptions for cable trenching, sand wave levelling, foundation installation, jack-up locations and anchoring events. In addition, the assessment assumes that all medium-high *potential* habitat equates to the *actual* habitat, therefore this is a worst case assumption and an over-estimate. See the Applicants' latest submission regarding halo effects in the **Ecological Halo Effects Technical Note** [REP5-041] submitted

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/799510/Dogger_Bank_Decommissioning_Strategic_HRA_rev3.0.pdf

I.D.	Question	LWT Response	Applicants' Response
			at Deadline 5 of Examination. As detailed in the report, while the evidence for the halo effect is not conclusive, even when taking a precautionary approach any potential impact resulting from the halo effect would be contained entirely within the area already estimated for temporary disturbance from the Projects' construction activities. 4) The Dogger Bank SAC measures 12,331km² in extent, being the largest single continuous expanse of shallow sandbank in UK waters[2]. 0.2% of this area will be temporarily disturbed and a lower percentage subject to permanent habitat loss. The Applicants disagree this represents a 'significant' area of the overall SAC, with only approximately 1.82km² of this total area (equivalent to 0.01% of the total SAC area) being subject to permanent habitat loss, with the remaining approximately 23.18km² being subject only to temporary disturbance effects.
REP5-048: BE2.3d		**Episodic Disturbance is Still Significant** • While the Applicant acknowledges the episodic and largely single-event nature of most disturbances, this does not mitigate the ecological consequences. Episodic does not equal negligible—especially when breeding and spawning cycles are disrupted. • Importantly, Natural England has stated that any disturbance, regardless of scale or frequency, has the potential to hinder the recovery of the SAC sandbank habitat.	Any conclusions of negligible effect reached in the Environmental Statement are not based solely on the frequency of potential effects occurring. They are based on the robust methodology detailed in section 6.7 of **Chapter 6 - EIA Methodology** [APP-076] which accounts for the sensitivity of receptors in determining the final significance of any particular effect. The Applicants note Natural England's opinion but highlight that this is based upon their view of the timescales for recovery of sandbank biotopes which is not supported by the evidence (see **Review of Evidence on Recovery of Sandbank Habitat Following Habitat Damage (Revision 2)** [REP3-021]).
REP5-048: BE2.3e		**Inappropriate Comparison to Other Developments** • The reliance on precedents from Hornsea Project Three and other Round 3 developments ignores the fact that each site has distinct ecological characteristics and conservation importance. • In particular, the Dogger Bank SAC differs substantially from the Hornsea site. It is a key upwelling area, supporting high primary productivity that underpins a rich and complex food web. This makes it a critical nursery and feeding ground for numerous fish species, and of exceptional importance to seabirds and marine mammals. • The site is designated for its sandbank habitat and associated species, and benefits from strong conservation protections under the Habitats Directive. Its role as a biodiversity hotspot makes it uniquely vulnerable to even small-scale disturbances. • Consequently, the precautionary principle must be applied more stringently at Dogger Bank, especially when assessing impacts on conservation features of European importance. Comparisons to less sensitive or less designated areas such as Hornsea are not ecologically valid.	The comparisons made to Hornsea Project Three and other Round Three developments (in paragraph 25 of the **RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014] were made in regards to previous decisions on the potential effects of habitat loss on Annex I habitats (for Hornsea 3 this was in relation to North Norfolk Sandbanks and Saturn Reef SAC), and highlight the change in decision making by the Secretary of State that has occurred between the conclusion of the Round 3 consenting process and the Round 4 process now. The assessment of potential effects on the Dogger Bank SAC in the **RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014] does not draw any direct comparisons between the habitats found within the Hornsea Project Three boundary and that of the Projects.

[2] https://jncc.gov.uk/our-work/dogger-bank-mpa/

I.D.	Question	LWT Response	Applicants' Response
REP5-048: BE2.3f		**Conclusion: Potential for Adverse Effect on Integrity (AEoI)** Given the: • Proven sensitivity of the sandbank and its associated species (especially sandeels), • Likely underestimation of spatial and ecological footprint, • Disregard for population-scale impacts and site fidelity of sandeel, • Over-reliance on sediment recovery as a proxy for full ecological recovery, it is our view that the Applicant has not robustly demonstrated the absence of an Adverse Effect on Integrity (AEoI) for the Dogger Bank SAC. The precautionary principle must be upheld, and further mitigation or reconsideration of project design may be required.	The Applicants maintain that a robust assessment has been conducted with regards to the Dogger Bank SAC in **RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014]. The Applicants have already conceded that an Adverse Effect on Integrity (AEoI) of the Dogger Bank SAC in relation to physical change to the seabed and sediment from the Projects alone cannot be ruled out, and have presented the without prejudice area of 'abrasion/disturbance of the seabed' in section 4.3.3 of the **Habitats Regulations Derogation: Provision of Evidence (Revision 3)** [REP4-018] should the Secretary of State conclude an AEoI of the Dogger Bank SAC for this effect.

2.7 Marine Management Organisation (MMO)

Table 2-7 – The Applicants' comments on the MMO's responses to ExQ2 [REP5-050]

I.D.	Question	MMO Response	Applicants' Response
REP5-050: 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.	4.1.1 The MMO welcomes these changes and will defer to Natural England (NE) on matters relating to the HRA.	No response is required.
REP5-050: C.F.2.1	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?	4.2.1 This would form part of the Fisheries Liaison and Coexistence Plan (FLCP), and agreement would be sought through the discharge process of the FLCP. 4.2.3 Where MMO are referenced as an "arbitrator" for the FCLP: The MMO strongly maintains its position that it is made clear within the document that "the MMO will not act as arbitrator and will not be involved in discussions on the need for, or amount of, compensation being issued".	The Applicant acknowledges and agrees with the MMO's response to REP5-050: 4.2.1. In reference to REP5-050: 4.2.3, Paragraph 55 of the outline FLCP specifically states that "the MMO will not act as arbitrator or be involved in any commercial negotiations with any association / organisation, and / or individual fishermen."
REP5-050: FSE.2.4	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.	5.1.1 The MMO would like to refer the applicants to point 1.7.8 for further details on figures 1-2 and 2-2.	Please see response provided in **The Applicants' Responses to Deadline 5 Documents** [document reference 16.4] (REP5-049: 1.7.8) for context. In reference to point REP5-049: 1.7.8 i), the Applicants recognise the limitations in the temperature data recorded by the International Herring Larval Survey (IHLS). However, as stated by the MMO, the IHLS temperature dataset is acceptable for the purposes in which it has been used by the Applicants. In reference to point REP5-049: 1.7.8 ii), the Applicants acknowledge why interannual variation in seabed temperature is important for understanding how spawning activity fluctuates on an annual basis. The Applicants have presented the IHLS temperature data within the Cefas-approved categories defined by Kotthaus (1939) to show the locations where each of the temperature categories are represented. From these figures it is clear that the Offshore Export Cable Corridor is represented by seabed temperatures of >13°C (Figure 2-4 and Figure 3-4 of The Applicants' Response to Deadline 2 Documents - MMO). The Applicants would like to highlight that the MMO's request to provide separate figures for each year of IHLS abundance and IHLS temperature data has added an additional 26 figures to the submission, for the purposes of identifying one suitable temperature value for use in the back-calculation. Whilst it is important to understand the inter-annual variability of spawning for the Banks Atlantic herring

I.D.	Question	MMO Response	Applicants' Response
			population (as stated above), the EGL2 project has previously presented the requested annual IHLS temperature information. The Projects have consistently referenced the EGL2 submission as a supplement to the assessment given the relevance of its location and the similarity in the information requests from the MMO. For the purposes of streamlining future assessments in the region, it is recommended that either the MMO or Cefas produces a guidance document for the Banks population containing all requested IHLS information. This would provide clear benefits in terms of delivering a standardised and streamlined approach which can be followed by marine projects seeking consent. In reference to point REP5-049: 1.7.8 iii), the Applicants have previously provided all relevant information for the back-calculation in the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105].
REP5-050: 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 et al. (2014) or Popper et al. (2014) 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 et al. (2014) is 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.	5.2.1 Section 1.7.33 to 1.7.37 of this response explains in detail the MMO's stance on the 135dB threshold.	The MMO's position is acknowledged, however the Applicants maintain that whilst a precautionary approach has been taken already in the assessment (see bullets below), the use of the 135dB limit is greatly over precautionary based on the number of limitations presented within the Hawkins *et al.* (2016) paper, and the statement by authors that the use of their findings are not appropriate for the purposes employed. Key elements of precaution within the Applicants' assessment are • A maximum-case scenario has been used to assess potential impacts in the Environmental Statement, with underwater noise model parameters being greater than would be expected during construction (e.g. hammer energy and number of hammer strikes); • The assumption that fish species do not flee during pile driving activities, with the underwater noise model being conducted for stationary receptors; • The use of the Kyle-Henney *et al.* (2024) heat mapping methodology to identify potential spawning habitat. Data-layers used to create the heat map are in themselves over-representative of spawning habitat, introducing precaution to assessments; • Assumption that Atlantic herring could be present in any location during pile-driving activities. The Applicants maintain that no behaviour thresholds have been identified in scientific literature for Atlantic herring, and that the non-significant conclusions within the Environmental Impact Assessment (EIA) are assessed using industry best practice.
REP5-050: 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-	5.3.1 The MMO are currently reviewing this and will provide a response in deadline 6. The Worst-case piling scenario is still based on 2 locations.	No response is required.

I.D.	Question	MMO Response	Applicants' Response
	105]. 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?		
REP5-050: 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? d) Are the applicants' proposed mitigations sufficient and are you satisfied with the way they are secured in the DMLs?	5.4.1 The MMO do not believe that this has been resolved, please see points 1.7.8 to 1.7.11 in this response for further details 5.4.2 The MMO are currently reviewing questions B, C and D and will provide a response at deadline 6.	The Applicants disagree with the MMO's position that the abundance data requested have not been presented. The Applicants have provided the requested abundance figures per year in **The Applicants' Fish and Shellfish Response to the MMO** [REP4-098] submitted at Deadline 4, including the additional categories to further define abundances >600 larvae per m² as requested by the MMO. It is noted that points 1.7.8-1.7.11 in the MMO's response to FSE 2.9 (see response provided in **The Applicants' Responses to Deadline 5 Documents** [document reference 16.4] (REP5-049: 1.7.8) for context) do not discuss abundance data in any level of detail. The Applicants held a meeting with Cefas and the MMO (13th May 2025), within which Cefas agreed that abundance data had been sufficiently presented.
REP5-050: FSE.2.10	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	5.5.1 The MMO are currently reviewing this response and will provide an update at Deadline 6	No response is required.
REP5-050: FSE.2.12	Potential effects on sandeel and herring populations 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.	5.6.1 The MMO are currently reviewing this response and will provide an update at Deadline 6.	No response is required.

I.D.	Question	MMO Response	Applicants' Response
	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 seabed 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 ii) Sandeel		
REP5-050: 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 SELss (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?	5.7.1 The MMO has a requested that within the Banks Herring Spawning ground that there should be a temporal restriction. Please see point 1.7.9 for more information as well as sections 2.2.8 and 2.2.9 in REP2-061 5.7.2 Discussions were undertaken on 13 May 2025, The MMO are open to the addition of a herring piling restriction similar to Schedule 11, Condition 26 in Rampion 2: *26.— (1) No piling activity can commence within the eastern array area during the herring spawning season until a spawning herring piling restriction plan (in accordance with the outline spawning herring piling restriction plan) containing updated underwater noise modelling has been submitted to and approved by the MMO. The updated underwater noise model must be based on final project parameters to be used to install piles in the*	A definition for spatial extent of the Banks Herring Spawning Ground must be provided to fully understand potential implications of this restriction. Refinement of the herring spawning season as determined via back-calculation as presented within the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105] must be considered within any future licence conditions, resulting in a restricted period of 3rd September – 30th September inclusive. It is noted that the Rampion 2 condition's wording refers to the Down spawning season (1st November to 31st January), which is not relevant to the Banks population. For the benefit of the ExA, the licence condition proposed for the Projects placing temporal restrictions on piling has been implemented as a direct result of the inclusion of the 135dB behavioural threshold, for which there is **no robust evidence that a behaviour threshold would or would not result in a detrimental effect upon Atlantic herring**. It is the Applicants' opinion that the implementation of a licence condition **should not** be imposed if there is **no evidence** that there will be a potential impact pathway. The Cefas/MMO approach seems to be that in spite of

I.D.	Question	MMO Response	Applicants' Response
	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.	*eastern array area and must include details of any verified mitigation measures to be employed.* *(2) If the herring spawning plan demonstrates that noise levels associated with piling activity in the eastern array area during the herring spawning season will exceed the levels shown on the spawning herring piling restriction plan then no piling activity may be undertaken within the eastern array area during the herring spawning season without the written approval of the MMO.* *(3) All piling activity within the eastern array area during the herring spawning season must be undertaken in accordance with the details approved under sub-paragraph (1) or as required as a condition of approval under sub-paragraph (2).* *(4) In this condition—* *"eastern array area" means the area identified as the eastern array area within the spawning herring piling restriction plan;* *"outline spawning herring piling restriction plan" means the plan certified as the outline spawning herring piling restriction plan by the Secretary of State for the purposes of the Order under article 49 (certification of plans and documents etc); and* *"herring spawning season" means 1 November to 31 January inclusive.*	the lack of evidence of an impact pathway, the precautionary approach is to assume that there is an impact pathway. In an ideal scenario, a scientific publication will define quantitative underwater noise thresholds that would be applicable to an EIA process. In the absence of evidence that Atlantic herring will be significantly impacted at a lower quantitative threshold than 186dB, Popper *et al.* (2014) remains the best available robust, empirical evidence for underwater noise thresholds for Atlantic herring (and other fish species for that matter). The Applicants believe that any licence restrictions on piling should be informed by robust, empirical scientific evidence, rather than the extrapolation of inappropriate studies. Therefore, the proposed licence condition should be based on the 186dB threshold until it can be demonstrated that an impact pathway is present at 135dB **and** it can be shown that a significant effect on Atlantic herring may occur. Notwithstanding the above, the Applicants are continuing to engage with both MMO and Cefas on a without prejudice basis to develop an understanding of the common ground that may exist between the parties in relation to the question of seasonal piling restrictions for herring.
REP5-050: 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?	5.8.1 It is the MMO's view that the longevity of these projects coupled with the dynamic nature of the marine environment means that it is generally only appropriate to licence at the outset of the project, the scour and cable protection that will be employed during the construction of the wind farm. Any scour and cable protection employed during the construction of the wind farm can be maintained through the Operation and Maintenance plan which is required under the requirements of the DCO/DML. 5.8.2 The MMO's view is that any new scour or cable protection which is to be used in areas where no such protection was employed during construction of the wind farm is new scour or cable protection which cannot properly be considered to be the maintenance of the cable and scour protection employed in the construction phase. As a result, any new scour or cable protection must generally be consented through a separate marine licence and not through the O&M plan	5.8.1. The Applicants agree that any scour and / or cable protection deposited during the course of construction can and should be maintained using quantities of protection established within the Deemed Marine Licences. 5.8.2. The Applicants are in agreement with this point and have noted within the **Outline Offshore Operations and Maintenance Plan (Revision 3)** [REP2-045] that new marine licences will be sought for deposits of cable and scour protection beyond the footprints of each established during construction. 5.8.3. The Applicants acknowledge MMO's response. 5.8.4 and 5.8.5. The Applicants disagree. As noted in **The Applicants' Responses to the Examining Authority's Second Written Questions (ExQ2)** [REP5-036], 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-licenced cable and scour protection volumes for deposit as and when needed. Licensing every new deposit in protected areas, as requested by MMO 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

I.D.	Question	MMO Response	Applicants' Response
		5.8.3 The licence, if granted, would ordinarily use the same methodology as an Operation and Maintenance plan in that the licence will generally include conditions which will require: i) The MMO's approval for campaigns of protection to be sought 2 months before the anticipated commencement of the works and will require the submission of a report confirming justification for the amounts of protection required as well as details of the location for where, and the method by which, the scour and cable protection will be employed. ii) A requirement to review the suitability of the licence every 5 years which will require the provision of further up to date survey data. Where a marine licence is granted which authorises new scour and cable protection to be employed for up to 10 years, any further marine licences that will be required to authorise scour and cable protection beyond 10 years should be applied for at least 6 months before the current licence expires so as to ensure a smooth transition from one marine licence to another. 5.8.4 Where new scour and cable protection is to be employed within a marine protected area in which the marine protected features include benthic habitats, the MMO will generally require a separate marine licence to be in place for each, and every individual campaign of scour and cable protection employed throughout the lifetime of the project. 5.8.5 The MMO may in some circumstances consent scour and cable protection in these protected areas where the applicant can show that there is no alternative method available to it to protect the infrastructure in these areas. The MMO generally expects each such application to be supported by a report which sets out a comprehensive assessment of the impacts and which details the justification for no alternative to scour and cable protection. 5.8.6 Regarding the possibilities of the habitat being restored the MMO would defer to NE	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 4)** [document reference 8.27] and **Cable Statement (Revision 5)** [document reference 8.20], 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 submit 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 been lost already and cannot be impacted a second time. It should be noted that in each deemed Marine Licence in the **Draft Development Consent Order (Revision 9)** [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. 5.8.6. The Applicants acknowledge this comment.
REP5-050: 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	5.9.1 The MMO is currently reviewing this document and will provide a response at deadline 6.	No response is required.

I.D.	Question	MMO Response	Applicants' Response
	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.		

2.8 Maritime and Coastguard Agency (MCA)

Table 2-8 – The Applicants' comments on the MCA's responses to ExQ2 [REP5-051]

I.D.	Question	MCA Response	Applicants' Response
REP5-051: SN.2.1	**Q2. 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?'	We would deem these mitigations necessary however, we would not expect details of any on site communications to be a specific part of the DMLs. The particulars of the stated paragraph would normally be discussed and finalised post consent through layout plan and Search and Rescue checklist discussions. For example, Condition 15, Schedules 10 and 11, part 2 titled '*Pre-construction plans and documentation*' (REP3-004), states a requirement for a layout plan with consultation with the MCA and other key stakeholders, thus providing commitment to us going forward.	The Applicants welcome the MCA's agreement that details of any on site communications should not be included in any specific part of the Deemed Marine Licences and note this aligns with the Applicants previous response to this question in SN.2.1 of **The Applicants' Responses to the Examining Authority's Second Written Questions (ExQ2)** [REP5-036]. As such, the Applicants consider that this matter is closed, and no further actions are required.

2.9 Ministry of Defence (MoD)

Table 2-9 – The Applicants' comments on MoD's responses to ExQ2 [REP5-052]

I.D.	Question	MoD Response	Applicants' Response
REP5-052: ARMC.2.3	**Military radar** Staxton Wold Primary Surveillance Radar is reported to benefit from the Indra Lanza LongRange 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.	The MOD acknowledges that any wind turbine mitigation capability the Indra Lanza Long-Range Tactical Radar (LTR-25) radar system(s) has may be acceptable within the context of civilian air traffic management. However, radar systems deployed at RRH Staxton Wold contribute to the Air Defence of the United Kingdom. This has different requirements to civilian air traffic management, and whilst the radar system demonstrates improved performance in relation to wind turbine effect mitigation assessed against some established developments, it does not necessarily mean this can be applied to other developments of different scales and turbine sizes without a detrimental impact to air defence operations.	No response is required.
REP5-052: 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?	Programme NJORD delivery schedules are not yet known as the competition is live. Until the tender process has concluded (which includes: evaluation of all potential bids; the identification of a preferred solution (assuming there is one); and then all requisite approvals; and contract award) the delivery dates will be unknown or subject to change. The MOD will consider a "stop gap" mitigation on a case-by-case basis with Developers seeking to operate their wind farm before the NJORD solution is in place – with the aim that the stop gap mitigation bridges the gap between a Developers first spin requirement and NJORD delivery. This will be done on a case-by-case basis through bi-lateral agreements (detailed in the Radar Mitigation Scheme Agreement) once the delivery schedules for NJORD are known and on contract.	The Applicants welcome confirmation that the tender process for Programme Njord is progressing and look forward to engaging further with MoD in relation to the development of the Programme Njord deliverables and programme, as well as any requirements for any "stop gap" interim mitigation, should there be any. The Applicants note that the Requirement wording under discussion with MoD would prohibit operation of the DBS Offshore Wind Farms until such time as the Secretary of State is satisfied that appropriate mitigation, should it be required, will be implemented and maintained for the life of the scheme.
REP5-052: 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.	With regard to the geographical extent and application of the Air Navigation Order 2016 (the ANO), it would be for the Civil Aviation Authority (CAA) to confirm its interpretation of articles 222 and 223. The MOD's requirement for aviation lighting on wind turbine generators may differ from the CAA's statutory requirements through the ANO. Regardless of whether the CAA would apply the requirements of the ANO to the Dogger Bank South development, the MOD requirement that aviation safety lighting is agreed and secured, would be provided for by the conditions	The Applicants acknowledge this response and confirm their intention to discharge all Deemed Marine Licence Conditions listed in the **Draft Development Consent Order (Revision 9)** [document reference 3.1]. The Applicants await comments from the CAA on its interpretation of articles 222 and 223 of the Air Navigation Order 2016.

I.D.	Question	MoD Response	Applicants' Response
	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.	which are contained within the Deemed Marine Licences proposed through the applicant's draft Development Consent Order (Revision 07, dated April 2025 at: • Schedule 10, Deemed Marine Licence 1: DBS East Project Offshore Generation – Work Nos. 1A, 4A and 7A, Part 2, Condition 12; • Schedule 11, Deemed Marine Licence 2: DBS West Project Offshore Generation – Work No. 1B, 4B and 7B, Part 2, Condition 12; • Schedule 12, Deemed Marine Licence 3: DBS East Project Offshore Transmission – Work Nos. 2A, 3A, 7A and 8A, Part 2, Condition 10; • Schedule 13, Deemed Marine Licence 4: DBS West Project Offshore Transmission – Work Nos. 2B, 3B, 7B and 8B, Part 2, Condition 10; and • Schedule 14, Deemed Marine Licence 5: DBS East Project and DBS West Project Offshore Transmission – Work Nos. 5A, 5B, 7A and 7B, Part 2, Condition 8. Subject to these conditions being applied through any Development Consent Order that might be made, the MOD is content that the potential for the development to degrade aviation safety for aircraft operating at low level within the locality of the proposed Dogger Bank South Offshore Wind Farm would be mitigated.	

2.10 Natural England

Table 2-10 – The Applicants' comments on Natural England responses to ExQ2 [REP5-062]

I.D.	Question	Natural England Response	Applicants' Response
Benthic and intertidal ecology and relevant Habitats Regulations Assessment (HRA) aspects			
REP5-062: 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.	Please refer to Appendix C5 of Natural England's Deadline 5 submission for our detailed response.	The Applicants direct Natural England to Table 2-14 of **The Applicants' Responses to Deadline 5 Documents** [document reference 16.4] for responses to Natural England's Appendix C5 comments.
REP5-062: 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?	a) Natural England agrees with this statement. b) Natural England considers that the biotopes have now been sufficiently considered and characterised within the Flamborough Head SAC from the updates to [REP3-025] and Appendix D of the Report to Inform Appropriate Assessment [REP4-015]. We are content that all necessary information has been provided with respect to Flamborough Head. We advise that relevant updates are made to the ES chapter for completeness. With regards to the outstanding point in our Risk and Issues log at DL4 reference C9/C19, this was related to our previous advice on the valuing of other receptors. We maintain our previous advice on this matter. Please refer to Appendix C5 of Natural England's Deadline 5 submission for our detailed response. c) With the necessary transparency and detail in the Applicants assessment now provided (see b), we agree with the Applicant's conclusions that an AEoI can be ruled out for all features of Flamborough Head SAC. d) N/A	a) The Applicants welcome Natural England's agreement on this matter. The Applicants confirm that **Chapter 9 - Benthic and Intertidal Ecology** [APP-085] will be updated at Deadline 7 to include details on the underlying biotopes within the Flamborough Head Special Area of Conservation (SAC) as previously described in **Benthic Ecology Technical Note (Revision 2)** [REP3-025]. b) The Applicants welcome Natural England's agreement on this matter. Regarding the point on value, The Applicants direct Natural England to the response to REP5-055:C9 provided in Table 2-14 of **The Applicants' Responses to Deadline 5 Documents** [document reference 16.4]. c) The Applicants welcome Natural England's agreement on this matter.

I.D.	Question	Natural England Response	Applicants' Response
	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. c) What is your most recent position on whether Adverse Effects on Integrity (AEoI) 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 AEoI cannot be ruled out, explain in detail why and what the applicants could do within the remaining examination time to resolve this.		
REP5-062: 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. Explain how this issue has progressed since then. 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 AEoI for the Flamborough Head SAC in relation to Annex I habitats and the Secretary of States agrees with this position?	Whilst this is directed to the Applicant, Natural England would like to highlight that we now consider this issue is resolved and have ruled out AEoI on Flamborough Head in our Deadline 5 submission. We do not consider that a derogations case is therefore needed.	The Applicants welcome Natural England's agreement on this matter.

I.D.	Question	Natural England Response	Applicants' Response
REP5-062: 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 AEoI 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 AEoI cannot be ruled out, explain in detail why and what the applicants could do within the remaining examination time to resolve this.	a. Natural England considers that all relevant features for the Humber Estuary SAC have been screened into the RIAA [REP4-014] as a result of the updates. However, we remain unable to rule out AEoI on Annex 1 habitats in the Humber Estuary SAC due to ongoing discussions regarding the use of nearshore cable protection and possible interruptions to longshore sediment transport. b. We understand from discussions with the Applicant and their response to Deadline 3 documents [REP4-088], that a modelling report will be provided at Deadline 5 regarding the potential effects of cable protection measures on sediment transport in the nearshore environment. We anticipate that this will progress this issue and will provide further comment at Deadline 6.	a) The Applicants welcome Natural England's agreement that all features have been screened in. Regarding potential effects in the Humber Estuary SAC, The Applicants direct Natural England to the **Assessment of Coastal Processes at the Dogger Bank South Landfall** [REP5-040] technical note submitted at Deadline 5. The Applicants maintain that Natural England possess the necessary information with regards to the potential effects on the Humber Estuary SAC to rule out an Adverse Effect on Integrity (AEoI) on the site. b) The Applicants direct Natural England to the **Assessment of Coastal Processes at the Dogger Bank South Landfall** [REP5-040] technical note submitted at Deadline 5.
REP5-062: BE.2.9	**Humber Estuary SAC assessment and compensation proposals for Annex I habitats** 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. 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 AEoI for the Humber Estuary SAC in relation to Annex I habitats and the Secretary of States agrees with this position. t	Whilst this is directed at the Applicant, Natural England would like to state that our position on this will be dependent on the nearshore modelling due to be submitted by the Applicant at Deadline 5, which we will provide comment on at Deadline 6.	The Applicants direct Natural England to the **Assessment of Coastal Processes at the Dogger Bank South Landfall** [REP5-040] technical note submitted at Deadline 5.

I.D.	Question	Natural England Response	Applicants' Response
REP5-062: 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? 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?	a) Natural England can confirm that an online meeting was held with RWE and associated consultants on 8th May 2025. There is no change on Natural England's position. We have reviewed the Applicant's position regarding infrastructure decommissioning and continue to disagree with it. We do not believe it is in the spirit of the Strategic Compensation Strategy or Marine Recovery Fund. In addition, there is no certainty that the Applicant will be able to use the MRF in the way they propose as the policy is not yet final. Therefore, we advise that they are planning at own risk until the MRF launches and the guidance is published. We are in discussions with DEFRA and DESNZ benthic compensation and MRF teams (respectively) and we will provide further update at Deadline 6. b) N/A – Question is directed to the Applicant. c) In addition to Natural England's advice already provided into examination, re. restoring the site's conservation objectives and features, which is consistent across all offshore windfarm examinations and marine sectors where there are impacts to benthic MPAs; we direct the Examiner to the BEIS (2019) Decommissioning of offshore renewable energy installations under the Energy Act 2004. Guidance notes for industry (England and Wales) Decommissioning offshore renewable energy installations - GOV.UK d) N/A – Question is directed to the Applicant. e) N/A – Question is directed to the Applicant.	(a) The Applicants acknowledge Natural England's comment, although it is unclear what is meant by the "spirit" of the Strategic Compensation Strategy or Marine Recovery Fund. The Applicants note that their response to question BE.2.10 in **The Applicants Responses to the Examining Authority's Second Written Questions (ExQ2)** [REP5-036] provides a clear illustration of how their position accords with the relevant decommissioning guidelines for offshore renewable energy projects that have been provided by Government in the form of Decommissioning of offshore renewable energy installations under the Energy Act 2004: guidance notes for industry (2019). The Applicants have noted in both the **Cable Statement (Revision 5)** [document reference 8.20] and **Outline Scour Protection Plan (Revision 4)** [document reference 8.27] (both submitted at Deadline 6) that an assessment of the benefits and drawbacks of different scour and cable protection solutions considered for use will form part of the Decommissioning Programme. This assessment will include consideration of removability and other characteristics relevant to the mitigation hierarchy. For the Applicants' response to the queries directed to them, the Applicants refer Natural England to their response to BE.2.10 in **The Applicants' Responses to Deadline 5 Documents** [REP5-062].

I.D.	Question	Natural England Response	Applicants' Response
	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?		
Fish and shellfish ecology and relevant HRA aspects			
REP5-062: 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?	Natural England currently uses both citations due to this currently being the best available evidence in relation to underwater noise impacts to herring. We have consulted with the MMO and Cefas, who also use the same references, and have done so in other offshore wind farm Examinations such as Rampion 2.	The Applicants are disappointed that Natural England have not provided clear reasoning as to why they consider the Hawkins *et al.,* 2014 paper to be sufficient to inform statutory guidance, despite the authors of the paper explicitly stating it should not be used for that purpose. The Applicants again highlight that the research undertaken to inform the Hawkins *et al.,* 2014 paper was carried out in an enclosed Scottish sea loch with limited anthropogenic noise (in contrast to the open-sea environment of the Dogger Bank) and that this experiment examined sprat rather than herring which is the species of concern in this matter.
REP5-062: FSE.2.12	**Potential effects on sandeel and herring populations** 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 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	Please refer to Appendix E5 for Natural England's response to this question.	The Applicants direct Natural England to the response to FSE.2.12 in **The Applicants' Responses to Deadline 5 Documents** [document reference: 16.4].

I.D.	Question	Natural England Response	Applicants' Response
	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. i Herring 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.		
Habitat Regulations Assessment (HRA) General			
REP5-062: 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	Based on our current understanding of the status of Hornsea 4 and the validity of the DCO until 2030, we advise that Hornsea 4 should remain included in the in-combination assessments for all relevant thematic areas, including those listed.	The Applicants confirm that Hornsea Project Four remains included in the in-combination assessments carried out for the Projects.

I.D.	Question	Natural England Response	Applicants' Response
	in place for the Hornsea 4 development, granted on 12 July 2023 and is valid for seven years?		
REP5-062: 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.	As requested, Natural England have provided an updated version of this table in Annex 2 of our Deadline 5 cover letter.	See the Applicants' responses to Annex 2 in Table 2-7 and 2-8 of **The Applicants' Responses to Deadline 5 Documents** [document reference: 16.4].
REP5-062: 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 exp	a) Our concerns predominantly relate to FFC SPA, given the level of connectivity with this site during the breeding season and the rather lower apportioning rates to other SPAs. b) Please see Appendix E5 of our Deadline 5 submission.	See the Applicants' response to this matter in Table 2-17 of **The Applicants' Responses to Deadline 5 Documents** [document reference: 16.4].
Marine and coastal processes			
REP5-062: 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?	As advised previously [REP2-064] we are of the understanding that the temporary emergency access design will be finalised when the contractor is appointed. Whilst we welcome proposed mitigation measures such as preconstruction surveys, use of protective matting, and monitoring (as outlined in [AS-110]), more clarity is needed on the aspects that are not currently finalised. The proposed Drilling Fluid Breakout Management Plan is to be developed post consent thus an Outline Contingency Plan during examination would help to identify what mitigation measures are appropriate and need to be considered at this stage of the temporary emergency access design. We draw your attention to the Outline Contingency Plan in development for North Falls OWF. We understand that an updated version of this outline plan will be submitted at Deadline 5 on 30 May 2025, and	The North Falls **Outline Horizontal Directional Drill Method Statement and Contingency Plan (Rev 2)** [REP5-026] document is mitigation for impacts associated with drilling beneath a Site of Special Scientific Interest (SSSI) and Local Nature Reserve (LNR). As detailed in section 2.4 '*The HDD alignments pass under the Holland Haven Marshes SSSI and LNR and the Frinton Golf Club.*' The landfall trenchless crossing, most likely Horizontal Directional Drill (HDD), included in the Application for these Projects will not be located under any designated sites. Therefore, there is no potential impact, and the level of detail already provided is considered sufficient. A detailed description of the Landfall Works including the methodology for a HDD is already included in section 5.6.2 of **Chapter 5 – Project Description (Revision 3)** [REP1-009]. In addition, a commitment to a **Drilling Fluid Break Out Management Plan** is already made, with details included in section 6.3.2.1 of the **Outline Code of Construction Practice (Revision 4)** [REP4-040] with a similar

I.D.	Question	Natural England Response	Applicants' Response
		we would encourage the Applicant to adopt a similar approach where appropriate to do so.	level of detail to this in the North Falls example. For example paragraph 172 includes a number of proposed mitigation measures should a break out occur. As detailed in para 174 '*The exact specification for the contingency plan will be informed by further ground investigation and the specific design of the trenchless crossing and selected construction methodology*.' For the Projects there is a requirement to cross a very small area of priority maritime cliff and slope habitat which is 'high sensitivity' to access the beach and is shown on Appendix C .1 A, section 1 (p.35) in **Appendix 18-2 - Habitat Survey Report (Revision 2)** [PDC-004]. The North Falls document does not include any description of how the beach would be accessed. A description has however been added for the Projects to Section 5.6.3 of **Chapter 5 – Project Description (Revision 3)** [REP1-009] in response to previous comments on this matter. Until a contractor is selected and this design is progressed, post consent there is not more mitigation detail for the design of the beach access, at this stage. This is secured through Development Consent Order (DCO) Requirement 19 and must be agreed with the East Riding of Yorkshire Council (ERYC) in consultation with Natural England, when the Contractor has considered the ground considers closer to the start of construction as they are constantly changing due to coastal erosion. As detailed previously '*Any maritime cliff and slope habitat present would be protected from any crossing vehicles with suitable ground protection matting and it would be monitored during construction to ensure the habitat is not damaged.*' The Applicants consider this and the fact the access would only be required during the HDD works, up to 18 months sufficient mitigation to protect the habitat. Which should be noted, is not vegetated but an eroding cliff environment.
REP5-062: 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?	High-resolution site- and project-specific bathymetric data were acquired in 2022 across the array areas, inter-platform corridor, and offshore export cable corridor. Within the nearshore zone to 35km seawards of landfall, there are a number of other bathymetric datasets publicly available which the Applicants have gathered and used to inform the assessment of bedform migration speed. However, further offshore (approx. 35km), there are no datasets of this resolution in areas of bedforms that can be used to quantify bedform migration speeds [APP-080]. This is reflected in the recently submitted '*Bed Mobility and Thermal Environment*' report [REP3-032] which pre-dates the ES chapter and is due to be superseded. Therefore, we advise that the Applicants will need to acquire further high-resolution site-specific bathymetric data prior to construction, to allow more accurate and confident assessment of observed bedform migration directions and rates in those locations that may be affected by the proposed development. Repeat surveys should then be carried out across the same areas, to allow comparative	The Applicants acknowledge this comment. As noted previously on this topic, the Applicants will continue to acquire geophysical and geotechnical site information from the Offshore Development Area. The results of these future surveys will inform updates to the Cable Burial Risk Assessments presented within the final Cable Statement(s) submitted to discharge relevant deemed Marine Licence conditions post consent (e.g. condition 15 (1) (i) of Deemed Marine Licence 1 presented in the **Draft DCO (Revision 9)** [document reference 3.1]).

I.D.	Question	Natural England Response	Applicants' Response
		analysis of bedform shape and dimensions, and to inform the assessment of bedform recovery.	
REP5-062: 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?	As a general rule, Natural England advises that necessary information/evidence should be provided at the consenting phase to support the conclusions of the EIA and HRAs and provide the Secretary of State with a level of comfort in their decision making on the scale and significance of potential nature conservation impacts. Furthermore, sufficient evidence is needed to ensure that, where required, necessary mitigation measures are not only secured but are also fit for purpose. This evidence-led approach derisks decision making and avoids 'surprises' in the pre-construction phase, which otherwise may cause avoidable delays to project construction. From a Marine Processes perspective, the key rationale for providing this information upfront is to ensure that the project design is appropriate such that from an engineering perspective the cables will remain buried over the project lifetime and not require remedial actions. With any remedial action there is a risk of environmental impacts occurring which could hinder the conservation objectives of designated sites. As above, Natural England advises that additional high-resolution site-specific bathymetric data will be required prior to construction to allow more accurate and confident assessment of observed bedform migration directions and rates, and bed elevation change rate. This information is needed to inform the seabed mobility and bedform recovery assessments. Furthermore, we consider that there is a need to refine the (conceptual) sediment transport model to increase understanding of the implications of the predicted changes to bed shear stress, sediment transport potential, and areas of erosion/deposition, on and around the southwest Dogger Bank area (and SAC), due to the presence of the windfarm infrastructure over the lifetime of the projects. The relative importance of tides and waves should be considered further (including climate change allowances) over the lifetime of the projects.	The Applicants note that, as is common practice for offshore wind farms and as supported by policies such as those presented in section 2.6 of EN-3, the assessments they have provided within the Environmental Statement are based on worst case scenarios. As such, they afford the Secretary of State with a level of comfort in their decision making on the scale and significance of potential nature conservation impacts. Where required and relevant, mitigation measures have been developed and secured based on the worst case design envelope used to complete the Projects' environmental assessments in a manner which is both precautionary and evidence led. As noted in response to REP5-062: MCP.2.2, the Applicants will continue to acquire geophysical and geotechnical site information from the Offshore Development Area. The results of these future surveys will inform updates to the Cable Burial Risk Assessments presented within the final Cable Statement(s) submitted to discharge relevant deemed Marine Licence conditions post consent (e.g. condition 15 (1) (i) of Deemed Marine Licence 1 presented in the **Draft DCO (Revision 9)** [document reference 3.1]). The CBRA will ensure that the project design is appropriate, such that from an engineering perspective the cable routing and burial plans will be established on the basis of the best available information The Applicants have refined the baseline understanding of sediment transport pathways which is the narrative underpinning the conceptual sediment transport model in **Assessment of Coastal Processes at the Dogger Bank South Landfall** [REP5-039] and also updated Figure 8-5 of **Chapter 8 – Marine Physical Environment - Figure 8-1 to Figure 8-13 - Volume 7** [APP-081]. These changes will also be incorporated in the revised version of **Chapter 8 Marine Physical Environment** [APP-080] to be submitted at Deadline 7. The Applicants have updated predictions of future wave climate within section 8.6.3 of the revised version of **Chapter 8 Marine Physical Environment** [APP-080] to be submitted at Deadline 7 and have considered these changes in the assessment of construction activities and infrastructure at the landfall where waves are the dominant driver of sediment transport. There are no predicted changes in tidal regimes as a result of climate change, however, changes in water level have been considered in section 8.6.1 and considered in the assessment of bedload sediment transport at the landfall in section 8.7.4.5.1. The Applicants have updated the assessment of significance within **Chapter 8 Marine Physical Environment** [APP-080] where appropriate to incorporate the additional information.

I.D.	Question	Natural England Response	Applicants' Response
REP5-062: 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.	a) Natural England do not consider that this requires novel or unusual technology. We note that Five Estuaries and Outer Dowsing (and other offshore consented OWFs) have committed to use a downpipe/discharge pipe to return sandwave levelling spoil to the same sedimentary system. If the Applicant cannot source a vessel with a downpipe, we advise that they should investigate appropriate alternative solutions. b) Natural England consider that the detail could be agreed post-consent, however a commitment to use this technology (or equivalent) should be made within Examination as it is essential mitigation to reduce impacts to designated sites. c) The Applicant has not approached Natural England for further discussions on this topic outside of the written submissions during Examination.	a) The Applicants are disappointed that Natural England have not answered this question directly. The Applicants further note that Outer Dowsing do not appear to have proposed the use of a fall pipe for the disposal of dredged material. b) The Applicants maintain that they cannot commit to mitigation that is not technically feasible. c) The Applicants have submitted a number of documents into Examination on a number of occasions requesting that they provide evidence of the existence of Trailer Suction Hopper Dredgers with fall pipes. No such evidence has not been provided. Hence, discussions are unlikely to be productive, as the Applicants maintain that the requested mitigation is not feasible.
REP5-062: 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?	We have reviewed the Applicant's position regarding infrastructure decommissioning and cable protection licensing and continue to disagree with it. We do not believe it is in the spirit of the Strategic Compensation Strategy or Marine Recovery Fund which requires the mitigation hierarchy to be fully adopted to avoid, reduce and mitigate impacts on designated sites. In addition, there is no certainty that the Applicant will be able to use the MRF in the way they propose as the policy is not yet final. Therefore, we advise that they are planning at own risk until the MRF launches and the guidance is published. Following a meeting with the Applicant on 8th May we have taken an action away to explore this matter and we will provide further update at Deadline 6. In addition, we would query the necessity for cable protection, and maintenance thereof, within this designated site given that; the Annex I sandbanks are not consider dynamic reducing the likelihood of exposure, sandwave levelling is proposed to optimise cable burial, there is a ban on bottom-towed trawling within the SAC reducing the snagging risk and that exposed/sub-optimally buried cables (and even free spanning cables) within other more dynamic sandbank systems have only required protection where cable integrity it at risk.	The Applicants acknowledge Natural England's comment, although it is unclear what is meant by the "spirit" of the Strategic Compensation Strategy or Marine Recovery Fund. The Applicants note that their response to question BE.2.10 in **The Applicants Responses to the Examining Authority's Second Written Questions (ExQ2)** [REP5-036] provides a clear illustration of how their position accords with the relevant decommissioning guidelines for offshore renewable energy projects that have been provided by Government in the form of Decommissioning of offshore renewable energy installations under the Energy Act 2004: guidance notes for industry (2019). The Applicants note that the Dogger Bank is not a dynamic sandbank and is not classified as such. However, it is known that the surficial sediments are mobile and this has been demonstrated to be the case within the **Bed Mobility and Thermal Environment** [REP3-032] document. The Applicants note that bottom-towed trawling is banned in the SAC, but other types of fishing which may interact with the cables, such as potting are not. In addition, anchoring by vessels is also not banned. These activities present a risk to the cables which needs to be managed should exposures occur. The Applicants note that they have included mitigation in the **Cable Statement (Revision 5)** [document reference 8.20] to minimise the use of external cable protection and will endeavour to do so as far as is practicable. However, the Applicants cannot rule out the potential need for the deposition of external cable protection at this juncture. The Applicants note that, as is common practice for offshore wind farms and as supported by policies such as those presented in section 2.6 of EN-3, the assessments they have provided within the Environmental Statement relating to

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			cable protection are based on worst case scenarios. As such, they afford the Secretary of State with a level of comfort in their decision making on the scale and significance of potential nature conservation impacts.
REP5-062: 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.	a) Natural England welcomes the Applicant's updated assessment - we note that there is no change to the significance of effect of impacts to Flamborough Front. Given the current evidence gaps, potentially long-term and large-scale nature of the impact, coupled with the high value of the Flamborough Front as an area of higher biodiversity, we would advise adopting a more precautionary approach to the impact assessment. Please refer to Appendix B5 of Natural England's Deadline 5 submission for our detailed response. b) b) & c) Please refer to Appendix B5 of Natural England's Deadline 5 submission for our detailed response.	The Applicants direct Natural England to the responses regarding the Flamborough Front in Table 2-10 of **The Applicants' Responses to Deadline 5 Documents** [document reference: 16.4].
REP5-062: 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.	Natural England maintains our previous advice as set out in Table 1 of [REP3-058]. This would help inform understanding of potential overlapping effects extending towards nearby OWFs (i.e. Dogger Bank A). Moreover, cumulative, and project-specific changes to the wave climate over the lifetime of the Project need to be fully considered. [R&I B13]	When considering changes to wave regime, the zone of influence has been determined from waves approaching from the north as these are the most frequent and also the largest in terms of significant wave height. The maximum zone of influence considered in the cumulative assessment is not one directional and the zone of influence is applied in all directions, including to the north-east where other Dogger Bank Projects are located, which would be affected by any wave shadow from southerly, and south-westerly waves. Therefore, the Applicants do not believe modelling waves from the south and south-west would lead to a material change in the cumulative effects assessment.
Marine Conservation Zone Assessment			
REP5-062: 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?	Whilst this is directed at the Applicant, Natural England would like to state that our position on this will be dependent on the nearshore modelling due to be submitted by the Applicant at Deadline 5, which we will provide comment on at Deadline 6.	No response is required.

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REP5-062: 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?	Issues raised in points B17 & B36 of Natural England's R&I log are applicable to Holderness Offshore MCZ. See Appendix B5 of our Deadline 5 submission for our latest advice on these issues.	The Applicants direct Natural England to the responses provided to REP5-061: B17 and REP5-061: B36 in Table 2-26 of **The Applicants' Responses to Deadline 5 Documents** [document reference: 16.4].
Marine mammals and relevant HRA aspects			
REP5-062: 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?	Currently there is a significant evidence gap in our understanding of how migratory bats interact and overlap spatially with offshore wind projects. Natural England advises that this evidence gap needs to be addressed to inform any licensing process. It would be very difficult to robustly assess against the required tests needed if a licence application was received. In this event, we would expect the MMO to assess and decide on any licence applications given the offshore marine location of any turbines. However, Natural England's Wildlife Licensing Team could support on aspects of the technical assessment, particularly where/if there are commonalities with terrestrial bat licensing and ecology.	The Applicants acknowledge Natural England's comment.
REP5-062: 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 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 AEoI 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	Whilst this question was not directed at Natural England, we have provided a response to aide progress. Natural England does not consider a derogations case is required for these features, as there are suitable mitigation options still available to the Applicant that would reduce their impacts and likely enable adverse effects to be ruled out. This has been clearly demonstrated in the Applicant's Illustrative Underwater Noise Reduction Technical Note [REP4-094]. We advise that a commitment to additional mitigation should be made prior to consideration of a derogations case. Please see Section 1 of Appendix F5 of our Deadline 5 submission for further comments.	The Applicants welcome Natural England's response and are in ongoing discussions to confirm appropriate wording to secure additional mitigation.

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	without prejudice derogations case for this possibility and submit this into the examination at DL5?		
Offshore and intertidal ornithology and relevant HRA aspects			
REP5-062: 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.	a) Natural England can confirm that we have no outstanding issues with the methods used by the Applicants to estimate species abundance. However, we do not agree with the Applicant's characterisation of the use of seasonal mean peak abundances to calculate annual abundances as overly precautionary. We also disagree with the Applicant's use of stable age apportioning to determine the proportion of breeding adults. Please refer to Appendix G4 [REP4-124] and Appendix K [REP3-057] for further detail. b) Natural England have no outstanding issues with the methods used by the Applicants to estimate displacement impacts. However, we continue to disagree with the Applicant on which are the appropriate displacement and mortality rates to use for auks. (see our comments in REP4-124 and REP3-057). c) Natural England can confirm that we have no outstanding issues with the methods used by the Applicants to estimate collision mortality.	The Applicants welcome Natural England's confirmation that the methods used for (a) estimating abundance, (b) estimating displacement and (c) estimating collisions are agreed. The Applicants would also like to stress that although Natural England disagrees with the Applicants on a few specific points as noted in their response, the Natural England methods have also been provided throughout and therefore these disagreements do not affect either Natural England's, or the Examining Authority's and the Secretary of State's (SoS's) ability to reach conclusions on the assessment.
REP5-062: 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, i.e. whether an AEoI (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.	Natural England do not consider the Applicant's preferred displacement and mortality rates (a single displacement rate of 50% and a single mortality rate of 1%) to be an appropriate basis on which to assess the impacts of the Projects or the scale of compensation required. Therefore, we cannot agree with the assessment conclusions drawn by the Applicant based on these rates. Our own conclusions on adverse effect will not be based on these, but will consider the range of figures presented, from 30-70% displacement and 1-10% mortality, with particular focus on the figures for 70% displacement and 2% mortality. Please refer to Appendix G4 [REP4-124] and Appendix K [REP3-057] for further detail.	The Applicants consider that assessment of seabird impacts following reasonable levels of precaution would result in conclusions of no AEoI for all species and Special Protection Areas (SPAs) assessed for displacement (guillemot, razorbill, puffin and gannet) both for the Projects alone and in-combination and, with the exception of kittiwake, and for all species and SPAs assessed for collision risk (gannet, large gull species) for the Projects alone and in-combination. For kittiwake the Applicants acknowledge that using Natural England's methods, an AEoI in-combination for the Flamborough and Filey Coast (FFC) SPA cannot be ruled out.
REP5-062: 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	Natural England can confirm that we are happy with the digital aerial surveys undertaken by the Applicant for the marine ornithology assessment.	The Applicants welcome Natural England's agreement on this matter.

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	on the independent external quality assurance as the RSPB have requested? **NE**: Are you content with the applicants' digital aerial surveys for marine ornithology?		
REP5-062: 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'.	Natural England acknowledge the Applicant's comments on why they are unable to increase the air gap to mitigate collision impacts. However, as they are not ecological arguments, they are not within Natural England's field of expertise to comment on. In regards to the Applicant's current use of the mitigation hierarchy, we refer the ExA to Appendix G5 and ISH5 Action Point 7 in Appendix M5 of our Deadline 5 submissions.	The Applicants direct Natural England to the responses regarding use of the mitigation hierarchy in Table 2-25 of **The Applicants' Responses to Deadline 5 Documents** [document reference: 16.4].

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	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 applicants have fully followed the mitigation hierarchy in relation to the size of the air gap for the proposed development.		
REP5-062: 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?	Please refer to Appendix M5 of our Deadline 5 submission for Natural England's comments on this matter.	The Applicants have responded to Natural England's comments on this matter in REP5-060:10a and REP5-060:10a in Table 2-25 of **The Applicants' Responses to Deadline 5 Documents** [document reference: 16.4].
REP5-062: 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? b) Do you have any further comments on the applicant's updated Guillemot and Razorbill Compensation Plan (Revision 4) [REP4-024]?	a) Natural England can confirm that we are content with the figures provided for impact values (mean and UCL) for guillemot and razorbill at FFC SPA in Table 4-3. However, we highlight that impacts on guillemot at the Farne Islands SPA have not been considered. Natural England have provided our full comments on the Applicant's updated Guillemot and Razorbill Compensation Plan [REP4-024] in Appendix H5 of our Deadline 5 submission. b) Natural England can confirm that we are happy with the compensation values presented for guillemot at FFC SPA in Table 4-4. However, we note that we have advised that the Applicant may need to revise their calculations of compensation requirements for razorbill at FFC SPA. We also note that compensation requirements have not been calculated for guillemot at the Farne Islands SPA.	a) The Applicants welcome Natural England's agreement on the impact values for guillemot and razorbill at FFC SPA. Guillemot at the Farnes islands SPA have been included on a without prejudice basis in an update to the **Guillemot [and Razorbill] Compensation Plan (Revision 6)** [document reference 6.2.2] at Deadline 6. b) The Applicants welcome Natural England's agreement on the compensation values for guillemot and note the error on Table 4-4 regarding the razorbill compensation requirement at the 3:1 ratio. The Applicants have addressed Natural England's comments on the razorbill compensation requirements in **The Applicants' Responses to Deadline 5 Documents** [document reference 16.4]. Guillemot at the Farnes islands SPA will be included on a without prejudice basis in an update to the **Guillemot [and Razorbill] Compensation Plan (Revision 6)** [document reference 6.2.2] at Deadline 6.
REP5-062: OR.2.13	**Habitats Regulations Derogation: Provision of Evidence Guillemot [and Razorbill] Compensation Plan**	Natural England agree that the Isles of Scilly has considerable potential as a compensation eradication site and accordingly consider that the measure, should it be successfully developed as	The Applicants acknowledge Natural England's comments on the Isles of Scilly. The Applicants remain confident, based on the substantial amount of evidence they have provided in the **Isles of Scilly Guillemot and Razorbill Survey and**

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	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 tion whilst the 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 AEoI 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 AEoI to the designated site?	a strategic compensation initiative, is likely to be suitable for compensating for the impacts of Dogger Bank South on FFC SPA guillemot and razorbill. Nevertheless, it should be recognised by all parties that the measure is very much under development at present. We welcome the Applicant's continued engagement with the Isles of Scilly Task and Finish group, but we urge some caution regarding estimates of the compensation potential of the site until the results of the work undertaken by this group on this matter become available. While we acknowledge that the issues with delivery of strategic compensation are outside of the Applicant's control, we note that a delivery mechanism for compensation on the isles of Scilly has yet to be established and secured. Outstanding concerns therefore remain relating to the timescales for beginning and achieving compensation, as well as the compensation potential of the site, with potential consequences for the accrual of mortality debt. Natural England have provided detailed comments on these matters in Appendix H5 of our Deadline 5 submission [REP4-125].	**Habitat Assessment** [REP4-097] that this location would provide more than the Projects' compensation requirements. The statement provided by the task and finish group, which includes Natural England, was provided to the Applicants for submission into examination as a means of providing confidence in the delivery of strategic compensation. The question of the timing of delivery of the compensation measure is beyond the remit of the Applicants, as the measure will be delivered strategically by Defra/MRFO.

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REP5-062: 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?	a. Natural England have several issues with the methods used by the Applicant to estimate the compensation potential of the Isles of Scilly, and as such, we cannot agree with the Applicant's statements regarding the potential of the site to overcompensate for the impacts of the Projects. We welcome the Applicant's continued engagement with the Isles of Scilly Task and Finish group, but we urge caution regarding estimates of the compensation potential of the site until the results of the work undertaken by this group become available. Natural England have provided detailed comments on these matters in Appendix H5 of our Deadline 5 submission. b. For every year that the Projects are operational without compensation in place, the full compensation quantum for each species will need to be added to the Projects' total compensation requirements. At present it is unclear to what extent the predator eradication could address the build-up of mortality debt.	a) The Applicants acknowledge Natural England's position and have addressed Natural England's detailed comments on the compensation potential of the Isles of Scilly within **The Applicants' Responses to Deadline 5 Documents** [document reference 16.4]. b) The Applicants acknowledge Natural England's clarification on the compensation requirement for any delay in compensation implementation. **The Applicants' Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment** [REP4-097], estimates between 24,296 – 55,880 nesting spaces could be available. Taking account of the combined compensation requirements for both DBS and Outer Dowsing, the Applicants consider there could be sufficient capacity for at least a delay of two years. This question of the level of over compensation required for late delivery of the compensation measure is beyond the remit of the Applicants, as the measure will be delivered strategically by Defra/MRFO.
REP5-062: 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?	Natural England have previously advised that the Applicant should consider the potential for increased risk of collision mortality to kittiwake colonies established within Area of Search 4 (which include 4b and 4d), due to proximity to both the Hornsea Zone and DBS Offshore Wind projects Higher collision risk for kittiwakes breeding on ANS in these locations could, indeed, reduce the predicted recruitment back into the population. The Applicant does not appear to have considered this in their compensation proposals to date. We note, however, that the Applicant is yet to identify a definite location for their offshore ANS, and it is therefore possible for the Applicant to take account of these comments in their final site selection process.	The Applicants have taken the location of offshore wind farms into consideration through a rigorous site selection process for the offshore Artificial Nesting Structure (ANS) which has built upon the work undertaken by NIRAS and the Kittiwake Steering Group as outlined in **Round 4 Kittiwake Strategic Compensation Plan** [APP-053]. The latest stage of site selection work and final candidate site being progressed is presented in updates to **Appendix 1 Project Level Kittiwake Compensation Plan (Revision 5)** [REP4-020] at Deadline 6. The Applicants have applied a suitably cautious buffer (15km) around all wind farm projects in alignment with the Crown Estate's **Round 4 Kittiwake Strategic Compensation Plan** [APP-053] and consider the final location to represent the lowest risk in terms of collision and connectivity with the Flamborough Filey Coast SPA. The Applicants have presented the final ANS site to Natural England (28th May 2025) and have eliminated the candidate sites for which Natural England expressed some concern due to potential for elevated collision risk due to proximity to the Hornsea and the Projects (Area of Search 4). The Applicants do not consider there to be a requirement to consider this specifically in the modelling undertaken and outlined in **Reduction in Kittiwake Breeding Seasons Prior to Artificial Nesting Structure Installation** [REP4-083]

I.D.	Question	Natural England Response	Applicants' Response
			given that the potential for collision has been minimised through the site selection process.
REP5-062: 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?	Natural England note that we have raised several issues with the modelling undertaken by the Applicant and presented in REP4-083, which are detailed in Appendix H5. Natural England note that the compensation quantum used in this modelling has applied neither the H4 nor the H3pt2 method for calculating the required number of breeding pairs, nor have they considered the potential impacts of delayed colonisation, as previously requested by Natural England. However, we note that the results presented appear to cast some doubt on the ability of the Projects to compensate for their predicted impacts even within fifty years. Natural England have provided detailed comments on these matters in Appendix H5 of our Deadline 5 submission.	The colony growth rate modelling undertaken by the Applicants **Reduction in Kittiwake Breeding Seasons Prior to Artificial Nesting Structure Installation** (Revision 2) [REP4-083] aligns with that applied by Hornsea 4 (and Hornsea 3). This approach was approved by the Secretary of State through acceptance of Hornsea 4's non-material change (DESNZ, 2024). The growth rate information presented in [REP4-083] and the compensation quanta methodology (H4 or H3) are separate concepts. The compensation quanta methodology (H4 or H3, plus any ratio applied) is used to determine the **size of the ANS** through determination of the number of nest spaces required. This is based on the mortality. This methodology does not provide any calculations for how the colonising population grows. The calculations shown in [REP4-083] estimate **how quickly the population on the ANS grows**. This is presented for a starting population of 1 as the worst case and a series of demographic rates are also presented (in line with the approach of Hornsea 4 for which this approach was accepted). The calculations also take account of the projected size of the ANS and applies a logistical growth rate based on this (this takes account of density dependence and slowing growth as the colony gets larger). In this case the assumption was for a conservative 2500 nest spaces. The calculations then compare the growth of the population (on the right-hand side) with the accumulating 'mortality debt' (left hand side). The mortality is based on the mean or Upper Confidence Limit (UCL), the compensation quantum (which has determined the ANS size) is not relevant. The tables show, for the different demographic rates, annual mortality and initial colony size, the point at which the mortality debt is 'paid back'. The Applicants also discussed this with Natural England (meeting on 9th June 2025) at which Natural England explained that their query was as to whether the Applicants had included predicted dispersal rates in the projections of colony growth. The Applicants explained the purpose of these colony growth projections (as outlined above) and that, while incorporating dispersal rates may change the time to payback, just as each growth rate scenario has different payback durations, these will not change the effect of 2 or 4 years lead-in. There was agreement at the conclusion of the meeting with Natural England that each party would maintain their respective positions and that the final decisions on ANS requirements (e.g. size etc.) would be left to the SoS as a balance of ecological, financial and policy matters, noting that Natural England's remit is only to comment on the ecological ones. It should also be noted that the growth rate values used were drawn from observations of colony growth and therefore these already implicitly include all

I.D.	Question	Natural England Response	Applicants' Response
			the individual demographic rates which affect population growth, including dispersal rates.
REP5-062: 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].	Natural England welcome the Applicant's stated commitment to continuing to maintain and monitor the ANS beyond the lifetime of the Projects, until such time as compensation requirements are fully delivered, should this not be achieved within the Projects' lifetime. We note that it has been standard in previously consented DCO Schedules for a condition to be included requiring written permission from the Secretary of State to decommission an ANS. We consider that this provides the requisite security that the ANS would not be decommissioned prior to compensation being delivered and therefore could extend beyond the Project's lifetime.	As stated by Natural England, the Applicants **Draft Development Consent Order** [REP4-005] states in Schedule 18, Part 2 (7): "*The artificial nesting measure must not be decommissioned without written approval of the Secretary of State in consultation with relevant statutory nature conservation body*". The kittiwake CIMP (which must be approved by the Secretary of State in consultation with the relevant statutory nature conservation body and then must be complied with by the Applicants) must include details of the maintenance schedule for the ANS and any adaptive management measures. The Applicants therefore submit that there are already adequate controls within the condition wording which provide the opportunity for the Secretary of State, in consultation with the relevant statutory nature conservation body, to control the time period for which the ANS must be maintained, whether or not that extends beyond the operational lifetime of the development.
REP5-062: 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 AEoI on guillemot and the seabird assemblage from the Farne Islands SPA can be excluded from the project alone? If the response to this is clear from your response to HRA.2.4 then there is no need to repeat the response.	Natural England have outstanding concerns regarding the in-combination assessment and PVA(s) for guillemot at the Farne Islands SPA. However, we advise that we conclude that an AEoI on guillemot at the Farne Islands SPA can be ruled out for the impacts of the Project alone, but an AEoI cannot be ruled out for the impacts of the Project in-combination with other Plans or Projects. Given the modest nature of the Projects' impacts on guillemot however, we can rule out an AEOI both alone and in-combination on the seabird assemblage of Farne Islands SPA. See Appendices G5 and H5 of our Deadline 5 submission for detailed advice.	Given that no measurable increase in the Farne Islands SPA guillemot mortality is predicted as a result of DBS East and DBS West combined (e.g. with realistic displacement mortality of only 5 birds per year during operation), the Applicant's concluded that the Projects would not contribute to in-combination effects on this species. The Applicants maintain that there is no adverse effect on integrity of the Farne Islands SPA through in-combination effects, and note that more than half of the total impact estimated to the Farne Islands SPA population is attributable to one project (Berwick Bank; 55%), while the Projects contribute at most 5%. Nonetheless, the Applicants have updated the **Guillemot [and Razorbill] Compensation Plan (Revision 6)** [document reference 6.2.2], the **RIAA HRA Part 4 of 4 – Marine Ornithological Features (Revision 5)** [document reference 6.1] and Schedule 18 of the **Draft Development Consent Order (DCO) (Revision 9)** [document reference 3.1] for Deadline 6 to include the guillemot from the Farne Islands SPA on a without prejudice basis. The **Habitats Regulations Derogation Provision of Evidence (Revision 3)** [document reference 6.2] will be updated at Deadline 7 to reflect these updates. This does not affect the compensation proposals other than to increase the total mortality to be compensated.

I.D.	Question	Natural England Response	Applicants' Response
REP5-062: 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 AEoI 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.	Whilst this question was not directed at Natural England, we have provided a response to aid progress. As detailed above, we have now concluded that an AEoI in-combination on guillemot at Farne Islands SPA cannot be ruled out. However, we do not anticipate that this would require an additional derogations case and advise that this could be managed through adjusting the requirements of the existing auk compensation proposals.	See the Applicants response to OR 2.19 above.
REP5-062: 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 AEoI of the red-throated diver and common scoter qualifying features?	a) Natural England welcome the clarification provided by the Applicant in [REP4-088] and are satisfied that an AEoI on Red throated diver in Greater Wash SPA can be ruled out due to the very limited interaction between the cable works area and the Greater Wash SPA and 2km buffer. b) We would welcome further discussion with the Applicant on avoiding the over-wintering period in the post-consent phase when more detail is available on the planned timings of the works, however we do not consider that it is necessary to rule out adverse effects in this instance.	The Applicants welcome Natural England's agreement on this matter.
REP5-062: OR.2.25	Flamborough and Filey Coast SPA 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 AEoI alone [RR-039]. Further to the assessment updates provided by the applicants, can NE confirm whether it considers there to be an AEoI on kittiwake from the project alone?	a) Natural England have some outstanding concerns regarding the in-combination assessments and PVAs, however these will not materially affect assessment conclusions, and we are now satisfied with the Applicant's Project alone assessment. Based on the current assessment, we conclude that an AEoI can be ruled out on gannet at FFC SPA for the impacts of the project alone and in-combination with other plans or projects. However, we advise that an AEoI cannot be ruled out for impacts of the Project on the seabird assemblage at FFC SPA in combination with other Plans or Projects. b) Natural England confirm that we consider that an AEoI cannot be ruled out on kittiwake at FFC SPA for the impacts of the Project alone. Please see Appendix G5 of our Deadline 5 submission for our full conclusions.	a) The Applicants welcome that Natural England agrees that there is no need to amend the assessments as these will make no material difference to their conclusions. We also welcome that Natural England agreed that AEoI can be ruled out for gannet from the FFC SPA. The Applicants also consider that the determination of AEoI on the seabird assemblage feature is largely a technicality, since it cannot be meaningfully assessed as a feature in its own right (but instead is assessed on a species by species basis) and Natural England's position is therefore based on their conclusions on species which make up a part of the assemblage. b) The Applicants acknowledge Natural England's position kittiwake at FFC SPA, although highlight that they do not share this position and consider that an AEoI for the FFC SPA can be ruled out for both the Projects alone and in-combination.

I.D.	Question	Natural England Response	Applicants' Response
REP5-062: 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 AEoI 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?	Whilst this question was not directed at Natural England, we have provided a response to aid progress. As confirmed above, Natural England consider that an AEoI can be ruled out for impacts on FFC SPA gannet. With respect to the seabird assemblage, compensation requirements for seabird assemblages are typically handled by the species-specific proposals, therefore we not consider that additional derogations proposals would be needed for these impacts. Instead, existing species-specific requirements would simply need to be adjusted.	The Applicants welcome and agree with Natural England's clear statement on these points.
REP5-062: 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. **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?	Natural England's advice aims to account for three issues: 1. That all avoidance rates calculated (by Ozsanlev-Harries et al 2023[3], Cook 2021[4], Cook 2014[5]) are 'within-windfarm' avoidance rates. 2. There is not a gannet specific avoidance rate, 3. That there is a clear evidence base that gannets display macro-avoidance (JNCC & SNCBs 2024[6]). Natural England commissioned an evidence report to inform this approach using the best available evidence. This report (Pavat et al 2023[7]) advised that input densities for gannet are corrected by agreed macro-avoidance rates, and a 'within wind farm' avoidance rate is applied when undertaking CRM.	The Applicants welcome Natural England's further guidance on this point.

[3] Ozsanlav-Harris, L, Inger, R & Sherley R. (2023). Review of data used to calculate avoidance rates for collision risk modelling of seabirds. JNCC Report No. 732 (Research & review report), JNCC, Peterborough, ISSN 0963-8091. Available online at: Review of data used to calculate avoidance rates for collision risk modelling of seabirds

[4] Cook, A.S.C.P. 2021. Additional analysis to inform SNCB recommendations regarding collision risk modelling. BTO Research Report 739, BTO, Thetford, UK

[5] JNCC, Natural England, Natural Resources Wales, NatureScot. 2024. Joint advice note from the Statutory Nature Conservation Bodies (SNCBs) regarding bird collision risk modelling for offshore wind developments. JNCC, Peterborough. https://hub.jncc.gov.uk/f7892820-0f84- 4e96-9eff-168f93bd343d.

[6] JNCC, Natural England, Natural Resources Wales, NatureScot. 2024. Joint advice note from the Statutory Nature Conservation Bodies (SNCBs) regarding bird collision risk modelling for offshore wind developments. JNCC, Peterborough. https://hub.jncc.gov.uk/f7892820-0f84- 4e96-9eff-168f93bd343d.

[7] Pavat, D., Harker, A.J., Humphries, G., Keogan, K., Webb, A. and Macleod, K.. 2023. Consideration of avoidance behaviour of northern gannet (Morus bassanus) in collision risk modelling for offshore wind farm impact assessments. NECR490. Natural England. Available online at:NECR512 Consideration of avoidance behaviour of northern gannet (Morus bassanus) in collision risk modelling for offshore wind farm impact assessments - NECR512

2.11 Natural Resources Wales (NRW)

Table 2-11 – The Applicants' comments on NRW's responses to ExQ2 [REP5-075]

I.D.	Question	NRW Response	Applicants' Response
REP5-075: OR.2.10	**Marine Ornithology** **OR.2.10 Survey results for Worms Head** **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.	NRW provided advice to the Applicant on their proposals for Worms Head via email in April 2025. A number of concerns were raised by NRW to the Applicant at this time, which included: • Before proceeding further, we recommend that the Applicant gives serious consideration to the feasibility of eradicating rats from a narrow peninsula attached to the mainland, and how to prevent them from returning. As rats can access intertidal areas and can swim long distances, we cannot identify any feasible means of preventing them from returning to Worms Head. • The Worms Head is part of the Gower National Landscape/Area of Outstanding Natural Beauty (AONB), which requires careful consideration in terms of visual impacts to the landscape from the proposed works. • The site is part of the Gower Coast: Rhossili to Porteynon SSSI, which is designated for guillemot and razorbill, in addition to other features such as plants and lower plants, marine habitats, invertebrates and geology and geomorphological features. We advise that SSSI consent/assent would need to be sought from NRW, working with the landowner. • The Applicant would also need to consider potential health and safety implications regarding public access to the land. Currently, the issues outlined above suggest that there may be considerable barriers to the use of this area for compensation. All of these would need to be addressed by the Applicant, working with the landowner. NRW would be happy to discuss this further with the Applicant, however we note that previous engagement earlier in the year ceased due to issues raised by the landowner. We advise that the Examining Authority and/or the Applicant engages with the National Trust on this matter.	At a meeting on the 9th May 2025 the National Trust confirmed to the Applicants that they would no longer be progressing with the proposals at Worms Head. This decision is based on access and visual impact concerns which may arise from any eventual predator eradication project. The National Trust also stated that they consider that the best opportunity for compensation measures for guillemot and razorbill is through strategic measures delivered by the Marine Recovery Fund. The Applicants are therefore no longer perusing Worms Head as a potential predator eradication scheme.

2.12 Orsted IP's

Table 2-12 – The Applicants' comments on Orsted responses to ExQ2 [REP5-074]

I.D.	Question	Orsted IP's Response	Applicants' Response
REP5-074: 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 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.)	Clean Power 2030 Action Plan The Clean Power 2030 Action Plan identifies that wake effects between developments present a risk to offshore wind development. In particular, the document recognises that new projects with larger and/or a greater number of turbines have "an even greater propensity" to cause wake effects on existing downstream operational projects. The document goes on to describe the Awel y Mor decision as setting a "precedent" through the imposition of a wake loss condition (where historically the issue had been dealt with privately, outside the planning system). In light of these statements, and the inclusion of the Clean Power 2030 Action Plan in the2025 revisions to the energy NPSs, there can be no doubt that the Government's position is that wake effects from new developments can result in material adverse effects and that there is a need for these effects to be addressed. This does not support the Applicants' position that a wake assessment is outwith the requirements of the NPSs (see also below in relation to paragraph 2.8.176 of draft NPS EN-3). Assessment of Inter-Array Wake Effects The Ørsted IPs support that draft NPS EN-3 recommends that an assessment of inter-array effects is undertaken when considering a new offshore wind farm consent application. Wake effects should not be viewed differently to impacts upon other industries where it is expected that an applicant assess the impact its project will have on other activities and implements measures to mitigate significant effects. This supports the position made by the Ørsted IPs throughout this Examination to date, being that the Applicants must undertake a wake loss assessment that considers the impact of the Project on the Ørsted IPs' assets. Furthermore, it is of note that the Applicants will have access to the information required to carry out the most realistic assessment of inter-array wake effects, including indicative layouts, likely wind turbine generator capacity and detailed knowledge of the wind regime, amongst other factors. The publicly-available design parameters for existing ('waked') offshore assets allows for a robust assessment of likely wake losses. It is also pertinent that, ahead of the submission of a DCO application, the Applicants will, in all likelihood, already have undertaken multiple inter-array wake effects assessments, in order to model the expected impact that wakes from existing and planned offshore wind farms	The Applicants position on this question is set out in **The Applicants' Responses to ExAQ2** [REP5-036]. The Applicants are not proposing to respond in detail to the Orsted IPs response. They would make the following points: The Applicants reject the claim that inter-project compensation agreements are commonplace within the industry outside of the situation where a new project is located within the relevant TCE buffer. There are no circumstances in which an imposed financial compensation mechanism would be an "attractive solution" for the Applicants. Such a mechanism or agreement is not justified for the reasons the Applicants have already explained in a range of submissions. The Applicants do not consider that "suspensive wake minimisation provisions" within the Development Consent Order (DCO) are justified. They have demonstrated a multi-stranded approach to applying and considering wake minimisation as explained in **Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points** [REP4-099] and other submissions. Such a DCO provision requiring further consideration of mitigation would not be justified. The Applicants consider that their conduct in relation to wake effects has followed the accepted approach, as explained in other submissions. Many of the Orsted IPs points are overtaken by the fact that the Applicants have submitted a wake assessment for Hornsea 1, 2, 3 and 4 (**Addendum to Wake Effects - Response to ISH3 Action Points Submission for Deadline 4** [AS-179]) the results of which the Orsted IPs accepted at the hearing and the relevant Orsted IPs have withdrawn their objection in relation to wake effects on Race Bank, Lincs, Westermost Rough and Hornsea 4.

I.D.	Question	Orsted IP's Response	Applicants' Response
		will have on the Project's business case. Indeed, 'reversing' the results of these existing wake assessments is a relatively trivial endeavour, which the Applicants should undertake. Managing the Impact of Wake Effects The Ørsted IPs support that draft NPS EN-3 recommends that developers should demonstrate that they have considered wake impacts on other wind farms when designing their project. The Ørsted IPs would expect that mitigations of the wake impacts on other sea users are investigated and that an applicant explores potential trade-offs to reduce the wake impact with the owners of impacted offshore wind farms. This is a matter of good design and should be based on the real-world situation for an applicant's project, rather than on hypothetical or simplified examples. Paragraphs 2.8.176, 2.8.232, 2.8.233 and 2.8.316 Paragraph 2.8.176 of draft NPS EN-3 states that "*applicants should consider the impact of their proposal on other activities and make reasonable endeavours to address these. At the design stage there are therefore clear merits for applicants to make an assessment of inter-array wake effects between their proposed developments, and nearby offshore wind generating stations that are planned, consented or operational*". This supports the position adopted by the Ørsted IPs throughout this Examination to date, being that the Applicants must undertake a wake loss assessment that considers the impact of the Project on the Ørsted IPs' assets. Paragraph 2.8.232 of draft NPS EN-3 states that "*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*", including (as examples) "*explaining how the configuration of a proposed offshore wind project has been evolved during the design process to reduce the impact, or how an applicant has managed the planned layout of an offshore wind turbine array to select layouts with reduced long-distance wake impact on other offshore industries or generating stations*". As above, the Applicants cannot be said to have complied with this paragraph of draft NPS EN-3 without first undertaking a wake loss assessment that considers the impact of the Project on the Ørsted IPs' assets. Paragraph 2.8.233 of draft NPS EN-3 states that "*there is no expectation that wake effects can be wholly removed between developments, or that inter-project compensation arrangements are a necessary means to mitigate the impact of wake effects, although developers may opt to take such approaches outside of the planning process*". The Ørsted IPs agree that wake effects on their assets cannot be wholly removed as a result	

I.D.	Question	Orsted IP's Response	Applicants' Response
		of the Project, as that would only be the case if the Project was not built, which the Ørsted IPs (as offshore wind developers themselves) are not advocating for. However, the Ørsted IPs note that inter-project compensation agreements, whilst not automatically considered to be a necessary means of mitigation under this paragraph of draft NPS EN-3, are commonplace within the industry. Indeed, it may be the case that such a compensation agreement is an attractive solution for the Applicants to consider, in lieu of the imposition by the Secretary of State of suspensive wake minimisation provisions within the DCO, as alluded to in paragraph 2.8.232; noting that, prior to a decision being made on the Project's DCO, the Applicants will not have access to the design, technical and operational detail that is required to evaluate and take all reasonable wake minimisation steps (for example, steps linked to configuration and/or layout-based mitigations). Paragraph 2.8.316 of draft NPS EN-3 states that "*where an applicant has demonstrated that they have made an assessment of inter-array wake, taken all reasonable steps to minimise as far as possible the impact of wake effects and shown that they have made reasonable efforts to work collaboratively with those who may potentially be impacted, then the existence of a residual wake effect impact is unlikely to carry more than limited weight against a project in the planning process*". Again, the Applicants cannot be said to have complied with this paragraph of draft NPS EN-3 without first undertaking a wake loss assessment that considers the impact of the Project on the Ørsted IPs' assets and without also having taken the subsequent steps set out in paragraph 2.8.316.	
REP5-074: 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 Ørsted IPs consider that the word "*nearby*" has been left deliberately undefined as a specific distance in draft NPS EN-3. There are many factors other than distance which affect wake loss impacts on surrounding assets, such as the wind direction, the scale of an applicant's project, the temporal overlap between the operational lifetimes of the waking and waked offshore wind farms, and the turbine technology and layout; separation distance is not necessarily the most important factor driving the overall loss of generation. A wake loss assessment is required to establish the level of effect and significance and, given that separation distance is just one determining factor amongst many, the Ørsted IPs feel that it is unhelpful for draft NPS EN-3 to make specific reference to it. The Ørsted IPs consider that the word "*nearby*" is defined by the impacts that a proposed project will have on surrounding assets, and that it is not possible to determine what should be considered "*nearby*" without a wake loss assessment. The Ørsted IPs intend to recommend to the Secretary of State that draft NPS EN-3 is updated by deleting	The Applicants' position on this question is set out in **The Applicants' Responses to ExAQ2** [REP5-036]. The question is, in any event overtaken by the wake assessments which the Applicants have submitted and the withdrawal of objections by the relevant Orsted IPs as referred to above.

I.D.	Question	Orsted IP's Response	Applicants' Response
		the word "*nearby*" and making it clear that the assessment should be undertaken in respect of offshore wind projects that have the potential to be impacted by wake effects. It is of note that, in the examination of the Outer Dowsing Project, some of the Ørsted IPs withdrew their representations regarding wake loss following the publication of an independent wake loss assessment commissioned by the applicant in that examination; that assessment showed a low wake loss impact and hence these assets were able to withdraw their objections. As stated above, the Ørsted IPs expect the Applicants to commission a wake loss assessment, and the Ørsted IPs request that this is actioned as soon as possible in order to facilitate due scrutiny and discussion within what remains of this Project's examination.	
REP5-074: 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?	As above, paragraph 2.8.176 of draft NPS EN-3 states that "applicants should consider the impact of their proposal on other activities and make reasonable endeavours to address these. At the design stage there are therefore clear merits for applicants to make an assessment of inter-array wake effects between their proposed developments, and nearby offshore wind generating stations that are planned, consented or operational". This supports the position made by the Ørsted IPs throughout this Examination to date, being that the Applicants must produce a wake loss assessment (ideally by commissioning an independent consultant) that considers the impact of the Project on the Ørsted IPs' assets. Alongside the other submissions made by the Ørsted IPs throughout this Examination, it is clear that the Applicants have not complied with the existing or draft NPS EN-3 in relation to conducting this assessment.	The Applicants' position on this question is set out in **The Applicants' Responses to ExAQ2** [REP5-036]. The Applicants have now submitted wake assessments on a without prejudice basis.
REP5-074: 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	The following response should be read in conjunction with the Ørsted IPs' response to IOU 2.4 above. It is for the Applicants to determine whether potentially impacted projects should be scoped in or out of further assessment based on the establishment of a Study Area that is defined solely upon distance, or whether to employ a more complex screening methodology that utilises multiple factors to determine the spatial extent of the Study Area (including, for example, relative position with regards to the prevailing wind alongside separation distance). If the Applicants were to opt for the former, it will be for the Applicants to ensure that the spatial extent of the Study Area is sufficient to capture, for example, downwind wake impacts. The Ørsted IPs would be happy to comment on a scoping methodology proposed by the Applicants.	This point has been overtaken by the fact that Orsted has withdrawn its objections to Lincs, Race Bank, Westermost Rough and Hornsea 4 and accepted the conclusions of the Applicants' wake assessment for Hornsea 1, 2 and 3 (detailed in the **Addendum to Wake Effects - Response to ISH3 Action Points Submission for Deadline 4** [AS-179]).

I.D.	Question	Orsted IP's Response	Applicants' Response
	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?	It is inexpensive and straightforward for an offshore wind farm developer to robustly model the wake effect of its proposed project upon multiple existing and/or planned offshore wind farms within a specified Study Area. There is no valid justification for not commissioning this work or for not doing so in accordance with the latest understanding of the true extent of far-field wake effects. The approach taken to these assessments should be no different to the numerous other assessments that are routinely completed throughout the Scoping and EIA stages of a project's development. During the examination of the Outer Dowsing Project, some Ørsted IPs withdrew their representations regarding wake loss following the publication of an independent wake loss assessment that was commissioned by the applicant in that examination; that assessment showed a low wake loss impact and hence these assets were able to withdraw their objections. It is reasonable to expect that the same outcome may apply with respect to this Project once the Applicants make a wake loss assessment available.	
REP5-074: 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 Ørsted IPs only wish to note that Leasing Round 4 projects have had large wake impacts on the viability of existing offshore wind farms, and refer to the financial impact assessments submitted by the Ørsted IPs during the examinations of the Outer Dowsing Project and the Morecambe Project (included at Appendices 2 and 3, respectively, of this submission).	The Applicants have not considered the detail of financial impact assessments made in relation to other DCO applications and have no comment to make, given that they go beyond the scope of this Examination.
REP5-074: 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.	The Ørsted IPs have deliberately not disclosed the internally assumed load/capacity factors of their assets, as this would reveal the internal view of the expected annual energy yield for each asset. This is commercially sensitive information. An indicative view could be achieved by using the installed capacities of each wind farm alongside a suitable capacity factor for offshore wind. For example, RenewableUK provide a load factor for offshore wind which they define as the actual output of a turbine benchmarked against its theoretical minimum output in a year. The load factor is calculated as a rolling average of the past five years using data (on an Unchanged Configuration Basis) from the Digest of UK Energy Statistics published by the Department for Energy Security and Net Zero. Using statistics from 2019-2023 (released in July 2024), this figure was found to be 40.58% for offshore wind.	The Applicants agree with the points made about confidentiality and agree that the approach of an indicative capacity factor is reasonable, and have no objection to the value chosen by the Ørsted IPs.

<table>
<tr><th>I.D.</th><th>Question</th><th>Orsted IP's Response</th><th>Applicants' Response</th></tr>
<tr><td></td><td></td><td>It is worth noting that load factors have been increasing over time due to technological innovation and the fact that newer wind farms are being placed in areas with higher average wind speeds. The Department for Energy Security and Net Zero states, in its CfD (Standard Terms) Regulations document, that the load factor for new build projects (for delivery years 2026-2029) is 62.3% for offshore wind – see Table J: Assumed Load Factor, pages 6 and 7.

In the following table, the indicative generation from each Ørsted IP's asset is provided, using an average of the capacity factor estimates above (51.4%) and the following formula:

Energy per annum = Project Capacity x Capacity Factor x Hours in a Year
<table>
<tr><th></th><th>Project Capacity (MW)</th><th>Capacity Factor (%)</th><th>Hours in year (h)</th><th>Indicative energy per annum (MWh)</th></tr>
<tr><td>Race Bank</td><td>546</td><td>51.4%</td><td>8766</td><td>2,460,125</td></tr>
<tr><td>Lincs</td><td>270</td><td>51.4%</td><td>8766</td><td>1,216,545</td></tr>
<tr><td>Westermost Rough</td><td>210</td><td>51.4%</td><td>8766</td><td>946,202</td></tr>
<tr><td>Hornsea 01</td><td>1218</td><td>51.4%</td><td>8766</td><td>5,487,972</td></tr>
<tr><td>Hornsea 02</td><td>1320</td><td>51.4%</td><td>8766</td><td>5,947,556</td></tr>
<tr><td>Hornsea 03</td><td>2995</td><td>51.4%</td><td>8766</td><td>13,494,643</td></tr>
<tr><td>Hornsea 04</td><td>2400</td><td>51.4%</td><td>8766</td><td>10,813,438</td></tr>
<tr><td></td><td></td><td></td><td>Total</td><td>40,366,781</td></tr>
</table></td><td></td></tr>
<tr><td>REP5-074: IOU.2.15</td><td>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?</td><td><u>The Applicants' wake effects – response to ISH3 action points</u>

Please see the Ørsted IPs further comments on the Applicants' Deadline 4 submissions below this table.

<u>The Applicants' greenhouse gas sensitivity analysis of wake effects</u>

This document is a high-level analysis which uses generic wake effects and not the expected impacts on the Ørsted IPs' assets. It would benefit from direct modelling of wake impacts on neighbouring assets,</td><td>Regarding the Greenhouse Gas (GHG) sensitivity response, the Applicants are submitting at Deadline 6 Appendix 30-4 Additional Wake Loss Scenarios [document reference: 7.30.30.4] which provides an additional analysis taking account the Applicants' and the Projcos wake assessment conclusions. This study confirms that the scenario-based approach undertaken by the Applicants in the Greenhouse Gas Sensitivity Analysis of Wake Effects (Revision 2) [REP5-034] and reflected in the updated Chapter 30 Climate Change (Revision 2) (document ref: 7.30) submitted at Deadline 6 is suitably worst-case, with</td></tr>
</table>

I.D.	Question	Orsted IP's Response	Applicants' Response
		as opposed to using generic assumed wake effect scenarios of 0.5%, 1.0% and 2.0%.	results based on modelled wake losses being akin to effects between the 0.5% and 1.0% scenarios.
REP5-074: 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?	The Applicants are correct that wind resource available to an offshore wind farm will vary from year-to-year in the range of ±5% of the average production. Outlier years can result in fluctuations that extend outside this range. However, the Applicants' conclusion that "*wake impacts are lost in the noise of natural variations of the wind*" is misleading, as it ignores two fundamental points. Firstly, whilst variations in wind direction and speed will change the effect experienced in a particular year, the effects over several years will average out and it is equally likely that the wake effect will be higher or lower than the average in any given calendar year. Secondly, it is very important to note that the wake losses predicted as a result of the Project would occur in both low and high wind years – it would impact the Ørsted IPs' assets in every year post-commissioning of the Project, resulting in a long-term average effect which is what a wake loss assessment would be expected to calculate and report. The wake effect is not in any way mitigated by wind resource annual variability. The Ørsted IPs note that this point was discussed previously in the examination of the Mona Project and an independent wake expert made the following statement: "*…it should be noted that the difference % values provided in Table 5-4 and 5-5 in our report are the difference in the long-term Annual Energy Production (AEP). The Measure Correlate Predict (MCP) method used within the Wake Assessment undertaken seeks to incorporate interannual variability as a long-term effect in the assessment, therefore it is not correct to compare the wake results directly to what a farm would see between one year and the next.* *The wake loss would typically vary between low average wind years and high average wind years as the turbines across the farm would spend different amounts of time at different points on their power curves, causing the resulting wake impacts to vary, but never disappear. The MCP process accounts for annual variability, by allowing calculations over longer time scales representative of the wind farm's potential life, and improves statistical significance of calculated net AEP*".	The Ørsted IPs write as if the Applicants are claiming that the wake effect is not present, or only occasionally present, which is a rebuttal to a point that was not made. Instead, the Applicants have sought to put wake impacts into the framework of an Environmental Impact Assessment (EIA) assessment. Given that this is a novel issue, there is no history of assessments in this context and no standard practice to fall back on, the Applicants sought references from assessments of impacts in other EIA areas. In multiple other examinations on other EIA topics, applicants have compared the magnitude of an impact to the natural variation of the quantity impacted, and/or how detectable that effect would be. Some examples are: 1. '*Changes in seabed level due to deposition of suspended sediment released from drill arising from foundation installation was modelled and the results show there is no observable change greater than 5mm. Any changes are therefore considered to be* ***within the range of natural background variability*** *and would also be undetectable using standard bathymetric survey techniques*[8]. 2. *'The conceptual evidence-based assessment suggests that away from the immediate release locations, elevations in suspended sediment concentration above background levels for only two foundations would be very low (less than 10mg/l) and* ***within the range of natural variability****. Net movement of fine-grained sediment retained within a plume would be to the northwest or southeast, depending on state of the tide at the time of release. Sediment concentrations arising from one foundation installation are unlikely to persist for sufficiently long for them to interact with subsequent operations, and therefore no cumulative effect is anticipated from multiple installations*[9]*.'* 3. *'The hydrodynamic regime is highly variable through tidal cycles and due to meteorological conditions, with the scale of the impact being* ***well within the natural variation****. The changes to tidal currents, wave climate, littoral currents, and sediment transport are insignificant in terms of the hydrodynamic regime and would not alter beach and offshore bank morphological processes. Effects on tidal current and wave*

[8] DBS - Chapter 8 Marine Physical Environment [APP-080], section 8.7.37.1 paragraph 209
[9] Sheringham Shoal and Dudgeon Extension Projects - Chapter 6 - Marine Geology, Oceanography and Physical Processes, section 6.6.4.2.1 paragraph 191

I.D.	Question	Orsted IP's Response	Applicants' Response
			climate would be reversible on decommissioning (i.e. following removal of the wind turbines)[10].' Comparison to background levels of variation is established practice, and accepted as an indication that an effect is not significant. The Applicants have demonstrated that the magnitude of the effect is substantially within the natural variation, which is a strong indicator that the effect is not significant in EIA terms.
REP5-074: 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.	Per the contents of their responses to ExQ2 above, and submissions made throughout the Examination to date, the Ørsted IPs do not currently intend to undertake and submit a wake loss assessment of the likely wake effects of the Project on the Ørsted IPs' assets, as the responsibility for this assessment should fall to the Applicants.	The Applicants have now submitted a wake assessment for Hornsea 1, 2, 3 and 4 (**Addendum to Wake Effects - Response to ISH3 Action Points Submission for Deadline 4** [AS-179]) which the Orsted IPs have accepted the results of.
REP5-074: 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.	Please see attached at Appendix 1 to this submission. In relation to these protective provisions, the Ørsted IPs wish to note: • That the protective provisions are without prejudice to the position of the Ørsted IPs that the Applicants should still undertake a wake loss assessment of the Project on the Ørsted IPs' assets during this examination; and Whilst the protective provisions are currently drafted to cover all the Ørsted IPs that currently have active objections to the Project, per the response to IOU.2.9 above, it is reasonable to expect that (as was the case during the examination of the Outer Dowsing Project) some Ørsted IPs may withdraw their representations (and therefore no longer require coverage via the proposed protective provisions) regarding wake loss following the publication of a wake loss assessment commissioned by the Applicants, if that assessment shows a sufficiently low wake loss impact.	The Applicants have noted that the relevant Orsted IPs have withdrawn their objections in relation to Lincs, Race Bank, Westermost Rough and Hornsea 4. The Applicants' position in relation to the substantive drafting of the draft protective provisions is set out in their comments to the Dogger Projcos' response to ExQ2 in **Table 2-13** of this document.
REP5-074: 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	Per the contents of the draft protective provisions for the benefit of the Ørsted IPs included at Appendix 1 to this submission, arbitration can play a role in protecting the interests of the Ørsted IPs and the Applicants. This is because the general arbitration provisions in article 47	The Applicants' position is set out in **The Applicants' Responses to ExAQ2** [REP5-036] and its response to the Dogger Projcos response to this ExQ.

[10] [redacted] paragraph 107

I.D.	Question	Orsted IP's Response	Applicants' Response
	what extent do you think that arbitration would be useful or necessary in protecting the interests of all parties involved?	of the DCO provide the backdrop for any disputes arising from the protective provisions.	
Comments on the Applicants' Deadline 4 submissions			
REP5-074: 1	N/A	The Ørsted IPs consider that the matters addressed in the various submissions made by the Applicants at Deadline 4 are covered in the table above and/or in submissions made previously by the Ørsted IPs in this examination. However, the Ørsted IPs wish to pick up on statements made by the Applicants in their Written Summaries of Oral Submissions made at the April 2025 hearings **[REP4-086]**, their Responses to Deadline 3 Documents **[REP4-088]** and their Wake Effects – Response to ISH3 Action Points **[REP4-099]**. In **[REP4-086]**, the Applicants state that "*the Ørsted IPs and the Dogger Bank Projcos are better placed to assess wake impacts on their own projects than the Applicants. This is particularly the case because they will have a deep understanding of the wind conditions affecting their projects*". The Ørsted IPs do not agree with this statement. It is likely that the Applicants' assessment (or, at least, the Applicants' assumptions used for that assessment) would be more accurate than that of the Ørsted IPs because the assessment would revolve around the Applicants' project and could use various measurements (e.g. regarding wind at the Project) and detailed knowledge of the design of the Project that the Applicants have available. While it is correct that the Ørsted IPs have a deep understanding of the wind conditions affecting their assets, the wind conditions at the Ørsted IPs' assets will change as a result of the presence of the Project, and it is this change to wind conditions which is relevant. Indeed, the Applicants have recently published analysis demonstrating their ability to model neighbouring wakes accurately over distances that are similar to the those between the Project and the Ørsted IPs assets. Additionally, the Applicants have justified their refusal to undertake a wake loss assessment on the Ørsted IPs' assets because they have assessed the impact of the Project on the Dogger Bank A Offshore Wind Farm and concluded, in **[REP4-088]**, that "*the level of impact on DBA (2% of AEP) means specific wake assessments are not justified*". Unless it is the position of the Applicants that the Ørsted IPs should assume a wake loss of 2% of AEP at the Ørsted IPs' assets, then this position is untenable. The Applicants also state, in **[REP4-099]**, that this wake loss of ~2% "*is assessed to be negligible*". It is the position of the Ørsted IPs that a wake loss of 2% of AEP would constitute a material impact on the Ørsted IPs' assets.	The Applicants maintain their position on this point, but it is now overtaken by the withdrawal of the objection to Lincs, Race Bank and Westermost Rough together with the relevant Orsted IPs accepting the Applicants' wake assessment conclusions.

2.13 The Projcos

Table 2-13 – The Applicants' comments on The Projcos responses to ExQ2 [REP5-071]

I.D.	Question	Projco's Response	Applicants' Response
REP5-071: 1	N/A	**INTRODUCTION** Dogger Bank Offshore Wind Farm Project 1 Projco Limited (DBA Projco) is a statutory undertaker for the purposes of the Planning Act 2008. DBA Projco has the benefit of development consent for the Dogger Bank A Offshore Wind Farm (DBA) which was granted pursuant to The Dogger Bank Creyke Beck Offshore Wind Farm Order 2015 as amended (the DBA/DBB DCO). Dogger Bank Offshore Wind Farm Project 2 Projco Limited (DBB Projco) is a statutory undertaker for the purposes of the Planning Act 2008. DBB Projco has the benefit of development consent for the Dogger Bank B Offshore Wind Farm (DBB) which was granted pursuant to the DBA/DBB DCO. Dogger Bank Offshore Wind Farm Project 3 Projco Limited (DBC Projco) is a statutory undertaker for the purposes of the Planning Act 2008. DBC Projco has the benefit of development consent for the Dogger Bank C Offshore Wind Farm (DBC) which was granted pursuant to The Dogger Bank Teesside A and B Offshore Wind Farm Order 2015 as amended (the DBC DCO). DBA, DBB and DBC are due to commence commercial operation between 2025 and 2027 and so will be operational before construction of the Dogger Bank South (DBS) Projects commence. DBA Projco, DBB Projco and DBC Projco (together the Projcos) are making this submission in respect of the Applicants' approach to wake loss in respect of DBA, DBB and DBC and the interaction with the DBA and DBB order limits. This submission builds off the Projcos' previous submissions at Examination, including: (a) Relevant representation (RR-007); (b) Deadline 1 Submission (REP1-071); (c) Deadline 2 Submission (REP2-071); (d) Deadline 3 Submission and Response to the Examining Authority's (ExA) First Written Questions (REP3-063); and (e) Deadline 4 Submission (REP4-117). The Projcos' response to the Examining Authority's (ExA) Second Written Questions (ExQ2) is set out in this submission. The Projcos' preferred protective provisions are also appended at Appendix 1. The Projcos have submitted their Wake Loss Assessment Report (Assessment of Potential Dogger Bank South Wake Impacts) as a standalone document at Deadline 5.	No response required.

I.D.	Question	Projco's Response	Applicants' Response
		The following section briefly summarises the Projcos' position as captured throughout the submissions noted above (both submitted historically to this Examination and within the documents provided for Deadline 5).	
REP5-071:2	N/A	**SUMMARY** On 24th April, the Department for Energy Security and Net Zero (DESNZ) published revisions to the National Policy Statements (NPS) for consultation. This included revisions to EN-3 relating to wake impacts. Whilst these revisions were published ahead of Deadline 4 on 25th April, the Projcos' Deadline 4 submission was only able to provide an initial view of these proposed amendments given the limited time to do so. Nevertheless, the Projcos' submissions within Deadline 4 remain valid and are built on below in response to the ExA's second round of questions, specifically IOU.2.3, IOU.2.4 and IOU.2.5. Critically, the proposed amendments to EN-3 in respect of wake loss clearly continue to support the precedent that was set by the Awel y Môr determination in requiring assessment and consideration of mitigation of impacts of wake loss. The Projcos welcome the submission of the Applicants' Wake Loss Assessment at Deadline 4 [REP4-099] and recognise this as a first step in addressing some of the Projcos' previously expressed concerns over the fundamental lack of such an assessment. However, the Projcos' responses to IOU.2.15 below combined with the detail provided in the Projcos' own assessment (Assessment of Potential Dogger Bank South Wake Impacts, the "Wake Loss Assessment Report") clearly demonstrate that the Applicants' assessment remains lacking in various ways, including through its exclusion of projects which will be materially impacted by wake from Dogger Bank South (notably Dogger Bank B and Dogger Bank C). In addition, as outlined in the responses below to IOU.2.15 and IOU.2.16, there are a number of points where the Applicants would appear to have used inappropriate data in reaching their conclusions or to have misrepresented the nature of the wake loss that will be experienced by the Projcos. Such aspects clearly raise questions around the reliability of the results presented by the Applicants. As requested by the ExA, the Projcos have provided further explanation of the calculation of losses previously presented in REP4-117 within their Wake Loss Assessment Report. These losses, exceeding half a billion pounds over the life of the projects, are material, and the Projcos note the potential for these values to be even higher if DESNZ wholesale electricity prices come to pass as outlined in Section 4.3 of the Wake Loss Assessment Report. It should be noted that the scale of financial impact at the level outlined in the Projcos' Wake Loss Assessment Report is clearly of material concern and, notwithstanding the fundamental concerns over REP4-099 that the Projcos have detailed in these Deadline 5 submissions, would remain such even if the Applicants' wake loss percentages were valid. In either case, these	The Applicants' position on the various points made in this summary are apparent from their responses below and are not repeated here. In relation to the wake assessment submitted as **Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points** [REP4-099] there are ongoing technical discussions with the Projcos. Nothing in those discussions so far gives cause for the Applicants to revise their assessment conclusions. The core purpose of the proposed protective provisions is to provide financial compensation to the Projcos. The planning system does not exist to protect the commercial interests of competitors. There would need to have been the clearest possible policy in EN-3 to justify such an approach, which is completely absent. The draft EN-3 consultation addresses wake effects expressly for the first time and rules out financial compensation in relation to future offshore wind applications. It would be wholly inappropriate to apply a different approach to a current application.

I.D.	Question	Projco's Response	Applicants' Response
		represent a significant economic loss to the Projcos' assets. Consequently, it is vital that opportunities for mitigation, including compensation, are secured. The Projcos' form of protective provisions provided in Appendix 1 present the most appropriate method to resolve the Projcos' outstanding concerns. Firstly, they allow for later reassessment of wake loss, accounting for final design and providing the opportunity to explore and account for any further mitigation that the Applicants may adopt. These protective provisions further then allow for the payment of sums for any remaining financial loss which cannot be mitigated through other measures. Finally, the proposed protective provisions allow for arbitration to account for the fact that differences may exist between the Applicants and the Projcos' positions, including in the modelling itself as well as in the subsequent determination of the residual financial impact.	
REP5-071: IOU.2.3	**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 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.)	The Projcos welcome the proposed changes to the energy NPSs, although it is noted that these remain subject to consultation and may change further prior to designation, and as such, only limited weight can be placed on the current revisions. The Projcos note that the revised NPSs provide absolute certainty that "other offshore infrastructure and users" is to be read as including other offshore wind farms and that wake loss assessments are required in respect of other projects that are in planning, consented or operational. This supports the Projcos' position throughout this examination. The Projcos note the wording in 2.8.316 which sets out that residual wake effects are likely to only be afforded limited weight (provided that an applicant can demonstrate compliance with certain steps), although, in practice, determining what is a 'residual' effect may prove challenging as relatively small percentages can have significant economic and real-world consequences. Moreover, a 'residual' effect may, in fact, be likely to affect the future viability of an offshore wind project such that para. 2.8.314 of NPS EN-3 is engaged with the Secretary of State obliged to give such an adverse effect substantial weight in its decision making. Ultimately, it is correct and appropriate that wake loss impacts should be a matter for the Secretary of State to consider in the planning balance as a case-by-case basis when considering an application. The Projcos acknowledge and accept the point in para. 2.8.233 that wake effects cannot be wholly removed between developments. However, there is a clear obligation under para. 2.8.232 to "minimise as far as possible the impact of wake effects", suggesting that, where there is a "small" (in percentage terms) wake effect impact, there must still be an exercise to seek to reduce this further. This must be undertaken at the design stage (both pre-application design and post-consent detailed design). The	The Applicants' position is set out in **The Applicants' Responses to ExAQ2** [REP5-036]. The Applicants would nevertheless respond to some of the points made by the Projcos. The changes consulted on are clearly needed, in the view of the Secretary of State. The changes are important and they address wake effects expressly for the first time. They apply to future applications, but can be taken into account in current applications at the discretion of the Secretary of State (SoS) on a case-by-case basis. They do not and cannot provide retrospective "certainty" of interpretation of the current EN-3. The draft changes do not address, for example, the issue in current EN-3 paragraph 2.8.345, which the Applicants (and other developers) have flagged, namely that the phrase "other offshore industries" on any reasonable reading cannot include other offshore wind farms. The fact that this has not been amended in draft EN-3 (now numbered 2.8.312) suggests that the Applicants are correct that, even if the current EN-3 applies to other offshore wind farms, that some paragraphs in the 'other offshore infrastructure' provisions do not apply to other offshore wind farms given the plain meaning of the words in paragraphs such as 2.8.345/2.8.312. This is particularly the case given that the key financial dimension is expressly dealt already, in new paragraph 2.8.232 (ruling out financial compensation for wake effects). It is not correct that the Applicants have not considered wake effects in the pre-application design of the Projects. They have adopted a multi-stranded approach to this as explained in other submissions (including **Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points** [REP4-099] and at Issue Specific Hearing 6 (ISH6) in **The Applicants' Written Summaries of Oral Submissions made at ISH6** [document reference 16.7] submitted at Deadline 6). This has involved respecting The Crown Estate's (TCE's) buffer distance,

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		Applicants have confirmed that they have not considered wake effects in the pre-application design of their project. The only mechanism to ensure that design mitigation for wake effects is considered at the detailed design, post-consent stage is if it is secured within a Development Consent Order (e.g. via protective provisions). The Projcos consider that the proposal to remove compensation agreements for wake effects from the planning process (as currently expressed in 2.8.233) is problematic, as it could be interpreted by developers as suggesting that certain mitigation for wake effects does not fall within the planning regime and is also in direct contradiction to the remainder of the NPS wording (which clearly provides that wake loss assessment and mitigation *does* fall within the planning regime). It is necessary that mitigation of wake effects can remain within the planning regime if appropriate (i.e. if impacts are considered significant). There is currently no mechanism "outside of the planning process" for wake to be considered and mitigated, which is a significant flaw in the wording of 2.8.233. In particular, there is no certainty that an applicant will continue to engage outside of the planning process and no mechanism (such as arbitration or similar) for the impacted party to secure such engagement outside of the planning system. The Projcos' position is that, in this case, such compensation is necessary for several reasons, including the fact that it is a key form of mitigation in itself and that the Applicants cannot demonstrate any compliance with paragraph 2.8.232. Paragraph 2.8.233 needs to be read in that context, but, in any event, it will be subject to detailed responses as part of the consultation process on the draft NPSs. As identified above, para. 2.8.233 is especially problematic given the Applicants' repeated failure to engage with the Projcos on the issue of wake loss (until recently, ahead of Deadline 5) – it is important that there is an independent approval process, secured within the Development Consent Order, to avoid a continued impasse. The Projcos consider that the Applicants would be unable to satisfy the terms of the proposed NPSs, namely: No assessment of inter-array wake effects has been included with the application, despite the commitment to do so in the submission version of the Environmental Statement. The Applicants have subsequently submitted a response to ISH3 action points [REP4-099] and greenhouse gas sensitivity analysis of wake effects [REP4-095]; however, this has not been prepared in consultation with the affected DB Projcos. 2. Only limited potential mitigations have been considered by the Applicants, who have not taken all reasonable steps to minimise as far as possible the impact of wake effects on the Projcos.	extensive research into wake mitigation design options and specific consideration of wake effects on Dogger Bank A (DBA) as the closest wind farm as outlined in **Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points** [REP4-099]. The Applicants do not consider that further consideration of mitigation measures can reasonably be required post-Development Consent Order (DCO), whether by way of requirement or protective provisions. It was surprising that the Projcos did not respond substantively to the mitigation options explained and evaluated in **Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points** [REP4-099]. Subsequent engagement via the hearing (ISH6) and the aforementioned meeting in June have yet to identify any mitigation measure that could in any way be considered 'reasonable'. As outlined in response to R17.26 in **The Applicants' Responses to Rule 17 Letter dated 9th June 2025** (document ref: 16.9) measures such as reduced array areas are in direct contradiction of the interests of national policy and could only have been appropriate to have applied as part of the Round 4 leasing process. Similarly, the mention of wake control or 'steering' to mitigate impacts shows a thorough mis-interpretation of studies in this field undertaken to date and gross optimism to where they may lead as outlined in response to R17.27 of the same document. The Applicants have addressed the point regarding collaboration in other submissions. In essence, the Applicants have followed the accepted industry approach to wake effects and it is unreasonable to retrospectively seek to apply a different standard. There is no history of wake effect assessments in offshore wind applications and no guidance on how they should be carried out or their results used. The Applicants have considered all reasonable mitigation measures. As regards financial compensation, it is plain that the SoS has a strong in principle stance against imposing financial compensation with regards to wake effects as was previously confirmed in the Awel y Môr (AyM) decision and reiterated in paragraph 2.8.233 of the draft EN-3. There is no reasonable reading of EN-3 which provides a justification for this. The Projcos have attempted in their response to this question to identify a tortuous path through the draft EN-3 language which preserves some kind of route to the imposition of financial compensation. This flies in the face of the plain intent of the draft wording, which expects assessment followed by consideration of mitigation, with an indication of the approach to weighting in the planning balance, but rules out financial compensation. This is common and standard approach to the vast majority of planning/EIA topics. This is not 'problematic', it is entirely normal. The Applicants have provided (on a without prejudice basis) an assessment for all IPs that have raised potential wake effects as a matter for consideration in

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		3. Similarly, the Applicants have not demonstrated that they have made reasonable efforts to work collaboratively with the Projcos on the potential impacts of DBS on DBA, DBB or DBC. The Projcos therefore do not consider that the Applicants comply with the proposed wording of 2.8.316 and, as such, it would not be correct to conclude that the existence of a residual wake effect impact should carry no more than limited weight. Significant weight should be placed on the Applicants' failure to engage properly with the impacts of DBS on the Projcos' assets and on the significant, unmitigated wake impacts that DBS will have on DBA, DBB and DBC.	Examination through submission of **Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points** [REP4-099 and **Addendum to Wake Effects - Response to ISH3 Action Points Submission for Deadline 4** [AS-179]. The Applicants met with the Projcos on 10th June 2025 to discuss comments from the Projcos on the wake assessment provided, agreeing some of the comments from the Projcos were unlikely to make a sizeable difference to the effects presented by the Applicants. As outlined above, the Applicants maintain they have acted appropriately considering the common industry-wide interpretation of the National Policy Statement (NPS) whilst progressing through the pre-application stage of the Projects. In any case, they have clearly provided information to the Examination explaining how wake effects could reasonably be mitigated and how they are not applicable in this case. The Applicants have provided assessments on a without prejudice basis in light of requests from the panel and Interested Parties (IPs) and have reached out to try and resolve differences in modelling findings with Projcos collaboratively since the publishing of this assessment The Applicants reiterate that as a draft NPS it cannot be considered to apply directly to an existing DCO application but may be provided some consideration at the decision stage. In any case, the Applicants reject the notion that they do not comply with the wording outlined in 2.8.316 of the draft NPS for the reasons outlined above, and confirm their understanding that any residual wake effect on the Projcos and other IPs should carry no more than limited weight in decision making for the Projects.
REP5-071: IOU.2.4	**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 Projcos consider that, in the absence of any definition or clarity from government within NPS EN-3, "nearby" must be given its ordinary meeting, which implies a degree of proximity between projects. However, there is no basis on which to conclude that "nearby" would be restricted to 7.5km or otherwise aligned to distances set by The Crown Estate as part of the leasing process (which, by TCE's own admission [REP3-039; REP1-071 at Appendix 1], were not selected specifically as a reference point or buffer for wake loss). Indeed, the Projcos note that submissions arguing that "close" should be interpreted as meaning either within 7.5km or 10km had been advanced by other project promoters at examination prior to the consultation versions of the NPSs being issued. Had Government intended "nearby" or "close" to align with such distances, this would have been directly stated in the revised NPSs. In carrying out an environmental impact assessment or assessments under the Habitats Regulations, it is typical practice to identify the "study area" that is relevant for a particular receptor and pathway to an effect. As an example, ornithological and marine mammal assessments, when considering 'nearby' sites for the purposes of Habitats Regulations assessments, will extend to significant distances – and these will often vary	The Applicants' position is set out in **The Applicants' Responses to ExAQ2** [REP5-036]. It is clear that there is a contradiction between the use of the term 'nearby' and the separate use of the term 'long-distance wake impact'. The Applicants hope this is addressed in the final version of the revised EN-3. Given that Dogger Bank D (DBD) is owned 50:50 by SSE and Equinor, being two of the three owners of DBA, DBB and DBC, with SSE taking the lead in the development phase, the Applicants have read with interest chapter 18 of the Preliminary Environmental Information Report (PEIR) as part of the statutory consultation which commenced on 10th June. Given the arguments advanced in this Examination and the standard which the Projcos are seeking to apply to the Applicants, the Applicants would have expected DBD to have: • Taken a specific and reasoned position on which projects it regarded as 'close' under EN-3; • Concluded (applying its approach in this Examination) that the Sofia project (which is owned by RWE and is 20km from DBD) was 'close' given

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		further in the context of different species (which will have different foraging or breeding ranges). Wake loss must follow a similar approach, as impacts are not solely based on proximity but a complex combination of distance, wind direction, turbine parameters, site size and design layout. It is inappropriate to simply fix an arbitrary distance beyond which wake loss should not be considered. In the absence of any clarity, the Projcos consider that "nearby" must be read within the context of the wider policy on wake loss and with reference to the nature of wake impacts generally. In the case of Dogger Bank South, it is clear from the wind rose shown at Figure 5 of the Projco's Wake Loss Assessment Report that the project sits directly downwind of DBA, DBB and DBC in the prevailing wind direction. Further, in this regard, it is notable that para. 2.8.232 of EN-3 refers to "long-distance wake impact", suggesting that "nearby", when used in relation to wake loss, extends to potentially long distances. The Projcos therefore consider that DBA, DBB and DBC are all "nearby" to the proposed development and should consequently be assessed.	the distance between DBS and DBC of approximately 60km and possibly concluded DBS as 'close' at 67km from DBD; • Approached the RWE Sofia team and DBS team for early discussions regarding the approach to be used in a wake assessment and the potential steps DBD was considering for mitigation in its project design; • Included the potential for financial compensation within the scope of those discussions. The Applicants have checked with the RWE Sofia project team. No approach has been received from the DBD team regarding wake matters. Significant engagement has been undertaken between the DBS Projects and DBD in recent years with nine formal meetings to discuss potential project interactions and synergies. In this time, the Applicants can confirm no mention of wake loss affecting DBS or the Sofia Project in any engagement prior to the publishing of their PEIR despite plenty of opportunity to do so. The relevant paragraphs from the DBD PEIR chapter are reproduced below for the benefit of the Examining Authority: *109. The wake effect arises due to the presence of wind turbines which alter and reduce wind energy downwind of the turbines. Wake losses can extend some distance, with far field effects recorded up to 45km (Platis et al., 2018) and further. However, wake losses are not just linked to distance, with other variables contributing, modelling is typically required in order to fully understand context-specific potential for wake effects to occur. Wind losses induced by the wake effect have the potential to reduce the efficiency of proximal wind farms and result in decrease in Annual Energy Production (AEP).* *110. The approach to wake effect assessment and the potential mitigation of any impacts is currently under review by the UK Government, as confirmed in the Clean Power 2030 Action Plan. There is no settled position at the time of PEIR publication as to how wake effect should be approached from an assessment perspective. This lack of general consensus extends to key definitions, such as what distance between projects constitutes "close" such that an assessment is required.* *111. At the time of this PEIR publication, a final government position/ guidance on wake effects was imminently expected. Whilst it is the view of the Project that any potential impacts on other wind farms from wake effect should be assessed and form part of the planning process, pending the confirmation of a settled position on approach, it is not considered practicable to complete a meaningful assessment, or provide an expected magnitude of impact, at this preliminary stage. Doing so runs the risk of resulting in an immediately outdated and potentially confusing assessment, resulting in no/ limited potential for meaningful stakeholder feedback on the topic.*

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			112. Instead, the Project will look to complete a detailed assessment on the likely significant effects of wake effects on other wind farms at ES stage, based on, and subject to, the settled government position/ guidance. The position stated in the PEIR that there is no settled position on how to approach wake effects from an assessment perspective and the absence of engagement by DBD with Sofia and the Applicants, substantially undermines the case made by the Projcos as regards the interpretation of NPS EN-3 and the standard of conduct they seek to hold the Applicants to as regards wake effects. It is notable that DBD's stance and conduct is in the full knowledge of what has happened since the AyM decision and the various (and highly publicised within the offshore wind sector) examinations considering wake loss, including that for DBS.
REP5-071: IOU.2.5	**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 proposed changes to NPS EN-3 give a clear direction that the initial responsibility for carrying out a wake loss assessment should be with an applicant. This is the case under the existing NPSs, and this wording simply provides more specific policy. It is considered by the Projcos that this is a logical starting point for several reasons: 1. As the 'agent of change', it is appropriate that an applicant should undertake the initial assessment as, without an applicant's project, there would be nothing to consider and assess. 2. There is a robust pre-application consultation process that allows for an applicant to obtain feedback from impacted parties on its assessments. 3. At the pre-application stage, in particular, only the applicant will know the details of what is proposed as part of their project (i.e. maximum turbine parameters, possible site locations, turbine layouts, etc.). Information regarding consented, constructed and operational projects will, at that stage, largely be in the public domain and so it is therefore easiest for the applicant to carry out the initial assessments. 4. It is for the applicant to assess the impact of its project and, having identified an adverse impact, to apply the mitigation hierarchy in the design of its project before submitting its application for development consent. The draft NPS is consistent with the position that the Projcos have adopted throughout the examination of this project. In terms of this examination, the Applicants have not submitted this assessment with their application and they have confirmed that they have not considered wake loss in the design of their project. However, the Projcos consider that it would be incorrect and irrational for an applicant's assessment to be preferred or accepted with no examination	The Applicants have provided their position on this question in **The Applicants' Responses to ExAQ2** [REP5-036] and are not proposing to comment in detail on the Projco's response. It is plain from the Applicants' own response and that of the Projcos' that there are a host of important issues and nuances regarding the future role of wake assessments in DCO applications. Precisely how such assessments are carried out in terms of methodology, inputs from both sides (including confidential inputs), the interaction between the promoter and the existing/emerging projects, the presentation and confidence levels for conclusions requires considerable discussion between industry and the Planning Inspectorate (PINS) / Department of Energy Security and Net Zero (DESNZ). There is no industry standard for this purpose and there is no guidance or discussions about preparing such guidance. This discussion and guidance will be essential to allow future Examinations to consider this issue on a consistent, fair and considered basis. The ad hoc way in which the question of wake assessments has played out across the six recent offshore wind farm DCO applications is clearly unsatisfactory.

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		from the impacted party, together with other stakeholders as appropriate. This is because the impacted party is likely to hold commercially sensitive information that would inform the accuracy and final result of a wake loss assessment. This might include specific yield data from within a site and other operational data, pricing assumptions, contractual requirements, or similar.	
REP5-071: IOU.2.12	**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.	The Projcos have submitted their Wake Loss Assessment Report at Deadline 5, provided as a standalone document (Assessment of Potential Dogger Bank South Wake Impacts). This sets out the inputs and assumptions, method, results and conclusions of the wake loss assessment carried out for Dogger Bank A, B and C.	The Applicants are preparing a technical response to address issues relating to the Projcos wake assessment, and the Projcos critique of the Applicants' wake assessment and provide further commentary on potential additional mitigation actions identified by the Projcos. This will be submitted at Deadline 7.
REP5-071: IOU.2.13	**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. • To what extent would such losses impact the viability of the respective offshore windfarms – evidence your answer.	A detailed explanation for how the financial figures were calculated is provided in section 4.3 of the Projcos' Wake Loss Assessment Report. Under the terms of the Contract for Difference ("**CfD**"), the Projcos earn revenue at the Strike Price for every MWh produced during the term of the CfD. As such, the Projcos are only paid for the electricity generated; if no electricity is produced, no revenue is earned. In relation to the Contract for Difference Strike Price, broadly this increases annually by CPI. Detailed guidance on the annual adjustment to the Contract for Difference Strike Price, the Strike Price Adjustment ("**SPA**"), is publicly available on the Low Carbon Contracts Company website at the following link: Strike Price Adjustment (SPA) Guidance - March 2025 - Low Carbon Contracts. The SPA is updated annually effective from 1 April each year. The three elements of the annual strike price adjustment are: • Indexation Adjustment • TLM(D) Strike Price Adjustment • Base Year Initial Balancing System Charge The indexation adjustment is the most significant driver in the SPA. The price is updated annually for CPI. The mean CPI over the previous 12-month period from February to January is used. TLM(D) Strike Price Adjustment is a very minor factor in the Strike Price Adjustment. The Base Year Initial Balancing System Charge is a permanent adjustment in the Strike Price to take account of the fact that generators no longer pay BSUoS charges, which previously were compensated for under the CfD. The Projcos have provided a calculation of the financial impact of the calculated wake losses on the Projcos in section 4.3 of the Projcos' Wake Loss Assessment Report. This assessment concludes that the average AEP impact across the Projcos is 2-2.1%. As set out above, during the term of the CfD the Projcos earn revenue at the Strike Price for every MWh	The Applicants reject in principle the notion that financial compensation can be justified in policy terms and their comments on the financial impact claims by the Projcos should not be taken as in any way resiling from that core position. The Projcos have provided a very simplistic analysis of claimed impact on future revenues. For example, there is no acknowledgement or allowance for discounting future revenues. This alone means the figure of £582M is a major over-estimate. (It is standard practice to apply a percentage discount for each year when expressing future revenues over multiple years in current monetary terms. Otherwise, a headline number in today's values is misleadingly high.) Revenue is directly linked to the claimed loss of Annual Energy Production (AEP). The Applicants' assessment of the reduction in AEP for DBA, DBB and DBC is set out in **Wake Effects - Response to Issue Specific Hearing 3 (ISH3) Action Points** [REP4-099] and **Addendum to Wake Effects - Response to ISH3 Action Points Submission for Deadline 4** [AS-179] and is substantially lower than that claimed by the Projcos. It is clear from Projcos' answer that, in this response, they are not claiming an impact on the viability of DBA, DBB, or DBC – which is the express question they are responding to. This is an important point, given the ExA's question is clearly prompted by paragraph 2.8.347 of EN-3 which refers to adverse effects which are 'likely to affect the future viability' of approved offshore infrastructure. As already noted, the revenue loss the Projcos assert makes no allowance for discounting, and the Projcos do not acknowledge the obvious over-estimate of loss which results. It is apparent from the Projcos' own wake assessment that the Projcos analysed the impact on the AEP of DBA, DBB and DBC expected to be caused by DBS in February 2021. (See reference 10 of REP5-070). It is clear from their conduct in continuing to bring forward DBA, DBB and DBC since the announcement of DBS that there is no threat to the viability of these projects.

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		produced; if electricity is not produced, no revenue is earned. Therefore a 2-2.1% AEP reduction results directly in a 2-2.1% reduction to revenue. As the same number of turbines would still be running, just producing less, there is no reduction in operating cost as a result of this AEP impact. The Projcos secured CfDs in a highly competitive CfD auction and are financed through a combination of equity and long-term senior debt from a large club of third-party lenders. Due to the highly competitive nature of the CfD auction, the Projcos' financing solutions are necessarily highly optimised; this resulted in then-record low Strike Prices being achieved (and these remain close to the record low Strike Prices awarded in any offshore wind CfD auction) which results in reduced costs to consumers. A permanent annual revenue loss of 2-2.1% on average across the Projcos, that could not have been taken account of in setting the CfD bid price or in the original financings, results in a revenue loss of £20m per annum. This represents a significant economic loss to the Projcos and is an impact that the senior debt lenders would not have considered when setting their covenants. Considering the various factors currently adversely affecting the offshore wind sector in Great Britain, such as rising supply chain costs and increasing interest rates, financial losses of this nature could further impact investor confidence at a critical juncture, threatening the ability for government to meet its Clean Power 2030 ambitions.	The Projcos will have factored in the expected reduction in AEP from DBS from that time going forward. The Projcos will have been aware that TCE would be bringing forward new seabed licensing rounds during the lifetime of DBA, DBB and DBC and the potential impact of future projects awarded as part of such rounds. They will have known, in particular, that TCE was preparing Round 4 during the period they were preparing their Contract for Difference (CfD) bids and related original financing for DBA and DBB (DBC was done separately a year later). The effects from future wind farms was a clear generic risk which all wind farm developers would have needed to take into account in such matters. If the Projcos did not identify the potential risk of future offshore wind farms being located as close as 7.5km to their boundaries with no likelihood of compensation for lost AEP and account for this in their financial modelling that is a failing on their part. The Dogger Bank website provides a corporate history of the ownership of DBA, DBB and DBC. This states: *"In February 2021, Eni Plenitude acquired a 20% ownership of the Dogger Bank A and Dogger Bank B phases with SSE Renewables and Equinor each retaining a 40% share.* *In February 2022, Eni Plenitude acquired a 20% ownership of Dogger Bank C with SSE Renewables and Equinor maintaining 40% stakes each.* *In October 2022, Vårgrønn, a joint venture between Plenitude and Norwegian company HitecVision acquired Plenitude's 20% stake in Dogger Bank A, B and C."* The February 2021 acquisition by Eni Plenitude took place after the announcement of DBS as preferred bidder in Round 4. This sequence of transactions is completely inconsistent with any suggestion of an impact of DBS on the viability of DBA, DBB and DBC. Why would a new investor buy into projects whose viability was at risk? Furthermore, the financial investment decision for DBC was taken in December 2021, meaning that the key financing decision was made in the full knowledge of DBS. (The financial investment decisions for DBA and DBB were made in November 2020, when the Round 4 process was well advanced but the preferred bidders and project locations were not known.) The Applicants would point out that when they, and all other bidders, were preparing their bids for Round 4, they would have made no allowance for the possibility of financial compensation being imposed in the future through the planning system. There was no prospect whatsoever of the planning system being used in that way, or any other system of compensation for wake effects being imposed. The Round 4 process was extremely competitive and led to the

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			highest ever option and lease payments by a considerable margin. This scale of payment for options, combined with other cost pressures sets important context for the unwarranted demand for compensation payments by the Projcos and Orsted IPs. To impose an unexpected financial compensation obligation on Round 4 (or extension) projects through the planning system in the retrospective way proposed would damage investor confidence in the UK offshore wind market and TCE's seabed licensing process, which has been at the heart of the success of UK offshore wind. TCE's profits are paid to the Treasury, meaning there is public interest on both sides of his matter (the CfD regime driving reduced costs to consumers; TCE profits being paid to the Treasury for use in the public interest).
REP5-071: IOU.2.15	**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?	Whilst the publication of a wake impact assessment by the Applicants in REP4-099 is welcome, the Projcos disagree with the estimated wake impacts which are significantly lower than the assessment conducted by the Projcos in their own Wake Loss Assessment Report. The Projcos do not accept the findings of this assessment and have identified a number of issues and risks with the methodology presented. The methodology taken by the Applicants to perform their greenhouse gas sensitivity analysis of wake effects [REP4-095] is consistent with the Projcos' expectations. However, the Projcos cannot accept the results of this assessment due to the differences in wake losses with the Projcos' assessment. The claim in point 48 of the Applicants' assessment that the *highest* hypothetical wake scenario of 2.0% is considered conservative is incorrect as the Projcos' wake assessment shows the *average* wake loss on DBA, DBB, and DBC is 2.0 – 2.1% and could exceed this.	The Applicants will provide a document at Deadline 7 which provides response to critiques of the Applicants Wake Loss Assessments, provides comments on the Projcos assessment and provides further detail regarding comments made on mitigation. With respect to the Projcos point on the Greenhouse Gas (GHG) assessment, the Applicants have applied a high-end scenario of 2% loss across all farms assessed, which includes the Hornsea Projects as well as Dogger Bank A-D. The Projco's own assessment (which the Applicants doubt the accuracy of) agree that 2% is accurate on average across Dogger Bank A-C (the average wake loss would surely have been lower had they included Dogger Bank D). The Projcos agree that the conservative scenario matches their calculated wake loss for the 3 projects nearest to DBS, but beyond that this scenario applied a 2% loss to a further 13 GW of projects, which would, in reality, have a *far* lower wake loss. The assertion that this scenario is not conservative is therefore clearly false and misleading. The 2%-loss scenario grossly overestimates the total energy-loss to other farms caused by DBS, and yet still demonstrates a significant benefit in net greenhouse gas emissions. The Applicants have submitted **Appendix 30-4 – Additional Wake Loss Scenarios (document ref: 7.30.30.4)** at this deadline which utilises both the Projcos and the Applicants assessments of wake effects on other projects to calculate how this affects GHG savings for the Projects compared to those reported in the GHG sensitivity analysis [REP4-095] (and now concluded in the updated **Environmental Statement Chapter 30 Climate Change (Revision 2) (document ref 7.30)**) submitted at Deadline 6. The updated study concluded that utilising the Projcos modelled wake loss values, the Projects would provide a total avoided emissions value of 169,474,445 tonnes CO_2e. The assessment in the updated ES Chapter however provided a value of 158,670,521 CO_2e for the 2% scenario and 168,468,513 CO_2e under the 1% scenario. This clearly validates the worst-case nature of the 2%

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			assumption utilised in the original GHG study and subsequently in the ES Chapter update.
REP5-071: IOU.2.16	**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?	The background level of environmental fluctuation in energy yield from variations in weather of 5.4% determined by the Applicant is in line with the Projcos' expectations for the Dogger Bank area. However, the Projcos strongly disagree with the basis of the Applicants' comparison of wake loss to the inter-annual variability ("IAV") in weather and any claims that wake loss would be "lost in the noise". Wake loss should be considered as a bias always reducing the energy produced by DBA, DBB, and DBC each year. IAV is accounted for in modelling the yield on which all project investment decisions are made, whereas wake effects are an additional, consistent impact each year. IAV does not offset wake impacts, and, unlike wake effects, can increase or decrease energy production. The Projcos have sought advice from an independent consultant to address the claim made in point 48 of the Applicant's wake assessment that: "The result of this is that it would take in 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 DBS was not zero." However the independent consultant engaged by the Projcos has confirmed that it has been repeatedly shown that smaller than 2% wake loss changes can be observed in operational data once account is made for the windiness of the operational period. It is further unclear as to why a 95% confidence threshold is required.	The Applicants note that the Projcos broadly agree with their estimate of the fluctuation in energy yield due to variations in weather, and that even if the ProjCos assessment of the worst wake of 4% were accepted it would still be within the level of natural variation The Applicants were commenting on the wake effects in the context of EIA, where there is no established calibration of significance of effect and no guidance, as laid out in the Applicants response to the Orsted IPs answer to the same question (see REP5-074: IOU.2.16 in this document). Variances that are within the range of natural variability are frequently used to define the magnitude of change and the assessment of the significance of effects within EIAs for other topics and it is therefore a clear parallel to draw upon for this purpose. In that context, the Applicants stand by their observation that the wake effects are well within the natural variation of the weather and thereby "lost in the noise". This is reinforced by the Applicants' point (which they also stand by) that it would require 20 years of data to demonstrate that the impact of the Projects was not zero. Even if it is fewer than 20 years it is still a substantial number. The point regarding EIA significance is the same. If it takes 20 years to be absolutely sure (95% confident) that something is happening at all, then that is clearly relevant to whether the effect is significant or not. This is consistent with an established EIA approach of taking account of an effect in the context of natural variation which is made more fully in the Applicants response to the Orsted IPs answer to the same ExQ.
REP5-071: IOU.2.21	**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?	It is a fundamental principle in planning that a lack of engagement by an applicant in respect of a material issue (be that assessing it or securing mitigation for it) does not obviate the need to secure the matters necessary to address and resolve that material issue. The Projcos consider that the lack of engagement to date from the Applicants around wake loss, and the difference in position between the Projcos and the Applicants, reinforces the critical need to secure within the Development Consent Order an independent approval process to avoid any impasse and to ensure that potentially significant adverse effects are assessed, understood and mitigated. Indeed, this is one key reason why the Projcos have moved towards the need for protective provisions. The Projcos note that the DCO drafted and submitted by the Applicants already includes protective provisions that secure approval and arbitration processes in respect of matters that might be disputed (e.g. protective provisions in favour of Network Rail). The Projcos consider that the	The ExA's question relates to the discharge of a requirement. That would be a matter for the SoS, were one imposed by the SoS. It would not require agreement with Projcos. The Projcos proposed protective provisions are inappropriate and unworkable, as explained in response to IOU.2.22 below.

I.D.	Question	Projco's Response	Applicants' Response
		approach put forward in their preferred protective provisions is more justifiable, as it does not require the approval of the affected party (as with Network Rail's protective provisions, which could result in an unresolvable impasse), but instead requires a third-party approval. The Projcos consider that this is preferable to imposing a requirement to enter into an agreement with the Applicants (with arbitration as a fallback if not agreed), although the Projcos consider that this would be an enforceable and reasonable approach in any event. The reasonableness and enforceability of protective provisions (or a requirement) should not be considered with reference to the likelihood of any dispute or possibility of resolution. Indeed, it is the exact opposite: if an impact is a material issue in planning terms and the parties disagree about the existence, extent or resolution of that impact, it is critical that a robust mechanism to secure mitigation of that impact is included within any planning consent granted. The Applicants have not demonstrated policy compliance or justified their approach throughout the examination; they have instead relied on an argument that this is not a matter for planning, ignoring recent precedent in the Awel y Môr case in the hope that this would be reversed and in spite of the clear recognition of this precedent in the Clean Power 2030 Action Plan. The protective provisions offer a way for consent to be granted in spite of this, whilst affording the necessary protection to committed infrastructure.	
REP5-071: IOU.2.22	**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 Projcos have included their preferred protective provisions regarding the matter of wake loss (Appendix 1). These are substantially aligned with the protective provisions to be submitted by the Ørsted IPs at Deadline 5. The Projcos note that, to date, no protective provisions for the benefit of another offshore wind farm in respect of wake loss have been included in a made DCO. However, preferred protective provisions have now been put forward by impacted projects in other examinations, including the Outer Dowsing Offshore Wind (Generating Station) examination. In Outer Dowsing, preferred protective provisions were submitted by (i) Equinor New Energy Limited and (ii) Ørsted, both acting on behalf of numerous affected projects. These protective provisions, while drafted in different terms to those preferred by the Projcos, follow the same principles of requiring further wake loss assessments, design mitigation and, ultimately, compensation should design mitigation be unfeasible. The Projcos consider that any differences in drafting reflect the rapidly evolving position on wake loss assessment and mitigation (which is being shaped further by the introduction of proposed revisions to the NPSs) as well as differences in the course of the examinations but that the alignment in principles across different developers and projects underscores the significance of the issue	The Applicants disagree that protective provisions are required or appropriate, whether for wake assessment, consideration of further mitigation or financial compensation. Mitigation The Applicants consider that there is enough information before the Examination for the Examining Authority and SoS to conclude that it would not be justified to require the Applicants to go through a post-consent process to further demonstrate that no reasonable mitigation measures are available. The imposition of such a process, whether by way of requirement or protective provisions, would create significant uncertainty for the Projects. The drafting of the protective provisions, as explained by the Projcos at ISH6, appears to concede that no mitigation measures could reasonably be requested of the Applicants. Paragraph 4(1) provides for the possibility of "design, technical or operational mitigation" which may be implemented in the final design, but does not seek to impose a mechanism requiring further consideration of such measures. Financial compensation The Applicants are not proposing to provide detailed drafting comments or alternative drafting, given the purpose of the protective provisions to impose

I.D.	Question	Projco's Response	Applicants' Response
		to industry and the need for it to be robustly dealt with within the planning system.	financial compensation is completely at odds with policy, for the reasons the Applicants have already explained in the Examination. The Applicants would make the following overall comments. The drafting provides in paragraph 8 for a scenario in which the project-specific provisions are superseded by a national scheme for financial compensation. The Applicants are not aware of any such proposal in preparation and it would be misleading to provide for something which is not being considered by government. The provision implies that there is in principle government support for financial compensation when this is not the case. The SoS has, in fact, consistently rejected the principle of financial compensation. First, in consideration of the Awel y Mor decision (where it was advocated by Rhyl Flats and not adopted by the previous SoS). Second, in the recent consultation on proposed changes to EN-3. Third, in the recent request to the Mona scheme where no drafting relating to financial compensation was requested, despite financial compensation being sought by Orsted in relation to their projects. Turning to the remaining drafting, any project-specific financial compensation scheme included in a DCO gives rise to a wide range of public interest considerations. The calculation of wake loss is intended to be used directly to determine compensation. There are a range of technical and policy questions (e.g. there will normally be a spectrum of assessment outcomes – which point on the spectrum should be selected?) which go into how a wake assessment should be conducted in such circumstances. There would need to be government guidance on this to ensure a fair and consistent approach, which does not exist. It should not be left to an expert on a single project. Further, there are likely to be substantial areas of potential disagreement as to the terms of reference for such an expert appointment, which itself should be settled by the SoS if necessary. The timing alone of resolution of the wake assessment, even on the Projcos own drafting, would create substantial project uncertainty. The drafting of paragraphs 4(2) to paragraph 7 raise a multitude of public interest issues, which cannot reasonably be decided on a single project through the appointment of an expert. If financial compensation is to be imposed through the planning system, it would have to be the result of a government led process of consultation and development of the objectives, principles and mechanisms to deliver a such a system. There would be major questions of consistency and fairness involved to have a coherent, workable and lawful approach. A few illustrative examples: 1. If an affected project, for example, has itself caused wake loss to a prior project, will it be expected to compensate that project? If not, how, can that be justified? That point is precisely in play in the Five Estuaries application, where

I.D.	Question	Projco's Response	Applicants' Response
			EA2 is claiming compensation but is not offering to compensate Galloper and Greater Gabbard for its future wake effects on them. 2. What percentage of the claimed loss would be payable? 100%? 50%? On what justification? Enough to overcome claimed concerns about viability? If viability-related, then what principles are to be applied as regards acceptable profit? 3. When should payments be made? Orsted has put forward protective provisions into the Outer Dowsing application which impose a single advance commuted sum. Is that a justifiable approach? 4. What discount percentage should be applied in relation to future revenue streams? Seeking to resolve such questions through the mechanism proposed is plainly inappropriate and unworkable and would create huge uncertainty for the Projects, as well as being wholly unjustified in policy terms under EN-3.
REP5-071: IOU.2.23	**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?	While this question was only addressed to the Applicants and the Ørsted IPs, the Projcos consider it helpful to set out their position on arbitration for completeness. The Projcos consider that arbitration has an important role to play in protecting the interests of all parties involved. The Projcos' protective provisions (included at Appendix 1) make provision for arbitration to apply in the event of any disputes under the protective provisions.	The Applicants' position is set out in **The Applicants' Responses to ExAQ2** [REP5-036]. The Applicants would emphasise that there are a whole range of public interest considerations which arise in the protective provisions proposed by the Projcos, which are simply not appropriate to be resolved by an expert through arbitration. See also IOU.2.22 above.

2.14 Royal Society for the Protection of Birds (RSPB)

Table 2-14 – The Applicants' comments on RSPB's responses to ExQ2 [REP5-065]

I.D.	Question	RSPB Response	Applicants' Response
Offshore and intertidal ornithology and relevant Habitats Regulations Assessment (HRA) aspects			
REP5-065: 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 RSPB's long held position is that the proximity of any kittiwake ANS to existing or proposed arrays should be factored in, given the risk of any colonising kittiwakes being exposed to the same collision risk as has given rise to the need for compensation. Depending on the level of exposure to collision, this will have implications for the breeding ecology of any colonists, and therefore the success or otherwise of the compensation measure. Therefore, the RSPB welcomes the Examining Authority's questions to the Applicant on this topic and will review its responses.	The Applicants have taken the location of offshore wind farms into consideration through a rigorous site selection process for the offshore artificial nesting structure (ANS). The latest stage of site selection work and final candidate site being progressed is presented in updates to **Appendix 1 Project Level Kittiwake Compensation Plan (Revision 5)** [REP4-020] at Deadline 6. The Applicants have applied a suitably cautious buffer (15km) around all wind farm projects in alignment with The Crown Estate's **Round 4 Kittiwake Strategic Compensation Plan** [APP-053] and consider the final location to represent the lowest risk in terms of collision and connectivity with the Flamborough Filey Coast (FFC) Special Protection Area (SPA). The Applicants have presented the final ANS site to Natural England (28th May 2025) and have eliminated the candidate sites for which Natural England expressed some concern due to potential for elevated connectivity risk (site 4).
REP5-065: 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?	The RSPB has reviewed the Applicant's updated Kittiwake Compensation Plan (REP4-020). The RSPB's overall position on the Applicant's case for reduction in kittiwake breeding seasons for ANS installation is set out in its response to the Examining Authority's question, OR.1.26 (in RSPB REP3-066). This includes the RSPB's view that the "precedent" set by Hornsea 3 and Hornsea 4 in respect of non-material change applications were due to each project encountering difficulties and resulted from failures to anticipate and address potential risks at an earlier stage and plan ahead accordingly (c.f. paragraph 229 in REP4-020). The RSPB notes and welcomes the additional information provided by the Applicant at paragraphs 228-234 of REP4-020 in respect of the challenges posed in delivering an offshore ANS. These include the sourcing and fabrication of materials and associated international market uncertainty. We assume similar challenges may apply to the turbines themselves. We would welcome further information on how the Applicant intends to manage these similar risks to secure turbine	The Applicants primary approach to offsetting risks which may result in programme delays is to progress the offshore ANS delivery process. The Applicants have undertaken early concept design to help offset the likelihood that there will be any materials that may prove unduly difficult to procure. Regarding the proposed design of the topside and foundation, the Applicants currently do not foresee issues with procuring vessels for the scope so long as the current proposed ANS delivery programme. Finalisation of the detailed design phase will allow the Applicants to procure and appoint a preferred fabricator who will source materials for the offshore ANS. Advancing to this stage at pace will give the Applicants a larger window to account for any holding periods resulting from supply chain issues. The Applicants have maintained a watching brief for the Hornsea projects and have engaged with Orsted where appropriate to understand the main challenges that the developers encountered relating to installation of an offshore ANS. In order to assess the risks associated with securing turbine installation the Applicants continue to engage with the market and available contractors for design, supply and offshore installation, and develop an appropriate procurement strategy to manage the risk. For example, an approach to the ANS foundation may be to group its procurement together with the wind turbine generator

I.D.	Question	RSPB Response	Applicants' Response
		installation by the target date of 2029/2030 and whether such approaches could be applied to the oANS to further reduce any risks. Turning to the issue of achieving full kittiwake compensation. The wide variation in the anticipated timescales (13 years to 50 years) underlines the uncertainty associated with the current modelling on when full kittiwake compensation might be achieved. The RSPB notes that the Applicant has acknowledged this uncertainty on when full compensation might be achieved (see paragraph 210, REP 4-020). It has proposed an updated adaptive management commitment to retain the "*option to maintain and monitor beyond the duration of the Projects*". Given the inherent uncertainty, which is being acknowledged by the Applicant, the RSPB considers this commitment should be made integral to the DCO requirement for the compensation measure itself, and not as an adaptive management measure. The RSPB proposes that the relevant DCO schedule for Dogger Bank South be amended to include the same provision as set out in the Hornsea Project Three Development Consent Order1 at paragraph 7 of Schedule 14, Part 1 (Kittiwake Compensation Measures): "*The artificial nest structures must not be decommissioned without written approval of the Secretary of State. The artificial nest structures shall be maintained beyond the operational lifetime of the authorised development if they are colonised, and routine and adaptive management measures and monitoring must continue whilst the artificial nesting structures are in place.*"	foundation supply package, in order for the ANS monopile to be included as part of a more attractive and wider scope for the supply contractor. Similarly for the installation, the Applicants would explore whether opportunities exist to align the works with other works at RWE projects The Applicants' **Draft DCO (Revision 9)** [document reference 3.1] already secures that the artificial nesting measure cannot be decommissioned without written approval of the Secretary of State, in consultation with the relevant statutory nature conservation body. The kittiwake Compensation Implementation and Monitoring Plan (which must be approved by the Secretary of State in consultation with the relevant statutory nature conservation body and then must be complied with by the Applicants) must include details of the maintenance schedule for the ANS and any adaptive management measures. The Applicants therefore submit that there are already adequate controls within the condition wording which provide the opportunity for the Secretary of State, in consultation with the relevant statutory nature conservation body, to control the time period for which the ANS must be maintained, whether or not that extends beyond the operational lifetime of the development. It is possible that the ANS could be successful and that the Projects' impacts are fully compensated within the operational lifetime of the Projects. In those circumstances, it is not reasonable or necessary to extend the maintenance requirements for the ANS beyond the Projects' operational lifetime and so the Applicants do not agree that the imposition of wording such as that used within the Hornsea Three DCO would meet the necessary legal tests. This supports the Applicants' position that extending the maintenance of the ANS beyond the Projects' operational lifetime should be an adaptive management measure only and not the default position.
REP5-065: 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?	The RSPB welcome the Applicant's provision of revised in-combination assessments of guillemot and puffins for the Farne Islands SPA and red-throated diver for the Greater Wash SPA. The revised assessment shows the impacts arising through displacement and barrier effects associated with Dogger Bank South East and West in combination with other offshore wind farms are predicted to result in the annual population growth rate of Guillemot at the **Farne Islands SPA** declining, with a ratio of impacted to unimpacted population growth rate of between 0.9895 and 0.9999. This means that after a period of 30 years, the population size of the SPA is expected to be between **72.2 and 97.7 %** of what it would have been in the absence of the development. Therefore, we consider there is an AEOI due to the impact of displacement mortality on the Guillemot population of the Farne Islands SPA.	The Applicants welcome the RSPB's agreement that there will be no risk of Adverse Effect on Integrity (AEoI) on puffin from the Farne Islands SPA or red-throated diver from the Greater Wash SPA. With respect to the RSPB's comments on the results of the population viability analysis (PVA) for the Farne Islands guillemot population, the Applicants would like to stress that because Natural England and the RSPB only accept the results of PVA conducted without the inclusion of density dependent regulation (despite a recent independent study which strongly recommended that PVA for impact assessment should include density dependence[11]) the results of the PVA present the worst possible interpretation of how mortality may affect a population. It is important to note that running PVA in this (density independent) manner means that any additional mortality will reduce the population growth rate of the impacted simulation compared with the unimpacted baseline population, and it follows that the same applies to the population size: the impacted population will

[11] Merrall, E., Green, J.A., Robinson, L.A., Butler, A., Wood, M.J., Newell, M.A., Black, J., Daunt, F. and Horswill, C., 2024. Incorporating density-dependent regulation into impact assessments for seabirds. Journal of Applied Ecology, 61(10), pp.2510-2524.

I.D.	Question	RSPB Response	Applicants' Response
		The RSPB do not consider there to be an AEoI on the Puffin population of the Farne Islands SPA. The RSPB do not consider there to be an AEoI on the Red-throated Diver population of the Greater Wash SPA, although we recommend that the implementation of best practice measures (AS-085, table 9-11) remains. For the avoidance of doubt, the RSPB concerns regarding a number of SPAs and listed features remain, as listed in REP1-087:4.9-4.11: • Coquet Island SPA: Puffin (displacement mortality); • Farne Islands SPA: Kittiwake (collision mortality); • St. Abbs to Fast Castle SPA: Kittiwake (collision mortality), Guillemot (displacement mortality), Razorbill (displacement mortality); • Forth Islands SPA: Gannet (combined collision and displacement mortality), Kittiwake (collision mortality), Guillemot (displacement mortality), Razorbill (displacement mortality), Puffin (displacement mortality); • Fowlsheugh SPA: Kittiwake (collision mortality), Guillemot (displacement mortality), Razorbill (displacement mortality); • Buchan Ness to Collieston Coast SPA: Kittiwake (collision mortality), Guillemot (displacement mortality); • Troup, Pennan and Lion's Head SPA: Gannet (combined collision and displacement mortality), Kittiwake (collision mortality), Guillemot (displacement mortality), Razorbill (displacement mortality); • East Caithness Cliffs SPA: Kittiwake (collision mortality), Guillemot (displacement mortality), Razorbill (displacement mortality); • North Caithness Cliffs SPA: Kittiwake (collision mortality), Guillemot (displacement mortality), Razorbill (displacement mortality); • Copinsay SPA: Kittiwake (collision mortality), Guillemot (displacement mortality); • Hoy SPA: Kittiwake (collision mortality), Guillemot (displacement mortality), Puffin (displacement mortality); • Rousay SPA: Kittiwake (collision mortality), Guillemot (displacement mortality); • Calf of Eday SPA: Kittiwake (collision mortality), Guillemot (displacement mortality); • Marwick Head SPA: Kittiwake (collision mortality), Guillemot (displacement mortality); • West Westray SPA: Kittiwake (collision mortality), Guillemot (displacement mortality), Razorbill (displacement mortality); • Fair Isle SPA: Gannet (combined collision and displacement mortality), Kittiwake (collision mortality), Guillemot (displacement mortality), Razorbill (displacement mortality), Puffin (displacement mortality);	always be reduced compared to the baseline. Under these conditions the Applicants consider that reductions in growth rate of less than 1% under the precautionary rates of 70% displaced and 2% mortality, are in fact very small magnitudes of effect. The Applicants are strongly of the opinion that the counterfactual of population size is an unreliable guide to the likely effect as this is simply a function of the compound effect of a reduced annual growth rate. Basing predictions of future population sizes on this premise is clearly unrealistic when it is well understood that animal populations are subject to intrinsic regulation that moderates both excessive growth and mitigates against losses by respectively decreasing and increasing rates of survival and reproduction as competition for resources increases and decreases. It is for these reasons that the Applicants have reached the conclusion that the impacts on the FFC SPA kittiwake population, both from the Projects alone and in-combination, will not result in an AEoI. The Applicants consider that for the remaining list of SPAs in the comment they have provided an appropriate consideration of the risks of project alone effects (and note that these conclusions have not been questioned by either Natural England or the RSPB) and remain firmly of the opinion that there is a need to apply a proportionate approach to assigning potential impacts on seabirds to individual SPA colonies. The fact that there is a theoretical risk of extremely small impacts on breeding colonies located several hundred kilometres distance from the Projects, and even then, only under highly precautionary assumptions about impact magnitudes, should not be used as a reason to assume this will be the case. There is an urgent need for a more balanced treatment of potential wind farm impacts on seabirds, applying reasonable degrees of precaution to the impact as a whole, rather than assuming multiple worst case scenarios may all occur at the same time as the RSPB and Natural England increasingly do. For these reasons the Applicants reiterate that, following a comprehensive and robust assessment, they do not consider there to be any risks of AEoI for the SPAs and features listed here by the RSPB.

I.D.	Question	RSPB Response	Applicants' Response
		• Sumburgh Head SPA: Kittiwake (collision mortality), Guillemot (displacement mortality); • Noss SPA: Gannet (combined collision and displacement mortality), Kittiwake (collision mortality), Guillemot (displacement mortality); • Foula SPA: Kittiwake (collision mortality); Guillemot (displacement mortality), Razorbill (displacement mortality), Puffin (displacement mortality); • Hermaness, Saxa Vord and Valla Field SPA: Gannet (combined collision and displacement mortality), Kittiwake (collision mortality), Guillemot (displacement mortality), Puffin (displacement mortality).	
REP5-065: 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?	The individual seabird features of the FFC SPA make significant contributions to the seabird assemblage feature. Natural England's supplementary advice states that the target for the abundance attribute of this feature is: "*Maintain the overall abundance of the assemblage at a level which is above 216,730 individuals whilst avoiding deterioration from its current level as indicated by the latest peak mean count or equivalent.*" Given the RSPB's position on the adverse effects of the Dogger Bank South scheme (both alone and/or in-combination) on the individual species of the FFC SPA, we consider these will contribute collectively to undermining the achievement of this abundance target and thereby the FFC SPA's conservation objectives.	The Applicants consider this to be largely a technical point, since there is broad agreement over the individual species' impacts (i.e. which species are at risk and to what extent), and there is no meaningful way in which a seabird assemblage can be assessed aside from as the sum of its constituent parts, this point appears to be of little relevance to the conclusions on AEoI at the FFC SPA.
REP5-065: 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 AEoI further to this information? **NatureScot:** Can you comment as to whether you are able to exclude an AEoI of the gannet component of the Forth Islands SPA?	The Applicant's calculated annual impact of 4 individuals is based on gannets outwith the breeding season, whereas the RSPB argue that there will be birds from the Forth Islands SPA present in the Dogger Bank South array during the breeding season, as supported by tracking data (as referred to in REP1-087, 4.25-26). Furthermore, as the RSPB (and NatureScot) disagree with the Applicant's use of a macro-avoidance correction factor, the cited values for impact on gannet will be underestimates. Until mortalities and subsequent PVAs are presented with breeding birds apportioned to the Forth Islands SPA and without the macro-avoidance correction factor the RSPB are unable to exclude AEoI.	The Applicants have followed the guidance provided by Natural England with respect to collision mortality, as is appropriate for a project in English waters and therefore do not intend to comment on the RSPB's position on gannet avoidance rates. Similarly, the Applicants followed Natural England advice in apportioning all breeding gannets to the FFC SPA and therefore this is also not an area which the Applicants consider an alternative approach is appropriate. As a consequence the Applicants consider the gannet assessment as presented is robust and has been conducted in accordance with the statutory guidance received.
REP5-065: 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.	The RSPB are unable to reach conclusions as to the significance of in-combination impacts on the following SPAs and listed features including puffin. (REP1-087:4.9-4.11). This is due the use of a "*de minimis*" threshold of 1% adult mortality on the project alone impacts, whereas any threshold of scale of impact should be set against the total in-combination impact.	The Applicants do not consider it to be appropriate to apply different thresholds for undertaking PVA as suggested by the RSPB and have presented a robust assessment of potential impacts on puffin in accordance with Natural England's advice and reached conclusions of no AEoI on any SPA with puffin as a feature.

I.D.	Question	RSPB Response	Applicants' Response
	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?	The RSPB require Population Viability Analysis (PVA) carried out if this total impact is greater than the threshold (1% background mortality for English sites and 0.02% adult annual survival rate for Scottish sites).	
REP5-065: 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. **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?	The RSPB's detailed position on macro-avoidance and gannet is set out at paragraphs 4.18-4.24 of our Written Representation (REP1-087). In addition, we provided our summary position in the latest version of the draft Statement of Common Ground with the Applicant (SoCG ID 12 in REP4-071) We have repeated the text below for ease. "*The RSPB acknowledges that the Applicants have followed the approach to Gannet collision risk advised by Natural England. The RSPB does not agree with the application of 70% macro-avoidance for Gannet recommended by Natural England. Our reasons are set out at paragraphs 4.18-4.24 of our Written Representation (REP1-087).* *In summary, the RSPB does not agree that the use of a 70% macro-avoidance rate for gannet is appropriate as:* • *it does not take into account the likely seasonal variation in macro-avoidance;* • *by basing the 'within wind farm' avoidance rate on the 'all gull' rate, it assumes that gannets will have the same 'within wind farm' reactive flight response as gulls.* *Therefore, the RSPB does not agree with the use of this correction factor, a position in alignment with that NatureScot in the assessment of Gannet collision mortality. Therefore, the RSPB considers this will have a material impact on resulting impact assessments."*	The Applicants consider this to be a matter for discussion between Natural England and the RSPB and do not consider it appropriate to comment, aside to note that the assessment has been provided in line with the statutory advice received and reached a conclusion of no AEoI for gannet from the FFC SPA.

2.15 The Wildlife Trusts

Table 2-15 – The Applicants' comments on The Wildlife Trusts' responses to ExQ2 [REP5-068]

I.D.	Question	The Wildlife Trusts Response	Applicants' Response
REP5-068: 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.	We note that the worst case area of habitat loss within the SAC from the presence of the Projects as estimated to be 1.82km². The applicant makes referance to this figure as a percentage cover of the entire SAC and implies that this low value should render the effects of physical change insignificant. We do not believe that the scale of the Dogger Bank SAC should in any way minimise the significance of any individual projects impact upon its protected features.	1.82km² represents 0.015% of the Dogger Bank SAC's overall extent of 12,331km², the Applicants consider that such a small value is negligible. However, as discussed in the **Report to Inform Appropriate Assessment (RIAA) Habitats Regulations Assessment (HRA) Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014] the Applicants acknowledge (paragraph 95). *"Given that the restore objectives were in place from the designation of the Dogger Bank SAC (i.e. before any wind farms were present) and that the objectives apply at the fine scale it is clear that any permanent footprint would be considered to hinder the restore objectives no matter how small."*
		The applicant has made comments in hearings (ISH5 part 3) that an ecological halo implies that the seafloor habitat could be changed from Annex 1 sandbank to "mud, rock or cobble" habitat. While the applicant has agreed that a process of sedimentation from the debris of colonising organisms may take place, thus altering the composition of the sediment, the major impacts of an ecological halo are changes to the biological communities associated with the benthos. The characteristic benthic communities of the Dogger Bank SAC form part of the Annex 1 sandbank feature and loss of the characterising sandbank biological assemblages or sandbank sediments from an area of the feature would constitute some of sandbank habitat and a reduction in overall feature extent (JNCC SACO for Dogger Bank SAC, 2022[12]). The applicants also claim that whatever impact the ecological halo effect may have, the resulting ecosystem will still be some variation of sandbank ecosystems within the EUNIS classification (ISH5 part 3). We are concerned that the new habitats associated with the sessile colonisers of hard substrate (barnacles, bivalves and macroalgae) would represent a shift to a coastal habitat classification, such as infralittoral rock and infralittoral sediment. These are not habitat classifications that would have been present in the Dogger Bank SAC previously due to the lack of hard substrate and would therefore represent a significant impact on the seafloor habitat.	At ISH5 (and in previous responses (**The Applicants' Reponses to Deadline 2 Documents** [REP3-028] & **The Applicants' Responses to Deadline 4 Documents** [REP5-037]) the Applicants raised the nature of the Dogger Bank sandbank to highlight to that this does not represent a homogeneous community and that the 'characteristic communities' are highly variable. They include a mosaic of different types of sandbank biotopes, based upon gravel, sand and silt sediments, all of which are highly variable (in terms of both species composition and abundances) even within biotopes. Figure 9-4 in **Chapter 9 - Benthic and Intertidal Ecology - Figure 9-1 to Figure 9-6** [APP-086] illustrates that within the Projects' Array Areas, coarse and fine sediments are found adjacent to each other. Section 4.2.1 of **Ecological Halo Effects Technical Note** [REP5-041] highlights this variability of biotopes in Table 4-1 which lists the biotopes recorded in all the Dogger Bank wind farm EIAs to date. The point here is that within such a variable feature, it will be difficult to determine if there is any change and if this represents a significant change from the 'characteristic communities'. In addition, any change needs to be seen in the context of the ongoing recovery that will be taking place as a result of the cessation of bottom-towed fishing gear. TWT is concerned that *'the new habitats associated with the sessile colonisers of hard substrate … would represent a shift to a coastal habitat classification'* this is acknowledged and captured within the effect assessed in the **RIAA HRA Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014] in section 6.4.2.6.1 Physical change (to another seabed / sediment type) and section 6.4.2.5.1 Introduction or spread of invasive non-indigenous species (INIS).

[12] JNCC (2022) Supplementary Advice on Conservation Objectives for Dogger Bank Special Area of Conservation

I.D.	Question	The Wildlife Trusts Response	Applicants' Response
		Case studies of previous wind farms cited by the applicant are generally short term (2-4 years) and show a mixed range of results. This highlights the lack of good long term research into this subject and the need to act cautiously when considering impacts on the seabed. We welcome the inclusion of a year 10 monitoring round for the In Principle Monitoring Plan, as this would be an appropriate timeframe to see established changes to an ecosystem. The IPMP on previous OWF stretches to 5 years, which is still a long timeframe than the studies referenced by the applicant. The applicant has made reference to some studies which they have not included in their reference list (Hutchinson et al 2020[13]). We believe we have identified the study in question, and while the study does conclude that the greatest ecological changes were found within 10-15m of the turbine, it also finds that by year 3 there was clear evidence of the mussel populations (a new ecosystem centered around colonising organisms) extending beyond the wind farm structures (30–90 m). It should be noted that this 90m range was the limit of the study area and not the limit of the impact. This study finds that functionally, the highly abundant mussel population on and within the structures' footprints will change the local ecosystem processes, including high filtration rates of local phytoplankton, increased excretions to the surrounding seabed. Dogger Bank, similarly, is a highly productive upwelling site with high phytoplankton biomass being visible throughout the year compared to surrounding areas (Pedersen and Hansen, 1993[14]). Any impacts on phystoplankton similar to those found in Hutchinson et al. 2020 have the potential to have knock on effects on the wider food chain throughout Dogger Bank.	The Applicants provided a comprehensive review of the evidence for ecological halo effects in **Ecological Halo Effects Technical Note** [REP5-041]. The cases studies used are generally short term given the age of the offshore wind industry. Where longer term studies exist, however, the results for habitats comparable to the Dogger Bank do not show significant changes to the sediments, chemistry or the benthos (outwith the change from soft to hard substrate) (see section 4.1 – studies in Belgium by Breackman *et al.* (2020), De Backer *et al.* (2020 and 2021), Lefaible *et al*., (2021)). The missing reference cite by TWT is correct and is provided in **Ecological Halo Effects Technical Note** [REP5-041]. Note that although Hutchinson *et al.* (2020) mentions potential effects on phytoplankton this was not actually studied as part of this work. Nor were phytoplankton considered in the studies we reviewed in **Ecological Halo Effects Technical Note** [REP5-041], the emphasis on research has been on the benthos and sediments, likely because it is easier to consider cause an effect in the seabed (which is static) than the water column where effects may be linked to larger oceanographic processes. Where phytoplankton has been directly studied (e.g. Mavraki *et al.* (2020)[15], the conclusions have been that further research is needed, but change was restricted to local (i.e. at the scale of the study area) food webs. The Applicants consider that the evidence for any significant halo effects in the European examples available is limited and point to this being an area requiring further research, which is the basis of the JNCC and Natural England monitoring objectives which are incorporated into the **In Principle Monitoring Plan (Revision 4)** [REP5-027] to include this footprint on a without prejudice basis.
		We welcome the admission by the applicant that AEoI of the Dogger Bank SAC in relation to physical change to the seabed and sediment from the Projects alone cannot be ruled out. In light of the uncertainty surrounding Ecological Halo effects on what is an important site with restore objectives for its benthic communities (and the only project to be situated entirely within the Dogger Bank SAC), we advise that a cautious buffer (extending outwards from the scour protection limit) be included in calculations of physical change to account for any possible ecological halo effect. This will require a robust re-assessment of the likely worst case area of impacts including ecological halo effects.	The Applicants have always accepted that Adverse Effect on Integrity (AEoI) resulted from habitat loss as stated in the **RIAA HRA Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [REP4-014]. The Applicants dispute that disturbance should contribute to AEoI and have provided considerable evidence to support this position (see **Review of evidence on recovery of sandbank habitat following habitat damage (Revision 2)** [REP3-021]). With regard to ecological halo effects the Applicants have undertaken a comprehensive review of the evidence and do not consider that this would contribute to AEoI. In addition, the Applicants highlight again that this issue was not raised pre-Application by TWT either at the Plan Level (TWT were part

[13] Hutchison, Z.L., M. LaFrance Bartley, S. Degraer, P. English, A. Khan, J. Livermore, B. Rumes, and J.W. King. (2020) Offshore wind energy and benthic habitat changes: Lessons from Block Island Wind Farm. Oceanography 33(4):58–69
[14] Nielsen, TG, Løkkegaard, B, Richardson, K, Pedersen, FB & Hansen, L (1993) Structure of plankton communities in the Dogger Bank area (North Sea) during a stratified situation, MEPS, no. 95, pp. 115-131.
[15] Mavraki et al (2020) On the Food-Web Ecology in Offshore Wind Farms Areas: Lessons From 4 Years Of Research in Degraer, S., Brabant, R., Rumes, B. & Vigin, L. (eds). 2020. Environmental Impacts of Offshore Wind Farms in the Belgian Part of the North Sea: Empirical Evidence Inspiring Priority Monitoring, Research and Management. Series 'Memoirs on the Marine Environment'. Brussels: Royal Belgian Institute of Natural Sciences, OD Natural Environment, Marine Ecology and Management, 131

I.D.	Question	The Wildlife Trusts Response	Applicants' Response
			of the expert working group consulted on the Plan Level HRA and provided comment as observers to the Strategic Compensation Steering Group) or the project level (TWT were included in the Benthic ETG). The **Ecological Halo Effects Technical Note** [REP5-041] provides a 'without prejudice' estimate of the potential worst case footprint (see section 5) which could be used should the SoS determine that this is a significant effect. If this is accepted by stakeholders, the **Project Level Dogger Bank Compensation Plan (Revision 3)** [REP4-028] will be updated.
REP5-068: 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?	This represents our final position on this matter. The DEFRA policy paper on under water noise instructs developers to use "best endeavours" to ensure noise outputs are minimised, including the use of primary and secondary Noise Abatement Systems (NAS). We point to a Clarification Note; "Use of 'best endeavours' in the context of Policy Paper: Reducing Marine Noise" from the Outer Dowsing examination which provides clarity on the term 'best endeavours'. Overall we feel that the applicants repeated statement that they will "consider" the use of Noise Abatement Systems (NAS) falls short of the definition of best endeavours set out in the Outer Dowsing clarification note. To quote the note "Succinctly, [best endeavours] requires the obligor to take such steps that, in the relevant circumstances, a reasonable party would take seeking to achieve the result including if it is required to incur costs to do so." As such, we do not believe that considering to take steps meets with the legal definition of best endeavours and again ask for a stronger commitment from the applicant.	The Applicants highlight that the Projects will utilise best endeavours to deliver noise reductions, where applicable, through the use of primary and/or secondary noise reduction based on the final project design and updated the **Outline Marine Mammal Mitigation Protocol (Revision 4)** [REP4-054] and the **In Principle Site Integrity Plan for the Southern North Sea Special Area of Conservation (Revision 3)** [REP2-049] at Deadline 2 in line with the Defra policy paper. As noted in response to REP4-115:3.5 of **The Applicants' Responses to Deadline 4 Documents** [REP5-037], the Applicants have incorporated the following wording into the **Draft Development Consent Order (DCO) (Revision 9)** [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. *'(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 and are engaging with Natural England and the MMO on the condition wording submitted.
REP5-068: BE.1.7	**Recovery of Sandbank Habitat Following Habitat Damage [AS-025][16]** The ExA notes the Applicants' position on Annex I sandbank habitat of the Dogger Bank SAC in their cover letter to their Deadline 2 submissions [AS-158] and their suggestion that the ExA requests NE to provide	This question was originally posted to NE and the applicant in the first round of questioning. If the examiner permits, we also wish to comment on this issue. The applicants repeatedly point to their MarESA survey of the array area, and that the most common biotope found (MB5233) is highly recoverable. They summarise that "survey evidence from the Dogger Bank and	The Applicants direct The Wildlife Trusts to Table A-1 of **Review of Evidence on Recovery of Sandbank Following Habitat Damage (Revision 2)** [REP3-021], which notes that the biotopes MB5233 *Nephtys cirrosa* and *Bathyporeia spp*. in Atlantic infralittoral sand and MC3 Circalittoral coarse sediment (biotopes noted as featuring high recoverability to habitat damage metric) were located

[16] The Applicants note this is a question from the Examining Authorities 1st Written Questions

I.D.	Question	The Wildlife Trusts Response	Applicants' Response
	justification or evidence to support their position that the habitats within Dogger Bank SAC do not recover promptly from disturbance from construction activities.	interpretation of the recoverability of biotopes using the MarESA approach suggests that the majority of communities within the DBS Offshore Development Area within Dogger Bank SAC would have high recovery rates" (Review of Evidence on Recovery of Sandbank Habitat Following Habitat Damage. Page 15. Section 24.). Whilst it is true that this is the most frequent biotope within the site, the MarESA study shows that less than half (74 of 149) of the monitoring stations within the project area found a highly recoverable biotope. The remaining monitoring stations returned biotopes which require >2 years to recover. Some of the biotopes found in the study, though infrequent, have low recoverability of over 25 years (MC5214 & MC1251). Therefore, we do not accept the conclusion of the applicant that the overall SAC should be viewed as highly recoverable.	in a combined 78 stations across the Offshore Development Area within the SAC, i.e. over half of the surveyed stations. The Applicants note that the biotope MC5214 *Abra alba and Nucula nitidosa in circalittoral muddy sand or slightly mixed sediment* features a high recoverability from abrasion/surface disturbance and subsurface disturbance and a medium recoverability from removal of substratum (extraction), and not low as stated in TWT's response. This is consistent with the listing of physical pressures as stated in the MarLIN listing for this biotope[17]. Aside from the biotope MC1251 *Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay* (found at only two locations at the southernmost corner of the DBS East Array Area), Table A-1 of **Review of Evidence on Recovery of Sandbank Following Habitat Damage (Revision 2)** [REP3-021] details that the remaining identified biotopes are highly recoverable to habitat damage. Further, the Applicants highlight that they have committed to micro-siting around habitats of principle importance (e.g. piddock habitat) through conditions presented in each deemed Marine Licence in the **Draft DCO (Revision 9)** [document reference 3.1] e.g. Condition 15(1)(a)(v) which states:

[17] [redacted]

2.16 Woodland Trust

Table 2-16 – The Applicants' comments on Woodland Trust's responses to ExQ2 [AS-180]

I.D.	Question	Woodland Trust Response	Applicants' Response
AS-180: 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?	We consider that the mitigation measures proposed by the applicant in REP4-042 are lacking in detail and therefore it is not possible to assess whether they are sufficient. For example, it is stated that ancient woodland "*will be avoided*"; that Cable Corridor "*avoids all areas of ancient woodland*"; that works associated with the Onshore Converter Station "*will avoid direct impacts*" and woodland "*will not be directly impacted because trenchless techniques such as Horizontal Directional Drilling (HDD) will be used.*" We understand that the applicant has committed to a minimum buffer zone to ancient woodland of 15 metres, however, we have not been able to find details of the actual proposed buffer width, or supporting analysis to demonstrate the buffer width will be sufficient to mitigate indirect impacts, such as dust, noise, or vibration. It is also stated that "*In the instance of trees being within an area of ancient woodland, the Applicants are committed to using trenchless crossing techniques, such as HDD, at depths greater than 5 meters.*" Areas of ancient woodland are as designated on Natural England's Ancient Woodland Inventory. Open habitats are important component of woodlands. Natural England and Forestry Commission's standing advice states: "'*Wooded continuously' does not mean there's been continuous tree cover across the whole site. Not all trees in the woodland have to be old. Open ground, both temporary and permanent, is an important component of ancient woodlands.*" The applicant should clarify whether ancient woodland will be afforded the protection irrespective of whether there are trees present. With regards to HDD, we have not found information to confirm the location of associated work areas, including entry and exit points, in relation to the ancient woodland, and how it has been ensured that such points are sufficiently far from ancient woodland and their buffer zones to ensure mitigation of impacts.	Direct impacts on Burton Bushes Site of Special Scientific Interest (SSSI) have been entirely avoided through the route selection process as detailed in section 18.6.1.1, para 219 of **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019]. The Onshore Development Area is now located at a minimum distance of 120m from the site. The Applicants are unsure how it could be more clearly stated that the Projects avoid direct impacts on the Burton Bushes SSSI and ancient woodland in the Application documents. Bentley Moor Wood, a small ancient woodland block of 0.36ha located near the proposed Onshore Converter Station, lies within an intensively farmed area that is regularly ploughed very close to the tree line. The implementation of a minimum 15m no-disturbance buffer zone will contribute significantly to the long-term protection and ecological integrity of the ancient woodland. The Applicants would advise the Woodland Trust to review the **Outline Ecological Management Plan (Revision 5)** [REP4-042]. Which includes a comprehensive section on 'Protective Buffer Zones' in section 1.5.2.1 and ancient woodland at Bentley Moor Wood in section 1.6.2.3. The following text is included in para 86 which states: '*Buffer zones surrounding retained areas of woodland and mature broadleaved trees would be at least 15m in width or at least the width of the tree root protection zone (whichever is greater), as advised by an appropriately qualified arboriculturist*'. The protective buffer zones are based on standard industry guidance including BS 5837:2012 — Trees in Relation to Design, Demolition and Construction. This was noted in The Woodland Trust's Written Representation [REP1-089] which states: '*We welcome the proposal for an un-encroached 15 metre buffer to the ancient woodlands within the site*'. With respect to veteran tree buffer zones, the Applicants confirm that the adopted buffer complies with the standing advice issued by Natural England and the Forestry Commission. Specifically, the buffer is based on the greater of either 15 times the stem diameter or 5 metres beyond the canopy spread. Full details of this approach are provided in the **Arboricultural Impact Assessment (AIA) (Revision 3)** [REP3-017] and associated drawings. Potential indirect effects on habitats and species resulting from noise disturbance that could arise from activities such as the use of construction plant, equipment, and trenched crossings, as well as vibration impacts, are discussed in section 18.6 with likely significant effects and summarised in Table 18.20 of **Chapter 18 Terrestrial Ecology and Ornithology (Revision 5)** [REP2-019]. The Applicants have considered the footprint of Bentley Moor Wood as identified in MAGIC (Natural England's Ancient Woodland Inventory) and the North and East Yorkshire Ecological Data Centre, in agreement with stakeholders including Natural England and East Riding of Yorkshire Council. The

I.D.	Question	Woodland Trust Response	Applicants' Response
			Applicants confirm that the areas of ancient woodland to be protected include the footprint identified by these sources, along with the appropriate buffer zones as detailed in section 1.5.2.1 of the **Outline Ecological Management Plan (Revision 5)** [REP4-042] and the **Arboricultural Impact Assessment (AIA) (Revision 3)** [REP3-017] and associated drawings. Information on the locations of trenchless crossings, likely to be Horizontal Directional Drilling (HDD), is provided in the **Obstacle Crossing Register (Revision 4)** [REP4-030]. Although the exact location of entry and exit points is not available prior to detailed design it would not be within the 15m buffer zone committed to in section 1.5.2.1 of the **Outline Ecological Management Plan (Revision 5)** [REP4-042], secured by Requirement 12 of the **Draft Development Consent Order (DCO)** (Revision 9) [document reference 3.1]. The proposed trenchless crossing depth of 5m under ancient woodland was adopted following advice from The Woodland Trust's Written Representation [REP1-089]. Following discussions regarding Natural England's Relevant Representations on air quality impacts at Bentley Moor Wood (REP3-057: ENC1.4 of **The Applicants' Responses to Deadline 3 Documents** [REP4-088]), the Applicants clarified that the embedded mitigation measures set out to minimise or avoid impacts to air quality in **Chapter 26 Air Quality** [APP-208] (Table 26-3) are also applicable to ancient woodland sites. Given the temporary and short-term nature of the trenchless crossing works, Natural England advised that the potential impacts on ancient woodland have been adequately addressed.
AS-180: 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	We have not been able to find an assessment of potential hydrological or hydrogeological impacts on ancient woodland, their soils and rhizosphere, or on veteran trees, their rooting systems, health and vitality. The applicant should provide information to demonstrate that the proposals for trenching and drilling will not result in any adverse impacts on ancient woodland or veteran trees.	Burton Bushes SSSI is 120m west of the Onshore Export Cable Corridor, and as stated in **Chapter 20 Flood Risk and Hydrology (Revision 2)** [REP1-014], there is no surface water connectivity to the designated site (and therefore no trenched crossings of a watercourse that could affect the site). The SSSI is not crossed by any watercourses or surface water flow paths that connect to the Onshore Development Area. The only excavations at a distance of 120m from the SSSI are for the export cables. These would be shallow (1.3 to 1.7m) and only through relatively thick superficial deposits. Data from the British Geological Society show that superficial deposits are characterised by glacial till for a significant distance in all directions from Burton Bushes SSSI. Glacial till is clay-rich and not conducive to the transmission of changes in surface water hydrology for any significant distance beyond the immediate shallow cable trench excavations. There are no deep trenchless crossings into the underlying chalk bedrock – the nearest trenchless crossing is 2.3 km northeast of the designated site. As discussed in **Chapter 20 Flood Risk and Hydrology (Revision 2)** [REP1-014] , the underlying Hull and East Riding Chalk groundwater body measures almost 2000km², which means that relatively minor trenchless crossings through the chalk are very unlikely to affect groundwater levels or the gross movement of water in the underlying aquifer. The groundwater body is overlain by clay-rich till

I.D.	Question	Woodland Trust Response	Applicants' Response
			deposits which will also act as an aquiclude, limiting connectivity between groundwaters and surface waters. As assessed in **Chapter 20 Flood Risk and Hydrology (Revision 2)** [REP1-014], impact magnitude for changes to surface and groundwater flows and flood risk (construction and operation) for the two surface water catchments that contain the SSSI, and underlying groundwater catchment, are negligible. In addition, the Natural England citation for Burston Bushes SSSI does not indicate this is a wet woodland site. This is confirmed by analysis of the most recent Environment Agency surface water flood risk data (updated January 2025 (see figure below)). There are only very small areas of ponding in the SSSI. If this was wet woodland it would be expected that for low return periods (3.3% Annual Exceedance Probability (dark blue on the figure below)) there would be extensive ponding or convergence of surface water flow paths in this area. No permanent watercourses or ephemeral surface water flow paths drain into the site. Due to the distance from the SSSI, lack of surface water connectivity, small scale of works, protective clay-rich local geology and no evidence of wetland species in the SSSI, impacts from the cable trench excavations are considered very unlikely to affect Burton Bushes.  Any local hydrological effects associated with excavations would be effectively managed through the adoption of the measures set out in the **Outline Drainage Strategy (Revision 3)** [REP2-033] for field drainage which is secured by Requirement 16 of the **Draft DCO (Revision 9)** [document reference 3.1]. During the Construction Phase a Surface Water Management Plan would be prepared as part of the final Code of Construction Practice (which is secured by DCO Requirement 19). The aim of the Surface Water Management Plan and Outline Drainage Strategy is to make sure that surface water flows and field drainage are not adversely affected.

I.D.	Question	Woodland Trust Response	Applicants' Response
AS-180: 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.	We are unclear as to the meaning and significance of including the caveat *"due to other constraints"* and would suggest this should be removed from the agreed wording. If the applicant is able to fully demonstrate that a shallower drilling depth would not impact the ancient woodland, its soils and rhizosphere, then it would be appropriate to consider the evidence supporting a reduction in depth. However, it would not be appropriate to amend the drilling depth for other reasons (other constraints), if the result would be a negative impact on ancient woodland. We note that the ERYC would be consulted on any proposed amendment to drill depth.	The Applicants would like to confirm that the wording of paragraph 88 of the **Outline Ecological Management Plan (Revision 5)** [REP4-042] states: '*Where the Projects are committed to trenchless crossing under an area of ancient woodland, as is the case at Bentley Moor Wood, the Applicants are committed to trenchless crossing techniques at depth greater than 5m as recommended by the Woodland Trust, unless following detailed geotechnical investigations clear evidence is provided to demonstrate that a shallower depth would not result in adverse impacts on roots, soils or rhizosphere along or above the proposed route. This would be agreed in consultation with ERYC.*' As a reduced depth, less than 5m must be agreed with the East Riding of Yorkshire Council (ERYC), a mechanism for approval is already included in the **Outline Ecological Management Plan (Revision 5)** [REP4-042]. The 'other constraints' mentioned by the Woodland Trust refer to consideration of a Source Protection Zone (SPZ) within the Substation Zone, which will be subject to a Hydrogeological Risk Assessment and is located in the chalk. All constraints need to be considered as part of the detailed design and the Applicants require the flexibility to agree the most appropriate approach with the ERYC, in consultation with Natural England where necessary, as the statutory consultee.

Appendix A –Beverly 20 North of Viewpoint 6 - REP5-044: LVI.2.4

LUC

OS reference:	501301 E 434801 N
AOD (Above Ordnance Datum):	61.52 m
Direction of view:	13°
Horizontal field of view:	90° (cylindrical projection)

Vertical field of view:	27°
Image Enlargement Factor:	96%
Paper size:	841 x 297 mm (half A1)
Correct printed image size:	820 x 250 mm

Camera:	NIKON D600
Lens:	Nikkor AF 50mm f/1.8D
Camera height:	1.5 m (above AOD)
Date and time:	16/05/2024 10:28

Data Sources:
Topography to inform AOD heights: 1m National LiDAR programme DTM (2020), Environment Agency
3D model informed by Site option layouts and development height parameters provided by applicant.

Dogger Bank South Offshore Wind Farms: Environmental Statement Report

Viewpoint: Beverly 20 North of Viewpoint 6

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South (West) Limited

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