

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

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**Dogger Bank South Offshore  
Wind Farms**

**The Applicants' Responses to Deadline 7  
Documents**

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## Glossary

Term	Definition
Array Areas	The DBS East and DBS West offshore Array Areas, where the wind turbines, offshore platforms and array cables would be located. The Array Areas do not include the Offshore Export Cable Corridor or the Inter-Platform Cable Corridor within which no wind turbines are proposed. Each area is referred to separately as an Array Area.
Baseline	The existing conditions as represented by the latest available survey and other data which is used as a benchmark for making comparisons to assess the impact of the Projects.
Commitments Register	An Excel spreadsheet which identifies all of the Projects commitments and mitigation relating to each technical topic under consideration in the EIA process and where each commitment is secured in the DCO.
Cumulative Effects Assessment (CEA)	The assessment of the combined effect of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor/resource.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
DNV	DNV is the independent expert in risk management and assurance, operating in more than 100 countries. DNV (and its historic entities Garrad Hassan and Germanischer Lloyd) are a leading provider of 3rd party yield assessments for windfarms
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the value, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the EIA Directive and EIA Regulations, including the publication of an Environmental Statement (ES).
Environmental Statement (ES)	A document reporting the findings of the EIA and produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations.

Term	Definition
GloBE	A Joint Industry Project (JIP), funded through the Carbon Trust, run by RWE, measuring and investigating the Global Blockage Effect at two offshore windfarms. See Table 3-3 for detail.
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.
High Voltage Direct Current (HVDC)	High voltage direct current is the bulk transmission of electricity by direct current (DC), whereby the flow of electric charge is in one direction.
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.
Inter-Platform Cable Corridor	The area where Inter-Platform Cables would route between platforms within the DBS East and DBS West Array Areas, should both Projects be constructed.
Jointing Bays	Underground structures constructed at regular intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts.
Landfall	The point on the coastline at which the Offshore Export Cables are brought onshore, connecting to the onshore cables at the Transition Joint Bay (TJB) above mean high water.
Management Unit	Management units provide an indication of the spatial scales at which impacts of plans and projects alone, cumulatively and in-combination, need to be assessed for the key cetacean species in UK waters, with consistency across the UK.
Mean High Water Springs (MHWS)	MHWS is the average of the heights of two successive high waters during a 24 hour period.

Term	Definition
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 Station	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).
Order Limits	The limits within which the Projects may be carried.
Preliminary Environmental Information Report (PEIR)	Defined in the EIA Regulations as information referred to in part 1, Schedule 4 (information for inclusion in environmental statements) which has been compiled by the applicants and is reasonably required to assess the environmental effects of the development.
Project Change Request 1	The changes to the DCO application for the Projects set out in <b>Project Change Request 1 - Offshore &amp; Intertidal Works</b> [AS-141] which was accepted into Examination on 21 <sup>st</sup> January 2025.
Projects Design (or Rochdale) Envelope	A concept that ensures the EIA is based on assessing the realistic worst-case scenario where flexibility or a range of options is sought as part of the consent application.
PyWake	A publicly-available open-sourced wind farm simulation tool created by the Technical University of Denmark
Receptor	A distinct part of the environment on which effects could occur and can be the subject of specific assessments. Examples of Receptors include species (or groups) of animals, plants, people (often categorised further



Term	Definition
	such as 'residential' or those using areas for amenity or recreation), watercourses etc.
Sand wave	Bedforms with wavelengths of 10 to 100m, with amplitudes of 1 to 10m.
Scour protection	Protective materials to avoid sediment erosion from the base of the wind turbine foundations and offshore substation platform foundations due to water flow.
Sediment	Particulate matter derived from rock, minerals or bioclastic matter.
Special Area of Conservation (SAC)	Strictly protected sites designated pursuant to Article 3 of the Habitats Directive (via the Habitats Regulations) for habitats listed on Annex I and species listed on Annex II of the Directive
Special Protection Area (SPA)	Strictly protected sites designated pursuant to Article 4 of the Birds Directive (via the Habitats Regulations) for species listed on Annex I of the Directive and for regularly occurring migratory species
Statutory Nature Conservation Bodies (SNCBs)	Comprised of JNCC, Natural Resources Wales, Department of Agriculture, Environment and Rural Affairs/Northern Ireland Environment Agency, Natural England and Scottish Natural Heritage, these agencies provide advice in relation to nature conservation to government
Suspended sediment	The sediment moving in suspension in a fluid kept up by the upward components of the turbulent currents or by the colloidal suspension.
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.
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).
Wake	The area of reduced windspeed behind a wind turbine caused by the removal of momentum and energy by the wind turbine
Wind turbine	Power generating device that is driven by the kinetic energy of the wind.

## Acronyms

Term	Definition
AEol	Adverse effects on site integrity
AEP	Annual Energy Production
AfL	Agreement for Lease
ALO	Agricultural Liaison Officer
ANS	Artificial Nest Structures
BBC	Big Bubble Curtains
BEIS	Business, Energy and Industrial Strategy
BNNC	Berwickshire North Northumberland Coast
BTO	British Trust for Ornithology
CfD	Contract for Difference
CIMP	Compensation and Implementation Monitoring Plan
COWSC	Collaboration on Offshore Wind Strategic Compensation
CTMP	Construction Traffic Management Plan
DAS	Design and Access Statement
dB	Decibel
DBA	Dogger Bank A
DBB	Dogger Bank B
DBC	Dogger Bank C
DBD	Dogger Bank D
DBBC	Double Big Bubble Curtains
DBS	Dogger Bank South
DBSEL	Dogger Bank South (East) Limited

Term	Definition
DBSWL	Dogger Bank South (West) Limited
DCO	Development Consent Order
DESNZ	Department of Energy Security and Net Zero
DML	Deemed Marine Licence
ECC	Export Cable Corridor
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMP	Ecological Management Plan
ERYC	East Riding of Yorkshire Council
ES	Environmental Statement
ExA	Examining Authority
ExQ2	Examining Authority's Second Written Questions
FFC	Flamborough and Filey Coast
FNC	Frazer Nash Consultancy
HDD	Horizontal Directional Drilling
HRA	Habitats Regulations Assessment
HVDC	High-Voltage Direct Current
IAV	Inter-annual Variability
IDB	Internal Drainage Board
IHLS	International Herring Larvae Survey
INIS	Invasive Non-Indigenous Species
IP	Interested Party
iPCoD	interim Population Consequences of Disturbance

Term	Definition
IROPI	Imperative Reasons of Overriding Public Interest
ISH	Issue Specific Hearing
JIP	Joint Industry Project
JNCC	Joint Nature Conservation Committee
K	potassium
KP	Kilometre Point
LAT	Lowest Astronomical Tide
LiG	Land Interest Group
LLFA	Local Lead Flood Authority
LSE	Likely Significant Effect
LTMWS	Long Term Mean Wind Speed
LWS	Local Wildlife Site
MarESA	Marine Evidence-based Sensitivity Assessment
MCA	Maritime and Coastguard Agency
MCZ	Marine Conservation Zone
Mg	magnesium
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MoU	Memorandum of Understanding
MPA	Marine Protected Area
MRF	Marine Recovery Fund
MS	Microsoft

Term	Definition
MU	Management Unit
MW	Mega Watt
NAS	Noise Abatement System
NE	Natural England
NNCW	North Norfolk Coast and Wash
NPS	National Policy Statement
NPV	Net Present Value
NRW	Natural Resource Wales
NSIP	Nationally Significant Infrastructure Project
OCoCP	Outline Code of Construction Practice
OCPRP	Outline Communications and Public Relations Procedure
OEMP	Outline Ecological Management Plan
OFTO	Offshore Transmission Owner
OM	organic matter
OSMP	Outline Soil Management Plan
P	phosphorous
PEIR	Preliminary Environmental Information Report
PINS	The Planning Inspectorate
PSA	Particle Size Analysis
PTS	Permanent Threshold Shift
RIAA	Report to Inform Appropriate Assessment
RIES	Report on the Implications for European Sites
RSPB	Royal Society for the Protection of Birds

Term	Definition
SAC	Special Area of Conservation
SEL	Sound Exposure Level
SIP	Site Integrity Plan
SEP & DEP	Sheringham and Dudgeon Extension Projects
SNCB	Statutory Nature Conservation Body
SNS	Southern North Sea
SoCG	Statement of Common Ground
SoS	Secretary of State
SPA	Special Protection Area
SSC	Suspended Sediment Concentration
SSSI	Site of Special Scientific Interest
TCC	Temporary Construction Compound
TCE	The Crown Estate
TTS	Temporary Threshold Shift
UWN	Underwater Noise
UK	United Kingdom
UXO	Unexploded Ordnance
WCS	Worst case scenario
WNNC	Wash and North Norfolk Coast

# 1 Introduction

1. This document presents the Applicants' responses to Deadline 7 documents received from Interested Parties (IPs) following submissions to the Examining Authority at Deadline 7 of the Dogger Bank South Examination.
2. For ease of referencing and to facilitate future cross-referencing, the Applicants have used the existing Planning Inspectorate reference (e.g. REP7-001) and created a unique identifier for each response by itemising the document into paragraphs or sections (e.g. REP7-001:1.1). The ID numbers can be found in the first column of each table.

## 2 Responses to Deadline 7 Documents

3. The Applicants' responses to documents received from IPs at Deadline 7 are provided in this section.
4. The Applicants have no comment on the responses from National Grid Electricity Transmission plc [REP7-150], National Gas Transmission plc [REP7-149], East Riding of Yorkshire Council [REP7-143] and [REP7-144], and Natural England [REP7-154].
5. Comments on protective provisions supplied by interested parties (as requested by the ExA in Action Points arising from Compulsory Acquisition Hearing 2 [EV7-002]) are provided within **Statutory Undertakers - Section 127 and 138 Summary** [document reference 18.4].



## 2.1 East Riding of Yorkshire Council (ERYC)

Table 2-1 – The Applicants’ comments on ERYC’s responses to Rule 17 [REP7-142]

I.D.	Question	ERYC Response	Applicants’ Response
REP7-142:17.13	<p><b>Onshore Historic Environment – nighttime visualisation</b> Provide a view on the information contained in the Nighttime Lighting Visualisation Technical Note [REP6-054]. If you have outstanding concerns regarding the impacts from lighting on the scheduled monument nearby to Butt Farm, set out what these are and how they could be addressed. Do you consider that the proposed lighting levels would affect the level of harm you have identified to the nearby scheduled monument?</p>	<p>These comments are based on a number of assumptions such as:</p> <p>(i) The methodology set out in section 3 represents the best practice for producing these visualisations- which would seem logical and reasonable to assume</p> <p>(ii) That the level and frequency of activity modelled in section 2 are correct- and that the height and location of the lighting is correct.</p> <p>The visualisations seem to demonstrate that at Scenario O (no lighting, year 1) the converter station would appear as a relatively looming element silhouetted against the darkness. The impact of the lights shown in Figure 1c would be to illuminate more of the buildings, and to reinforce a sense of activity on the site. This would result in a marginally greater impact on how views out from the Scheduled Monument is experienced, by reinforcing the sense of intervention into what would have previously been an open landscape. This impact would reduce down by year 10 (Figure 1d), with some light permeating through the screen planting, and some elements of the converter station still being visible above the planting. The presence of the converter station would still be experienced in this scenario, but it would be less obvious and stark than in Figures 1b and 1c.</p> <p>In terms of the assessment of harm, this stems from the principle of its construction, and the impact that the creation of a large imposing structure would have on the wider open setting in which the Scheduled Monument is experienced, which contributes to an appreciation of its significance. This impact is exacerbated by the introduction of all the associated paraphernalia, such as lighting, which simply add to its presence and the scale of its intervention into the landscape. However, the impact of these additional paraphernalia is inherently tied up in the scale of the converter station itself, and is an intrinsic and indivisible element of the project. The introduction of lighting does therefore result in a small level of harm in its own right, but this is only a small element of the wider harm caused by the project as a whole.</p> <p>The impact of the lighting could only really be mitigated by limiting its amount, and by limiting the amount of time that it is turned on. It is noted in the supporting report that the applicant has sought to do this to a greater degree, but stating that visits will generally be carried out during daylight hours, that the lighting will be on sensors and programmed to switch off after a period of no activity and noting that the extent of lighting for any visit in the hours of darkness is therefore likely to involve the sequential turning on of areas of lights, as opposed to their</p>	<p>The Applicants would like to reiterate that, as stated in <b>Nighttime Lighting Visualisation Technical Note</b> [REP6-054] the Nighttime visualisation uses an indicative design taken from a comparable High Voltage Direct Current (HVDC) Onshore Converter Station, as the Projects do not have this level of engineering design available at this moment.</p> <p>The Applicants welcome ERYC’s conclusion that ‘<i>The lighting in isolation therefore does not meaningfully increase the harm caused by the wider development to the significance of the heritage asset, which would remain less than substantial</i>’.</p> <p>The Applicants note that ERYC have put forward a suggestion that there could be a control the number and length of evening visits to the site per year at a capped amount; but that this could remove the ability of the Applicants to ensure the continued operation of the Projects in unexpected circumstances. The Applicants strongly oppose this suggestion as it would not be workable or allow the flexibility for operational maintenance that is essential for the safe working of the Projects</p>

I.D.	Question	ERYC Response	Applicants' Response
		<p>turning on across the full site. As such, given that it seems logical to accept that some lighting will be needed, it is not clear that the impact of the lighting could be further reduced- unless it was felt appropriate to control the number and length of evening visits to the site per year at a capped amount. Although it is not sure how this could be achieved without also removing the ability of the company to ensure the continued running of the site in unexpected circumstances.</p> <p>So in short, the answer to question 17.13 is that the lighting itself would have a small additional negative impact on the wider setting of the Scheduled Monument. This is considered to form part of the wider, and greater, impact that is inherently caused by the converter station. The lighting in isolation therefore does not meaningfully increase the harm caused by the wider development to the significance of the heritage asset, which would remain less than substantial. In terms of how this impact can be addressed, it is not clear that there are further mitigation measures that could be implemented, unless the quantum and length of visit could be capped or controlled as part of any DCO.</p>	
REP7-142:17.21	<p><b>Tourism effects</b> Provide your views on the updated ES Chapter 29 – Tourism [REP6-033]. Do you agree with the updated significance of effects assessment for tourism assets (Impact 2) with particular regard to the change of landscape and visual impacts during operation for Butt Farm Caravans, Campsite and Glamping and the additional consideration of noise impacts during construction for Butt Farm Caravans, Campsite and Glamping and Strawberry Fields Holiday Park? If not, explain your concerns and how you would wish to see them addressed</p>	<p>We agree with the updated significance of effects assessment for tourism assets (Impact 2) with particular regard to the change of landscape and visual impacts during operation for Butt Farm Caravans, Campsite and Glamping and the additional consideration of noise impacts during construction for Butt Farm Caravans, Campsite and Glamping and Strawberry Fields Holiday Park. However the businesses operating models are individual to them. Small businesses are very sensitive to change so what might be deemed a minor issue from an external perspective could actually have a very detrimental effect. Therefore careful consideration should be given to any extraordinary impact that the business might identify / encounter as a result of the construction and ongoing operation of the development. It would be advisable to review all mitigation proposals and work closely with the business to provide the best solution possible.</p>	<p>The Applicants welcome ERYC's agreement on the updates to <b>Chapter 29 Tourism and Recreation (Revision 2)</b> [REP6-033]. In regard to mitigation, it is the intention of the Applicants to work closely with businesses, as detailed in Table 29-44 of <b>Chapter 29 Tourism and Recreation (Revision 2)</b> [REP6-033]. The proposed mitigation measures given in Table 29-44 for Tourism Assets are: <i>Implementation of measures within the <b>Outline Landscape Management Plan (Volume 8, application ref: 8.11)</b> and <b>Volume 7, Chapter 25 Noise (application ref: 7.25)</b>.</i></p> <p>Section 29.6.1.2.4.1 of <b>Chapter 29 Tourism and Recreation (Revision 2)</b> [REP6-033] also states the following: <i>'Potential temporary adverse significant effects have been identified at both Butt Farm Caravans, Campsite and Glamping and Strawberry Fields Holiday Park due to potential construction works at night time.</i></p> <p><i>Night time working will be for short durations of the construction programme at the Onshore Substation Zone or Landfall Zone with all works outside normal working hours being subject to agreement with ERYC. For example it is expected that trenchless crossing works e.g. HDD drill may take a few weeks to complete. However, it is not possible to define those durations until the Contractor is onboard and the detailed construction programme is developed. When the Contractor is appointed consideration will be given to minimise adverse effects of noisy activities where practical when creating the construction programme.</i></p> <p><i>Both impacted caravan and camping sites will be informed of the construction programme as far in advance as possible so that they can plan for works and periods when the campsite may have to close during the night time works. A communication and grievance mechanism will also be introduced for local receptors to direct questions or report nuisance and other issues, including details for a site representative during</i></p>

I.D.	Question	ERYC Response	Applicants' Response
			<p>construction hours. Compensation for any loss of business would be payable on a proven loss basis.'</p> <p><b>Appendix B - Outline Communications &amp; Public Relations Procedure</b> of the <b>Outline Code of Construction Practice (Revision 5)</b> [REP7-105] also provides detail on communications with businesses. Paragraph 21 states:</p> <p><i>'Businesses, including nearby caravan parks, chalet sites etc. will be informed of construction activities which may affect their usual operations and activities, such as access, opening hours, and planned events; information will include the duration and proposed alternative routes.'</i></p>
REP7-142:17.17	<p><b>Landscape and Visual Amenity – Impacts on Ancient Woodland</b> What 'constraints' could lead to the need to use depths less than 5 metres below ancient woodland for trenchless crossing techniques and how likely is this? What would happen if constraints suggested shallower depths were required, but roots for ancient woodland were present at similar depths – how would protection of ancient woodland be ensured in this scenario?</p>	<p>We are unable to provide details on the nature of the constraints that could lead to depths of less than 5m and would ask the applicant to provide details based on preliminary investigations and desk based literature.</p> <p>The trees forming the canopy cover for Bentley Moor Wood LWS are predominantly sycamore and the result of semi-natural regeneration. There is significant value in the upper soil and ground layers of ancient woodland and impacts on these high value ecological assets would still be avoided at shallower depths. Impacts to veteran and notable trees would be of most concern should shallower depths be used.</p> <p>The following commitment could be secured to ensure the protection of the ancient woodland:</p> <p>Should constraints suggest shallower depths than 5m were required then the trenchless crossing corridor route would be sited to avoid impacts within and below the identified root protection areas of any veteran or notable trees.</p>	<p>The <b>Outline Ecological Management Plan (OEMP) (Revision 6)</b> [REP7-107] has been updated in section 1.5.2.1, Table 1-1, at Deadline 7 to provide further clarification the trenchless crossing at Bentley Moor Wood:</p> <p><i>The trenchless crossing technique would be selected to minimise impacts on the rhizosphere and to keep the overall risk to trees as low as reasonably practicable. Adopting a shallower depth than 5 m may enable a wider range of alternative trenchless methods to be considered, potentially offering lower risks to roots and reduced impacts compared to a deeper, more conservative 5 m approach. Benefits of a shallower depth may include:</i></p> <ul style="list-style-type: none"> <li>• <i>Smaller bore requirements;</i></li> <li>• <i>Reduced or eliminated need for drilling fluids;</i></li> <li>• <i>Shorter construction duration and lower vibration levels;</i></li> <li>• <i>Less extensive entry and exit pit works; and</i></li> <li>• <i>Lower energy and material demands</i></li> </ul> <p>As detailed in section 1.5.2.1 of the <b>OEMP (Revision 6)</b> [REP7-107] 'the Applicants are committed to installing the crossing at depth greater than 5m as recommended by the Woodland Trust'. The wording in paragraph 95 has been updated further at Deadline 7 to clarify: 'If, following detailed geotechnical investigations and the detailed design of the trenchless crossing, the Contractor can provide clear evidence demonstrating that a shallower depth would not adversely impact on roots, soils or rhizosphere along or, above the proposed route, a shallower depth may be considered. Any such change would be subject to agreement and must be approved in consultation with ERYC, Natural England, and an appropriately qualified arboriculturist.' On this basis the Applicants consider that there is sufficient protection provided to ancient woodland, as a shallower drill could not be undertaken without further evidence and in consultation with the relevant regulators.</p> <p>This text has also been updated in Table 18-4 of <b>Chapter 18 Terrestrial Ecology and Ornithology (Revision 6)</b> [REP7-065] and commitment C187 in the <b>Commitments Register (Revision 3)</b> [REP7-101].</p>

## 2.2 East Yorkshire Concrete Products Limited

Table 2-2 – The Applicants’ response to East Yorkshire Concrete Products Limited Deadline 7 Document [REP7-145]

I.D.	East Yorkshire Concrete Products Limited Response	Applicants’ Response
REP7-145:1	<p><b>Voluntary Agreement (VA) and Land Rights Tracker</b></p> <p>Since my letter of the 13th June 2025, we held a meeting on the 23<sup>rd</sup> June 2025 with Steven Harkin acting on behalf of RWE Renewables (RWE) and Georgina Hurley acting for Dalcour Maclaren (DM), the agents for RWE. The meeting sought to address a number of issues. At the meeting, Steven Harkin agreed to submit a copy of the proposed Voluntary Agreement (VA) into the Public Inquiry to provide transparency on the remaining issues on which agreement has still not yet been reached. We are currently awaiting a response from the Applicants to the issues discussed including:</p>	<p>The Applicants note this response and welcome the willingness of the Interested Parties in reaching a voluntary agreement.</p> <p>The Applicants have responded to each of the individual issues raised by the Interested Parties through <b>The Applicant’s Comments to Written Representations</b> [REP2-057] at Deadline 2, <b>The Applicants’ Responses to Deadline 4 Documents</b> [REP5-037] at Deadline 5, <b>The Applicants’ Responses to ExAQ2</b> [REP5-036] at Deadline 5 and <b>The Applicants Responses to Deadline 6 Documents</b> [REP7-131]. Responses were also provided to the appointed agent via email dated 26<sup>th</sup> June 2025 in response to the meeting held 23<sup>rd</sup> June 2025.</p> <p>The Applicants are unable to share a copy of the voluntary agreement with the Examining Authority (ExA) as they contain confidential and commercially sensitive material. However, the Interested Parties’ agent has been sent copies of the Option and Deed of Grant in relation to his clients and would refer him to the detail within.</p> <p>The Heads of Terms state they should be treated as confidential but are not intended to create any legally binding obligations and are subject to contract and completion of formally executed legal documentation. The Option Agreement has a Confidentiality Clause at 27 which states;</p> <p><i>‘The terms of this Agreement shall be confidential to the parties both before and after completion of the Deeds of Grant and neither party shall make or permit or suffer the making of any announcement or publication of such terms (either in whole or in part) nor any comment or statement relating thereto without the prior written consent of the other (such consent not to be unreasonably withheld or delayed) or unless such disclosure is required by the rules of any recognised Stock Exchange on which shares of that party or any parent company are quoted or pursuant to any duty imposed by law on that party or disclosure is required by the Grantee to its employees, officers, representatives, professional advisors and contractors and/or bona fide purchasers and/or their tenants and/or funders and their advisors in connection with or for the purposes of (i) obtaining any Permission (ii) complying with statutory obligations (iii) any due diligence exercise (iv) the construction of the Project or (v) any dealings or financing of the Project or by the Grantor to its employees, officers, representatives, professional advisors and contractors and/or bona fide purchasers and/or tenants and/or funders and their advisors.’</i></p> <p>The Applicants feel the meeting with the Agents acting on behalf of the Interested Parties on Monday 23<sup>rd</sup> June 2025 to discuss all outstanding matters was productive, however it is unlikely that this matter will be concluded prior to the end of examination and the Interested Parties insistence on receiving incentive payments that they haven’t qualified for may not make it possible to reach an agreement.</p>
REP7-145:2	<p><b>1. Land Drainage (Rep1-073.5 ad Applicant’s Response REP4-107:1)</b></p> <p>At the meeting we again highlighted the impediment caused by the installation of the Project cables when re-draining or draining adjoining land in the same ownership or occupation, together with the additional costs which a landowner would incur to drain across or in close proximity to the energised cables.</p> <p>We put a forward a proposal to overcome this issue whereby during construction the Applicants could install drainage pipes across the cables (where needed) into which landowners could safely and cost effectively connect in the future. We are currently awaiting a response to this proposal.</p>	<p>The Interested Parties’ agent confirmed in the meeting 23<sup>rd</sup> June 2025 a requirement for Applicants to pre-install a designated drainage crossing point on his client’s land to future proof drainage across the wider landholding, which the Applicants believe to be unnecessary as landowners will retain the ability cross any operational infrastructure within the Easement strip, including drainage subject to the consent of the Applicants or the Offshore Transmission Owner (OFTO). A position that has been acceptable to over 80% of affected landowners who have signed Heads of Terms.</p> <p>The Deed of Grant also provides protection to landowner’s during the operational phase for the recovery of additional costs which a landowner could incur to drain across or in close proximity to the energised cables. The Deed states;</p> <p><i>‘The Grantee must pay to the Grantor all reasonable and proper liability, fees, charges, disbursements, costs and expenses incurred by the Grantor in connection with, incidental to, consequent upon and (where appropriate) in contemplation of any request for consent or any other request under the Deed, any enforcement of any Grantee’s covenant or obligation where they are in breach of such covenant</i></p>



I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		<p>or obligation, any request by the Grantee where the Grantor would reasonably need to take professional advice (provided such costs are agreed in advance) and also in regard to any claim for compensation arising under this Deed.'</p> <p>A detailed in the <b>Outline Drainage Strategy (Revision 4)</b> [REP7-110] land drainage design will also be developed by the Contractor at the detailed design stage. Section 1.2 also states that 'Where necessary post construction (restoration) drains may also be installed in consultation with landowners, the Environment Agency, LLFA (ERYC) and IDB, as appropriate to ensure that existing land drainage is reinstated and maintained to at least pre-development land drainage capacity throughout the operation of the Projects. As described above, this would be informed by the detailed drainage survey and utilise existing outfalls, wherever possible.'</p>
REP7-145:3	<p>Schedule 7 of the Draft Development Consent Order (APP-027) submitted by the Applicants includes the ability to acquire the following right in Land at sub-clause (n):</p> <p><i>take and use, remove and discharge water from the Land, and to install, retain, use, maintain, inspect, alter, remove, refurbish, reconstruct, replace, protect and improve sewers, drains, pipes, ducts, mains, conduits, flues and to drain into and manage waterflows in any drains, watercourses and culverts, install, use, inspect, maintain, adjust, alter, renew, repair, test or cleanse drainage schemes on the Land or reinstate the any existing drainage scheme on the Land;</i></p> <p>We have requested that the Applicant's replicate the above provisions in the VA and bearing in mind that the rights secured endure in perpetuity, there is a requirement on the Project (or their successor) to repair, renew and replace the drainage installed in the Order Limits for the life of the Project. Land drainage schemes have a finite life expectancy of circa 20 to 40 years depending on factors such as land type, gradient and maintenance. Without these safeguards the land impacted by the Project could be prejudiced in the future when the drainage installed during the construction process reaches the end of its useful life as ultimately it will not last as long as the Project assets.</p>	<p>The Applicants or the OFTO would be responsible for maintaining and repairing any defects to any operational infrastructure within the Easement strip, including drainage that they are made aware of from the landowner or from their own routine asset inspections. There is already a commitment in Clause 2.8 of Schedule 1 and Clause 12.2 of Schedule 2 of the voluntary Deed of Grant on the Applicants (and any successor OFTO) to maintain, repair and replace the land drainage installed in the Order Limits for the duration of the Project.</p> <p><i>2.8 the right to execute and thereafter use inspect maintain adjust alter renew repair test cleanse on the Easement Strip (and where necessary any other land to the extent that such land is within the ownership or control of the Grantor) such works as may be reasonably necessary to reinstate the Drainage System and/or implement the Drainage Scheme (as applicable and if any) following the installation of the Infrastructure together with a right to enter on to the Easement Strip</i></p> <p><i>12.2 maintain sufficient drainage of the Easement Strip during the period of exercise of the Rights.</i></p> <p>During operation the OFTO will periodically inspect the installed cables, should a landowner report any issues with the installed land drainage that may be affecting their land they could be reported directly to the OFTO or via the Agricultural Liaison Officer (ALO) if the Project is still in the construction or decommissioning phase. This detail has been added to section 1.2.1 of the <b>Outline Drainage Strategy (Revision 4)</b> [REP7-110], at Deadline 7. Further details on the soil management measures can be found in <b>Appendix A, Outline Soil Management Plan (OSMP) (Revision 3) of the Outline Code of Construction Practice (OCoCP) (Revision 5)</b> [REP7-105] which is secured by Requirement 19 of the <b>Draft Development Consent Order (DCO) (Revision 11)</b> [document reference 3.1].</p>
REP7-145:4	<p><b>2. Cable Depth (Rep1-073.5 ad Applicant's Response REP4-107:1)</b></p> <p>The Applicant's responded in May 2025 to the representations regarding maintaining cable depth as follows:</p> <p><i>The Applicants are unable to make the commitment to maintaining the depth of the cables for the duration of the Projects and cannot comment on what other Projects may have committed to. The Applicants would not have control of the surface of the land and what agricultural activities a landowner may undertake which could increase or decrease the level of topsoil in any given section of the Onshore Export Cable Corridor. To account for variations in the thickness of topsoil the DAS (Revision 2) [REP2-027] was updated in Table 4-4, at Deadline 2 to clarify that the design burial depth below subsoil level would be 1.2m. This will also be added to the Chapter 5 Project Description (Revision 3) [REP1-009] and OCoCP (Revision 4) [REP4-040], at Deadline 7.</i></p> <p>However, the response at REP 4-107:4 provided by the Applicant does provide a commitment to maintain the depth of the cables, albeit to a minimum depth of 1.1m.</p>	<p>As quoted in the Interested Parties response, the Applicants confirm that they are unable to make the commitment to maintaining the depth of the cables for the duration of the Projects and cannot comment on what other Projects may have committed to.</p> <p>The Applicants vehemently contest the point made by the Interested Party that the response at REP 4-107:4 provided by the Applicant provides a commitment to maintain the depth of the cables, albeit to a minimum depth of 1.1m. This is not the case.</p> <p>The Applicants have committed to in section 6.6.2.6 of the <b>OCoCP (Revision 5)</b> [REP7-105], at Deadline 7 that the Projects will be designed to remain at the level (m AOD) they are constructed throughout operation. The Applicants can confirm that the buoyancy effects of the ducts would be considered alongside a variety of load cases and ground conditions during detailed design (for both construction and operation conditions). Resistance to buoyant forces would typically be provided by the weight of the duct / cables in the ducts, cable bedding / backfill characteristics and installation methodology including a protective tile over the cable. Given the majority of the Onshore Export Cable Corridor is located within agricultural land, it would not be within the Applicants interest to construct a design which allowed the cables to be exposed to the surface or potential damage from agricultural equipment.</p> <p>Section 5.21 of the <b>OCoCP (Revision 5)</b> [REP7-105] also states that 'Land interests will be provided with as built drawings of the Project(s) final design once all construction works are complete. These will accurately record the Global Positioning System (GPS) location and depth at the time of laying.'</p>

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		<p>The Applicants or the Offshore Transmission Owner (OFTO) would be responsible for maintaining and repairing any defects to any operational infrastructure within the Easement strip, including drainage that they are made aware of from the landowner or from their own routine asset inspections. This wording is also included in section 1.2.1 of the <b>Outline Drainage Strategy (Revision 4)</b> [REP7-110], submitted at Deadline 7 in response to Action point 4.2 in <b>The Applicants' Responses to April 2025 Hearing Action Points</b> [REP4-096] on maintenance of drainage during operation.</p>
REP7-145:5	<p>The Deed of Grant associated with the Dogger Bank A and B Scheme provided a legal commitment on the project (and successors in title) to maintain the depth of the cables at 1.5m. The Voluntary Agreement associated with the Hornsea 4 Scheme also provided safeguards against the risks associated with the installed cables moving and interfering with agricultural operations.</p> <p>The Applicant's response at REP4-107:1 states:</p> <p><i>"In addition, the Projects will be designed to remain at the depth they are constructed throughout operation...."</i></p> <p>Whilst the Applicant's response at REP4-107:1 states that it would not be within their interest to construct a design which allowed the cables to be exposed to the surface or be at risk of damage from agricultural equipment, the VA agreement promoted by the Applicant's needs to provide a landowner with the ability to require the Project to prevent this. If this does occur then the agricultural land in the Order Limits could be severely impacted, the cropping severely restrained and productivity reduced with a consequential impact on the capital value. If the cables are genuinely designed to remain at the depth at which they are installed as committed to in the Applicant's response, providing a legal commitment to this effect in the DCO and VA which would transfer to an Ofco, should not be an issue.</p>	<p>The Applicants cannot comment on what other projects may or may not have committed to, to secure voluntary agreements and would refer to their comments made above and at Deadline 7 that the Projects will be designed to remain at the level (m AOD) they are constructed throughout operation which is committed to in section 6.6.2.6 of the <b>OCoCP (Revision 5)</b> [REP7-105].</p> <p>The Applicants are unable to make the commitment to maintaining the depth of the cables for the duration of the Projects. The Applicants would not have control of the surface of the land and what agricultural activities a landowner may undertake which could increase or decrease the level of topsoil in any given section of the Onshore Cable Corridor. However, the Applicants have mitigated by design by committing to a designed depth of 1.2m below the subsoil interface.</p> <p>The voluntary Deed of Grant does not to commit to ensuring no movement in the as built cable depth throughout its operational life, which the Applicants believe is wholly unreasonable and uneconomically viable to request when designed to be at a depth to allow all agricultural operations to resume following the reinstatement after the completion of the works.</p> <p>The Deed of Grant provides <i>that the infrastructure is to be laid at a depth of not less than 1.6 metres from the restored surface of the Easement Strip to the top of the duct, and not less than 1.4 metres from the restored surface of the Easement Strip to the top of the protective tile.</i></p> <p><i>The infrastructure may be laid at shallower depths where necessary and in accordance with industry practice due to there being rock concrete land fill sites or other physical obstructions close to the surface, but will be laid a depth of not less than 1.1 metres.</i></p> <p><i>The Grantee is to keep the infrastructure in a safe condition and ensure compliance with all applicable laws.</i></p> <p><i>The Deed of Grant further protects landowners by committing to keeping the Grantor indemnified against all liability, proceedings, costs, claims, demands and expenses incurred or arising directly by reason of the Grantee's (or that of any person at the Easement Strip, Working Strip or the Grantor's Property expressly or impliedly with the Grantee's authority):</i></p> <ol style="list-style-type: none"> <li>1.1 <i>use or occupation of the Easement Strip, Working Strip or the Grantor's Property;</i></li> <li>1.2 <i>exercise of the Grantee's rights under any provision of the Deed on the Easement Strip, Working Strip or the Grantor's Property;</i></li> <li>1.3 <i>breach or non-observance of the covenants conditions or provisions of the Deed; or</i></li> <li>1.4 <i>act omission or negligence at the Easement Strip, Working Strip or the Grantor's Property.</i></li> </ol>
REP7-145:6	<p>At the meeting on the 23<sup>rd</sup> June 2025, we addressed the Applicant's concerns regarding the degradation of topsoil noted at REP4-107:1, by suggesting the Pre-construction Schedule of Condition for the Order Limits includes an assessment of top soil and sub-soil depth. This would provide an accurate benchmark to re-visit in the future to assess whether the cables have moved or the depth of top soil has changed.</p>	<p>Land Drainage Consultancy Ltd have already undertaken soil sampling in accordance with the relevant guidance set out in the Appendix A-1 of this document 'Soil Resource Assessment Survey Results' in <b>Appendix A, OSMP (Revision 3)</b> of the <b>OCoCP (Revision 5)</b> [ REP7-105] across the working corridor from each enclosure. Samples were taken pre-construction and analysed for pH, organic matter (OM), phosphorous (P), potassium (K), magnesium (Mg) and soil texture. Post construction laboratory testing of soils will not be undertaken as standard unless there are specific concerns or complaints regarding the reinstatement, after which methods of testing will be determined by the appointed project soil scientist.</p> <p>Further details on the soil management measures can be found in <b>Appendix A, OSMP (Revision 3)</b> of the <b>OCoCP (Revision 5)</b> [REP7-105] which is secured by Requirement 19 of the <b>Draft DCO (Revision 11)</b> [document reference 3.1].</p>

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		<p>If the Landowner suffers loss of yield in crop because of the project after reinstatement, the Landowner is entitled to submit a compensation claim to the Applicants for any proven losses. This is a far more accurate means of assessing compensation than checking against a nutrient baseline which would require continuous monitoring and would be subject to seasonal weather variations and landowner inputs outside the control of the Applicants.</p> <p>The Applicants have agreed in the voluntary Option and Deed of Grant agreement that a written and photographic, date stamped Pre-Entry Schedule of Condition shall be undertaken by the Applicants and issued to the Landowners for approval.</p> <p>In addition, section 5.21 of the <b>OCoCP (Revision 5)</b> [REP7-105] also states that '<i>Land interests will be provided with as built drawings of the Project(s) final design once all construction works are complete. These will accurately record the GPS location and depth at the time of laying.</i>'</p>
REP7-145:7	<p>If the DCO for this Project is granted and the Applicants are granted compulsory acquisition rights, we respectfully request that provision is made in the DCO obligating the Applicant to install the cables to a minimum depth of at least 1.5m from the original surface level and to maintain the depth of the cables at this level, to create parity with similar schemes impacting our client's land.</p>	<p>The Applicants have mitigated by design by committing to a designed depth of 1.2m below the subsoil interface (1.6m).</p> <p>The Applicants believe the request ensuring no movement in the as built cable depth throughout its operational life is wholly unreasonable and uneconomically viable to undertake an onerous monitoring programme to consistently confirm the depth and potentially have to excavate and relay the cables under electricity circuit outages to unnecessarily account for any movement whatsoever, when designed to be at a depth, to allow all agricultural operations to resume following the reinstatement after the completion of the works.</p>
REP7-145:8	<p><b>3. Reinstatement and Reinstatement Period (Rep1-073:14 and Applicants Response REP4-107:9 plus Rep1-073:16 and Applicant's Response REP4-107:11))</b></p> <p>We have requested confirmation from the Applicants on method of redress available to landowners if the Applicant's do not fulfil their proposed commitment to reinstate the Order Limits within two years following the commencement of construction.</p> <p>At the meeting on the 23<sup>rd</sup> June 2025 we again explained the impact on soil nutrients and organic matter as a consequence of disturbing the soils through the construction process. We requested that the Pre-construction Schedule of Condition include a broad spectrum soil test which includes, inter-alia, tests for PH, P, K, trace elements, organic matter, soil carbon and mineralizable nitrogen. Such tests are easily procured and would provide a detailed benchmark against which to assess reinstatement and any compensation required.</p>	<p>At this stage of design, the Applicants have made the commitment to reinstate the land between Jointing Bays within two years, but it is not possible for the Applicants to commit to a 12-month reinstatement period. This would restrict the ability of the Contractor to reinstate the land at the correct time of year, in appropriate ground conditions, in line with the measures set out in <b>Appendix A, OSMP (Revision 3)</b> of the <b>OCoCP (Revision 5)</b> [REP7-105], secure by Requirement 19 of the <b>Draft DCO (Revision 11)</b> [document reference 3.1].</p> <p>The Applicants can confirm that landowners would be financially compensated for the temporary loss of their land during construction, therefore as retaining areas for up to six years, which are not required is not financially feasible, they would be returned to the landowner as soon as possible, or within 12 months of the completion of works. Requirement 25 of the <b>Draft DCO (Revision 11)</b> [document reference 3.1] (Restoration of land used temporarily for construction)', states that land must be reinstated to its former condition, or such condition as the relevant planning authority may approve '<i>as soon as reasonably practicable and in any event within 12 months of completion of the relevant phase of the onshore works</i>'.</p> <p>In addition, under Article 30(3) of the <b>Draft DCO (Revision 11)</b> [document reference 3.1], the undertaker must not remain in possession of any land subject to temporary possession for longer than is reasonably necessary and in any event, without the agreement of the landowners, the undertaker may not remain in possession of the land for longer than one year post-completion of the relevant part of the authorised project (unless a notice of entry has been served).</p> <p>As detailed in response to ISH 4, Action No.44 in <b>The Applicants' Responses to April 2025 Hearing Action Point</b> [REP4-096] approximately 90% [now reduced to 84.2%] of the land within the Order Limits would be returned to its original use within two years. However, some land for Jointing Bays, up to 50% of Temporary Construction Compounds (TCC's) and haul roads, would be required for between 2 and 6 years, these areas cannot be identified until the detailed design stage. The Applicants would seek to keep an open dialogue with the landowners through the ALO and their agents keeping them up to date on when land would be returned. As detailed in the <b>Outline Communications and Public Relations Procedure (OCPRP)</b> included in <b>Appendix B</b> of the <b>OCoCP (Revision 5)</b> [REP7-105]. When the detailed design and construction programme has been developed it will be communicated with the landowner so they are aware of the proposed programme for construction and reinstatement and where there may be a requirement to retain a haul road, working area or TCC for the full duration of the works.</p>



I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		As previously stated above Land Drainage Consultancy Ltd have already undertaken soil sampling in accordance with the relevant guidance set out in the Appendix A-1 of this document 'Soil Resource Assessment Survey Results' in <b>Appendix A, OSMP (Revision 3)</b> of the <b>OCoCP (Revision 5)</b> [REP7-105] across the working corridor from each enclosure. Samples were taken pre-construction and analysed for pH, organic matter (OM), phosphorous (P), potassium (K), magnesium (Mg) and soil texture. Post construction laboratory testing of soils will not be undertaken as standard unless there are specific concerns or complaints regarding the reinstatement, after which methods of testing will be determined by the appointed project soil scientist.
REP7-145:9	<p><b>4. Consequential Losses</b></p> <p>Steven Harkin acting on behalf of RWE accepted at the meeting on the 23<sup>rd</sup> June 2025 that the Applicant's response at REP 4-107.17 does not reflect the position with the VA and relates only to the position if a landowner does not enter a VA.</p> <p>We have requested the Project amend the VA accordingly to include the provision to claim consequential losses as committed to at REP 4-107.17.</p>	<p>As stated at Deadline 7 in <b>The Applicant's Responses to Deadline 6 Documents</b> [REP7-131], REP6-082:2, Compensation for direct loss will be assessed and payable for any reasonable and mitigated loss to the Landowner, which has resulted as a direct consequence of the proposed works and will require supporting evidence to substantiate the amount of any such payment. This point has been accepted by over 80% of landowners on the Onshore Cable Corridor and as such the Applicants will not make individual concessions to the Interested Parties to claim consequential losses.</p> <p>There is some confusion with the Interested Parties agent as to the use of the term consequence in the previous submission as part of <b>The Applicants' Responses to ExAQ2</b> [REP5-036] at Deadline 5, which referred to compensation which has resulted as a direct consequence of the proposed works and will require supporting evidence to substantiate the amount of any such payment. It was noted in the meeting 23<sup>rd</sup> June 2025 that the Interested Parties Agent has mistaken this for qualifying that the Applicants were offering an ability for landowners to claim consequential losses, which is at odds with the Option and Deed of Grant and is not the case.</p> <p>Consequential losses, also known as indirect losses, are damages that don't arise directly from a breach of contract or an event, but rather from the consequences of that breach or event. They are typically more remote and harder to predict than direct losses, which are the immediate and foreseeable results of an action. As such the Applicant as standard practice has not allowed for landowners to claim consequential losses as part of the voluntary agreement.</p>
REP7-145:10	<p><b>5. Onshore De-commissioning - Cable Removal (Rep 1-073.20 and Applicant's Response REP 4-107:15)</b></p> <p>The plastic ducts in which the cables are to be installed may be considered a contaminant in the future which could create legacy issues for landowners. The Deed of Grant for the Dogger Bank A and B Scheme addressed this issue with the project providing a specific legal commitment to restore the Order Limits to their former condition existing prior to the installation of the Electric Cables including the removal of the cable infrastructure if required by the Landowner.</p> <p>The Applicant's response at REP 4-107:15) only commits to removing the cables if at a depth of less than 1.1m but provides no commitment to removing the plastic ducts and associated infrastructure. No justification has been provided as to why the Project infrastructure (including plastic ducts) laid below 1.1m cannot be removed to avoid landowner's inheriting a potential contamination liability. It is accepted that it may not be practical or desirable to remove the jointing bays.</p> <p>We have asked the Applicants to include a commitment to remove the cables, plastic ducts and all associated Project infrastructure except jointing bays.</p>	<p>The Applicants have committed to removing the cables from the ducts but do not commit to removing the plastic ducts and associated infrastructure if at a depth of less than 1.1m.</p> <p>The voluntary Deed of Grant commits the Applicants to decommission or remove the Infrastructure by:</p> <ul style="list-style-type: none"> <li>(a) <i>removing any part of the Infrastructure which is at a depth of less than 1.1 metres from the restored surface of the Easement Strip provided that such removal would not be in breach of any applicable consent or statutory requirement;</i></li> <li>(b) <i>making any part of the Infrastructure which is at a depth of more than 1.1 metres from the restored surface of the Easement Strip or which is at a lesser distance but which is not required to be removed under (a) safe in accordance with all statutory requirements;</i></li> <li>(c) <i>reinstating the Grantor's Property to no worse than its condition before the exercise of the Rights as evidenced by the Schedule of Condition to the Grantor's reasonable satisfaction.</i></li> </ul> <p>The Applicants cannot commit to remove the cables, plastic ducts and all associated Project infrastructure except jointing bays as this may not be economically viable at the time of decommissioning and may be more environmentally damaging to do so, requiring additional consents to be obtained. Furthermore, the cables and ducts have been designed to be at a depth, to allow all agricultural operations to resume following the reinstatement after the completion of the works. The Applicants do not agree that the cable ducts could be considered a future source of contamination.</p>



I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
REP7-145:11	<p><b>6. Landowner Compensation (Rep1-073.20 and Applicant's Response REP4-107:15)</b></p> <p>The Applicant's response at REP4-107:15 regarding Landowner's compensation is not correct. The DBS LiG negotiated an overall compensation figure for the VA with Steven Harkin and the agents for the Project. The Applicant's then, at their own discretion, divided up the overall compensation payment, with part of it labelled as an Incentive Payment. The incentive payment was used to persuade landowners to concede on their issues with the VA, irrespective of whether the Applicant's had addressed the issues, and not participate in the Public Inquiry process. This process penalises our clients for maintaining their genuine issues with the VA and submitting representations through the Public Inquiry process.</p> <p>This approach to the VA process could leave our client's with less compensation compared to the other similar projects impacting their land and by entering the VA on this basis they would be financially prejudiced. The Applicant's agent also provided verbal assurance that if a VA was entered into after the incentive deadline our clients would receive the total amount of compensation agreed through the DBS LiG. This reassurance was relied upon but subsequently withdrawn.</p> <p>Subsequently no evidence has been provided by the Applicant's or their agent justifying the reduced amount of compensation now offered through a VA.</p>	<p>The Applicants do not agree with the statement made by the Interested Parties agent that the Land Interest Group (LiG) agreed an overall commercial package that included the incentive, irrespective if the parties met the qualifying criteria for the incentive or not.</p> <p>As stated at Deadline 7 in <b>The Applicant's Responses to Deadline 6 Documents</b> [REP7-131] REP6-082:2, the Applicants have consistently offered all affected landowners a commercial incentive of 10% of the total Easement consideration and non-deductible Option fee to agree Heads of Terms by 30<sup>th</sup> August 2024 and a further 10% to agree legal documentation for an Option and Deed of Grant by 14<sup>th</sup> February 2025 or otherwise 12 weeks from issue to the associated acting solicitor.</p> <p>The Agent acting on behalf of the Interested Parties failed to meet the initial deadline to agree Heads of Terms and as such didn't qualify for the additional commercial incentive, citing several outstanding points still yet to be agreed, as set out by the Agent.</p> <p>If the parties can agree Heads of Terms, then of the Interested Parties will be afforded the same 10% commercial incentive to agree legal documentation within 12 weeks from the documents being issued to their solicitor.</p> <p>As noted above, the Applicants have not reduced the Easement consideration offered under a voluntary agreement. The Interested Parties failed to meet the commercial deadline to agree Heads of Terms by the 30<sup>th</sup> August 2024 and as such didn't qualify for the additional 10% commercial incentive, citing several outstanding points yet to be agreed. As such the overall consideration offered initially including incentive has reduced and the Applicants have clearly justified the revised amount offered.</p> <p>The Interested Parties agent made it clear in the meeting 23<sup>rd</sup> June 2025, that his client's expectation would be to receive the full consideration in order to complete voluntary agreements, irrespective of whether or not they met the qualifying requirements to receive the respective incentive payments for signing Heads of Terms by 30<sup>th</sup> August and legally completing the Option and Deed of Grant within 12 weeks of them being issued.</p> <p>The request for evidence to the Applicants to justify the reduced compensation offered under the Voluntary Agreement compared to the original amount offered was confirmed by the Interested Parties Agent at the meeting on 23<sup>rd</sup> June 2025 as an early request for a statement of case to the Lands Tribunal for settling compensation following implementation of Compulsory Acquisition, as his clients have no intention of signing a voluntary agreement unless they receive the 20% incentive uplift that they yet haven't qualified for as they haven't been able to agree voluntary terms.</p>
REP7-145:12	<p><b>7. Minerals Sterilisation (Applicant's response REP4-107:19)</b></p> <p>This issue was raised with the Applicant's in 2022. Our client is an active minerals operator (Sandsfield) working through their landholding. We have provided the Applicants with a copy of the Minerals Safeguarding Plan and offered the ability to undertake test bores to assess the quantity and quality of the minerals impacted by the Project.</p> <p>The Applicants chose not to pursue this option. We finally received a Minerals Development Clause from the Applicants at the end of April 2025, have responded to it and are awaiting a reply from the Applicants. The Minerals Development Clause provided by the Applicant is qualified as 'Without Prejudice' and I am unable to address the specific issues with it in this representation. As drafted the clause is unworkable and does not address the issue. There are currently no time constraints impacting the mineral resources on our client's land and it is important, bearing in mind that rights requested by the Applicants endure in perpetuity, that the Minerals Development Clause attached to the VA is not time limited.</p>	<p>As stated at Deadline 7 in <b>The Applicant's Responses to Deadline 6 Documents</b> [REP7-131] REP6-082:2, the Applicants do not believe there is a realistic prospect at this time for the Interested Parties to extract mineral resource from plots 06-18, 06-21 and 06-025 due to the marginal areas allocated as Mineral Safeguarding Area and an Area of Search respectively on the periphery of the landholding and proximity to the public highway and residential property.</p> <p>For information purposes, plot 06-021 forms the public highway extent. However, the Applicants have sent to the appointed agent a mineral development clause on the 25<sup>th</sup> April 2025, which the Applicants proposes as a way forward and would enable the landowner to recover compensation, if they were to secure planning consent for its extraction in the future.</p> <p>The Applicants' agents are working with the appointed land agent to agree the provisions in the clause to be included in the Option and Deed of Grant as acceptable to both parties. The Applicants held an MS Teams call with the Interested Parties agent on the 5<sup>th</sup> March 2025 to discuss all outstanding matters including the proposed minerals loss clause.</p> <p>The Interested Parties agent had proposed a method of dealing with the minerals issue on the 4<sup>th</sup> April 2025, whereby in the future if the Interested Parties wish to extract minerals on the land affected by the Project and can produce evidence demonstrating the value and quantity of the minerals sterilised by the Project under the Voluntary Agreement, then the Project would compensate the Interested Party for the loss of minerals value. This method has been rejected by the Applicants in favour of a mineral</p>

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		<p>development clause, which requires the Interested Parties to demonstrate a reasonable prospect of realising a loss of mineral development value by securing planning consent for an alternative use.</p> <p>The Applicant discussed the mineral development clause with the Agents acting on behalf of the Interested Parties on Monday 23<sup>rd</sup> June 2025 but the clause as currently drafted, which has been accepted by multiple interested parties in relation to alternative development, includes a time limiting factor of 10 years post OFTO divestment to put forward proposals to the Applicant and make a mitigated claim by securing planning consent for an alternative use in Local Plan period 2020-2039. The Interested Parties agent cannot agree to any time limiting factor and it appears unlikely that the parties will be able to agree a voluntary agreement on this matter.</p>
REP7-145:13	<p>We also wish to make representations on two other points as follows:</p> <p><b>Dogger Bank A and B and the Hornsea 4 Scheme</b></p> <p>Our references to the Dogger Bank A and B and Hornsea 4 schemes are intended to highlight the safeguards provided in the Unilateral Undertaking (UU) which protected landowners on this scheme, to ensure the Planning Inspectorate can consider the same when assessing the draft DCO for the DBS Project. The references are also intended to ensure that the VA promoted by the Applicant is fair and reasonable.</p>	<p>Throughout the negotiations the Applicants have had with East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn (the appointed agent represents, and we assume that his response concerns all of his three clients unless stated otherwise), it has been made clear that the Applicants will not be entering into a Unilateral Undertaking.</p> <p>The Applicants have not seen a copy of the Unilateral Undertaking as it was entered into on a different project and is assumed to be confidential between the parties. However, the Applicants land agents responded to all points raised in written communication with the appointed agent, most recently on 26<sup>th</sup> June 2025.</p> <p>The Applicants have offered a voluntary Option and Deed of Grant which makes similar commitments to the Option and Deed of Grant documents that other Projects have entered which has been accepted by over 80% of landowners to date. The Applicants are therefore not prepared to offer East Yorkshire Concrete Products limited, Mr M W Mewburn and Mr J Mewburn a Unilateral Undertaking, as the preference is to offer an Option and Deed of Grant. If a voluntary option cannot be agreed, the Applicants would have to rely, as a last resort, in the compulsory powers granted by the order, when made. This would require them to serve a General Vesting Declaration which would vest the rights set out in Schedule of 7 and 9 of the <b>Draft DCO (Revision 11)</b> [document reference: 3.1] if the parties failed to reach a voluntary agreement.</p>
REP7-145:14	<p><b>Project Engagement (Rep1-073.7 and Applicant's Response REP4-107:9)</b></p> <p>On behalf of our client's we engaged with the Applicant in 2022 regarding the project and wrote to their agent in December 2022 highlighting issues including, inter-alia, the indicative route for the Project, land drainage and the sterilisation of minerals. Despite several follow ups, no substantive engagement on these issues was provided by the Applicant until May 2025 and only after our first appearance at the PINS hearings.</p>	<p>The Applicants disagree with the statement made by the Interested Parties appointed agent in this representation, as clearly demonstrated in the <b>Land Rights Tracker (Revision 7)</b> [REP3-016] and the fact that the applicants have provided all relevant technical details regarding the installation of the Onshore Cable Corridor through both the LiG and via direct communication.</p> <p>The Applicants' Land agents first engaged with the appointed agent as part of the LiG in November 2023, where a number of these points were raised by several agents at the meetings and an agreed position was reached on the Heads of Terms with the LiG, of which East Yorkshire Concretes, Mr M W Mewburn and Mr J Mewburn appointed agent was a part of and attended all of the organised LiG meetings.</p> <p>Since the populated Heads of Terms were sent to the Interested Parties on 7<sup>th</sup> June 2024, the Applicants Land agent has attempted to engage with the appointed agent on several occasions and it was not until January 2025 the appointed land agent again started to engage with the Projects as the examination commenced. All the points which have been raised as not responded or refused to consider have been considered and responded to by the Applicants Land agent.</p>
REP7-145:15	<p><b>Future Progress and Likelihood of Achieving Voluntary Agreements</b></p> <p>As stated in our previous representations, our clients remaining willing to, and would prefer to, enter a Voluntary Agreement (VA). If the Applicant's genuinely address the remaining issues this can be achieved.</p>	<p>The Applicants note this response and welcome the willingness of the Interested Parties in reaching a voluntary agreement.</p> <p>The Applicants have responded to each of the individual issues raised by the Interested Parties through The Applicant's Comments to Written Representations [REP2-057] at Deadline 2, <b>The Applicants' Responses to Deadline 4 Documents</b> [REP5-037] at Deadline 5, <b>The Applicants' Responses to ExAQ2</b> [REP5-036] at Deadline 5 and <b>The Applicants Responses to Deadline 6 Documents</b> at Deadline 7 [REP7-131].</p>

I.D.	East Yorkshire Concrete Products Limited Response	Applicants' Response
		<p>Responses were also provided to the appointed agent via email dated 26<sup>th</sup> June 2025 in response to the meeting held 23<sup>rd</sup> June 2025.</p> <p>The Applicants feel the meeting with the Agents acting on behalf of the Interested Parties on Monday 23<sup>rd</sup> June 2025 to discuss all outstanding matters was productive, however there are fundamental differences between the parties that make it unlikely that these matters will be resolved and the Interested Parties insistence on receiving incentive payments that they haven't qualified for may not make it possible to reach an agreement.</p>

## 2.3 Forestry Commission

Table 2-3 – The Applicants’ comments on the Forestry Commission’s responses to Rule 17 [REP7-146]

I.D.	Question	Forestry Commission Response	Applicants’ Response
REP7-146:17.2	<p><b>Ecology and nature conservation - Burton Bushes Site of Special Scientific Interest (SSSI) and ancient woodland</b></p> <p>Your responses to the Examining Authority’s (ExA) second written questions (ExQ2), ENC.2.5 in [AS-180] and [AS-182] are noted. With specific regard to the concerns raised by Dr Mounce [REP4-100] in relation to Burton Bushes, could you confirm whether you consider there could likely be any effects from the proposed development on Burton Bushes ancient woodland, noting the location of this ancient woodland approximately 0.12km away from the proposed onshore export cable corridor?</p>	<p>With specific regard to the concerns raised in [REP4-100], the Forestry Commission can only provide details of Government policy in relation to ancient woodland, and review the information provided in the application documents. REP4-042 states that there may be indirect effects from the development in the form of dust and emissions from construction traffic and road traffic. From this, we can only conclude that there are likely to be effects from dust and emissions from the proposed development, on Burton Bushes ancient woodland.</p>	<p>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 221 of <b>Chapter 18 Terrestrial Ecology and Ornithology (Revision 6)</b> [REP7-064]. The Onshore Development Area is now located at a minimum distance of 120m from the site. There are not expected to be any significant impacts on Burton Bushes Site of Special Scientific Interest (SSSI) from fugitive dust emissions with the measures set out in section 6.8 (Air Quality and Dust) of the <b>Outline Code of Construction Practice (OCoCP) (Revision 5)</b> [REP7-105]. This is detailed in construction Impact 1 (Construction Disturbance to Statutory Designated Nature Conservation Sites) for Burton Bushes SSSI in section 18.6.1.1.1 which states that: ‘<i>For all Scenarios (In Isolation, Concurrently or Sequentially) the magnitude of impact for disturbance caused by works associated with the Onshore Export Cable Corridor and Onshore Converter Stations is negligible as construction activities would not adversely affect the integrity or conservation status of the statutory sites. Any fugitive emissions would be controlled by the measures set out in Table 18-4 including the Outline Ecological Management Plan (application ref: 8.10), Outline Code of Construction Practice (application ref 8.9) and the Outline Construction Traffic Management Plan (application ref: 8.13).</i>’</p>
REP7-146:17.33	<p><b>Landscape and visual interest – Ancient woodland and veteran</b></p> <p>The Woodland Trust [AS-180] and Forestry Commission [AS-182] raised concerns regarding proposed mitigation for ancient woodland and veteran trees, notably regarding trenchless crossing techniques, appropriate buffer zone and hydrological impacts. Liaise directly with one-another to address these concerns and provide an update on the matter. If you are not able to reach agreement on these matters, set out clearly why and how these matters could be resolved through the draft DCO or supporting documents.</p>	<p>As a Non-Ministerial Government Department, the role of the Forestry Commission differs from that of the Woodland Trust. We provides no opinion supporting or objecting to an application, rather we provide information on Government policy. We have not liaised with the Woodland Trust, however we have noted their responses and recognise their expertise with regard to the protection of ancient woodland.</p> <p>Regarding concerns that hydrological changes as a result of the development could impact ancient woodland habitats, a condition within the DCO, to carry out a hydroecological impact assessment, and implement recommendations, could establish the risks and potential impacts to the irreplaceable ancient woodland habitats.</p> <p>Regarding appropriate buffer zones, the joint Natural England and Forestry Commission standing advice on Ancient Woodland, Ancient and Veteran Trees, states that a minimum buffer zone of 15m is required to protect ancient woodlands, and ancient and veteran trees. Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone.</p>	<p>Section 1.5.2.1 of the <b>Outline Ecological Management Plan (Revision 6)</b> [REP7-107], was updated at Deadline 8 to address comments from the Woodland Trust and state that:</p> <p><i>‘It is anticipated that direct impacts to Bentley Moor Wood and LWS located within the Onshore Substation Zone will be avoided by the use of trenchless crossing techniques, such as HDD. Where the Projects are committed to trenchless crossing under an area of ancient woodland, as is the case at Bentley Moor Wood, the Applicants are committed to installing the crossing at depth greater than 5m as recommended by the Woodland Trust. If, following detailed geotechnical investigations and the detailed design of the trenchless crossing, the Contractor can provide clear evidence demonstrating that a shallower depth would not adversely impact on roots, soils or rhizosphere along or, above the proposed route, a shallower depth may be considered. Any such change would be subject to agreement and must be approved in consultation with ERYC, Natural England, and an appropriately qualified arboriculturist.</i></p> <p><i>As detailed in a Forestry Commission Information Note<sup>1</sup> ‘The common scientific understanding is that it is unusual for roots to penetrate to a depth greater than 2 m, with 80-90 % of the widespread rooting structure to be found within the top 0.6 m of the soil profile.’ Trenchless crossings are often successfully undertaken in closer proximity to tree roots than the arbitrary proposed limit selected, using proven trenchless crossing techniques with negligible risk to trees. In Bentley Moor Wood, the veteran tree identified is an Ash, which generally has roots 2-3m deep.</i></p> <p><i>The trenchless crossing technique would be selected to minimise impacts on the rhizosphere and to keep the overall risk to trees as low as reasonably practicable. Adopting a shallower depth than 5 m may enable a wider range of alternative trenchless methods to be considered, potentially</i></p>

<sup>1</sup> The Influence of Soils and Species on Tree Root Depth. The Forestry Commission, November 2005



I.D.	Question	Forestry Commission Response	Applicants' Response
		<p>The only way to establish what the required buffer zone is for each of the ancient woodland habitats, and ancient and veteran trees, is for a suitably qualified arboriculturalist to carry out an assessment. As this is a crucial step in ensuring the protection of the ancient woodland habitats, this assessment should be a pre-requisite of allowing development activity to occur, which would presumably mean conditioning it within the DCO.</p>	<p><i>offering lower risks to roots and reduced impacts compared to a deeper, more conservative 5 m approach. Benefits of a shallower depth may include:</i></p> <ul style="list-style-type: none"> <li><i>Smaller bore requirements;</i></li> <li><i>Reduced or eliminated need for drilling fluids;</i></li> <li><i>Shorter construction duration and lower vibration levels;</i></li> <li><i>Less extensive entry and exit pit works; and</i></li> <li><i>Lower energy and material demands.</i></li> </ul> <p><i>A hydrogeological risk assessments for all trenchless crossing works during construction would be undertaken as set out in section 6.2.2.2 of the OCoCP (Volume 8, document ref: 8.9), which states that: 'In advance of construction, ground investigations and a hydrogeological risk assessment (completed in adherence with Environment Agency's approach to groundwater protection requirements (Environment Agency, 2018)) would be completed at each trenchless crossing to understand the potential risk upon groundwater of construction activities proposed at each site location.</i></p> <p><i>Results of this study will inform further ground water mitigation required during construction and would be included within the detailed CoCP(s).</i></p> <p><i>The Hydrogeological risk assessment for the trenchless crossing in the vicinity of Bentley Moor Wood ancient woodland will also consider the potential risk to ancient woodland from perceived groundwater level changes.</i></p> <p><i>Furthermore, the hydrogeological risk assessment would determine if any groundwater monitoring was required during construction and/or operation. If any operational monitoring is identified, this would be included in the Onshore Operational Monitoring Plan, as per DCO Requirement 33 and detailed in section 8 of the OCoCP (Volume 8, document ref: 8.9). The plan will be developed by the Applicants /Principal Contractor(s). The Principal Contractor(s) will be responsible for the operational management of the Projects following/during construction up until final handover of the Projects to the Operator(s).'</i></p> <p>Section 1.5.2.1 of the <b>Outline Ecological Management Plan (Revision 6)</b> [REP7-107] includes a comprehensive section on 'Protective Buffer Zones' and ancient woodland at Bentley Moor Wood. The following text is included in para 93 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 will be informed by pre-construction surveys.</p> <p>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 <b>Arboricultural Impact Assessment (AIA) (Revision 4)</b> [REP7-121] and associated drawings.</p>

## 2.4 Historic England

Table 2-4 – The Applicants’ comments on Historic England’s responses to Rule 17 [REP7-147]

I.D.	Question	Historic England Response	Applicants’ Response
REP7-147:1	N/a	<p><b>1.Introduction</b></p> <p>1.1 Historic England’s remit and reasons for participating in the examination of the DCO application for the Dogger Bank South Offshore Wind Farm (EN010125) (“the Proposal”) were set out in our Written Representation [REP1-059]. We continue to be involved in discussions with the Applicants to resolve the outstanding points of difference between us and an updated Statement of Common Ground is under discussion.</p> <p>1.2 For brevity, the scheduled monument known as ‘heavy anti-aircraft gunsite, 350m west of Butt Farm’ (1019189) is referred to as the ‘Butt Farm Gunsite’ in the answers provided.</p>	No response required.
REP7-147:17.13	<p><b>2.0 HISTORIC ENGLAND’S RESPONSES TO THE QUESTIONS</b></p> <p>2.1 Question 17.13</p> <p><b>Title: Onshore Historic Environment – nighttime visualisation</b></p> <p>Provide a view on the information contained in the Nighttime Lighting Visualisation Technical Note [REP6-054]. If you have outstanding concerns regarding the impacts from lighting on the scheduled monument nearby to Butt Farm, set out what these are and how they could be addressed. Do you consider that the proposed lighting levels would affect the level of harm you have identified to the nearby scheduled monument?</p>	We have carefully reviewed the Technical Note {REP6-054} and can confirm that we have no concerns on heritage grounds and have no further concerns on this matter.	The Applicants’ welcome Historic England’s comments that they have no further concerns on the lighting of the Onshore Converter Stations, on heritage grounds.

## 2.5 Marine Management Organisation (MMO)

Table 2-5 – The Applicants’ response to MMO’s Deadline 7 Document [REP7-148]

I.D.	MMO Response	Applicants’ Response
Comments on Applicant’s Response to Deadline 5 Documents (REP6-052)		
REP7-148:1.1	<b>General comments</b> The MMO has reviewed Tables 2.3 and 2.4 and provided comments where required below.	No response is required.
REP7-148:1.2	<b>Decommissioning (Table 2.3 - REP5-049: 1.2)</b> The MMO notes Schedule 2. Requirement 7 to state that a written decommissioning programme will be submitted for approval to the SoS. The MMO requests that the plan could be submitted to the MMO prior to submission to the SoS for review and comments and this be captured in the commitment register. This will allow for a more efficient consultation when submitted to the SoS.	The Applicants would be happy to submit any written decommissioning programme to the MMO in advance for comment.
REP7-148:1.3	<b>Disposal (Table 2.3 - REP5-049: 1.23)</b> The MMO has designated the following disposal sites: <ul style="list-style-type: none"> <li>• DG033 - 'Dogger Bank South Cable A'</li> <li>• DG034 - 'Dogger Bank South Cable B'</li> <li>• DG035 - 'Dogger Bank South West'</li> <li>• DG036 - 'Dogger Bank South East'</li> </ul> The MMO previously highlighted in REP6-069 that DG033 originally bisected the Hornsea 4 Export Cable Corridor disposal site (HU225). DG033 has been amended and split in two and therefore avoids bisecting HU225. However, the MMO is still discussing this with the Applicant as if the Applicant wishes to dispose within HU225 this would need to be updated within their Site Characterisation Report. This can be done post consent.  The MMO request that the Applicants add the disposal site references into all relevant parts of the DML/DCO and could add and any other site references as agreed in writing with the MMO.	The Applicants have updated the drafting in the <b>Draft Development Consent Order (DCO) (Revision 11)</b> [document reference 3.1] at Deadline 8 to reflect the amended disposal sites.
REP7-148:1.4	<b>Chemicals (Table 2.3 - REP5-049: 1.4&amp; Table 2.4 - 65))</b> The MMO welcomes the updates the Applicants have made to all conditions containing chemicals (Conditions 15 (1)(d), (j)).  Further to comments within 2.2.10 of REP6-069, the MMO can confirm that there is no preference between assessment and register for condition 14(1)(d)(ii).	The Applicants welcome the Marine Management Organisation’s (MMOs) clarification and agreement on this matter.
REP7-148:1.5	<b>Non-licensable activities (Table 2.4 - 2)</b> The MMO welcomes the updates in relation to gA and gB and has no further comments.	The Applicants welcome the MMO’s agreement on this matter.
REP7-148:1.6	<b>Company reference number (Table 2.4 - 7)</b>	The Applicants welcome the MMO’s agreement on this matter.

I.D.	MMO Response	Applicants' Response
	The MMO welcomes the comments in relation to Part 1, definitions which include the company reference number.	
REP7-148:1.7	<b>Determination dates (Table 2.4 – 25, 79 &amp; 82)</b> The MMO welcomes the updates to six months submission and six-month approval timescale. The MMO notes the reference to Condition 15(5) was made this was the old reference number and it should be in reference to 17(2). The MMO still disagrees with the inclusion of a determination period for the MMO to discharge a document as per the comments in Section 2.2.6 of REP6-o69. The MMO notes this will remain an area of disagreement.	The Applicants acknowledge this comment.
REP7-148:1.8	<b>Design parameters (Table 2.4 - 48)</b> The MMO welcomes the changes made to Condition 3 (2) and has no further comments.	The Applicants welcome the MMO's agreement on this matter.
REP7-148:1.9	<b>Time periods/notification periods (Table 2.4 – 51 &amp; 56)</b> The MMO welcomes the updates to state that the phases of construction of the authorised scheme will be submitted 6 months prior to the commencement of the works. The MMO welcomes the updates to Condition 9(6) to state 14 days in their notification period.	The Applicants welcome the MMO's agreement on this matter.
REP7-148:1.10	<b>MMMP</b> The MMO welcomes the proposed updates from the Applicant to Condition 14 (1)(g) which will be updated for Deadline 7: <i>"(g) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol (in accordance with the outline marine mammal mitigation protocol), the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation bodies and which must include <del>consideration</del> details of noise reduction methods through project design (primary measures) and/or, deployment of noise mitigation systems or noise abatement systems (secondary measures) that will be utilised to manage sounds from those piling activities and such protocol must include full details and justification for the mitigation chosen or excluded for deployment;"</i> The MMO understands this has been agreed with Natural England (NE).	The Applicants welcome the MMO's agreement on the amended condition text and confirm this was agreed with Natural England by email on 20 <sup>th</sup> June 2025.
REP7-148:1.11	Without prejudice noise restriction condition The Applicant proposed a condition to the MMO for review, and we have responded with the following updates. Noting that there may be minor updates required at Deadline 8, but the MMO will liaise with the Applicant as soon as possible on these so a joint position can be provided at Deadline 8. The MMO also understands this condition has been agreed with Natural England (NE). <del>"26.—(1) In the event that driven or part-driven piled foundations are proposed to be used</del> <i>No piling activity can commence within the [DBS East/West array area], during the herring spawning season until a herring spawning piling restriction plan (in accordance with the herring spawning plan) is <del>must</del> be submitted to and approved in writing by the MMO, in consultation with the relevant</i>	The Applicants welcome the MMO's agreement on the amended Condition text and confirm this was agreed with Natural England by email on 25 <sup>th</sup> June 2025. To note, the wording has been slightly updated in the <b>Draft DCO (Revision 10)</b> [REP7-011], submitted at Deadline 7, to refer to the relevant Work Numbers.



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	<p>statutory nature conservation body. <del>—prior to the commencement of any piling activity within the [DBS East/West array area].</del></p> <p>(2) The herring spawning piling restriction plan must <b>be submitted to the MMO no later than six months prior to the commencement to the relevant activities unless otherwise agreed in writing by the MMO.</b> <del>present updated underwater noise modelling, which must be based on final project parameters to be used to install piles and must include details of any mitigation measures to be employed.</del></p> <p>(3) <b>The herring spawning piling restriction plan must present updated underwater noise modelling, which must be based on final project parameters to be used to install piles and must include details of any mitigation measures to be employed.</b></p> <p>(<del>3</del>4) If the updated underwater noise modelling referred to in sub-paragraph (<del>2</del>3) above demonstrates that noise levels above 135 <b>decibel dB</b> from any piling area within the [DBS East/West array area] will impact the area shoreward of the Herring Spawning Noise Restriction Boundary during the herring spawning season then any piles located within that piling area must not be installed during the herring spawning season without written approval from the MMO, <del>which may be subject to reasonable conditions.</del></p> <p>(5) Any piling activity within the [DBS East/West array area] during the herring spawning season must be undertaken in accordance with the approved herring spawning piling restriction plan <b>approved under sub-paragraph (1)</b> or in accordance with any approval given by the MMO under sub-paragraph (<del>3</del>4) above.</p> <p><b>(6) In this condition-</b></p> <p>"Herring Spawning Noise Restriction Boundary" means the boundary indicated by the red line on the <b>outline</b> herring spawning plan, with the restricted area being the area shoreward of this boundary</p> <p>"herring spawning plan" means the document certified by the Secretary of State as the herring spawning plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified)</p> <p>"herring spawning season" means 1 August to 31 October inclusive or such other period as agreed in writing with the MMO;</p> <p>"piling area" means any area within the [DBS East/DBS West] array area within which one or more piled foundations is proposed to be installed;"</p>	
REP7-148:1.12	<p><b>Without prejudice export cable restriction condition</b></p> <p>The Applicant proposed a condition to the MMO for review, and we have responded with the following updates. Noting that there may be minor updates required at Deadline 8, but the MMO will liaise with the Applicant as soon as possible on these so a joint position can be provided at Deadline 8. The MMO also understands this condition has been agreed with Natural England (NE).</p> <p>"27.—(1) The cable installation works listed at sub-paragraphs (a) – (f) below must not be undertaken on the seabed within the restricted area during the restricted period, unless otherwise agreed in writing by the MMO:</p> <p>(a) pre-sweeping;</p>	<p>The Applicants welcome the MMO's agreement on the amended Condition text and confirm this was agreed with Natural England by email on 25<sup>th</sup> June 2025.</p> <p>To note, the Applicants have conceded the Offshore Export Cable Corridor restriction, and the agreed wording has been added to the <b>Draft DCO (Revision 10)</b> [REP7-011] with the 'without prejudice' option removed. In addition, the text has been slightly amended to refer to the relevant Work Numbers.</p>

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	<p>(b) dredging;</p> <p>(c) mechanical ploughing;</p> <p>(d) cutting;</p> <p>(e) water jetting; and</p> <p>(f) cable burial operations.</p> <p>(2) No later than sixteen weeks (or such other period as agreed by the MMO in writing) prior to the commencement of any licensed activities <i>in sub-paragraph (1), a the Back Calculation Technical Report, which must include details of the restricted period, must be submitted to the MMO for approval.</i></p> <p>(3) The licensed activities must not commence until the MMO has approved the Back Calculation Technical Report.</p> <p><i>(4) In this condition-</i></p> <p>"Back Calculation Technical Report" means an updated version of environmental statement Appendix 10-3, which must include evidence to support the restricted period;</p> <p>"cable installation works restricted area plan" means the plan certified by the Secretary of State as the cable installation works restricted area plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);</p> <p>"restricted area" means the area of seabed between KP20 and KP40 as shown on the cable installation works restricted area plan";</p> <p>"restricted period" means 1 August to 31 October inclusive or such other period indicated by the Back Calculation Technical Report as the period when herring are most likely to have spawned and where eggs and newly hatched larvae should be undisturbed to avoid any adverse impacts to those eggs or larvae and any such alternative period must be agreed with the MMO in writing."</p>	
Comments on Applicant's amended application Documents		
REP7-148:2.1	<p><b>In Principle Monitoring Plan (REP5-028)</b></p> <p>The MMO is largely content with the updates in on adaptive management in Section 1.4 of the document. The MMO's position is to include the adaptive management condition. However, on a without prejudice basis the MMO is content that a process on adaptive management is within the plan to make it a proactive action on the Applicants should there be greater impacts that what was predicted in the Environmental Statement. This will be a not agreed but no material impact position in the Statement of Common Ground and a matter of the SoS to decide whether to include the condition. The MMO notes that the ExA has requested updates on this matter in Table 1 below and welcomes this.</p> <p>The MMO also requests updates in relation to our comments in Section 3.1.3 in our Deadline 6 response (REP6-069).</p>	The Applicants acknowledge this comment, see the Applicants' responses regarding the requested updates below.

I.D.	MMO Response	Applicants' Response
REP7-148:2.2.1	<p><b>Illustrative Underwater Noise Reduction Technical Note (REP5-032)</b></p> <p>REP5-032 provides a purely illustrative demonstration of the potential reduction in impact ranges if primary and/or secondary measures implemented at the Projects are utilised which resulted in a 10dB reduction in sound levels. This is a positive first step in understanding how the range of impact from UWN is reduced using secondary mitigation measures but does not constitute sufficient evidence to remove the requested piling restriction without the Applicants making a binding commitment to ensure that noise level reductions of 10 dB are achieved. Please see Section 7, Table 1, Part2, 15(1)(g) for more information.</p>	No response is required.
REP7-148:2.2.2	<p>Table 2-1 of Section 2.2 Secondary Noise Reduction presents a table of various noise abatement measures along with the noise reduction in sound exposure level (SEL) (in dB) that each measure could achieve. The Applicants state that this "shows that the majority of NAS would be expected to achieve a 10dB reduction or greater". However, the noise reductions for each measure are presented as a range, and the range of achievable noise reductions for big bubble curtains (BBC) and double big bubble curtains (DBBC) begin at -7 dB and -8 dB respectively. The level and efficacy of the reduction achieved by each system will vary depending on site specific environmental conditions, including water depth.</p>	No response is required.
REP7-148:2.2.3	<p>During the ES consultations, the Applicants outlined the worst-case piling scenarios for the development of DBS East and West OWFs in isolation and together. The Applicants have restated in this technical note that, for the purpose of providing possible noise reduction modelling, the worst-case piling scenario of simultaneous monopiling at two locations was used. This is appropriate as this scenario represents the maximum spatial extent scenario, which the MMO agrees is the appropriate scenario to use for assessing UWN impact ranges relative to the herring spawning ground at Flamborough Head.</p>	The Applicants welcome the MMO's agreement.
REP7-148:2.2.4	<p>The Applicants have provided two figures; Figure 3.1 presents the UWN impact range noise contours associated with monopiling at the DBS West north location, and the DBS East south location, with and without a 10 dB reduction. This figure shows the UWN impact ranges for all physiological effects (Temporary Threshold Shifts (TTS), recoverable injury, mortality) to be greatly reduced, as well as showing the impact range for behavioural effects to be reduced also. The UWN contour depicting the range of behavioural effects based on the 135 dB SEL single strike (ss) threshold shows that the noise contour no longer overlaps with the areas of the herring spawning ground which have the highest confidence scores, however there is still some overlap with area of the herring spawning ground which have a confidence score of 0.04 – 0.8, which the MMO still considers this represents medium-high confidence for potential herring spawning habitat. Nonetheless, this modelling is encouraging.</p>	The Applicants acknowledge the MMO's comment.
REP7-148:2.2.5	<p>As outlined above, as far as the MMO is aware, the Applicants have not yet committed to achieving a noise reduction level of 10 dB. Providing that the Applicants are able to commit to achieving a minimum noise reduction of 10 dB using primary measures (changes to foundation type, hammer energy etc.) and secondary measures (i.e. noise abatement systems), then it may be possible to remove the recommended piling restriction during the herring spawning season. However, the Applicants should be clear on their choice of noise abatement systems and what the minimum</p>	The Applicants acknowledge the MMO's comment. The updated Condition wording agreed with the MMO and Natural England in the <b>Draft DCO (Revision 10)</b> [REP7-011] states that the final Marine Mammal Mitigation Protocol (MMMP) must <i>'..include full details and justification for the mitigation chosen or excluded for deployment'</i> .

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	achievable noise reduction level is for each system based on the site-specific conditions of the DBS OWFs project site.	
REP7-148:2.2.6	Until the specific details of the Applicants noise reduction plan are provided, the MMO must request that the current recommended restriction on piling activity during the herring spawning season (1 August – 31 October inclusive) be maintained, until the Applicants are able to clearly demonstrate that a 10 dB noise reduction can be achieved through primary and secondary noise measures. It is acceptable for this information to be provided after the consenting process is completed, as the project design envelope and piling parameters will not be finalised until post-consent and so the Applicant may not yet know whether a 10 dB noise reduction can be achieved through primary measures alone or through a combination of primary and secondary measures, or which noise abatement systems will be required. Only once this additional technical note has been provided demonstrating how the proposed 10 dB noise reduction will be achieved, can the requested restriction on piling activities during the herring spawning season be fully removed.	<p>The Applicants acknowledge the MMO's comment and maintain their position that a noise restriction for impacts upon herring is not required for the Projects given that no likely significant impacts have been identified in relation to this matter as part of the comprehensive Environmental Impact Assessment that has been undertaken.</p> <p>Throughout discussions the Applicants and the MMO have agreed to disagree on this topic.</p> <p>However, to address the potential that the Secretary of State does not agree with the Applicants' position on this matter, the Applicants are currently undertaking 'without prejudice' discussions with the MMO to determine appropriate mitigation for the impacts of piling on potential herring spawning grounds via the use of primary and / or secondary noise reduction measures, and temporal mitigation. Current 'without prejudice' discussions include mitigation relating to underwater noise (UWN) contours including the 135dB and beyond. Through these discussions a condition drafted on a 'without prejudice' basis has been agreed between the Applicants, MMO and Natural England and has been inserted into the <b>Draft DCO (Revision 10)</b> [REP7-011] submitted at Deadline 7 on a 'without prejudice' basis which will allow the Secretary of State to apply this restriction in the final order, should they be minded to do so.</p>
REP7-148:2.2.7	Whilst the information in REP5-032 and REP5-042 is helpful in understanding what the range of impact from UWN caused by piling would be with a 10 dB noise reduction, the modelling presented does not represent a commitment by the Applicants to implement measures which achieve this. As outlined above, the requested temporal restriction on piling activity during the herring spawning season must be maintained until an appropriate commitment to achieving a 10 dB noise reduction is made by the Applicants.	See response provided to REP7-148: 2.2.6 above
REP7-148:2.2.8	If the Applicant can make a clear and binding commitment to reducing noise emissions from piling by a minimum of 10 dB and provide a detailed technical note post-consent demonstrating how this noise reduction will be achieved through primary and secondary measures, then the MMO believes this issue can be considered as resolved. At this stage, the MMO does not believe that the proposed restriction on piling activities during the herring spawning season can be removed.	<p>Although not specific to fish and shellfish ecology, the Applicants have committed to '<i>...details of noise reduction methods through project design (primary measures) and/or, deployment of noise mitigation systems or noise abatement systems (secondary measures) that will be utilised to manage sounds from those piling activities...</i>' being included in the Final MMMP.</p> <p>In addition, see response provided to REP7-148: 2.2.6 above.</p>
<b>15.8 Modelling of underwater noise associated with alternative piling locations to inform potential impacts on Atlantic herring spawning grounds (REP5-042)</b>		
REP7-148:2.3.1	Please note that the MMO and our scientific advisors are reviewing documents both submitted into examination and via joint meetings or emails from the Applicant as fast as possible. For ExA awareness, the MMO is providing all available comments in our deadline responses, but the positions are rapidly changing and some of the comments will likely be superseded at the next deadline due to the ability to review and provide responses in the time to submit these to the ExA. The MMO is hoping that Deadline 8 will have the final agreed position from both parties and will highlight any areas of disagreement and what would be required to resolve this.	No response is required.
REP7-148:2.3.2	The MMO has not raised any concerns specifically with the modelling locations used by the Applicants relative to the herring spawning ground at Flamborough Head and considers that the worst-case piling locations with respect to impacts to herring, should be those closest to the herring spawning ground. It is explained in Section 1 of REP5-042 that the purpose of this document is to	No response is required.

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	provide an alternative modelling scenario relative to the herring spawning ground which has been requested by Natural England (NE) in their comments to the Applicant.	
REP7-148:2.3.3	It is the MMO's understand when reviewing the ES for the DBS OWFs (Chapter 10 Fish and Shellfish Ecology [APP-091]) that the two modelling locations used were suitable for demonstrating the range of impact from UWN on fish, particularly with regard to the herring spawning ground at Flamborough Head. The modelling locations used in the ES were the DBS East: south location and the DBS West: west location. This updated modelling report provides additional modelling for alternative piling locations at DBS East: south location (no change) and DBS West: south-west location. In addition, the revised modelling also presents the predicted impact ranges for piling at the alternative locations when using noise abatement systems (NAS) which equate to a 10 decibel (dB) noise reduction.	No response is required.
REP7-148:2.3.4	The Applicants state that "The exact mitigation to be used and the final piling parameters have not been confirmed, but for the purpose of his alternative modelling, a flat broadband 10dB noise reduction has been applied at source (based on generic data for a bubble curtain from Verfuss et al. 2019) to the maximum design scenario for monopiles at the two modelling locations". The Applicants should note that a commitment to a minimum achievable noise reduction must be made before ongoing concerns around the range of effect on herring at the Flamborough Head spawning ground can be resolved. In Document REP5-042, the Applicants have applied a standalone 10 dB noise reduction value based on a single mitigation measure being applied (a generic bubble curtain).	The 10dB reduction presented within the <b>Illustrative Underwater Noise Reduction Technical Note (Revision 4)</b> [document reference 14.9] is modelled as a flat broadband reduction. This is due to the exact mitigation to be used not yet being confirmed. Once the final Project Design is confirmed underwater noise modelling will be updated post-consent.  In addition, see response provide to REP7-148: 2.2.6 above.
REP7-148:2.3.5	In reviewing Figure 2.1 and 2.2 of Document 15.8, the MMO agrees with the Applicants conclusion that amending the DBS West modelling location does not appear to significantly change the impact ranges for physiological effects (as per Popper et al., 2014) with respect to the herring spawning ground. Figure 2.1 does show that amending the DBS West modelling location produces a larger overlap for behavioural effects (as per Hawkins et al., 2014). The additional UWN contour for behavioural effects shows a greater overlap with areas of higher potential spawning habitat than shown by the original modelling location, due to the amended modelling location being further south than the original. This has been acknowledged by the Applicants, and the area of overlap has been quantified as increasing from an UWN overlap of 14.38% with higher potential Atlantic herring spawning habitat (< 0.05 confidence) originally, to an overlap of 30.41% with higher potential spawning habitat.	No response is required.
REP7-148:2.3.6	Figure 2.3 shows the same modelling presented in Figure 2.1 with a 10 dB noise reduction applied (based on the use of a generic bubble curtain). The MMO generally agrees with the Applicants statement that "when considering a 10 dB reduction as a result of the implementation of UWN mitigation, changes in overlap with higher (<0.05) suitability Atlantic herring spawning grounds are greatly reduced, with no overlap of these areas occurring in either the worst case or alternative modelled piling locations for any threshold considered". This is very positive. However, as far as the MMO is aware, the Applicant has not explicitly made a formal commitment to implement mitigation measures to achieve a 10 dB noise reduction. Therefore, this modelling can only be considered an indication of what noise reduction might be possible and is not sufficient to remove the recommended temporal restriction on piling and UXO detonation activities as set out in Section 1.11 of this document. If the Applicants make a clear and definite commitment to implement mitigation	See response provided to REP7-148: 2.2.6 above.



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	measures which achieve a minimum 10 dB noise reduction, then there is potential (based on the modelling shown in Figure 2.3 which illustrates a 10 dB noise reduction) that a temporal restriction on piling activities may not be required. However, until such a commitment is made, the MMO must maintain that it is necessary that a temporal restriction on all piling and UXO clearance activities during the Banks herring spawning season (1 August – 31 October inclusive) must be on the face of the DML. Please see Section 7, Table 1, Part2, 15(1)(g) for more information.	
<b>Response to the Examining Authority's Written Questions (ExQ2) – (PD-022)</b>		
REP7-148:3.1.1	<p><b>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.</b></p> <p>Figure 2-1 of the Applicant's Heat Mapping Report shows a 'heat' map of potential spawning habitat for Atlantic Herring in the vicinity of Dogger Bank South OWF based on the heat mapping methodology described by Kyle-Henny et al., 2024. The MMO previously stated that Figure 2.1 showed a degree of overlap in the northeastern extent of the potential spawning habitat for the effects of temporary threshold shift (TTS) as a result of piling activities at the DBS array. Figure 2.1 shows that the underwater noise (UWN) contour for TTS overlaps an area of potential spawning habitat where the confidence level is high to medium (0.06 – 0.1) for potential spawning habitat. Figure 2.1 also shows that the UWN contour for behavioural effects overlaps a large area of potential spawning habitat where the confidence level is generally high to very high (0.03 – 0.08), with areas of medium (0.08 – 0.1) confidence for potential spawning habitat.</p>	No response is required.
REP7-148:3.1.2	<p>It should be noted that in the Kyle-Henny et al., 2024 updated 'heat' mapping method, levels of 'heat' reflect the level of confidence in the underlying data layers to represent potential spawning habitat (i.e., high confidence level = higher level of certainty that the area of seabed is suitable as potential spawning habitat, and therefore a higher likelihood that herring would be spawning in that area). However, this 'heat' map presentation does not provide an indication of herring spawning intensity, as the relevant International Herring Larval Survey (IHLS) data that has been incorporated into the 'heat' map is included as a single value layer to reflect the maximum extent of the active herring spawning ground (therefore areas of higher or lower spawning activity are not provided in a 'heat' map presentation). All 'heat' map presentations must therefore be considered alongside IHLS larval abundance data which shows areas of higher and lower spawning activity taken from the larval abundance values at IHLS sampling stations across the spawning ground. These data should be presented as annual maps showing the herring larval abundances for each year of data used in the assessment. The MMO notes the Applicants provided these annual larval abundance maps, and the MMO provided comments on these in REP6-069.</p>	No response is required.
REP7-148:3.1.3	<p>Figure 2-2 from the Applicant's Heat Mapping Report (AS-105) shows the extent of sediment types classified as having 'preferred' and 'marginal' suitability as potential spawning habitat for Atlantic Herring. These data are taken from the EMODnet 1:250k seabed sediment data layer which is classified according to the Folk (1954) classification system. In Figure 2-2, 'preferred' sediments include those areas of seabed where sediment sampling has classified the sediment composition as being Gravel or sandy Gravel according to the Folk categories, and 'marginal' sediments include those areas of seabed where sediment composition has classified as gravelly Sand according to the</p>	No response is required.

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	<p>Folk categories. This data presentation is important for generating the 'heat' map as the EMODnet sediment source data can be filtered so that only those sediments with sufficient composition to support herring spawning (Gravel, sandy Gravel and gravelly Sand) are included in the map.</p> <p>It should be noted, and indeed this is noted in the Kyle-Henny et al., 2024 updated heat mapping method, that the Folk (1958) classification categories are quite broad and so although a sediment sample may be classified as 'gravel' owing to the sediment being composed of predominantly gravelly particles, the sample may also contain a proportion of sand or fine (mud) particles. The sediment preferences for herring are outlined in Reach et al., (2013) and were used to inform the Kyle-Henny et al., 2024 updated 'heat' mapping methodology.</p>	
REP7-148:3.1.4	<p>With regards to Figure 2-2 of the Applicant's Heat Mapping Report [AS-105], this figure shows the spatial extent and distribution of 'preferred' and 'marginal' sediments with respect to herring. This information can be used for two purposes. The first is that seeing the individual layers which feed into the 'heat' map output is helpful for determining which layers are contributing to the 'heat' value being seen. In the Kyle-Henny et al., 2023 updated 'heat' mapping methodology 'preferred' sediments are scored more highly than 'marginal' sediments and this is reflected in the final 'heat' map output.</p> <p>The second purpose is that knowing where 'preferred' sediments are located helps to inform spatial refinement of restrictions where activities interact directly with the seabed (i.e., cable laying works rather than UWN). For example, Figure 2-2 shows that preferred sediments occur between the landing site to somewhere between kilometre points (KP) 30 and 40 of the DBS export cable route, and that 'marginal' sediments are present from between KP 30-40. Spatial refinement of activities which interact directly with the seabed should also be accompanied by particle size analyses (PSA) of sediment samples taken directly from the area of interest. PSA data provides clear compositional information of the sediment type by determining the % of the sample composed of gravels, sands and fines. The Applicants have provided these data for the DBS export cable route in the Heat Mapping Report [AS-105].</p>	No response is required.
REP7-148:3.1.5	The MMO has considered the ECC PSA data alongside the annual herring larval abundance maps provided recently by the Applicant and have provided updated comments in REP6-069.	No response is required.
REP7-148:3.2	<p><b>FSE.2.7</b></p> <p><b>Worst-case piling locations for herring:</b> In responses to questions on this topic at ISH5 [EV10-006] the applicants stated moving the worst-case location modelling location to the south-west corner might move the noise contours further south, so they overlapped less with the preferred substrates to the north on Figure 2-2 [AS-105]. 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?</p> <p>The MMO has not raised any concerns specifically with the modelling locations used by the Applicants thus far and consider that the worst-case piling locations with respect to impacts to herring, should be those closest to the herring spawning ground. The MMO believes the two</p>	The Applicants welcome the MMO's agreement and note their position.

I.D.	MMO Response	Applicants' Response
	modelling locations used are suitable for demonstrating the range of impact from UWN, but it would not be detrimental to see the noise contours for all three locations. The MMO is currently reviewing further information provided by the Applicant and will provide further advice should the position change.	
REP7-148:3.3.1	<p><b>FSE.2.9</b></p> <p><b>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. 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></p> <p>In summary, from the data presented in Figures 2-1 to 2-14 of The Applicants' Fish and Shellfish Response to the MMO (REP4-098), the MMO generally agrees with the Applicant's conclusion that there are no stations along the ECC where larval abundance have exceeded &gt;1,200 larvae per metre squared (m<sup>2</sup>). However, it should be recognised that the additional abundance category 601 – 1200 larvae per m<sup>2</sup> still represents very high larval abundance, and the data do still show that there have been several years where medium to very high larval abundances have been recorded within the ECC. These points appear to be located between KP 20-30 and KP 50-60, as well as to the north-west and south-east of KP 40. The section of the ECC between KP 20-40 approximately aligns with sediment sampling stations ST162 and ST161 where PSA found the sediment composition to be preferred (ST162) and marginal (ST161) for herring spawning. Further, EMODnet broadscale seabed sediment data shows that the sediments between the landfall site and KP 40 are a mixture of sediments with 'preferred' (gravel and sandy gravel) and 'marginal' (gravelly sand) composition to provide potential herring spawning habitat (see answer to FSE 2.4 for overview of 'preferred' and 'marginal' sediments). High larval abundances are also shown as occurring between KP5 50-60, however this area of the ECC does not correspond have overlying areas of suitable spawning habitat (as indicated by PSA of the sediments present in this section). The presence of herring larvae between KP 50-60 may be a result of larvae drifting from areas of nearby suitable spawning habitat.</p>	No response is required.
REP7-148:3.3.2	Based on this suite of evidence provided, the MMO considers that the area of seabed along the ECC between KP 20 and KP 40 is a high value herring spawning habitat and should remain undisturbed during the full Banks herring spawning season (1 August – 31 October inclusive). The MMO also recognises that the PSA analyses for the ECC shows that almost all the sample stations between ST 161 (located after KP 40) and the DBS array area are mostly sandy sediments and are therefore unsuitable as potential herring spawning habitat. For this reason, the MMO does not believe that the requested restriction on cable works needs to be extended along the entire length of the ECC. During a discussion held between the MMO, Cefas Fisheries Advisors and the Applicant on 6 June 2025, it was agreed that PSA data along the ECC beyond KP 40 was unsuitable as herring spawning habitat. Since the impacts of concern regarding herring spawning habitat that arise from the construction of the ECC relate to habitat disturbance and increased suspended sediment concentrations (SSC), the MMO is content that if habitat is unsuitable then mitigation in areas beyond KP 40 towards the DBS array are not required as the sediments are unsuitable and therefore there is no risk to the habitat. Hence it was agreed to reduce the spatial element of the restriction to KP 20 - KP 40.	The Applicants welcome the MMO's agreement and note that the <b>Draft DCO (Revision 10)</b> [REP7-011] submitted at Deadline 7 contains the spawning restriction of the Offshore Export Cable Corridor (Condition 28 in Deemed Marine Licences (DMLs) 3 and 4).



I.D.	MMO Response	Applicants' Response
REP7-148:3.3.3	<p>The MMO is satisfied with the quality of the data provided and have updated the recommended restriction on cable laying works within the ECC to be as follows:</p> <p><b>It is necessary for a temporal restriction to be placed on works which interact with the seabed along the DBS ECC route (including seabed preparatory works, cable trenching etc) between Kilometre Points 20 – 40, during the Banks herring spawning season (1 August – 31 October inclusive).</b></p>	<p>The Applicants welcome the MMO's agreement and note that the <b>Draft DCO (Revision 10)</b> [REP7-011] submitted at Deadline 7, contains the spawning restriction of the Offshore Export Cable Corridor (Condition 28 in DMLs 3 and 4).</p>
REP7-148:3.3.4	<p>The ExA and the Applicants should still note that the evidence provided allows for the recommended restriction to be spatially refined however the temporal extent of the recommended restriction on cable works along the ECC remains the same (1 August – 31 October inclusive). Until the results of the Applicant's 'peak' herring spawning period back-calculation exercise is complete. The MMO is currently reviewing the back calculation document and will provide a response at Deadline 8. Please see the comments on the restriction Conditions in Section 1.11 of this response.</p>	<p>No response is required.</p>
REP7-148:3.4	<p><b>MCP.2.10 - Cable protection licensing</b></p> <p><b>Noting the applicants' response in relation to cable protection licensing at ISH5 [REP4-o86, 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?</b></p> <p>Please see Section 7, table 1, Part 2, 7(2)(g) and 7(7)(8) with regards to cable protection.</p>	<p>The Applicants direct the MMO to the responses provided to REP7-148: 7.6 and REP7-148: 7.7 below.</p>
<b>Comments on Report on the Implications for European Sites (RIES) (PD-025)</b>		
REP7-148:4.1	<p><b>RIES Q28:</b></p> <p><b>Please confirm whether you are satisfied with the updates made by the applicants to the dDML conditions [REP5-002], to include wording suggested by the MMO on noise reduction in [REP4-115]. NE is also requested to confirm whether these updates change its DL5 position that an AEol cannot be excluded for grey seal of BNNC SAC (alone and in-combination), grey seal of the Humber Estuary SAC (in-combination) and harbour porpoise of the SNS SAC (in-combination).</b></p> <p>Please see section 1.10 and 1.11 for further comments on noise related conditions, the position has moved on further since the comments raised in section 3.5.7 of REP4-115.</p>	<p>The Applicants direct the MMO to the responses provided to REP7-148: 1.10 and REP7-148: 1.11 above.</p>
<b>Comments on the Examining Authority's Rule 17 Requests for Further Information (PD-027)</b>		
REP7-148:5.1	<p><b>17.4 - Applicants' environmental statement conclusions for marine physical environment</b></p> <p><b>The Examining Authority (ExA) notes your disagreement with the applicants' updated impact and cumulative effects assessment of the Flamborough Front at deadline 5 [REP5-050]. Please confirm whether you agree with all the other applicants' ES conclusions detailed in Table 8-67 of ES Chapter 8 [APP-o80], and updates outlined in Project Change Request 1 – Offshore and</b></p>	<p>The Applicants acknowledge this comment.</p>

I.D.	MMO Response	Applicants' Response
	<p><b>Intertidal Works [AS-141] and Assessment of Coastal Processes at the Dogger Bank South Landfall [REP5-040]. If not, please specify which impact conclusions you disagree with and, if possible, include a cross reference to your submissions which explain why.</b></p> <p>5.1.1 The MMO notes the Applicant is due to submit updates to is to the ES chapters for Deadline 7 in relation to the information provided at Deadline 5 and will provide a response at Deadline 8.</p>	
REP7-148:5.2	<p><b>17.5 - Applicants' environmental statement conclusions for benthic ecology</b></p> <p><b>Confirm whether you agree with the applicants' ES conclusions in Table 9-27 of ES Chapter 9 [APP-089] and updates outlined in Project Change Request 1 – Offshore and Intertidal Works [AS-141]. If not, please specify which impact conclusions you disagree with and, if possible, include a cross reference to your submissions which explain why.</b></p> <p>The MMO notes the Applicant is due to submit updates to the ES chapters for Deadline 7 and will provide a response at Deadline 8. At this stage the MMO has no outstanding concerns on benthic ecology.</p>	The Applicants acknowledge this comment.
REP7-148:5.3	<p><b>17.6 - Applicants' environmental statement conclusions for fish and shellfish ecology</b></p> <p><b>Confirm whether you agree with the applicants' ES conclusions in Table 10-35 of ES Chapter 10 [APP-091] and updates outlined in Project Change Request 1 – Offshore and Intertidal Works [AS-141]. If not, please specify which impact conclusions you disagree with and, if possible, include a cross reference to your submissions which explain why.</b></p> <p>The MMO notes the Applicant is due to submit updates to the ES chapters for Deadline 7 and will provide a response at Deadline 8.</p>	The Applicants acknowledge this comment.
REP7-148:5.4	<p><b>17.7 - Applicants' environmental statement conclusions for marine mammals</b></p> <p><b>Confirm which of the applicants' ES conclusions in Table 11-12 of ES Chapter 11 [APP-095] and updates outlined in Project Change Request 1 – Offshore and Intertidal Works [AS-141] you are in agreement with and which you disagree with. In addition to those mentioned above, if in disagreement, if possible, include a cross reference to your submissions which explain why.</b></p> <p>The MMO notes the Applicant is due to submit updates to the ES chapters for Deadline 7 and will provide a response at Deadline 8. The MMO has no outstanding comments in relation to the conclusions and defers to NE on some of the details in relation to marine protected areas.</p>	The Applicants acknowledge this comment.
REP7-148:5.5	<p><b>17.9 - Wildlife licence</b></p> <p><b>You stated at deadline 4 that as a wildlife licence would be required, the applicants would be required to demonstrate that noise abatement has been secured, and where this has not been possible, justification must be provided [REP4-115 page 12]. Please confirm whether at present, there are any known impediments to the necessary wildlife licence being issued. Please also include a statement on this in your final comments to be submitted at deadline 8.</b></p> <p>At this time there are no known impediments to a wildlife licence being issued. The MMO does not predetermine a wildlife licence, and each wildlife licence is reviewed and assessed on a case-by-case basis when the application is submitted.</p>	<p>The Applicants welcome the MMO's confirmation that there are no known impediments to a wildlife licence being issued.</p> <p>The Applicants direct the MMO and Examining Authority (ExA) to the response on this matter provided in 17.9 of <b>The Applicants' Responses to Rule 17 letter dated 19<sup>th</sup> June 2025</b> [REP7-132].</p>

I.D.	MMO Response	Applicants' Response
Remaining DCO/DML comments not agreed with applicant		
REP7-148:6.1	<p><b>Topics which the MMO and the Applicant have an agree to disagree position and these will not be resolved by the end of examination:</b></p> <p>Transfer of Benefit – Article 5 – The MMO still maintains that reference to the DML's Article 5 should be removed. Please see Section 1.2 of REP2-061 for more information.</p> <p>Force Majeure - The MMO notes this is likely to be not agreed by the end of Examination. The MMO's position is detailed in REP2-061 Section 1.3</p> <p>Determination dates - Please see section 1.7 above. The MMO notes this will be a likely agree to disagree in relation to condition 17(2).</p>	<p>The Applicants agree that agreement will not be reached on these topics and have set out their position in <b>The Applicants' Closing Statements</b> [document reference 18.2].</p>
REP7-148:6.2	<p><b>Topics which the MMO hopes will be resolved before the end of examination</b></p> <p><u>Disposal sites</u></p> <p>Please see section 1.3 above.</p> <p><u>Noise monitoring and adaptive management</u></p> <p>6.2.2 Table 1, rows 89, 90 and 94 in REP5-049 for the MMO's position on noise monitoring and adaptive management.</p> <p>6.2.3 Please see section 1.11 and 1.12 and Section 2.2 and 2.3 above and Table 1 below in relation to the outstanding issues</p>	<p>In relation to disposal sites, the Applicants have updated the drafting in the <b>Draft DCO (Revision 11)</b> [document reference 3.1] at Deadline 8 to reflect the amended disposal sites.</p> <p>In relation to noise monitoring and adaptive management:</p> <ul style="list-style-type: none"> <li>Noise monitoring of piles - The Applicants discussed this point with the MMO at a meeting on 13<sup>th</sup> May 2025. At that meeting the MMO confirmed that they would be content that this monitoring was agreed post-consent and the Applicants have updated the <b>Commitments Register (Revision 3)</b> [REP7-101] to include a commitment to continue further discussions.</li> <li>Adaptive Management - The Applicants discussed this point with the MMO at a meeting on 13<sup>th</sup> May 2025. At the meeting the Applicants agreed to include further information on adaptive management in the In Principle Monitoring Plan (IPMP) and submitted the updated <b>In Principle Monitoring Plan (Revision 4)</b> [REP5-027] at Deadline 5. In the MMO's Deadline 6 submission [REP6-069], the MMO stated that '<i>The MMO welcomes the updates to include adaptive management. The MMO will always prefer a condition on the face of the DML but is content with the wording within the IPMP.</i>'</li> </ul> <p>Outstanding Issues</p> <ul style="list-style-type: none"> <li>See responses to REP7-148: 1.11 and REP7-148: 1.12 of this table in relation to herring spawning restrictions.</li> <li>See responses to REP7-148: 2.2.1 - REP7-148: 2.2.8 of this table in relation to the <b>Illustrative Underwater Noise Reduction Technical Note (Revision 4)</b> [document reference 14.9]</li> <li>See responses to REP7-148: 2.3.1 - REP7-148: 2.3.6 of this table in relation to the alternative piling locations.</li> <li>See <b>Table 2-6</b> for outstanding issues relating to the Applicants' Draft DCO.</li> </ul>
REP7-148:6.3	<p><b>Topics that have been resolved since Deadline 6</b></p> <p><u>Chemicals</u></p> <p>Please see section 1.4 above</p> <p>Notification periods</p> <p>Please see section 1.9 above</p>	<p>The Applicants welcome the MMO's agreement on these topics.</p>

Table 2-6 – The Applicants Responses to the MMO comments on the ExA's schedule of recommended amendments to the Applicant's draft DCO (PD-028)

Reference	Text as set out it in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
<b>ARTICLES</b>					
REP7-148:7.1 Article 2	<p>"undertaker" means, subject to article 5 (benefit of Order),—</p> <p>(a) for the purposes of constructing, maintaining and operating the DBS East works and any related ancillary works, DBSEL;</p> <p>(b) for the purposes of constructing, maintaining and operating the DBS West works and any related ancillary works, DBSWL; and</p> <p>(c) in any other case, DBSEL and DBSWL;</p>	<p>"undertaker" means, subject to article 5 (benefit of Order),—</p> <p>(a) for the purposes of constructing, maintaining, and operating and decommissioning the DBS East works and any related ancillary works, DBSEL;</p> <p>(b) for the purposes of constructing, maintaining, and operating and decommissioning the DBS West works and any related ancillary works, DBSWL; and</p> <p>(c) in any other case, DBSEL and DBSWL;</p>	To provide clarity and ensure consistency where definition is used within the requirements in relation to decommissioning.	The MMO welcomes the ExA's recommendations.	The Applicants made the requested change in the <b>Draft DCO (Revision 10)</b> [REP7-011] that was submitted at Deadline 7.
<b>Schedule 2 – Requirements (R)</b>					
REP7-148:7.2 R 1	<p>1.—(1) The DBS East Project must commence no later than the expiration of seven years beginning with the date this Order comes into force.</p> <p>(2) The DBS West Project must commence no later than the expiration of seven years beginning with the date this Order comes into force.</p>	<p>1.—(1) The DBS East Project must commence no later than the expiration of <b>five</b> <del>seven</del> years beginning with the date this Order comes into force.</p> <p>(2) The DBS West Project must commence no later than the expiration of <b>five</b> <del>seven</del> years beginning with the date this Order comes into force.</p>	<p>Considering the case presented by the applicants with regard to the importance of the proposed development to the delivery of identified government targets, the ExA considers that the seven-year commencement period proposed by the applicants to be excessive.</p> <p>Moreover, the ExA sees no reason why either or both projects cannot reasonable be commenced within a shorter timeframe.</p>	The MMO has no concerns with the updated wording.	The Applicants do not agree with the proposed change – please see <b>The Applicants' Closing Statements</b> [document reference 18.2] for their position on this matter.
REP7-148:7.3 R 4	<p>4.—(2) The dimensions of any offshore converter platform (excluding helidecks, lightning protection, towers, masts and cranes) must not exceed:—</p> <p>(a) 125 metres in length;</p> <p>(b) 100 metres in width; or</p> <p>(c) 105 metres in height above LAT.</p>	<p>2) The dimensions of any offshore converter platform <b>and offshore accommodation platform</b> (excluding helidecks, lightning protection, towers, masts and cranes) must not exceed:—</p> <p>(a) 125 metres in length;</p> <p>(b) 100 metres in width; or</p> <p>(c) 105 metres in height above LAT.</p>	For clarity and to ensure that full details are provided.	The MMO has no concerns with the updated wording.	The Applicants made the requested change in the <b>Draft DCO (Revision 10)</b> [REP7-011] that was submitted at Deadline 7.

Reference	Text as set out in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
REP7-148:7.4 R 5	5.—(1) Offshore converter platforms and offshore accommodation platform foundations must be of one or more of the following foundation options: piled monopile, or piled jacket.	5.—(1) Offshore converter platforms and offshore accommodation platform foundations must be of one or more of the following foundation options: piled monopile, <b>and/or</b> piled jacket.	For clarity and consistency with other requirements.	The MMO has no concerns with the updated wording.	The Applicants made the requested change in the <b>Draft DCO (Revision 10)</b> [REP7-011] that was submitted at Deadline 7.
<b>Schedule 10 – Deemed Marine Licence (DML) 1</b>					
REP7-148:7.5 Part 1, 1(1)		<b>“European marine designated sites with benthic habitats as qualifying features” means a site protected by the 2017 Regulations with benthic habitats as qualifying features.</b>		The MMO welcomes the ExA's recommendations.	The Applicants do not agree with the proposed change – please see <b>The Applicants' Closing Statements</b> [document reference 18.2] for their position on cable protection replenishment.
REP7-148:7.6 Part 2, 7(2)(g)	(g) Cable protection replenishment;	(g) Cable protection replenishment <b>outside European marine designated sites with benthic habitats as qualifying features for a maximum period of ten years post construction</b> ; (h) Cable repairs and replacement; (i) Access ladder and boat landing replacement; (j) Wind turbine generator and offshore accommodation platform anode replacement; and (k) J-tube repair/replacement.	NE's standard advice is that cable protection should only be deployed for a maximum period of 10 years from the commencement of operations outside of designated sites. The ExA is currently persuaded that	The MMO welcomes the ExA's recommendations.	The Applicants do not agree with the proposed change – please see <b>The Applicants' Closing Statements</b> [document reference 18.2] for their position on cable protection replenishment.
REP7-148:7.7 Part 2, 7(7)(8)	n/a	<b>—(7) No cable protection can be replenished within European marine designated sites with benthic habitats as qualifying features unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body and the Maritime and Coastguard Agency.</b> <b>(8) The undertaker is not required to comply with sub-paragraph (7) in a case of emergency.”</b>	NE's Risk and issue log at deadline 6, point A15/A19 [REP6-077] continues to state a significant disagreement on the issue of cable protection replenishment within designated sites for benthic features. Within any designated sites for benthic features, such as the Dogger Bank SAC, NE states the condition should stipulate that there should be no deployment of cable protection after the completion of construction. The ExA therefore considers the revised wording would allow the relevant statutory nature conservation body to have the necessary	The MMO's current position is that no new cable protection will be placed within Marine Protected Areas (MPAs) with benthic features after construction.  The MMO understands that this condition would allow cable protection to be replenished within the operation phase. The MMO further understands that this replenishment could only be within the footprint and volume of what was placed at the time of construction.  The MMO would like to ask for confirmation on the wording in relation to	The Applicants do not agree with the proposed change – please see <b>The Applicants' Closing Statements</b> [document reference 18.2] for their position on cable protection replenishment.  In addition, to address the specific points raised by the MMO, the Applicants submit that replenishment should be considered to be the placing of additional cable or scour protection within the footprints established on



Reference	Text as set out it in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
			<p>degree of oversight of any cable protection replenishment required within designated sites from a safety perspective and has therefore included the need for the Maritime and Coastguard Agency to be consulted.</p>	<p>replenishment – in what instances would replenishment be required? Is this just another term for maintenance? For example, when a cable repair is required and the protection is removed then replaced? Or would there be any occasions when the cable protection placed during construction would move/disappear and need replenished? If so the MMO would question if this has been assessed and under what circumstances would this happen?</p> <p>The MMO notes NE's position that even replenishment of cable protection after construction in benthic MPAs would require a new marine licence as there would be a likely significant effect and an appropriate assessment would need to be undertaken for each instance of cable protection replenishment.</p> <p>The MMO believes that if this is included within the DML and the consent then the HRA as part of the decision would need to consider the full amount of cable protection that could be placed within the Dogger Bank SAC and that consideration of compensation should be undertaken and included within a compensation schedule for the Dogger Bank SAC. However, the MMO understands that NE's position is that the amount of cable protection assessed is consented is for construction only, once they've placed it in position and discharged the relevant conditions that consented figure cannot be utilised as this has been reduced as part of the project design.</p> <p>The MMO believes that with the inclusion of this condition, the wording allows for protection to be placed within the Dogger Bank SAC with approval of the MMO after consultation. The MMO has concerns that</p>	<p>completion of construction for any reason.</p> <p>The Applicants query what the nature of a likely significant effect could be should cable or scour protection be deposited on top of pre-existing cable or scour protection – in an area within which the habitat has been assessed as lost as part of the DBS Habitats Regulations Assessment (HRA) process. Further, the Applicants query what an appropriate assessment of the deposit of cable or scour protection on top of pre-existing cable or scour protection would achieve, where the underlying habitat has previously been regarded as lost and compensated for as part of the DBS consenting processes.</p> <p>It is unclear what environmental compensation obligations the Applicants would have, should additional compensation for replenishment be required given that there would be no additional loss of habitat (or disturbance to a significant extent for which the Applicants do not conclude Adverse Effects on Site Integrity (AEoI)). The replenishment of cable protection would most likely involve the replacement of like-for-like materials, re-stocking a footprint of analogous habitat. This activity would not result in any impacts above and beyond what has already been considered in the Projects' Report to Inform Appropriate Assessment.</p> <p>As outlined in the <b>Project Level Dogger Bank Compensation Plan (Revision 4)</b> [REP7-020], the Applicants already plan to deliver benthic compensation for unavoidable impacts on the Dogger Bank Special Area of</p>

Reference	Text as set out in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
				<p>this would put the MMO in a difficult position post consent. The MMO does review the decision HRA when discharging conditions in the post consent stage. However, if it is deemed that a new assessment is required under the regulations the MMO can undertake a habitats regulation assessment at the discharging stage. The MMO does not believe that this should be standard for every discharge of a condition and a new assessment should only be conducted if new evidence is presented in relation to an MPA.</p> <p>If an addendum to the HRA were required and compensation had to be discussed and agreed at the discharging stage, the MMO notes that this could severely impact on the Project's programme. Although the MMO has the power to do this as part of the condition discharge process the MMO believes, and would stress, that compensation is a decision for the SoS at the consenting stage and not something that should be reviewed and decided on at the post consent stage unless this is as part of a new marine licence so the environment and information provided by the Applicant is as up to date as possible to ensure there is no AEol.</p> <p>The MMO believes as this is a major concern from NE that a new marine licence should be applied for in the instance that cable protection is required.</p>	<p>Conservation (SAC) via the Marine Recovery Fund (MRF) based on fully calculated quantum scenarios presented to the Secretary of State. The MRF seeks to strategically deliver the designation and/or extension of a Marine Protected Area (MPA). The Applicants will be required to pay into the MRF to access MPA designations/extensions as a compensation measure. Should the Applicants be required to compensate for replenishment of cable protection, as well as the initial cable protection, they will be paying twofold into the MRF which amounts to double counting. Not only is this unreasonable, it removes the amount of compensation available for future offshore wind projects with benthic impacts within MPAs and could also affect the operations of other sea users such as fishers who may needlessly lose access to fishing grounds as a result of over-compensation.</p>
REP7-148:7.8 Part 2 Condition 15. —(1)	<p>(c) a construction method statement (in accordance with the cable statement), including details of—</p> <p>(i) cable burial, specification, installation and monitoring to include—</p>	<p>(c) a construction method statement (in accordance with the cable statement), including details of—</p> <p>(i) cable burial, specification, installation and monitoring to include—</p>	<p>Crossing and proximity agreements are proposed as the main form of mitigation to reduce the significance of effects to other offshore users and should be captured by the dDCO to ensure that the proposed development would not result</p>	<p>The MMO will review the Applicants response to this update and requests confirmation that this would just be the actual arrangements and agreements and that no decision on the parties working together would have to be decided on by the MMO. The MMO believes that notification of these agreements is</p>	<p>The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].</p>

Reference	Text as set out in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
	... (vii) associated ancillary works; and (viii) guard vessels to be employed;	... (vii) associated ancillary works; <del>and</del> (viii) guard vessels to be employed; <b>and</b> <b>(ix) arrangements for crossing and proximity agreements to be put in place with existing subsea pipelines and cable operators, and gas block (UKCS Block) operators;</b>	in greater effects than those set out in the ES.	welcomed but does not believe it is our remit to manage these arrangements, and this should be done through separate provisions.	
REP7-148:7.9 Part 2, 15(1)(c)(i)	bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum and, in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House) to be taken to ensure existing and future safe navigation is not compromised or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and	(bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum and, in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following consultation with the MCA, <del>and</del> Trinity House <b>and the MMO in consultation with the statutory nature conservation body</b> ) to be taken to ensure existing and future safe navigation is not compromised or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and	The wording has been added in response to NE's deadline 6 response [REP6-072] advising that if cable protection would be required at greater heights, that this should also be agreed with the MMO in consultation with the SNBC.	The MMO welcomes the ExA's recommendation, however, would like further amendments in relation to this point to ensure it is clear what is required from an environmental point, the parts in bold should be the updated sections.  "(c) a construction method statement (in accordance with the cable statement), including details of—  (i) cable burial, specification, installation and monitoring to include—  (aa) the technical specification of cables below MHWS;  (bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum <del>and;</del>  (cc) In the event that any area of cable protection exceeding 5 percent of navigable depth is identified within sub-paragraph (bb), details of any steps (to be determined following consultation with the MCA, Trinity House <b>and the MMO in consultation with the statutory nature conservation body</b> ) to be taken to ensure existing and future safe navigation and the	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].  As regards MMO's additions in red text at (cc) the Applicants note that they have concluded no likely significant effects on the basis of an assessment of the worst case scenario presented in Environmental Statement <b>Chapter 8 Marine Physical Environment (Revision 2)</b> [REP7-035]. It is unclear what purpose updated modelling would serve beyond highlighting a level of impacts equivalent with, or less than, those already considered with the DBS Environmental Statement.



Reference	Text as set out it in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
				<p><i>marine environment is not compromised, including updated nearshore sediment transport modelling and comparison and demonstration against the environmental statement if within the 10m depth contour and/or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and</i></p> <p><i>(cc) proposals for monitoring cables including cable protection until the authorised scheme is decommissioned which includes a risk-based approach to the management of unburied or shallow buried cables;"</i></p> <p>The MMO believes that this will highlight the additional information required for the below 10m contours. The MMO has not had a chance to share these with the Applicant but has discussed these changes with NE and we believe they are content.</p>	
REP7-148:7.10 Part 2, 15(1)(g)	(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;	(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 <del>consideration</del> <b>the use</b> 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; <b>the noise reduction methods employed must achieve at least a 10dB reduction in underwater noise at a frequency band approved by the MMO in consultation with the relevant statutory nature</b>	<p>The ExA is currently persuaded by the preferred condition wording as advised by the MMO [REP6-069] and NE [REP6-075] which is to replace 'consideration of' with 'the use of'. MMO and NE consider that the phrasing 'consideration of' leaves ambiguity at the post consent stage that could mean no mitigation is applied post consent when this will be required.</p> <p>Due to the outstanding concerns by NE at deadline 6 of AEoI for marine mammal species at the North Norfolk Coast and Wash SAC, Southern North Sea SAC and Humber Estuary SAC, but confirmation by NE that AEoI would be ruled out if the applicants confirmed the use of noise reduction methods to deliver at least a 10dB reduction in underwater noise [REP6-075], the ExA currently considers it appropriate and reasonable to add</p>	<p>The MMO welcomes the updated wording, however, would highlight that agreed wording between the MMO, NE and the Applicant has been proposed in Section 1.10 of this document.</p> <p>The MMO would ask if 10dB can be achieved, if not would this mean the Applicants would be in breach of their licence?</p> <p>The MMO will review other responses to this update and may provide further comments at Deadline 8</p>	The Applicants have agreed wording for a condition in relation to the mitigation of underwater noise from piling with the MMO and Natural England and this was included in the <b>Draft DCO (Revision 10)</b> [REP7-011] submitted at Deadline 7.

Reference	Text as set out in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
		conservation body and verified by the monitoring set out in the final MMMP informed by the outline MMMP;	further to the condition that at least a 10dB reduction must be achieved by the use of noise reduction systems, verified by the monitoring set out in the final MMMP informed by the outline MMMP.		
REP7-148:7.11 Part 2,15(1)(k)	n/a	k) Impacts of unexploded ordnance (UXO) clearance with and without additional mitigation measures will be presented in the final UXO clearance MMMP and UXO clearance Marine Licence Application;	The ExA is currently persuaded by NE's advice is that the impacts of UXO clearance with and without additional mitigation measures should be presented in the final UXO clearance MMMP and UXO clearance Marine Licence Application.	The MMO agrees with NE's comments but would question the need for this to be included within the DML when no UXOs are part of the Application and therefore the MMO believes this is not necessary. Any Marine Licence Application would require a MMMP to be submitted with additional mitigation measures or the MMO would not be able to approve the marine licence.	The Applicants agree that this will be dealt with as part of the separate marine licence application for Unexploded Ordnance (UXO) clearance and so the proposed change is not necessary. Please see <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130] for further details.
REP7-148:7.12 Part 2, 15(1)(l)	n/a	—(1) ... (l) No construction activities that interact with the seabed associated with the authorised development may be undertaken between 1 August to 31 October inclusive between Kilometre Point 20 to Kilometre Point 60, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.	The ExA is currently persuaded by advice from the MMO [REP-069] that a three month seasonal restriction is required during the Banks herring season to construction activities that interact with the seabed through the spawning ground between 1 August to 31 October inclusive so that the risk of disturbance to gravid herring engaged in spawning is negated [REP6-049]. The MMO has advised [REP-069] this restriction should apply between Kilometre Point 20 to Kilometre Point 60.	Please see points 1.11 and 1.12 of this document for further details on the wording on this condition which has been largely agreed between the MMO, NE and the Applicant.  The Kilometre points have changed to KP20-40 instead of KP20-60 due to lack of herring spawning habitat available between KP40-60. This was updated in REP6-069.	The Applicants have agreed wording for a temporal restriction on cable installation works within KP20 – KP40 with the MMO and Natural England and this was included within the <b>Draft DCO (Revision 10)</b> [REP7-011] submitted at Deadline 7.
REP7-148:7.13 Part 2,15(1)(m)	n/a	(m) No piling or construction activity interacting with the seabed associated with the proposed development can commence until a spawning herring construction restriction plan has been submitted to and approved by the MMO. The spawning herring construction restriction plan must include details of verified noise mitigation measures to be employed to achieve a 10dB reduction at a frequency band approved by the MMO in consultation with the relevant statutory nature conservation body and any	The ExA considers it pragmatic to follow the example of the Rampion 2 made DCO for which a condition was made for an outline spawning herring piling restriction plan upon which a final spawning herring piling restriction plan should be based. For this proposed development there are two potential aspects to potential seasonal restrictions i) related to construction activities that interact with the seabed and ii) related to underwater noise associated with piling construction activities. Therefore, the	Please see points 1.11 and 1.12 of this document for further details on the wording on this condition which has been largely agreed between the MMO, NE and the Applicant.	The Applicants have agreed wording for a temporal restriction on piling activities that would affect certain areas of herring spawning grounds with the MMO and Natural England and this has been included in the <b>Draft DCO (Revision 10)</b> [REP7-011] submitted at Deadline 7 on a without prejudice basis, as the Applicants do not agree that it is necessary or supported by robust scientific evidence.

Reference	Text as set out in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
		<b>necessary details to ensure adherence to the seasonal restriction of construction activities that interact with the seabed specified in condition 2,15(1)(l).</b>	ExA considers it sensible for there to be a condition within the DMLs for an outline spawning herring construction restriction plan to address the potential effects from both these pathways.		
REP7-148:7.14 Part 2,16(2)(3)	<p>(2) The SIP submitted for approval must contain a description of the conservation objectives for the Southern North Sea Special Area of Conservation ("SNS SAC") as well as any relevant management measures and it must set out the key statutory nature conservation body advice on activities within the SNS SAC relating to piling as set out within the JNCC Guidance and how this has been considered in the context of the authorised scheme.</p> <p>(3) The SIP must be submitted in writing to the MMO no later than six months prior to the commencement of piling activities.</p>	<p>(2) The SIP submitted for approval must contain a description of the conservation objectives for the Southern North Sea Special Area of Conservation ("SNS SAC"), <b>North Norfolk Coast and Wash Special Area of Conservation ("NNCW SAC") and the Humber Estuary SAC</b> as well as any relevant management measures and it must set out the key statutory nature conservation body advice on activities within the SNS SAC, <b>NNCW SAC and the Humber Estuary SAC</b> relating to piling as set out within the JNCC Guidance and how this has been considered in the context of the authorised scheme.</p> <p>(3) The SIP must be submitted in writing to the MMO no later than six months prior <b>and no sooner than 9 months prior</b> to the commencement of piling activities.</p>	<p>Given the outstanding concerns from NE at this stage of the examination, specifically that NE cannot at this stage rule out AEol for harbour seal at the NNCW SAC or for grey seal at the Humber Estuary SAC, the ExA considers it prudent to expand the coverage of the SIP to include these designated areas.</p> <p>The ExA is currently persuaded by suggested amendments to sub-paragraph (3) to the timing of the submission for the SIP based on continued advice from NE <a href="#">[REP6-077]</a>.</p>	<p>The MMO does agree with the inclusion of North Norfolk Coast and Wash Special Area of Conservation ("NNCW SAC") and the Humber Estuary SAC being included within this condition.</p> <p>The SIP document was created for a specific issued in relation to the in combination impacts to the harbour porpoise. The SNS SAC has specific thresholds which are managed post consent when the MMO and OPRED have the updated details of who would be impacting the SAC.</p> <p>Seals and the North Norfolk Coast and Wash Special Area of Conservation ("NNCW SAC") and the Humber Estuary SAC do not have specific thresholds and therefore it is not appropriate to utilise the same document to manage the Project's impacts. The MMO would question on how this would be managed post consent if there are no thresholds as such to remain below.</p> <p>The MMO does note that mitigation should be committed to at this stage and notes that with the addition of conditions set out in Section 1.10 of this document that have been largely agreed between the MMO, NE and the Applicant. The MMO understands that this has removed NE's concerns in relation to noise and the North Norfolk Coast and Wash Special Area of Conservation ("NNCW SAC") and the Humber Estuary SAC and therefore this amendment is not required.</p>	<p>The Applicants agree with the MMO that it is not appropriate to include the North Norfolk Coast and Wash Special Area of Conservation ("NNCW SAC") and the Humber Estuary SAC within this condition – please see <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130] for further details.</p>

Reference	Text as set out it in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
REP7-148:7.15 Part 2, 20(4)(a)	(4) The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed  in writing with the MMO, include, but not be limited to, the need to undertake—  (a) a survey to determine the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works;	(4) The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, include, but not be limited to, the need to undertake—  (a) a survey to determine the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works; <b>where cable protection is proposed within habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or superficial deposits of glacial till, a survey report must be submitted to the MMO following completion of the relevant survey to justify with evidence the need for the proposed locations and extent of any cable protection in those locations, demonstrating how the extent of cable protection has been kept to a minimum for each;</b>	The ExA is currently persuaded by responses in NE's deadline 6 recommendation in section ii) page 2 of Appendix C6 advice on benthic and intertidal ecology [REP6-073] and has therefore added the suggested wording to sub-paragraph (a)	The MMO will review responses to this update however would question what action the MMO would do with this information should the justification not be in line with the consultee's advice. The MMO notes this could cause a delay to a project while all additional or required information was collected and a decision was made.  The MMO believes this is for the SoS to decide on at this stage and not post consent.	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].
REP7-148:7.16 Part 2, 20(4)(e)	n/a	<b>(e) a survey of seabird densities and distributions in the study area to identify areas where impacts are likely to be particularly high. The report must include an explanation of how this additional post-consent ornithological mapping has influenced the array, size or layout to mitigate impacts as much as possible.</b>	The ExA currently considers that the further surveys of seabird densities and distributions in the study area advocated by NE may help to identify areas where impacts are particularly high, and that might be suitable for changes to array size or layout to mitigate impacts.	The MMO will keep a watching brief on NE's comments on this matter.	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].
REP7-148:7.17 Part 2, 21(2)	(2) In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.	(2) In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing. <b>As part of the piling monitoring planned and undertaken, if the worst-case piles are not</b>	The ExA is currently persuaded by the MMO's current position [REP6-049] that there should be a commitment that two of the worst-case piles would be monitored, which may be after the first four piles, which would allow the predictions to be validated.	The MMO welcomes this update. The MMO notes the Applicant has raised concerns in relation to this and will continue the discussions.	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].



Reference	Text as set out in the Draft DCO	ExA's recommended amendment/ insertion	Reasons and notes	MMO Comments	Applicants' Response
		included in the first four piles to be monitored, then two of the worst-case piles must be monitored in addition to the first four piles and results analysed and shared with the MMO and statutory nature conservation body for validation purposes.			
REP7-148:7.18 Part 2, 22(3)(e)	(d) undertake post-construction vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan by automatic identification system for a duration of three consecutive years following the completion of construction of the authorised project, unless otherwise agreed in writing by the MMO, with provision for a report to be submitted annually to the MMO, Trinity House and the MCA; and  (e) undertake any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g).	(d) undertake post-construction vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan by automatic identification system for a duration of three consecutive years following the completion of construction of the authorised project, unless otherwise agreed in writing by the MMO, with provision for a report to be submitted annually to the MMO, Trinity House and the MCA; and  (e) undertake any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g), <b>including monitoring of operational underwater noise levels along with a verification process to check they remain within those predicted within the environmental statement; and</b>	The ExA understands there is a significant gap in knowledge of the operational underwater noise levels of wind turbine generators of size proposed by the proposed development and that that the turbine sizes used to inform operational noise modelling are considerably smaller Appendix F5 [REP-057].  As NE raised a concern around the adequacy of the proposed monitoring of marine mammals and validation of the effectiveness of mitigation which continues to be unresolved [REP6-077]. The ExA considers the additional wording may assist to resolve this issue.	The MMO will keep a watching brief on responses to this update.	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].
REP7-148:7.19 Part 2, 22(3)(f)	n/a	<b>undertake any monitoring necessary to validate the predictions made in the ES and HRA with respect to potential effects from indirect impacts on benthic Annex I habitats and linked receptor groups as relevant. Discussions should take place in advance with the MMO in consultation with the statutory nature conservation body on how potential indirect ecosystem impacts will be monitored and reported and written agreement on the approach to monitoring and evaluating indirect effects</b>	Indirect effects between different receptor groups has been a constant and significant issue throughout the examination and remains largely unresolved. NE state it is particularly important to further understand indirect effects in relation to the placement of infrastructure within Dogger Bank SAC and along the ECC where there is a potential impact pathway to Holderness Inshore MCZ. The ExA currently considers it reasonable and prudent to	The MMO will keep a watching brief on responses on this matter but has concerns on how this would work in practice and the timescales within the condition. The MMO also notes this is for post construction, would any pre-construction monitoring be required for comparison?	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].

Reference	Text as set out in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
		should be obtained from the MMO in consultation with the statutory nature conservation body before construction commences.	follow the SNCB's advice but also recognises that the approach to how this could be done needs to be discussed with the statutory nature conservation body.		
REP7-148:7.20 Part 2, 22(5)	(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.	<p>(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring or <b>impacts which are unanticipated and/or in the view of the MMO in consultation with the relevant statutory nature conservation body are significantly beyond those predicted within the environmental statement, the Habitats Regulations Assessment, and the Marine Conservation Zone Assessment</b> the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed <b>and an adaptive management plan to reduce effects to within what was predicted within the environmental statement, the Habitats Regulations Assessment, and the Marine Conservation Zone Assessment, unless otherwise agreed by the MMO in writing in consultation with the relevant statutory nature conservation body, must be submitted alongside the monitoring reports submitted under sub-paragraph (4). This plan must be agreed by the MMO in consultation with the relevant statutory nature conservation bodies to reduce effects to an agreed suitable level for this project. Any such agreed and approved adaptive management or mitigation should be implemented and monitored in full to a timetable first agreed in writing with the MMO in consultation with the relevant statutory nature conservation body. In the event that this adaptive management or mitigation requires a separate consent, the undertaker must apply for such consent. Where a separate</b></p>	<p>The MMO requests that a provision for adaptive management is included within construction monitoring and surveys and NE expressed a significant concern regarding the degree of adaptive management in the draft DCO in appendix J [REP3-056]. The ExA notes the additional wording on adaptive management to Revision 4 of the In Principle Monitoring Plan [REP5-027] does not commit the effects to be reduced to within what was predicted within the environmental statement, rather it suggests additional monitoring and further discussion with the MMO and statutory nature conservation bodies. The ExA also notes the dDCO applies adaptive management directly to aspects related to kittiwake and guillemot and razorbill implementation management plans and the ExA considers it appropriate this is extended to other receptors as has been done in other recent made DCOs for OWFs and has suggested the wording which has been accepted by the Secretary of State on other made DCOs. This would be useful to address concerns related to potential impacts to any ecological receptor and also specific concerns including, but not limited to:</p> <ul style="list-style-type: none"> <li>• monitoring and remedial action for potential sediment blockage and repair of any breach at Spurn point</li> <li>• potential impacts to Holderness Inshore MCZ and Humber Estuary SAC</li> </ul>	The MMO welcomes this update.	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].



Reference	Text as set out in the Draft DCO	ExA's recommended amendment/insertion	Reasons and notes	MMO Comments	Applicants' Response
		consent is required to undertake the agreed adaptive management or mitigation, the undertaker shall only be required to undertake the adaptive management or mitigation once the consent is granted.	<ul style="list-style-type: none"> <li>to provide evidence to support the use of the assumption that the bottlenose dolphin baseline distribution along the northeast English coast is the same as in Scotland.</li> </ul> <p>In the absence of a commitment by the applicants to commit to reduce effects to within what was predicted within the environmental statement in the relevant control document, the ExA currently sees no other option other than to add it to the face of the DCO.</p>		
REP7-148:7.21 Part 2, 29(4)	n/a	<p><b>(4) The ornithological monitoring plan must provide details of proposed post-construction and operational surveys, including methodologies and timings, and a proposed format, content and timings for providing post-construction and operational monitoring reports. The plan must—</b></p> <p><b>(a) specify each bird species survey objectives and explain how it will assist in informing a useful and valid comparison with the pre-construction position for each bird species and how it will enable the validation or otherwise of key predictions in the environmental statement;</b></p> <p><b>(b) have due regard to the need to undertake monitoring to determine the distribution and behaviour of each bird species within the array areas of the proposed developments and the rates of collision and avoidance of each bird species with wind turbine generators within the array areas; and</b></p> <p><b>(c) ensure that the outcome of the agreed surveys together with existing data and reports are drawn together to present a valid statement of the post-construction</b></p>	<p>The ExA considers it prudent to insert the following conditions based on other recently made DCOs, particularly in light of NE's extensive comments on the proposed ornithological monitoring in Table 1 of Appendix J <a href="#">[REP3-056]</a> for which NE's Risk and Issue log <a href="#">[REP6-077]</a> point A12/A15 continues to indicate that these concerns are not fully resolved.</p>	<p>The MMO will maintain a watching brief on the response to this update.</p> <p>The MMO notes that Natural England should be updated to SNCB.</p>	<p>The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> <a href="#">[REP7-130]</a>.</p>

Reference	Text as set out it in the Draft DCO	ExA's recommended amendment/ insertion	Reasons and notes	MMO Comments	Applicants' Response
		<p>and operational position, with any limitations, and must make clear what pre-construction comparison is intended and the justification for this.</p> <p>(5) The undertaker must carry out the surveys for each bird species as agreed under sub-paragraph (4) and provide the post-construction and operational monitoring reports to the MMO and Natural England in the agreed format and in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO, in consultation with Natural England.</p> <p>(6) Any monitoring report compiled in accordance with the monitoring schemes required under sub-paragraph (4) must be provided to the MMO and Natural England no later than four months following completion of the monitoring to which it relates, unless otherwise agreed in writing by the MMO, in consultation with Natural England.</p> <p>(7) All monitoring reports must be made publicly available and submitted to relevant evidence databases no later than six months following completion of the monitoring required by the ornithological monitoring plan unless otherwise agreed in writing by the MMO, in consultation with Natural England.</p> <p>(8) In the event that the reports provided to the MMO and Natural England under sub-paragraph (4) identify impacts which are unanticipated and/or in the view of the MMO in consultation with the relevant statutory nature conservation body are significantly beyond those predicted within the environmental statement, either an adaptive management plan to reduce effects to within what was predicted within the Environment</p>			

Reference	Text as set out it in the Draft DCO	ExA's recommended amendment/ insertion	Reasons and notes	MMO Comments	Applicants' Response
		Statement or a plan to deliver additional compensation must be submitted alongside the monitoring reports submitted under sub-paragraph (4) unless otherwise agreed by the MMO in writing in consultation with the relevant statutory nature conservation body. These plans must be agreed by the MMO in consultation with the relevant statutory nature conservation bodies. Any such agreed and approved adaptive management, mitigation or compensation should be implemented and monitored in full to a timetable agreed in writing with the MMO, in consultation with the relevant statutory nature conservation body. In the event that this adaptive management, mitigation or compensation requires a separate consent, the undertaker must apply for such consent. Where a separate consent is required to undertake the agreed adaptive management, mitigation or compensation the undertaker shall only be required to undertake the adaptive management, mitigation or compensation once the consent is granted.			

## 2.6 Natural England – Cover Letter

Table 2-7 – The Applicants’ response to Natural England’s Deadline 7 Document [REP7-153]

I.D.	Natural England Response	Applicants’ Response
REP7-153:1	<p>Natural England has reviewed the documents submitted by the Applicant at Deadline 6. An update of Natural England’s position regarding documents relevant to our remit is provided in Annex 1, including anticipated timing of responses. Natural England is also submitting the following detailed responses, signposted from Annex 1:</p> <ul style="list-style-type: none"> <li>EN010125 489462 DBS – Natural England’s Risk and Issues Log Deadline 7</li> <li>EN010125 489462 DBS Appendix N7 – Natural England’s Response to the RIES</li> <li>EN010125 489462 DBS Appendix O7 – Natural England’s Response to ExA schedule of recommended changes to draft DCO</li> </ul> <p>EN010125 489462 DBS Appendix X – BTO Research Report 788 Rhoades et al Kittiwakes</p>	No response is required.
REP7-153:2	<p>For ease of identifying issue resolution, Natural England have included an ‘End of Examination Position’ column on each sheet of our R&amp;I log. For every issue that has previously reached resolution, either through full resolution or ‘agree to disagree’ being reached with the Applicant, we have copied the comment where resolution was achieved to this column. Any new resolutions reached at this deadline have been included in red text. Please note that this does not replace our closing statements, which will be provided at Deadline 8 as requested, but is intended to provide a simplified way to log progression and outstanding concerns as we near the end of Examination.</p>	The Applicants acknowledge this comment.
REP7-153:3.1	<p>The Applicant has given Natural England advance sight of updates to the DCO condition related to noise mitigation for piling to be submitted at Deadline 7. We advise that we are satisfied that this updated condition sufficiently secures the application of additional primary and/or secondary mitigation. Whilst the Applicant has not committed to a specific level of noise reduction in dB, we are satisfied that the assessment provided in [REP5-033] has demonstrated that mitigation could be applied to reduce impacts to a level where AEoI can be ruled out for grey seal (Humber Estuary SAC &amp; BNNC SAC) and harbour porpoise (SNS SAC), and injury zones can be fully mitigated. We note that in the final post-consent MMMP the Applicant will need to provide a full assessment with noise modelling based on the mitigation that will be applied to demonstrate reductions have been achieved and the ES and HRA conclusions remain correct.</p>	The Applicants welcome Natural England’s agreement to resolve this matter.
REP7-153:3.2	<p>We remain unable to rule out AEoI for harbour seal in WNNC SAC as we are awaiting clarifications that the impacts that have been presented are correct. However, we understand from the Applicant that they will be submitting an illustrative assessment with 10 dB mitigation applied to this site/feature at Deadline 7, similar to that provided in [REP5-033]. We therefore consider it likely that resolution will be achieved in this matter within Examination timeframes.</p>	The Applicants confirm that an updated version of the <b>Illustrative Underwater Noise Reduction Technical Note (Revision 3)</b> [REP7-125] was submitted at Deadline 7, which included additional assessment of potential impacts on the Wash and North Norfolk Coast SAC.
REP7-153:3.3	<p>Natural England have reviewed the Applicant’s updated RIAA for Ornithology [REP6-009] and additional clarifications provided in [REP6-052] regarding outstanding discrepancies between the in-combination totals presented for Dogger Bank South compared to other Round 4 projects currently under consideration. We acknowledge the difficulties inherent in producing in-combination values across projects, and note that all in-combination totals are ultimately estimates of impacts that are not well understood. We are therefore not able to confirm which the ‘right’ in-combination totals are, but are satisfied that any remaining</p>	The Applicants welcome Natural England’s agreement to resolve this matter.

I.D.	Natural England Response	Applicants' Response
	discrepancies are unlikely to have a material impact on assessment conclusions. Accordingly, we consider that no further updates to the Offshore Ornithology in-combination assessments are required.	
REP7-153:4.1	Natural England have reviewed the Examining Authority's (ExA) RIES [PD-025] and have provided our response in Appendix N7 of our Deadline 7 submission.	The Applicants direct Natural England to their responses provided on these comments in <b>Table 2-9</b> to <b>Table 2-11</b> of this document.
REP7-153:4.2	Natural England have reviewed the ExA's Schedule of Recommended Amendments to the Applicant's draft Development Consent Order [PD-028] and provided comments on conditions relevant to our remit in Appendix O7 of our Deadline 7 submission. As the post-consent Regulator for the dML, Natural England defer to MMO on the appropriateness of specific condition wording and have sought to align our comments where possible. Whilst we have provided initial comments with respect to monitoring conditions, we will provide further comment at Deadline 8 as we consider that further discussion is needed to ensure final advice is consistent across thematic areas.	The Applicants direct Natural England to their responses provided on these comments in <b>Table 2-12</b> of this document.
REP7-153:4.3	Natural England have provided responses to the questions within the Examining Authority's Rule 17 Letter - Request for further information dated 19 June 2025 [PD-027] in Annex 2 below. Due to the limited time available, we have not been able to respond to the questions relating to EIA conclusions at this deadline. We also note that as the Applicant will be submitting their updated ES chapters at Deadline 7, aspects of the tables referred to in these questions are likely to have been updated. We will therefore provide our comments on outstanding concerns with respect to the EIA assessment for each thematic area, based on the Applicant's updated chapters, at Deadline 8.	The Applicants direct Natural England to their responses provided on these comments in <b>Table 2-8</b> of this document.
REP7-153:5.1	Natural England have previously highlighted the difficulty of applying different methods to calculate the scale of compensatory measures required for seabirds. To help progress this issue, Natural England commissioned the British Trust for Ornithology on behalf of the Collaboration in Offshore Wind Strategic Compensation (COWSC) to carry out an independent, evidence-based review of existing methods and consider possible alternatives. This review focuses on the use of Artificial Nest Structure (ANS) compensation measures for kittiwake, whilst briefly considering applicability for other species and measures.	<p>Noted.</p> <p>Given that Natural England has provided the BTO report for information and has not updated their advice, the Applicants do not intend to make any further submissions.</p> <p>The <b>Project Level Kittiwake Compensation Plan (Revision 6)</b> [REP6-010] includes compensation values from both the Applicants favoured approach to calculate compensation quantum (i.e. the Hornsea 4 approach) and the Hornsea 3 part 2 method advised by Natural England.</p>
REP7-153:5.2	Natural England previously provided the Applicant with an 'in press' copy of this report to inform their approach, noting at the time that the formal research report was not scheduled to be published until sometime in May. The BTO report has now been published and is available from the BTO website. We are submitting the report into the Examination, which can be found in Appendix X to this Deadline 7 submission. Natural England is currently considering the recommendations of the BTO report; in the meantime, our advice to the Applicant remains that the Hornsea 3 part 2 method should be used to calculate the number of breeding pairs required to compensate for impacts on kittiwake.	
REP7-153:5.3	The BTO report recommends an approach conceptually similar to that adopted by Hornsea 3 but taking into account additional population constraints. The report also recommends monitoring to assess/validate the parameters used in terms of ANS self-sustainability, and adaptive management strategies where the observed demographic rates diverge significantly from those assumed in the compensation calculations. We advise that the Applicant should consider the findings and recommendations of the finalised BTO report in their compensation documents.	

Table 2-8 – The Applicants Comments on Natural England’s response to [PD-027] Rule 17 Letter - Request for further information dated 19 June 2025

Ref	Question	Natural England Response	Applicants’ Response
REP7-153:17.2	<p><b>Withow Gap, Skipsea Site of Special Scientific Interest (SSSI)</b></p> <p>The Assessment of Coastal Processes at the Dogger Bank South Landfall [REP5-040] states in 7.1.2.3 that ‘the landfall is located at the Holderness Cliffs and near the Withow Gap, Skipsea SSSI. However, as the exit pits will be located in the subtidal zone, there will be no direct impacts on these receptors.’ Whilst noting your responses in the deadline 5 Risk &amp; Issues Log [REP5-061, B42] and deadline 6 Risk &amp; Issues Log [REP6-077, B42], provide a response to the applicants’ assessment in relation to Withow Gap, Skipsea SSSI. Clarify whether the assessment has addressed your previous concerns raised? If not, explain any outstanding concerns.</p>	<p>Natural England is satisfied with the Applicant’s assessment as provided in [REP5-040] that as the exit pits are located within the subtidal zone, there will be no impact to Withow Gap, Skipsea SSSI. We have no outstanding concerns on this matter. [R&amp;I, B42]</p>	<p>The Applicants welcome Natural England’s agreement to resolve this matter.</p>
REP7-153:17.4	<p><b>Applicants’ environmental statement conclusions for marine physical environment</b></p> <p>The Examining Authority (ExA) notes your disagreement with the applicants’ updated impact and cumulative effects assessment of the Flamborough Front at deadline 5 [REP5-050]. Please confirm whether you agree with all the other applicants’ ES conclusions detailed in Table 8-67 of ES Chapter 8 [APP-080], and updates outlined in Project Change Request 1 – Offshore and Intertidal Works [AS-141] and Assessment of Coastal Processes at the Dogger Bank South Landfall [REP5-040]. If not, please specify which impact conclusions you disagree with and, if possible, include a cross reference to your submissions which explain why.</p>	<p>As requested by the ExA [PD-018], the Applicant will be submitting updated ES chapters at Deadline 7. As such, Natural England defer providing a response to these questions to Deadline 8.</p>	<p>The Applicants acknowledge this comment.</p>
REP7-153:17.5	<p><b>Applicants’ environmental statement conclusions for benthic ecology</b></p> <p>Confirm whether you agree with the applicants’ ES conclusions in Table 9-27 of ES Chapter 9 [APP-089] and updates outlined in Project Change Request 1 – Offshore and Intertidal Works [AS-141]. If not, please specify which impact conclusions you disagree with and, if possible, include a cross reference to your submissions which explain why.</p>		
REP7-153:17.6	<p><b>Applicants’ environmental statement conclusions for fish and shellfish ecology</b></p> <p>Confirm whether you agree with the applicants’ ES conclusions in Table 10-35 of ES Chapter 10 [APP-091] and updates outlined in Project Change Request 1 – Offshore and Intertidal Works [AS-141]. If not, please specify which impact conclusions you disagree with and, if possible, include a cross reference to your submissions which explain why.</p>		
REP7-153:17.7	<p><b>Applicants’ environmental statement conclusions for marine mammals</b></p> <p><b>NE:</b></p> <p>1. The ExA notes NE’s continued disagreement with the applicants that:</p>	<p>Natural England maintain their advice that the number of harbour porpoise and grey seal potentially disturbed during single piling at the east and west array areas of the proposed development and both projects together results in a major adverse impact score. The</p>	<p>For impacts 1 a and b (all scenarios), Table 11-145 of <b>Chapter 11 Marine Mammals (Revision 2)</b> [REP7-045] submitted at Deadline 7 noted a major adverse significance effect for harbour porpoise and moderate adverse for grey seal which is <u>prior to mitigation</u>. The Applicants submitted the <b>Illustrative Underwater Noise Technical Note (Revision 2)</b> [REP5-032] at Deadline 5 presenting the noise reductions with</p>



Ref	Question	Natural England Response	Applicants' Response
	<ul style="list-style-type: none"> <li>The number of harbour porpoise potentially disturbed during single piling at the east and west array areas of the proposed development and both projects together is high, and that you consider this should result in a major adverse impact score [REP6-077 point F13/F26]. Confirm if this disagreement remains and if so, exactly which impact reference(s) in Table 11-142 of ES Chapter 11 [APP-095] this concern refers to.</li> <li>The number of grey seals disturbed during single piling at DBS East at the east and west array areas of the proposed development and both projects together is high, magnitude of impact is high, and should result in an impact score of moderate (significant) [REP6-077 point F14/F27]. Confirm if this disagreement remains and if so, exactly which impact reference(s) in Table 11- 142 of ES Chapter 11 [APP-095] this concern refers to.</li> <li>The in-combination Interim Population Consequence of Disturbance (iPCoD) modelling (see question 17.8 below).</li> </ul> <p><b>NE/ the MMO:</b></p> <p>Confirm which of the applicants' ES conclusions in Table 11-142 of ES Chapter 11 [APP-095] and updates outlined in Project Change Request 1 – Offshore and Intertidal Works [AS-141] you are in agreement with and which you disagree with. In addition to those mentioned above, if in disagreement, if possible, include a cross reference to your submissions which explain why.</p>	<p>impact references this refers to (as per Table 11-142, APP-095) is Impact 1a (all scenarios), Impact 1b (all scenarios) and Impact 2: Disturbance or behavioural effects from underwater noise during piling at a single location or a concurrently at two locations.</p>	<p>primary and/or secondary mitigation and shows that with primary and/or secondary mitigation, the significance/residual effect will be minor adverse.</p> <p>The Applicants have incorporated the following wording into the <b>Draft Development Consent Order (Revision 10)</b> [REP7-011] (see Schedule 10 and 11, Condition 15 (1)(g); and Schedule 12 and 13, Condition 13 (1)(g)) at Deadline 7.</p> <p><i>'(g) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol (in accordance with the outline marine mammal mitigation protocol), the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation bodies and which must include details of noise reduction methods through project design (primary measures) and/or, deployment of noise mitigation systems or noise abatement systems (secondary measures) that will be utilised to manage sounds from those piling activities and such protocol must include full details and justification for the mitigation chosen or excluded for deployment.'</i></p> <p>The Applicants have agreed the above wording with the MMO and Natural England, ensuring there is no potential for a significant effect on harbour porpoise or grey sea.</p> <p>For impact 2; the Applicants maintain that population modelling is the best method to assess for disturbance and maintain that 1% annual decline over 6 years is considered an appropriate metric to assess the significance of effect from of long-term disturbance from piling. The effects of disturbance are not considered permanent and are recoverable. The interim Population Consequences of Disturbance (iPCoD) modelling has been undertaken for piling at the marine mammal Management Unit (MU) level, where relevant. The iPCoD modelling incorporates the Permanent Threshold Shift (PTS) value as well as the worst-case disturbance measures for the Projects. If, as a result of PTS, a population shows a continued decline of &gt;1% per year (versus a modelled unimpacted reference population) over a set period of time (e.g., the first 6 years, based on the former Favourable Conservation Status reporting period), then there is a high likelihood that a significant effect cannot be ruled out (NRW, 2023<sup>2</sup>). In addition, mitigation methods such as primary and/or secondary methods will minimise disturbance effects as agreed by NE and MMO.</p>
REP7-153:17.10	<p><b>Applicants' environmental statement conclusions for offshore ornithology</b></p> <p>Confirm whether you agree with the applicants' ES conclusions in Table 12-118 of ES Chapter 12 [REP4-032]. If not, please specify which impact conclusions you disagree with and, if possible, include a cross reference to your submissions which explain why.</p>	<p>As requested by the ExA [PD-018], the Applicant will be submitting updated ES chapters at Deadline 7. As such, Natural England defer providing a response to these questions to Deadline 8.</p>	<p>The Applicants acknowledge this comment.</p>

<sup>2</sup> NRW. (2023). PSo16 NRW's Position on Assessing the effects of Hearing Injury from Underwater Noise on Marine Mammals. Position statement. May 2023.

Ref	Question	Natural England Response	Applicants' Response
REP7-153:17.11	<p><b>Offshore ornithology – lesser black-backed gull</b></p> <p>In response to R17.41 <a href="#">[REP6-057]</a> the applicants stated NE concerns in Appendix G5 <a href="#">[REP5-058]</a> exclusively referenced great black-backed gull. Whilst the ExA notes this is correct, the ExA had noted that NE’s Risk and Issue log point G55/NEW <a href="#">[REP5-061]</a> does include reference to the lesser black-backed gull.</p> <p>Can NE confirm whether or not it has an outstanding concern regarding lesser black backed gull and if so, what information the applicants should provide to resolve this issue?</p>	Natural England confirm that our concerns with respect to lesser black backed gull have been satisfactorily resolved.	The Applicants welcome Natural England’s agreement to resolve this matter.

## 2.7 Natural England – Appendix N7

Table 2-9 – The Applicants’ response to Natural England’s comments on the REIS Deadline 7 Document [REP7-152]

I.D.	Natural England Response	Applicants’ Response
REP7-152:1	<p><b>General Comments</b></p> <p>Natural England notes that only submissions up to Deadline 5 (23<sup>rd</sup> May 2025) have been considered in the RIES, therefore the RIES does not take account of updated advice on various aspects since then. Where we are able to, we have signposted to our updated advice. Natural England recommends that the RIES is updated before it is included within an ExA report to the Secretary of State (SoS). As previously advised to PINS and DESNZ, Natural England does not consider consultation on the RIES adequately discharges the statutory requirement to consult Natural England on Appropriate Assessments, as the RIES draws no AEol conclusions.</p>	No response is required.
REP7-152:2	If it is considered that the conservation objectives for any designated site interest feature will be negatively impacted or there is reasonable scientific doubt regarding this, then an Adverse Effect on Integrity (AEol) cannot be excluded.	No response is required.
REP7-152:3	Natural England advise that a conclusion on AEol is ultimately made at a feature level i.e. holistically and should be based on consideration of all potential impacts to that feature. We acknowledge that it is important to understand the scale of impact likely to result from each pathway, including triggering an adverse effect, but advise that in some instances the overall consideration of adverse effects will need to extend beyond pathway-specific AEol conclusions. It is entirely possible that an individual pathway might be considered to have insufficient impact to drive a conclusion of AEol for a given feature when considered in isolation, but an overall conclusion of AEol could still be reached when it is considered with all other impact pathways. Natural England has therefore highlighted within our answers where we consider a pathway may not be triggering an AEol conclusion in its own right but should be considered a contributing factor.	<p>Whilst it is correct that a ‘<i>pathway may not be triggering an AEol conclusion in its own right but should be considered a contributing factor</i>’ consideration needs to be given as to whether that pathway represents additional impact to other pathways.</p> <p>In the example discussed below (see REP7-152:18) any non-trivial changes in SSC or sedimentation / smothering occur within the footprint already assessed for abrasion/disturbance in section 6.4.2.1.1 <i>Abrasion/disturbance of the substrate</i>, therefore there is no additional footprint of effect, and abrasion/disturbance already incorporates localised movement of sediment, sediment suspension and deposition and smothering.</p> <p>The RIAA has therefore considered the impact pathway in its own right in section 6.4.2.2.1 <i>Changes in suspended solids (water clarity) / Smothering and siltation rate changes (Heavy and Light)</i> of the <b>RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 5)</b> [REP7-016] and concludes no AEol.</p>
REP7-152:4	Please be advised that as a Statutory Nature Conversation Body (SNCB) our remit does not extend beyond advising on the ecological merits of proposals, thus excluding us from making comment on Imperative Reasons of Overriding Public Interest (IROPI) submissions.	No response is required.

Table 2-10 – The Applicants’ response to Natural England’s Table 1 - Natural England’s Advice On: [PD-025] RIES [REP7-152]

I.D.	Section	Question/Comment	Natural England Response	Applicants’ Response
<p><b>2 LIKELY SIGNIFICANT EFFECTS</b></p> <p>Sites for which the applicants concluded no LSE on all qualifying features</p>				
REP7-152:5	Table 2.1	N/A	Natural England notes that for Annex I habitats, the LSE pathway for “penetration and/ or disturbance of the substratum below the surface of the seabed, including abrasion penetration” has been identified for	The Applicants acknowledge this comment and note that while <b>Appendix A - Habitats Regulations Assessment Screening</b> [APP-049] represents a point in time document, Table 4-2

I.D.	Section	Question/Comment	Natural England Response	Applicants' Response
			'Construction' and 'Decommissioning' only (as derived from Section 4 of the HRA Screening [APP-049]). We advise that this should also include 'Operation'. Whilst this was omitted from the HRA screening [APP-049], an assessment was included in the Applicant's RIAA (Section 6.4.2.1.1, [APP-046]) and we have ongoing concerns in this regard. We advise this should also be updated in Table 2 of Annex 1 of the RIES for Dogger Bank SAC.	(Summary of Potential Effects to Offshore Annex I Habitats Screened Into the RIAA) of <b>Report to Inform Appropriate Assessment (RIAA) Habitats Regulations Assessment (HRA) Part 1 of 4 – Introduction and Terrestrial Ecology (Revision 3)</b> [REP5-007] was updated at Deadline 5 to screen ' <i>Penetration and / or disturbance of the substratum below the surface of the seabed, including abrasion</i> ' into the assessment.  In addition, the Applicants note that this effect pathway was always included in the RIAA in section 6.4.2.1.1 <i>Abrasion/disturbance of the substrate on the surface of the seabed / Penetration and/or disturbance of the substratum below the surface of the seabed / Habitat structure changes – removal of substratum (extraction)</i> even if it was missed off in the screening.
REP7-152:6	2.4.6; Q1	Can NE confirm whether it agrees with the applicants' conclusion of no LSE, either alone or in combination with other projects or plans, on all qualifying features of the European sites listed in paragraph 2.4.4 above?	Natural England agrees with this conclusion.	The Applicants welcome Natural England's agreement.

**Table 2.2: Annex I habitats - issues raised in the examination to date by the ExA and IPs in relation to the applicants' screening of LSEs (alone or in-combination)**

**Flamborough Head SAC – vegetated sea cliffs of the Atlantic and Baltic Coasts**

REP7-152:7	2.2.1; Q2	The applicants and NE are requested to confirm whether they consider that LSE can be excluded for the vegetated sea cliffs of the Atlantic and Baltic Coasts feature of the Flamborough Head SAC.	Natural England confirms that LSE can be excluded.	The Applicants welcome Natural England's agreement.
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**Table 2.3: Annex II migratory fish - issues raised in the examination to date by the ExA and IPs in relation to the applicants' screening of LSEs (alone or in-combination)**

**Humber Estuary SAC and Humber Estuary Ramsar site - sea lamprey and river lamprey**

REP7-152:8	2.3.1; Q3	NE is requested to confirm which phase(s) it considers this impact pathway [Indirect impacts through effects on preferred prey availability] should be screened in for.	Natural England advise that this impact pathway should be screened in for the construction phase.	The Applicants highlight that given Natural England themselves acknowledge in their <b>Deadline 3 Cover Letter</b> [REP3-059] that the uncertainties and data poor environment would prevent a reliable assessment being made, it is not suitable for such a pathway to be screened in for assessment of potential AEol.  The Applicants also highlight that this was not raised as an impact pathway pre-Application.
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**Table 3.1: Terrestrial ecology – key issues raised in the examination to date by the ExA and IPs in relation to the applicants' assessment of effects on integrity (alone or in-combination)**

I.D.	Section	Question/Comment	Natural England Response	Applicants' Response
Humber Estuary Ramsar				
REP7-152:9	3.1.2; Q5	Can NE please provide details as to its concerns in relation to the assessment of natterjack toads of the Humber Estuary Ramsar site.	Natural England confirms that Natterjack toad was included in error and can be screened out of the assessment. Whilst Natterjack toad is a feature of the Humber Estuary Ramsar as a whole, they are only found within the Saltfleetby and Theddlethorpe Dunes NNR which will not be impacted by the Projects.	The Applicants welcome Natural England's clarification on this matter.
Humber Estuary SAC, SPA and Ramsar				
REP7-152:10	3.1.3; Q6	Can NE please provide details as to the nature of its concerns, in terms of how impacts on benthic habitats could result in indirect effects on qualifying features of the Humber Estuary SPA and Ramsar site?	Please see Section 1(vi) of Appendix B6 of Natural England's Deadline 6 submission [REP6-072].	<p>The Applicants maintain their position as stated in REP6-073: C6 and REP6-073: C11 of <b>The Applicants Responses to Deadline 6 Documents</b> [REP7-131], repeated below for convenience:</p> <p><i>Spurn Head is highly unlikely to be breached due to a reduction in sediment supply of &lt;1% of annual sediment budgets at the Dogger Bank South located 53km away.</i></p> <p><i>The Applicants have continually communicated the risks associated with not being able to bury the cable in water depths of less than 10m which would require mitigation in the form of cable protection measures. They have also undertaken additional numerical modelling, beyond the levels that have ever been required for other schemes making landfall along the Holderness coast, to provide the evidence base to support the conclusions of the ES. Natural England have not, at any point in this examination or before, provided any evidence of any kind to support their assumptions and requirements and therefore cannot "beyond scientific doubt" justify their advice. Therefore, the Applicants agree to disagree on this matter.</i></p> <p>The Applicants also highlight section 1.12 of <b>The Applicants Closing Statements</b> [document reference 18.2] for the Applicants final position within Examination on this matter.</p>
Table 3.2: Dogger Bank SAC - key issues raised in the examination to date by the ExA and IPs in relation to the applicants' assessment of effects on integrity (alone or in-combination)				
REP7-152:11	3.2.2; Q7	Can NE provide comment on the applicants 'Ecological Halo Effects Technical Note' [REP5-041]? Does NE consider the applicants' suggested methodology for quantifying ecological halo effects to be appropriate?	Natural England's comments on this technical note were submitted at Deadline 6 [REP6-073] and include comments on the Applicant's suggested methodology for quantifying ecological halo effects. In summary, whilst we agree with the use of 50m around infrastructure/scour protection as a worst-case buffer, we advise that halo effects around cable protection should be included and that reducing impacts based on wake/bed shear stress effects is not appropriate.	<p>The Applicants maintain their position as stated in REP6-073: C6 and REP6-073: C11 of <b>The Applicants Responses to Deadline 6 Documents</b> [REP7-131], repeated below for convenience:</p> <p><b>REP6-073: C6</b></p> <p><i>Cable protection will be installed in linear stretches at most 1.4m above the seabed and 15.2m wide. It is clear any effects of this</i></p>



I.D.	Section	Question/Comment	Natural England Response	Applicants' Response
				<p>will be wholly different to that of a monopile foundation and scour protection covering 3,117m<sup>2</sup>, with the turbine foundation rising through the water column to the surface. <b>To apply a 50m buffer to cable protection, when there is no evidence of significant effect from foundations in environments such as the Dogger Bank (see RIAA HRA Appendix E - Ecological Halo Effects Technical Note (Revision 2) [document reference 15.7] is unjustified.</b></p> <p>Natural England use the term 'worst case' inappropriately, this advice is not based on a worst case derived from the literature.</p> <p>The assessed footprint of cable protection within the SAC is 0.99km<sup>2</sup>. With a 50m halo around this, the habitat loss using Natural England's methodology would increase to 10.58km<sup>2</sup>. <b>This is a clear example of unevidenced precaution in Natural England advice.</b></p> <p>Nonetheless, to allow decision making by the SoS the Applicants have provided updated estimates of the halo effect footprint on a without prejudice basis based on Natural England's comments in <b>RIAA HRA Appendix E - Ecological Halo Effects Technical Note (Revision 2) [document reference 15.7]</b> submitted at Deadline 7.</p> <p><b>REP6-073: C11</b></p> <p>As accepted by Natural England, any effect will not be uniform and the proposal of uniform 50m halo is not supported by any evidence. The Applicants consider that their proposals (in section 5 of <b>RIAA HRA Appendix E - Ecological Halo Effects Technical Note (Revision 2) [document reference 15.7]</b>) are pragmatic given the absence of evidence of significant effect in environments such as the Dogger Bank.</p> <p>The Applicants consider that understanding any such patterns should be a prime objective of monitoring studies. Directionality, or any relationship with prevailing physical processes, was not considered (or not reported) in the studies reviewed. The Applicants highlight, that they consider that effects will actually be limited and non-significant at Dogger Bank and patterns such as this unlikely to be detectable given natural variability.</p> <p>Nonetheless, to allow decision making by the SoS the Applicants have provided updated estimates of the halo effect footprint on a without prejudice basis based on Natural England's comments in <b>RIAA HRA Appendix E - Ecological Halo Effects Technical Note (Revision 2) [document reference 15.7]</b> submitted at Deadline 7.</p>



I.D.	Section	Question/Comment	Natural England Response	Applicants' Response
REP7-152:12	3.2.2; Q8	In its RR [RR-039, NE6, C6], NE refer to halo effects as habitat loss/ change. The Risk and Issues Log [REP5-061, D21] states that compensation measures for habitat disturbance should be provided and infers that halo effects are the disturbance effects of concern. Can NE clarify whether it considers halo effects to represent permanent habitat loss or temporary habitat disturbance? (Please see also ID 3.2.9 of this RIES).	Natural England advise that we consider halo effects to represent permanent habitat loss. The Applicant has now provided separate footprints for habitat damage/disturbance from installation and ongoing ecological halo effects from the presence of infrastructure, though we acknowledge there will be some overlap between these impact areas.	<p>The Applicants maintain their position as stated in REP6-073: C3 of <b>The Applicants Responses to Deadline 6 Documents</b> [REP7-131], the key points being:</p> <ul style="list-style-type: none"> <li>The <b>RIAA HRA Appendix E - Ecological Halo Effects Technical Note (Revision 2)</b> discusses the likelihood of significant community change in relation to the environment at Dogger Bank.</li> <li>The Applicants and Natural England do not agree on the significance of the effect.</li> <li>Based on Natural England's advice, the total footprint of habitat loss from foundations and halo effects is <b>4.25km<sup>2</sup></b> (4,252,906.73m<sup>2</sup>) and for cable protection, the total footprint for habitat loss and halo effects would be <b>10.58km<sup>2</sup></b> (10,580,194.4m<sup>2</sup>), more than double that of the foundations. <b>It is simply not credible that small patches of cable protection could be having such a disproportionate effect.</b></li> </ul> <p>Nonetheless, to allow decision making by the SoS the Applicants have provided updated estimates of the halo effect footprint on a without prejudice basis based on Natural England's comments in Table 5-2 of <b>RIAA HRA Appendix E - Ecological Halo Effects Technical Note (Revision 2)</b> [document reference 15.7] submitted at Deadline 7.</p>
REP7-152:13	3.2.3; Q10	On the basis that the applicants are due to submit an updated Cable Statement at DL6, please confirm whether the updated document together with the applicants' responses to ExQ2 [REP5-036, MCP 2.8 and 2.9] address your concerns?	The Applicants have updated the Cable Statement [REP6-044] with a figure showing indicative locations of protection along the export cable corridor (ECC; outside of Dogger Bank SAC), which is welcomed. This has been based on the 2024 Burial Assessment Study in REP6-044 which they have highlighted is preliminary and indicative only. The WCS for external cable protection (20% of the cable route) has not been refined down or fully justified based on this latest information. However, the Applicant has confirmed that no changes will be made to the 20%/10% allowances for cable protection in the ECC and Dogger Bank SAC [REP5-036, MCP 2.9]. Therefore, this issue has progressed, but our concerns have not been fully addressed. We maintain the advice provided in [REP6-073].	<p>The Applicants maintain their position as stated in REP6-073: C3 of <b>The Applicants Responses to Deadline 6 Documents</b> [REP7-131], repeated below for convenience:</p> <p><i>The Applicants note that in the Final Cable Statement(s), required to be submitted for decision-maker approval prior to the commencement of construction under each Deemed Marine Licence (e.g. Condition 15(1)(i) of the <b>Draft Development Consent Order (DCO) (Revision 10)</b> [document reference 3.1], the final cable protection and dredging requirements will be presented, with full technical justifications. This same document will demonstrate how the use of cable protection and dredge volumes has been minimised, in accordance with mitigation presented in the <b>Cable Statement (Revision 5)</b> [REP6-043]. The Applicants note that, as is established practice for offshore wind projects where significant design uncertainties remain at the consent application stage, they have submitted a design envelope for consent. This approach has been adopted in accordance with the principles laid out in policies such as 2.6 of National Policy Statement EN-3.</i></p>

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REP7-152:14	3.2.4	"NE [REP2-066] considered it permissible to maintain existing protection placed during construction."	Please note, this does not apply within designated sites and refer you to see Section 4 of [REP2-066] which discusses protected sites	No response is required.
REP7-152:15	3.2.7; Q12	Does NE agree with the applicants' calculations [REP5-037] that if these impacts were to be considered as permanent habitat loss, the total habitat loss would be 2.12km <sup>2</sup> (a 17% increase in footprint for habitat loss)?	Natural England agrees with the Applicant's calculations based on UXO clearance and jack-up vessels. However, this value does not include loss from ecological halo effects. We therefore advise that further revision is needed. See Q7, Q8.	<p>The Applicants and Natural England do not agree on the significance of any potential 'ecological halo effect' (see REP6-073: C6 and REP6-073: C11 of <b>The Applicants Responses to Deadline 6 Documents</b> [REP7-131] for full details).</p> <p>Nonetheless, to allow decision making by the Secretary of State (SoS) the Applicants provided updated estimates of habitat loss including the 'halo effect' footprint on a without prejudice basis based on Natural England's comments in in Table 5-2 of <b>RIAA HRA Appendix E- Ecological Halo Effects Technical Note (Revision 2)</b> [REP7-127] submitted at Deadline 7.</p> <p>The Applicants note that UXO-related activities do not form part of the present consent application. They will be the subject of future consent applications informed by their own assessments, to be submitted in due course.</p>
REP7-152:16	3.2.8; Q15	<p>NE has suggested further mitigation measures to reduce impacts of depositing sediment.</p> <p>Does NE consider these measures (and the need for a downpipe) are required in order to exclude AEoI from this LSE pathway?</p>	<p>Natural England considers that without all of the mitigation measures being committed to, this pathway will be contributing to the adverse effects on Dogger Bank SAC Annex I sandbank features.</p> <p>We note that the Applicants have now committed to depositing like sediment on like sediment, and to providing a plan as an Appendix to the final Cable Statement(s) (should sand wave levelling be required) which will provide details on sandwave levelling, deposition, and recovery, which is welcomed [REP6-044]. With regards to micro-routing, sandwave crossing and cable installation, the Cable Statement [REP6-044] has also been updated to clarify that route selection and micro-siting of the cables will take place, sandwave crossing will occur at an angle as close to 90 degrees to minimise dredge volumes and that cable installation should occur as soon as possible after levelling, in line with best practice, which is welcomed.</p> <p>The only outstanding mitigation in relation to this pathway is therefore a commitment to the use of a down pipe and depositing sediment upstream of dredge locations to aid natural recovery of the Annex I sandbank system. Natural England provided further advice on this matter in [REP6-072].</p>	<p>The Applicants maintain the position outlined in REP5-054: B12 of <b>The Applicants' Responses to Deadline 5 Documents</b> [REP6-052], repeated below for convenience:</p> <ul style="list-style-type: none"> <li>Disposition of dredge sediment should be adjacent to and slightly upstream of the sandbank to actively encourage recovery of structure and function.</li> </ul> <p><i>The Applicants have not proposed depositing sediment updrift of areas of dredging activity. In the Applicants' view, doing so would incur potentially avoidable environmental impacts. The reason for this is that there may be yet to be determined time lags between the completion of dredging in an area and the delivery of any associated construction activities. Logic dictates that, in such a scenario, the dredged sediment may well move through natural process into the previously dredged area. Should this happen further dredging would then be required. Self-evidently this additional seabed preparation would cause avoidable environmental effects.</i></p> <ul style="list-style-type: none"> <li>A downpipe/fall pipe should be used to enable targeted disposition as set out above.</li> </ul> <p><i>As previously noted in responses on this topic, such as that provided most recently in response to MCP.2.7 in <b>The Applicants Responses to the Examining Authority's Second Written Questions (ExQ2)</b> [REP5-036], the Applicants do not believe the</i></p>

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				<i>suggested mitigation to be technically feasible and, as such, can make no commitments to delivering it. If Natural England can demonstrate the feasibility of this request, then the Applicants will give it further consideration.</i>
REP7-152:17	3.2.9; Q18	Noting that NE consider jack up activities and UXO clearance to represent permanent habitat loss and contribute to AEol for habitat loss, can it confirm the basis upon which it considers there to be an AEol from abrasion/ disturbance?	As outlined in our previous advice (see Table 3, [REP2-065]), we consider that the evidence provided by the Applicant [AS-025] is not sufficient to state that all aspects of habitat damage caused by construction and preparatory works may be reversible in a short timeframe. As Dogger Bank SAC is a relict sandbank, comparison to the recovery rates to mobile/dynamic sandbank systems is not appropriate in this instance. Furthermore, as raised in [REP2-065] and [REP3-057], "[AS-025] does not consider any potential increased disturbance / impact from in-combination impacts during construction or continued disturbance from the operational phase. Sandy mound sandbanks such as those at Dogger Bank SAC are unique and have limited recovery ability, and whilst there may be shorter recovery rates for specific biotopes known to be present within Dogger Bank SAC, the full recovery of the whole site would be expected to be longer and would delay restoration of the SAC".	<p>As stated in <b>Review of Evidence on Recovery of Sandbank Habitat Following Habitat Damage (Revision 2)</b> [REP3-021] the underlying geology of the Dogger Bank is not relevant to consideration of the habitat 'H1110 Sandbanks which are slightly covered by sea water all the time' – as stated</p> <p><i>"The communities present do not depend on the underlying structure of the bank, but on the nature of the shallow sediment layer in or on which they live. Principle factors determining community composition include an interrelated combination of sediment grain size, water depth, hydrodynamic regime and organic content – as well as interactions between species such as predation. The majority of living organisms are found either on or near the sediment surface or burrowing within the top 5-30cm. In stable fine-grained muddy sediments found in deeper or very sheltered waters burrows of some species may extend to depths of 1-2m from the surface, but such sediment conditions are not found within the Dogger Bank SAC."</i></p> <p>We note that Natural England again states that:</p> <p><i>"Sandy mound sandbanks such as those at Dogger Bank SAC are unique and have limited recovery ability"</i></p> <p>This is not supported by the MarESA assessments (reproduced in full in Appendix A of <b>Review of Evidence on Recovery of Sandbank Habitat Following Habitat Damage (Revision 2)</b> [REP3-021]). Natural England have provided no rationale as to why the MarESA conclusions are not valid in this case, as discussed above the biotopes of the Dogger Bank SAC, which are the only relevant concern, are not unique whatever the underlying geology is comprised of.</p> <p>Notably all of the biotopes recorded within the Offshore Development Area within the SAC have high or medium recoverability, with the exception of <i>MC1251 Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay</i>. For this biotope (and any other sandbank biotope that pre-construction survey determines to be highly sensitive), the Applicants have committed to micro-siting if necessary (see Table 9-3 of <b>Environmental Statement Chapter 9 - Benthic and Intertidal Ecology (Revision 2) (Clean)</b> [REP7-038]. This</p>

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				<p>commitment is secured via DML 1 &amp; 2 – Condition 15, DML 3 &amp; 4 - Condition 13, and DML 5 - Condition 11.</p> <p>Natural England state that recovery is based upon a need for 100% of a habitat (across the entire SAC) and its most sensitive components to recover. However, it is worth noting that the MarESA Guidance Manual (Tyler Walters <i>et al.</i>, 2023)<sup>3</sup> states the following: <i>'Full recovery' is envisaged as a return to the state of the habitat that existed prior to impact. However, this does not necessarily mean that every component species has returned to its prior condition, abundance or extent but that the relevant functional components are present and the habitat is structurally and functionally recognizable as the initial habitat of interest. The assessments are based on key structural or functional or important characteristic species for each biotope.</i></p> <p>Therefore, the Applicants consider that</p> <ul style="list-style-type: none"> <li>The majority of biotopes have high recoverability; and</li> </ul> <p>For the most sensitive biotopes there is a commitment to microsite if required which will avoid this impact</p>
REP7-152:18	3.2.10; Q20	Can NE confirm the LSE pathway that changes to wave and tidal regime relate to?	<p>Changes to the wave and tide regimes can alter the supporting processes on which qualifying natural habitats rely. In addition, hydrodynamic changes can alter sediment transport pathways and processes, composition, and water/sediment quality. They can also alter finer-scale topography, sediment composition and distribution and influence biological zonation. We therefore consider that changes to the hydrodynamic regime could contribute to the following LSE pathways:</p> <ul style="list-style-type: none"> <li>Indirect effects (impacts on sandeel leading to impacts on the characteristic community and ecological function of Dogger Bank SAC)</li> <li>Changes in suspended solids (water clarity) (C, O, D)</li> <li>Smothering and siltation rate changes (heavy) (C, O, D)</li> </ul> <p>Smothering and siltation rate changes (light) (C, O, D)</p>	<p>The Applicants do not consider that changes in suspended solids or smothering would result in AEOL. Paragraph 53 and 54 of section 6.4.2.2.1 <i>Changes in suspended solids (water clarity) / Smothering and siltation rate changes (Heavy and Light)</i> of the <b>RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 5)</b> [REP7-016] states (with added emphasis):</p> <p><i>Project-specific marine physical processes modelling (Volume 7, Chapter 8 Marine Physical Environment (application ref: 7.8)) shows that in the worst case (trenching activities within the Offshore Export Cable Corridor) suspended sediment concentrations of up to 5mg/l occur within 1km of the point of disturbance, with values returning to background levels within 5 - 7km of the cable corridor. <b>The maximum predicted deposition will be up to 5cm within, and immediately adjacent to, the area of trenching, with a maximum change of up to 0.25m occurring in localised hotspots.</b> During foundation installation suspended sediment concentrations may increase by over 5mg/l and typically return to baseline conditions within 5km of the area of disturbance and would be suspended in the water column for up to 1.5 hours. <b>It is expected that the maximum predicted deposition resulting from a sediment plume will be &lt;0.5cm in</b></i></p>

<sup>3</sup> H. Tyler-Walters, H.M. Tillin, E. A.S. d'Avack, Perry, F., Stamp, T. (2023) Marine Evidence-based Sensitivity Assessment (MarESA) - Guidance Manual <https://www.marlin.ac.uk/assets/pdf/MarLIN-MarESA-Manual-Jun2023.pdf>



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				<p><b>localised areas immediately adjacent to the foundation installation area</b></p> <p>As detailed within <b>Volume 7, Chapter 9 Benthic and Intertidal Ecology</b> (application ref: 7.9), the biotopes found within the Projects Array Areas, Inter-Platform Cable Corridor and Offshore Export Cable Corridor within the Dogger Bank SAC have low sensitivity to changes in suspended sediment. <b>JNCC and Natural England (2013) note that communities associated with sandbank habitats are adapted to high levels of sediment disturbance, owing to these habitats high-energy nature</b></p> <p>The Applicants highlight the following</p> <ul style="list-style-type: none"> <li>Any non-trivial changes in SSC or sedimentation occur within the footprint already assessed for abrasion/disturbance in section 6.4.2.1.1 <i>Abrasion/disturbance of the substrate</i>, this footprint encompasses the habitat loss footprint assessed in section 6.4.2.6.1 <i>Physical change (to another seabed / sediment type)</i>. Therefore, any effects from SSC or sedimentation on the benthos or sandeel is accounted for within other effects. There is no additional footprint</li> <li>Abrasion/disturbance already incorporates localised movement of sediment, sediment suspension and deposition and smothering</li> <li>Natural England themselves in the references cited note that the communities are adapted to sediment disturbance, therefore this is not a significant effect pathway.</li> </ul> <p>If the Secretary of State considers that both abrasion/disturbance and habitat loss contribute to habitat loss, the footprints have been provided (see Table 6-7 of the <b>RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 5)</b> [REP7-016]).</p>
REP7-152:19	3.2.11; Q22	To the applicants and NE: Please provide your current views on whether impacts on sandeel can be excluded as a contributing factor to the AEoI conclusions for Dogger Bank SAC.	Natural England maintains its advice that impacts to sandeel are a contributing factor to adverse effects on Dogger Bank SAC. This is because within the conservation advice for the SAC it is stated that loss of the characterising sandbank biological assemblages or sandbank sediments from an area of the feature would constitute sandbank habitat and a reduction in overall feature extent. In addition, the biological structure refers to the key and influential species and characteristic communities present of which sandeel is named. Biological communities are important in not only characterising the sandbank feature but supporting the health	The Applicants highlight that the seabed within the Offshore Development Area within the Dogger Bank SAC, as well as being Annex I sandbank, is all potential spawning habitat for sandeel. This is highlighted in the <b>RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 5)</b> [REP7-016]). (see paragraphs 40 and 81). Therefore, any seabed habitat loss or disturbance within the SAC is also loss or disturbance of potential sandeel spawning habitat. However, it should be noted this would not be an additive loss / disturbance of habitat, instead representing the same area of seabed just



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			of the feature i.e. its conservation status and the provision of ecosystem services by performing functional roles.	<p>categorised for different elements of the community. It cannot be lost more than once.</p> <p>The Applicants consider that habitat loss due to the permanent footprint of above surface infrastructure is a contributing factor to AEOL. As highlighted above, this includes the potential sandeel spawning habitat affected.</p> <p>The Applicants do not consider that temporary disturbance during construction, operation or decommissioning is a contributing factor to AEOL due to the recoverability of the habitat present and limited temporal nature of the potential effects. This includes UXO clearance and jack-up operations. The Applicants have provided comprehensive evidence of this case in <b>Review of Evidence on Recovery of Sandbank Habitat Following Habitat Damage (Revision 2)</b> [REP3-021] which covers both the recovery of the biotopes and sandeel.</p> <p>If the Secretary of State considers that both abrasion/disturbance and habitat loss contribute to habitat loss, the footprints have been provided (see Table 6-7 of the <b>RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 5)</b> [REP7-016]).</p>

**Table 3.4: Humber Estuary SAC - key issues raised in the examination to date by the ExA and IPs in relation to the applicants' assessment of effects on integrity (alone or in-combination)**

REP7-152:20	3.4.1; Q23	Please provide comments for DL7 on the applicants' technical note 'Assessment of Coastal Processes at the Dogger Bank South Landfall' [REP5-040].	Natural England's comments on the Applicants' technical note 'Assessment of Coastal Processes at the Dogger Bank South Landfall' [REP5-040] were provided in Appendix B6 to our Deadline 6 Submission [REP6-072].	No response is required.
REP7-152:21	3.4.1; Q24	Please also confirm your latest position on whether AEOL on benthic habitat features of the Humber Estuary SAC can be excluded in relation to changes to smothering and siltation rates.	Natural England maintains the advice provided in [REP6-072] that an AEOL on the Humber Estuary SAC cannot be ruled out.	<p>The Applicants reiterate the response provided to REP6-072: B1 v) in <b>The Applicants Responses to Deadline 6 Documents</b> [REP7-131]:</p> <p><i>The Applicants have simulated sediment transport regimes at the landfall and quantified changes to the sediment budget due to the presence of the worst-case scenario with the resulting showing changes to sediment transport budgets at the landfall would be &lt;1%. These changes would become less pronounced with distance from the cable protection measures, and with the Humber Estuary Special Areas of Conservation (SAC) and Spurn Head as the designated geomorphological feature of the Holderness Inshore Marine Conservation Zone (MCZ) being located 53km away from the cable protection measures, it would not be possible to detect or measure a change of this magnitude, or isolate the Projects as the source of the change</i></p>

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				<p><i>considering the high degree of natural variability in the coastal system, high sediment supply rates due to coastal erosion and the potential effects of other projects and schemes located much closer to the receptors. As it is not possible to detect the change, the only evidence base to support the conclusions of the Environmental Statement (ES), and to test Natural England's assumption that there will be adverse risks to the Humber Estuary SAC and Holderness Inshore MCZ, is the numerical modelling provided in the Assessment of Coastal Processes at the Dogger Bank South Landfall [REP5-040]. The Applicants cannot provide the additional evidence Natural England seek, therefore will have to agree to disagree on this matter, noting if an effect cannot be detected, it is unlikely it will be significant in Environmental Impact Assessment (EIA) terms.</i></p> <p>The Applicants maintain that Natural England's advice on this topic is vastly over-precautionary in the context of the site-specific modelling work conducted by the Applicants (detailed in <b>Assessment of Coastal Processes at the Dogger Bank South Landfall</b> [REP5-040]) which demonstrably proves that the worst-case cable protection that could be utilised by the Projects would not result in a significant reduction in sediment transport to the Humber Estuary SAC, thus there is no potential for AEoI on the site. Natural England have not provided any evidence to the Applicants or Examining Authority to support their case or rationale for why the modelling undertaken is not sufficient.</p> <p>The Applicants also highlight that the Environment Agency have confirmed that they were '<i>satisfied with the information provided and with the mitigation proposed by the Applicants, and that the position of this item as agreed</i>' (see SoCG ID 19 of the <b>EA SoCG</b> [document reference 9.3]. In addition, the MMO confirmed via email dated 1<sup>st</sup> July 2025 that '<i>The MMO are content that the evidence presented via modelling work is adequate to address the physical process changes arising from the emplacement of scour protection around the landfall exit pit in the nearshore</i>' and that '<i>the MMO are confident that the applicant's estimate of the scale of impacts is reasonable i.e., that the local structure (cable protection at the exit point of the cables, several hundred metres offshore) will directly affect the physical processes only in the immediate vicinity</i>'.</p>
REP7-152:22	3.4.3; Q25	The ExA notes that NE's concerns were reported for the Humber Estuary SPA, SAC and Ramsar site in [RR-039]. However, further to examination submissions, the ExA	Natural England's advice in RR-039 relates to relevant habitats associated with the SAC, SPA and Ramsar which occur within 200 m of the road network.	The Applicants welcome Natural England's agreement on that construction traffic associated with the Projects will not impact on adjacent European Sites.

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		understands the air quality concerns relate solely to Annex I habitats of the Humber Estuary SAC. The ExA requests confirmation from NE as to whether this assumption is correct. If it is not correct, NE is requested to clarify the sites and features which the air quality concerns relate to.	<p>Table 26-20 of Volume 7 Chapter 26 – Air Quality of the ES identified the relevant 'Mudflats and sandflats not covered by seawater at low tide' feature, which is designated as part of the SAC. Mudflats and sandflats are also component habitats of the Estuary feature of <a href="#">Ramsar site</a> and should therefore be assessed in the context of the Ramsar designation. Although the habitat feature itself is not a designated feature of the SPA, it provides supporting habitat to SPA species. Therefore, impacts to SPA supporting habitat should be assessed, in line with the <a href="#">Supplementary Advice</a> for the Humber Estuary SPA.</p> <p>As stated in our Deadline 1 response, Natural England is satisfied that the evidence submitted in Annex A Technical Note, Comparison of Approaches using the Natural England Guidance NEA001 and JNCC Guidance (appended to the Applicant's Response to Natural England's Relevant Representations [AS-048]), demonstrates that construction traffic associated with the development will not impact on adjacent European Sites based on use of the NEA001 impact thresholds.</p>	

**Table 3.7: Marine mammals – key issues raised in the examination to date by the ExA and IPs in relation to the applicants' assessment of effects on integrity (alone or in-combination)**

Sites with Annex II marine mammal qualifying features				
REP7-152:23	3.7.1; Q28	Please confirm whether you are satisfied with the updates made by the applicants to the dDML conditions [REP5-002], to include wording suggested by the MMO on noise reduction in [REP4-115]. NE is also requested to confirm whether these updates change its DL5 position that an AEol cannot be excluded for grey seal of BNNC SAC (alone and in-combination), grey seal of the Humber Estuary SAC (in-combination) and harbour porpoise of the SNS SAC (in-combination).	<p>With respect to the DCO condition included in [REP5-002], please see the advice provided in Appendix F6 of our Deadline 6 submission [REP6-075]. The updates did not change our advice on AEol conclusions for the listed sites/features.</p> <p>However, Natural England has been given sight of updates to the condition to be submitted in the DCO at Deadline 7. We advise that we are satisfied that this updated condition sufficiently secures the application of noise abatement mitigation to enable an AEol to be ruled out for the listed sites/features.</p>	The Applicants welcome Natural England's agreement on that the updated DCO condition referenced in this response sufficiently secures the application of noise abatement mitigation to enable an AEol to be ruled out for the listed sites/features.
BNNC SAC, Humber Estuary SAC and Humber Estuary Ramsar site – grey seal qualifying features				
REP7-152:24	3.7.2; Q30	The ExA understands that resolution of the underwater noise concerns relating to grey seal of the Humber Estuary SAC would also resolve this concern for grey seal of the Humber Estuary Ramsar. The ExA requests confirmation from NE as to whether this assumption is correct.	Natural England confirms this assumption is correct.	The Applicants welcome Natural England's confirmation on this matter.
REP7-152:25	3.7.2; Q31	Please also confirm whether you currently consider an AEol can be ruled out for grey seal of the Humber Estuary Ramsar site.	Please see 3.7.1; Q28.	The Applicants welcome Natural England's agreement on that the updated DCO condition referenced in this response sufficiently secures the application of noise abatement

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				mitigation to enable an AEol to be ruled out for the listed sites/features
<b>SNS SAC – harbour porpoise qualifying feature</b>				
REP7-152:26	3.7.4; Q32	NE maintains that there is still a risk of AEol for harbour porpoise of SNS SAC as a result of impacts to prey species [REP5-061, NE12]. Can NE confirm whether this applies to the project alone and/ or in-combination?	Noting that AEol conclusions are made at feature level, were an AEol to be concluded for SNS SAC harbour porpoise overall, we would have considered that indirect impacts to prey species would likely be having a contributing effect. However, we do not consider the risk to harbour porpoise from indirect impacts on prey species is sufficient to drive an AEol conclusion alone.	The Applicants acknowledge this comment.
<b>3.8 Marine Ornithology Displacement assessments</b>				
REP7-152:27	3.8.21; Q35	Can NE explain the basis for its request for in-combination totals for displacement-affected species according to agreed impacts and whether it is likely that receiving such information would materially affect their conclusions?	<p>Natural England originally requested this as the approach taken by the Applicant (presenting in-combination totals for displacement-affected species as total and apportioned abundance estimates, which displacement and mortality rates have then been applied to) made it difficult to check the appropriate impact figures against those presented by other projects, and it prevented the Applicant from considering advice Natural England has given to previous projects on how these impacts should be calculated.</p> <p>The Applicant has now provided greater clarification on their approach, and whilst some discrepancies remain in in-combination outputs, we consider these are unlikely to have a material impact on assessment conclusions.</p>	The Applicants welcome Natural England's agreement that any further changes to the in-combination totals are unlikely to have a material impact on the assessment conclusions.
<b>In-combination assessments</b>				
REP7-152:28	3.8.34; Q38	Does NE agree with the applicants that an in-combination assessment for Atlantic puffin of FFC SPA is not required? If so, can it explain why, given the precedent it set on SEP&DEP?	Natural England advise that it is best practice for in-combination assessments to be provided for all SPA features that have been screened in for assessment. As a minimum, we consider that in-combination assessments should be carried out for all species that meet the 1% baseline mortality threshold (calculated according to SNCB guidance). The Applicant provided in-combination assessments for species that met the 1% threshold, so we considered this issue satisfactorily resolved. We do not consider that provision of an in-combination assessment for puffin would materially change our advice regarding this component of the FFC SPA seabird assemblage.	The Applicants welcome Natural England's confirmation that this matter is resolved.

Table 3.8: FFC SPA

I.D.	Section	Question/Comment	Natural England Response	Applicants' Response
REP7-152:29	3.8.3; Q42	Can NE confirm whether it agrees an AEol from the proposed development alone can be excluded for razorbill and guillemot of FFC SPA?	Natural England confirms this is correct.	The Applicants welcome Natural England's confirmation that this matter is resolved.
REP7-152:30	3.8.6; Q45	Can NE confirm whether it agrees an AEol on the Atlantic puffin component of the FFC SPA seabird assemblage can be ruled out?	Natural England confirms this is correct.	The Applicants welcome Natural England's confirmation that this matter is resolved.
REP7-152:31	3.8.7; Q46	NE maintains that there is still a risk of AEol on ornithology receptors at FFC SPA as a result of impacts to prey species [REP5-061, NE12]. Can NE confirm which specific qualifying features of FFC SPA this applies to and whether this is for the project alone and/ or in-combination?	Natural England consider that for those features where AEol cannot be ruled out (kittiwake, guillemot and razorbill), this impact pathway will, without resulting in an AEol in its own right, intensify the effects on those species. This would be for the AEol impacts of the Projects alone with respect to kittiwake, and in-combination AEol for guillemot and razorbill. See Q52 for further detail.	The Applicants direct Natural England to REP7-152:35 below.
<b>3.9 Summary of examination outcomes in relation to adverse effects on integrity</b>				
REP7-152:32	4.5.28; Q.48	The ExA has set out its understanding of the ANCB's positions at the time of publication of this RIES in Annex 1. Please review Annex 1 and provide any corrections if necessary.	Natural England has provided comments as needed within the relevant sections for each Annex 1 Table below.	The Applicants direct Natural England to their responses to these comments in <b>Table 2-11</b> of this document.
<b>4 DEROGATIONS FROM THE REGULATIONS</b>				
<b>Summary of examination outcomes to date in relation to Annex I habitat compensation</b>				
REP7-152:33	4.5.28; Q49	Paragraph 17 of the Strategic compensation measures for offshore wind activities: Marine Recovery Fund interim guidance, published 29 January 2025 includes a statement that at all stages of the NSIP planning process, as an application progresses, the draft DCO requirements regarding compensation measures may be updated as more clarity on MPA designations and/ or extensions becomes available, and certainty as to the type of compensation which is available and is being delivered increases over time. Are the requirements in the draft DCO [REP5-002] in relation to the strategic compensation for benthic habitats as up to date and as clear as possible based on the latest information available at this time? If not and further clarity could be provided, please state where and suggest wording if possible.	Natural England will provide our response to this question at DL8.	No response is required.
<b>4.6 Compensatory measures – Marine ornithology</b>				



I.D.	Section	Question/Comment	Natural England Response	Applicants' Response
REP7-152:34	4.6.3; Q51	NE explained in [REP5-062, OR.2.26] that compensation requirements for seabird assemblages are typically handled by the species-specific proposals. Can NE explain whether it considers compensation for the seabird assemblage has been sufficiently accounted for?	Natural England are satisfied that compensation for the seabird assemblage will be sufficiently accounted for via the project specific proposals.	The Applicants welcome Natural England's agreement on this matter.
REP7-152:35	4.6.3; Q52	As noted in ID 3.7.4 and ID 3.8.7 of this RIES, NE stated it was unable to rule out AEol on harbour porpoise of SNS SAC and ornithology features of FFC SPA as a result of indirect impacts on prey species [REP5-053] [REP5-056] [REP5-061, NE12]. Does NE consider the indirect impacts on prey species can be quantified to the extent that the quantum of compensatory measures required can be identified?	<p>The Applicant has not provided an adequate assessment to quantify predicted impacts on predator species as a result of impacts to localised prey populations (see REP5-056). However, we acknowledge that any such assessment would carry a high degree of uncertainty and that as a result the likely scale of potential impact would remain poorly understood. Accordingly, we do not consider the indirect impacts can be quantified in the way suggested. Looking ahead to future impact assessments, and noting the inclusion of sandeel monitoring within the Dogger Bank South In-Principle Monitoring Plan (IPMP), Natural England consider that robust monitoring should be undertaken to fill evidence gaps with respect to this pathway. We direct the Applicant to outputs produced by JNCC (Report 767, 2024<sup>4</sup>) and the PrePARED project which provide recommendations for future work targeting both birds and mammals in relation to prey availability.</p> <p>See Q53 below with respect to compensation measures.</p>	<p>The Applicants highlight that the assessment of effects on prey was undertaken in line with best practice as per consented offshore wind farms. The assessment rational and results are set out in the <b>Effects on Prey Species Technical Note (Revision 2)</b> [REP6-049]</p> <p>The Applicants acknowledge the PrePARED work but highlight that the report cited states that:</p> <p><i>Depletion of fish prey in the North Sea, <b>caused by climate change and/or fisheries activities</b>, is a key pressure contributing to poor kittiwake population status. The ecological mechanisms and processes underpinning the interactions between kittiwakes and their fish prey are complex and need to be better understood in order to inform robust, evidence-based ecological measures that would improve the viability of seabird populations of conservation importance.</i></p> <p>This highlights two key points</p> <ul style="list-style-type: none"> <li>• The key pressures on prey resources are not related to offshore wind</li> <li>• The ecological mechanisms of predator/prey relationships are complex and not understood at the present time.</li> </ul> <p>This therefore is a clear example of Natural England raising issues that are poorly understood for which they have no guidance and suggesting that this is a deficiency of the Applicants assessment.</p>
REP7-152:36	4.6.3; Q53	What measures does NE consider could be employed to compensate for the indirect impacts on prey species?	As noted in our response to Q46, we consider that impacts on prey species will intensify the already adverse effects acting on FFC SPA features. We therefore advise that this impact pathway is a source of under-precaution in the current assessment, and that it is challenging to gauge its significance. We therefore reiterate our advice regarding the importance of taking a suitably precautionary approach to calculating the compensation quantum, for example using the Hornsea 3 Part 2 method	<p>As discussed in in the <b>Effects on Prey Species Technical Note (Revision 2)</b> [REP6-049] there are two ways that the Projects have effect in relation to predator/prey interactions</p> <ul style="list-style-type: none"> <li>• Where individuals (predators) are subject to displacement effects, the mortality from this is assumed to result from a reduction in access to prey. So, in this case, consideration</li> </ul>

<sup>4</sup> Ruffino, L. & Black, J. 2024. Interactions between black-legged kittiwakes and their fish prey in the North Sea. Report of the JNCC-Ørsted workshop, Edinburgh, October 2023. JNCC Report 767. JNCC, Peterborough, ISSN 0963-8091. <https://hub.jncc.gov.uk/assets/9627551b-3805-4bcc-9db8-bbad34841537>

I.D.	Section	Question/Comment	Natural England Response	Applicants' Response
			<p>where appropriate, scaling measures to the 95% Upper Confidence Interval (95% UCI) rather than the mean impact value and applying a suitable ratio. This will increase the level of confidence that the proposed compensatory measures can encompass the hard-to-quantify effects of reductions in prey availability.</p> <p>Should the Secretary of State be minded to require compensation specifically targeting this impact pathway, and noting that the benthic compensatory measures may need to encompass impacts on sandeels as part of Dogger Bank SAC's characteristic community of species/influential species (see RIES Q22); we consider that it would be appropriate to base compensation quantum and associated compensation delivery on habitat loss that is predicted to occur. For example, where new sandbank feature is designated to compensate for impacts to Dogger Bank SAC, selection criteria for the new habitat should include it providing similar ecological functionality and structure, i.e. inclusion of suitable sandeel habitat equivalent to the worst case area of loss due to the Projects, and being within the foraging range of FFC SPA species. However, given the strategic nature of the benthic compensation measure we recognise that this is not in the Applicant's gift to provide.</p>	<p>of any indirect effects via effects on prey is double counting to some degree (e.g. the predators are already displaced from the Array Areas so effects on prey within these locations have no additional effect). This effect is assessed to the level required by Natural England and they have agreed with the assessment of displacement (see G11 of Natural England's Deadline 7 Risk and Issues Log [REP7-154].</p> <ul style="list-style-type: none"> <li>Where predators are not displaced, there are two considerations. 1) The area which can no longer be used for foraging which is confined to the immediate footprint of the infrastructure (or disturbance footprint if following Natural England position). 2) The direct effects on the prey themselves (disturbance, noise impacts etc).</li> </ul> <p>The Applicants note that the effects of the Projects are minimal in scale (i.e. highly localised) when compared to the key pressures, identified by Natural England themselves in the PrePARED work, upon prey resource (climate change and fisheries which act at the scale of the North Sea). There is no uncertainty that these footprints are minimal compared to these larger processes.</p> <p>The Applicants have previously highlighted the scale of footprint of the Projects in relation to the Dogger Bank SAC when compared to fisheries impacts (see paragraphs 23 and 24 of the <b>RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 5)</b> [REP7-016]).</p> <ul style="list-style-type: none"> <li>In combination BEIS estimated habitat loss from offshore wind in the SAC to represent 0.16% of the area</li> <li>Fisheries impacts were considered to have affected 70.5% of the SAC</li> </ul> <p>Natural England seem therefore to be suggesting that because of external factors, unrelated to the Projects in relation to prey, that the Projects should overcompensate in relation to collision effects.</p> <p>The Applicants consider that the aim of the Projects is to counter climate change – one of the key pressures on the prey species.</p>

Table 2-11 – The Applicants’ response to Natural England’s Annex 1 Exa’s Understanding of Position at Point of RIES Publication [REP7-152]

I.D.	Section	Question/Comment	Natural England Response	Applicants’ Response
Table 2: Annex I habitats (Offshore, intertidal and terrestrial)				
Dogger Bank SAC				
Qualifying feature screened in: Sandbanks which are slightly covered by sea water all the time				
REP7-152:37	RIES Q59	<p>The ExA understands the LSE pathways listed in this row are not of concern to NE. Can NE confirm if it agrees an AEol can be excluded?</p> <p>Changes in suspended solids (water clarity) (C, O, D)</p> <p>Smothering and siltation rate changes (heavy) (C, O, D)</p> <p>Smothering and siltation rate changes (light) (C, O, D)</p> <p><del>Electromagnetic changes (O)</del></p> <p><del>Hydrocarbon &amp; Polyaromatic Hydrocarbon (PAH) contamination (C, O, D)</del></p> <p>Introduction or spread of invasive non-indigenous species (INIS) (C, O, D)</p> <p><del>Synthetic compound contaminant (including pesticides, antifoulants, pharmaceuticals) (O)</del></p> <p><del>Transition elements &amp; organometal (e.g. TBT) contamination (C, O, D)</del></p>	<p>Natural England consider that the Introduction of INIS pathway will contribute to AEol conclusions, as it includes the introduction of species non-native to soft-substrate habitats so is associated with the colonisation of hard infrastructure and ecological halo effects.</p> <p>We also consider that Changes in suspended solids (water clarity) (C, O, D), Smothering and siltation rate changes (heavy) (C, O, D) and Smothering and siltation rate changes (light) (C, O, D) should remain in scope (see Q15 and Q20).</p> <p>Those LSE pathways that are no longer a concern, and therefore excluded from AEol are crossed out.</p>	<p>With regard to SSC or sedimentation any non-trivial changes occur within the footprint already assessed for abrasion/disturbance in section 6.4.2.1.1 <i>Abrasion/disturbance of the substrate</i>, therefore there is no additional footprint of effect. The Applicants do not consider that these are pathways for AEol, however if the Secretary of State does not agree, there is no additional footprint required for consideration as it would lie within the same footprint assessed for abrasion/disturbance in section 6.4.2.1.1 <i>Abrasion/disturbance of the substrate</i>.</p> <p>Likewise for INIS, any INIS will be associated either with the above seabed infrastructure or be within the ‘ecological halo’. The Applicants do not consider that these are pathways for AEol, however if the Secretary of State does not agree, there is no additional footprint required for consideration as it would lie within the same footprints indicated for consideration on a without prejudice basis in Ecological Halo Effects Technical Note [REP5-041].</p> <p>If the Secretary of State considers that both abrasion/disturbance and habitat loss (including halo effects) contribute to habitat loss, the footprints have been provided (see Table 6-7 of the <b>RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 5)</b> [REP7-016]).</p>
Table 4: Annex II marine mammals (offshore)				
SNS SAC				
Qualifying feature screened in: Harbour porpoise				
REP7-152:38	RIES Q60	<p>The ExA understands the LSE pathways listed in this row are not of concern to NE. Can NE confirm if it agrees AEol can be excluded?</p> <p>Disturbance from vessels due to presence and underwater noise (C, O, D)</p> <p>Barrier effects from underwater noise (C, O, D)</p> <p>Vessel interaction (increase in risk of collision) (C, O, D)</p> <p>Disturbance to porpoise foraging at sea (C, O, D)</p>	<p>As detailed in Q28 and Q32, Natural England is of the view that an AEol can now be ruled out for harbour porpoise on SNS SAC.</p> <p>However, as a general note we consider that the pathway ‘Disturbance to porpoise foraging at sea (C,O,D)’ should be considered alongside ‘Behavioural impacts resulting from underwater noise’ for the construction phase, as the daily and seasonal thresholds for disturbance within SNS SAC (20% and 10% respectively) relate to harbour porpoise being disturbed from foraging areas due to underwater noise.</p>	<p>The Applicants welcome Natural England’s agreement that an AEol can now be ruled out for harbour porpoise on SNS SAC.</p>

I.D.	Section	Question/Comment	Natural England Response	Applicants' Response
		Barrier effects due to the physical presence of offshore infrastructure (O)		
<b>Humber Estuary SAC and Ramsar site</b> <b>BNNCSAC</b> Qualifying feature screened in: Grey seal				
REP7-152:39	RIES Q61	<p>The ExA understands the LSE pathways listed in this row are not of concern to NE. Can NE confirm if it agrees AEol can be excluded?</p> <p>Behavioural impacts resulting from underwater noise (C, O, D)</p> <p>Physical or auditory injury resulting from underwater noise (C, O, D) (in combination)</p>	As detailed in Q28, Natural England is of the view that an AEol can now be ruled out for grey seal in the Humber Estuary SAC (and Ramsar) and BNNC SAC. We confirm that the LSE pathways listed are not of concern.	The Applicants welcome Natural England's confirmation on this matter.
<b>The Wash and North Norfolk Coast SAC</b> Qualifying feature screened in: Harbour seal				
REP7-152:40	N/A	N/A	<p>As raised in [REP6-075], Natural England are currently unable to rule out AEol for harbour seal in WNNC SAC due to the following impact pathways:</p> <ul style="list-style-type: none"> <li>-Physical or auditory injury resulting from underwater noise (C)</li> <li>-Behavioural impacts resulting from underwater noise (C)</li> <li>-Disturbance to seals foraging at sea (C)</li> </ul> <p>However, we understand that the Applicant is intending to submit an illustrative assessment demonstrating the impact reductions that would be achieved with mitigation applied for this feature at Deadline 7. If this is satisfactory, the updated DCO condition to be submitted at Deadline 7 (see Q28) would also be sufficient to rule out AEol on this feature.</p>	The Applicants confirm that an updated version of the <b>Illustrative Underwater Noise Reduction Technical Note (Revision 3)</b> [REP7-125] was submitted at Deadline 7, which included additional assessment of potential impacts on the Wash and North Norfolk Coast SAC.

## 2.8 Natural England – Appendix O7

Table 2-12 – The Applicants’ response to Natural England’s Response to ExA schedule of recommended Changes to the Draft DCO [REP7-151]

I.D.	Reference	Text as set out in the draft DCO	ExA’s recommended amendment/insertion	Reasons and notes	Natural England’s Response	Applicants’ Response
ARTICLES						
REP7-151:1	Schedule 10 – DML1; Schedule 11 – DML2: Part 2, 7(2)(g) Schedule 12 – DML3; Schedule 13 – DML4: Part 2, 5(2)(g) Schedule 14 – DML5: Part 2, 3(2)(d)	(g) Cable protection replenishment;	(g) Cable protection replenishment <b>outside European marine designated sites with benthic habitats as qualifying features for a maximum period of ten years post construction;</b>  (h) Cable repairs and replacement;  (i) Access ladder and boat landing replacement;  (j) Wind turbine generator and offshore accommodation platform anode replacement; and  (k) J-tube repair/replacement.	NE’s standard advice is that cable protection should only be deployed for a maximum period of 10 years from the commencement of operations outside of designated sites. The ExA is currently persuaded that it is prudent at this stage to include this in line with previously made DCOs.	Natural England welcome the suggested amendments to cable protection replenishment outside of European marine designated sites. If implemented, we consider this would resolve this aspect of our concerns. [R&I, A15].	The Applicants do not agree with the proposed change – please see <b>The Applicants’ Closing Statements</b> [document reference 18.2] for their position on cable protection replenishment.
REP7-151:2	Schedule 10 – DML1; Schedule 11 – DML2: Part 2, 7(7)(8) Schedule 12 – DML3; Schedule 13 – DML4: Part 2, 5(7)(8) Schedule 14 – DML5: Part 2, 3(7)(8)	n/a	<b>7. — (7) No cable protection can be replenished within European marine designated sites with benthic habitats as qualifying features unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body and the Maritime and Coastguard Agency.</b>  <b>(8) The undertaker is not required to comply with sub-paragraph (7) in a case of emergency.”</b>	NE’s Risk and issue log at deadline 6, point A15/A19 [REP6-077] continues to state a significant disagreement on the issue of cable protection replenishment within designated sites for benthic features. Within any designated sites for benthic features, such as the Dogger Bank SAC, NE states the condition should stipulate that there should be no deployment of cable protection after the completion of construction. The ExA therefore considers the revised wording would allow the relevant statutory nature conservation body to have the necessary degree of oversight of any cable protection replenishment required within designated sites from a safety perspective and has therefore included the need for the Maritime and Coastguard Agency to be consulted.	Natural England welcome the suggested addition to cable protection replenishment within European marine designated sites. However, we advise that rather than stipulating agreement with MMO, that this should be subject to a new Marine Licence for such replenishment [R&I, A15, A21].	The Applicants do not agree with the proposed change – please see <b>The Applicants’ Closing Statements</b> [document reference 18.2] for their position on cable protection replenishment.



I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
REP7-151:3	<b>Schedule 10 – DML1;</b> <b>Schedule 11 – DML2:</b> Part 2, 15(1)(c)(i) <b>Schedule 12 – DML3;</b> <b>Schedule 13 – DML4:</b> Part 2, 13(1)(c)(i) <b>Schedule 14 – DML5;</b> Part 2, 11(1)(c)(i)	(bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum and, in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House) to be taken to ensure existing and future safe navigation is not compromised or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and	(bb) a detailed cable laying plan for the authorised scheme, incorporating a detailed burial risk assessment encompassing the identification of any cable protection that exceeds 5 percent of navigable depth referenced to Chart Datum and, in the event that any area of cable protection exceeding 5 percent of navigable depth is identified, details of any steps (to be determined following consultation with the MCA, and Trinity House and the MMO in consultation with the statutory nature conservation body) to be taken to ensure existing and future safe navigation is not compromised or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and	The wording has been added in response to NE's deadline 6 response [REP6-072] advising that if cable protection would be required at greater heights, that this should also be agreed with the MMO in consultation with the SNBC.	Natural England welcome the suggested amendment; however we advise that additional consideration should be given to this being a requirement within the 10m depth contour only, and that reassessment of sediment transport processes would be required. Natural England have seen and are supportive of MMO's proposed amendments to this condition that will be submitted in their response to this document, which include these aspects. [R&I, B23].	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].
REP7-151:4	<b>Schedule 10 – DML1;</b> <b>Schedule 11 – DML2:</b> Part 2, 15(1)(g) <b>Schedule 12 – DML3;</b> <b>Schedule 13 – DML4:</b> Part 2, 13(1)(g)	(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	(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; <b>the noise reduction</b>	The ExA is currently persuaded by the preferred condition wording as advised by the MMO [REP6-069] and NE [REP6-075] which is to replace 'consideration of' with 'the use of'. MMO and NE consider that the phrasing 'consideration of' leaves ambiguity at the post consent stage that could mean no mitigation is applied post consent when this will be required.  Due to the outstanding concerns by NE at deadline 6 of AEoI for marine mammal species at the North Norfolk Coast and Wash SAC, Southern North Sea SAC and Humber Estuary SAC, but confirmation by NE that AEoI	Natural England are satisfied that were this amendment to be made, it would be sufficient to address our concerns with respect to securing additional mitigation for underwater noise impacts and enable us to rule out AEoI on marine mammal features of concern. However, we note that the Applicant has given us sight of an updated condition to be submitted at DL7 which we consider is also sufficient to resolve our concerns. Natural England would therefore be content for either of these amendments to be consented in the final DCO, though we consider the	The Applicants have agreed wording for a condition in relation to the mitigation of underwater noise from piling with the MMO and Natural England and this was included in the <b>Draft DCO (Revision 10)</b> [REP7-011] submitted at Deadline 7. Therefore, the Applicants do not consider the ExA's recommended wording is required as the Applicants have now resolved this matter with the MMO and Natural England.

I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
		protocol must include full details and justification for the mitigation chosen or excluded for deployment;	<b>methods employed must achieve at least a 10dB reduction in underwater noise at a frequency band approved by the MMO in consultation with the relevant statutory nature conservation body and verified by the monitoring set out in the final MMMP informed by the outline MMMP;</b>	would be ruled out if the applicants confirmed the use of noise reduction methods to deliver at least a 10dB reduction in underwater noise [REP6-075], the ExA currently considers it appropriate and reasonable to add further to the condition that at least a 10dB reduction must be achieved by the use of noise reduction systems, verified by the monitoring set out in the final MMMP informed by the outline MMMP.	additional inclusion of monitoring in the ExA's condition is welcome.	
REP7-151:5	<b>Schedule 10 – DML1;</b> <b>Schedule 11 – DML2:</b> Part 2,15(1)(k) <b>Schedule 12 – DML3;</b> <b>Schedule 13 – DML4:</b> Part 2,13(1)(k) <b>Schedule 14 – DML5:</b> Part 2,11(1)(j)	n/a	<b>(k) Impacts of unexploded ordnance (UXO) clearance with and without additional mitigation measures will be presented in the final UXO clearance MMMP and UXO clearance Marine Licence Application;</b>	The ExA is currently persuaded by NE's advice is that the impacts of UXO clearance with and without additional mitigation measures should be presented in the final UXO clearance MMMP and UXO clearance Marine Licence Application.	Natural England welcome this amendment. [R&I F7, F22]	The Applicants' position is that this will be dealt with as part of the separate marine licence application for UXO clearance and so the proposed change is not necessary. Please see <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130] for further details.  The MMO do not believe that this wording is necessary either because any Marine Licence Application would require a MMMP to be submitted with additional mitigation measures or the MMO would not be able to approve the marine licence. This position was stated in REP7-148: 7.11 Part 2,15(1)(k) of the MMO's Deadline 7 response [REP7-148].
REP7-151:6	<b>Schedule 10 – DML1;</b> <b>Schedule 11 – DML2:</b> Part 2, 15(1)(l) <b>Schedule 12 – DML3;</b> <b>Schedule 13 – DML4:</b> Part 2,13(1)(l) <b>Schedule 14 – DML5:</b> Part 2, 11(1)(k)	n/a	<b>No construction activities that interact with the seabed associated with the authorised development may be undertaken between 1 August to 31 October inclusive between Kilometre Point 20 to Kilometre Point 60, unless otherwise agreed in writing by the MMO</b>	The ExA is currently persuaded by advice from the MMO [REP6-069] that a three month seasonal restriction is required during the Banks herring season to construction activities that interact with the seabed through the spawning ground between 1 August to 31 October	Natural England are supportive of this amendment; however we understand that updated conditions have also been developed by the Applicant and MMO related to this restriction which are to be submitted by the Applicant at DL7. We will provide further comment on these at DL8. [R&I, E16]	The Applicants have agreed wording for a temporal restriction on cable installation works within KP20 – KP40 with the MMO and Natural England and this was included within the <b>Draft DCO (Revision 10)</b> [REP7-011] submitted at Deadline 7.

I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
			in consultation with the relevant statutory nature conservation body.	inclusive so that the risk of disturbance to gravid herring engaged in spawning is negated [REP5-049]. The MMO has advised [REP6-069] this restriction should apply between Kilometre Point 20 to Kilometre Point 60.		
REP7-151:7	Schedule 10 – DML1; Schedule 11 – DML2: Part 2,15(1)(m) Schedule 12 – DML3; Schedule 13 – DML4: Part 2,13(1)(m) Schedule 14 – DML5 Part 2,11(1)(l)	n/a	(m) No piling or construction activity interacting with the seabed associated with the proposed development can commence until a spawning herring construction restriction plan has been submitted to and approved by the MMO. The spawning herring construction restriction plan must include details of verified noise mitigation measures to be employed to achieve a 10dB reduction at a frequency band approved by the MMO in consultation with the relevant statutory nature conservation body and any necessary details to ensure adherence to the seasonal restriction of construction activities that interact with the seabed specified in condition 2,15(1)(l).	The ExA considers it pragmatic to follow the example of the Rampion 2 made DCO for which a condition was made for an outline spawning herring piling restriction plan upon which a final spawning herring piling restriction plan should be based. For this proposed development there are two potential aspects to potential seasonal restrictions i) related to construction activities that interact with the seabed and ii) related to underwater noise associated with piling construction activities. Therefore, the ExA considers it sensible for there to be a condition within the DMLs for an outline spawning herring construction restriction plan to address the potential effects from both these pathways.	Natural England are supportive of this amendment; however, we understand that updated conditions have also been developed by the Applicant and MMO related to this restriction which are to be submitted by the Applicant at DL7. We will provide further comment on these at DL8. [R&I, E16]	The Applicants have agreed wording for a temporal restriction on piling activities that would affect certain areas of herring spawning grounds with the MMO and Natural England and this has been included in the <b>Draft DCO (Revision 10)</b> [REP7-011] submitted at Deadline 7 on a without prejudice basis, as the Applicants do not agree that it is necessary or supported by robust scientific evidence.
REP7-151:8	Schedule 10 – DML1; Schedule 11 – DML2: Part 2,16(2)(3) Schedule 12 – DML3; Schedule 13 – DML4: Part 2,14(2)(3)	(2) The SIP submitted for approval must contain a description of the conservation objectives for the Southern North Sea Special Area of Conservation ("SNS SAC") as well as any relevant management measures and it must set out the key statutory nature conservation body advice on activities within the SNS SAC relating to piling as set out within the JNCC Guidance and how this has been considered	(2) The SIP submitted for approval must contain a description of the conservation objectives for the Southern North Sea Special Area of Conservation ("SNS SAC"), <b>North Norfolk Coast and Wash Special Area of Conservation ("NNCW SAC")</b> and the <b>Humber Estuary SAC</b> as well as any relevant management measures and it must set out the key statutory nature conservation body advice on activities within the SNS SAC, <b>NNCW SAC and the Humber Estuary SAC</b> relating to piling as set out within the JNCC Guidance and	Given the outstanding concerns from NE at this stage of the examination, specifically that NE cannot at this stage rule out AEol for harbour seal at the NNCW SAC or for grey seal at the Humber Estuary SAC, the ExA considers it prudent to expand the coverage of the SIP to include these designated areas.  The ExA is currently persuaded by suggested amendments to sub-paragraph (3) to the timing of the	As detailed above, Natural England are satisfied that conditions related to noise mitigation for piling works, to be submitted by the Applicant at DL7 or amended by the ExA, are sufficient to enable us to rule out AEol for impacts to grey seal (Humber Estuary SAC & Berwickshire and North Northumberland Coast (BNNC) SAC). Whilst we cannot currently rule out adverse effects for harbour seal in the Wash and North Norfolk Coast (WNNC) SAC, we anticipate this may	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].  The Applicants agree with Natural England that the SIP process was intended to deal only with the Southern North Sea SAC and that it is not appropriate for any other SACs to be added to this condition.

I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
		<p>in the context of the authorised scheme.</p> <p>(3) The SIP must be submitted in writing to the MMO no later than six months prior to the commencement of piling activities.</p>	<p>how this has been considered in the context of the authorised scheme.</p> <p>(3) The SIP must be submitted in writing to the MMO no later than six months prior <b>and no sooner than 9 months prior</b> to the commencement of piling activities.</p>	<p>submission for the SIP based on continued advice from NE <a href="#">[REP6-077]</a>.</p>	<p>be resolved at Deadline 8. [R&amp;I, F18, F19, F23].</p> <p>In addition, the SIP process was created to manage in-combination noise in the SNS SAC with respect to the specific disturbance thresholds for that site. The equivalent thresholds do not exist for the seal SACs. Natural England therefore recommend that BNNC SAC, WNNC SAC and Humber Estuary are not included in this condition.</p> <p>Natural England welcome the suggested amendments to sub-paragraph (3) to the timing of the submission for the SIP [R&amp;I, A10].</p>	<p>The Applicants do not agree that the 9 month restriction is necessary or proportionate as it is possible that piling programmes will be known in sufficient detail more than 9 months in advance of piling operations. The Applicants are aware that it has taken other Projects approximately 12 months to receive SIP approval following submission, demonstrating that piling programmes can be known in sufficient detail more than 9 months prior to piling and that an earlier submission is reasonable to avoid costly delays to construction programme that could arise if the Applicants are restricted to a 9 month submission. Therefore, the Applicants do not consider it to be reasonable to restrict the submission of the SIP in such a way.</p>
REP7-151:9	<p><b>Schedule 10 – DML1;</b></p> <p><b>Schedule 11 – DML2:</b></p> <p>Part 2, 20(4)(a)</p> <p><b>Schedule 12 – DML3;</b></p> <p><b>Schedule 13 – DML4:</b></p> <p>Part 2, 18(4)(a)</p> <p><b>Schedule 14 – DML5:</b></p> <p>Part 2, 14(4)(a)</p>	<p>(4) The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, include, but not be limited to, the need to undertake—</p> <p>(a) a survey to determine the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works;</p>	<p>4) The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, include, but not be limited to, the need to undertake—</p> <p>(a)</p> <p>a survey to determine the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works; <b>where cable protection is proposed within habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or superficial deposits of glacial till, a survey report must be submitted to the</b></p>	<p>The ExA is currently persuaded by responses in NE's deadline 6 recommendation in section ii) page 2 of Appendix C6 advice on benthic and intertidal ecology <a href="#">[REP6-073]</a> and has therefore added the suggested wording to sub-paragraph (a)</p>	<p>Natural England welcome the requirement of a survey report where cable protection is proposed within such habitats. [R&amp;I, C3, E9, E22, E14]</p>	<p>The Applicants do not agree with the proposed change, highlighting that it is impractical in terms of the balance of impacts and benefits to different and overlapping habitats that would need to be struck to discharge this condition – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].</p>



I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
			MMO following completion of the relevant survey to justify with evidence the need for the proposed locations and extent of any cable protection in those locations, demonstrating how the extent of cable protection has been kept to a minimum for each;			
REP7-151:10	Schedule 10 – DML1; Schedule 11 – DML2: Part 2, 20(4)(e) Schedule 12 – DML3; Schedule 13 – DML4: Part 2, 18(4)(e)	n/a	(e) a survey of seabird densities and distributions in the study area to identify areas where impacts are likely to be particularly high. The report must include an explanation of how this additional post- consent ornithological mapping has influenced the array, size or layout to mitigate impacts as much as possible.	The ExA currently considers that the further surveys of seabird densities and distributions in the study area advocated by NE may help to identify areas where impacts are particularly high, and that might be suitable for changes to array size or layout to mitigate impacts.	<p>We welcome the ExA's recognition that a seabird density hot-spot analysis could deliver significant mitigation benefits and the proposal of a condition to secure this. Whilst it would have been preferable for such an analysis to be discussed during the Examination, such a condition might afford a post-consent reduction in the high predicted impacts from these two projects and so is worthy of careful consideration. We invite the ExA to consider i) how it might operate in practice in the post-consent period, given that SoS will need to have assessed whether there are no alternative solutions with lesser impacts before allowing a derogation under the Habitats Regulations; ii) given the appropriate assessment will be based on a specific set of impacts, how a lower level of impact arising from the proposed analysis might be secured post-decision and iii) whether it would be more appropriate for the DCO rather than the dML to contain such a condition, with SoS needing to approve the plan, and in turn how practicable it will be for SoS (or MMO if it remains solely in the dML) to discharge the condition.</p> <p>Whilst such an exercise would potentially be strengthened by the addition of further survey data, Natural England would be content</p>	<p>The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].</p> <p>In addition, the Applicants highlight that <b>Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots</b> [REP7-137] document submitted at Deadline 7, provides examples of the site-specific aerial survey data that was collated and examined (pre-application) to indicate what (if any) areas within The Crown Estate lease options showed higher and lower densities of birds.</p> <p>The Applicants consider that the detail presented in <b>Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots</b> [REP7-137] sufficiently demonstrates that all reasonable steps have been taken to avoid potential areas of high abundance for ornithological receptors, and that additional survey work would not provide any material evidence for which to inform any further refinement of the Projects Array Areas.</p>



I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
					should the suggested analysis set out in our representations be undertaken with the Applicant's existing baseline survey data, rather than the Applicant undertaking new surveys.	
REP7-151:11	<b>Schedule 10 – DML1;</b> <b>Schedule 11 – DML2:</b> Part 2, 21(2) <b>Schedule 12 – DML3;</b> <b>Schedule 13 – DML4:</b> Part 2, 19(2)	(2) In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.	(2) In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing. <b>As part of the piling monitoring planned and undertaken, if the worst-case piles are not included in the first four piles to be monitored, then two of the worst-case piles must be monitored in addition to the first four piles and results analysed and shared with the MMO and statutory nature conservation body for validation purposes.</b>	The ExA is currently persuaded by the MMO's current position <a href="#">[REP5-049]</a> that there should be a commitment that two of the worst-case piles would be monitored, which may be after the first four piles, which would allow the predictions to be validated.	Natural England welcome the suggested amendment to this condition.	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> <a href="#">[REP7-130]</a> .
REP7-151:12	<b>Schedule 10 – DML1;</b> <b>Schedule 11 – DML2:</b> Part 2, 22(3)(e) <b>Schedule 12 – DML3;</b> <b>Schedule 13 – DML4:</b> Part 2, 20(3)(e)	(d) undertake post-construction vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan by automatic identification system for a duration of three consecutive years following the completion of construction of the authorised project, unless otherwise agreed in writing by the MMO, with provision for a report to be submitted annually to the MMO, Trinity House and the MCA; and  (e) undertake any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g).	(d) undertake post-construction vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan by automatic identification system for a duration of three consecutive years following the completion of construction of the authorised project, unless otherwise agreed in writing by the MMO, with provision for a report to be submitted annually to the MMO, Trinity House and the MCA; and  (e) undertake any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g), <b>including monitoring of operational underwater noise levels along with a</b>	The ExA understands there is a significant gap in knowledge of the operational underwater noise levels of wind turbine generators of size proposed by the proposed development and that that the turbine sizes used to inform operational noise modelling are considerably smaller Appendix F5 <a href="#">[REP5-057]</a> .  As NE raised a concern around the adequacy of the proposed monitoring of marine mammals and validation of the effectiveness of mitigation which continues to be unresolved <a href="#">[REP6-077]</a> . The ExA considers the additional wording may assist to resolve this issue.	Natural England welcome the inclusion of this amendment, however we consider it would sit better within the provision of a specific Marine Mammal Monitoring Plan, rather than within the Marine Mammal Mitigation Protocol.  Monitoring in the Mitigation Protocol is to ensure that the mitigation applied to reduce construction impacts is working as intended, rather than to provide post-consent monitoring to validate impacts.  We consider the requested plan and monitoring could be secured explicitly within the dML in a standalone monitoring condition and included within updates to the Applicant's In-Principle Monitoring Plan.	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> <a href="#">[REP7-130]</a> .

I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
			verification process to check they remain within those predicted within the environmental statement; and			
REP7-151:13	Schedule 10 – DML1; Schedule 11 – DML2: Part 2, 22(3)(f) Schedule 12 – DML3; Schedule 13 – DML4 Part 2, 20(3)(f) Schedule 14 – DML5: Part 2, 16(3)(d)	n/a	undertake any monitoring necessary to validate the predictions made in the ES and HRA with respect to potential effects from indirect impacts on benthic Annex I habitats and linked receptor groups as relevant. Discussions should take place in advance with the MMO in consultation with the statutory nature conservation body on how potential indirect ecosystem impacts will be monitored and reported and written agreement on the approach to monitoring and evaluating indirect effects should be obtained from the MMO in consultation with the statutory nature conservation body before construction commences.	Indirect effects between different receptor groups has been a constant and significant issue throughout the examination and remains largely unresolved. NE state it is particularly important to further understand indirect effects in relation to the placement of infrastructure within Dogger Bank SAC and along the ECC where there is a potential impact pathway to Holderness Inshore MCZ. The ExA currently considers it reasonable and prudent to follow the SNCB's advice but also recognises that the approach to how this could be done needs to be discussed with the statutory nature conservation body	Natural England welcome the suggested addition regarding monitoring of indirect impacts on benthic Annex 1 habitats and linked receptor groups. We direct the ExA to our response to RIES Question 52 in Appendix N7 of our Deadline 7 submission, where we have recommended that monitoring of this nature is undertaken.  We defer to the MMO on the most appropriate way for this to be secured, but we consider the detail within the IPMP for sandeel monitoring could be expanded to include these aspects, with provision of a Sandeel and Indirect Effects Monitoring Plan to be secured in the dML.	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].
REP7-151:14	Schedule 10 – DML1; Schedule 11 – DML2: Part 2, 22(5) Schedule 12 – DML3; Schedule 13 – DML4: Part 2, 20(5)	(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.	(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring or impacts which are unanticipated and/or in the view of the MMO in consultation with the relevant statutory nature conservation body are significantly beyond those predicted within the environmental statement, the Habitats Regulations Assessment, and the Marine Conservation Zone Assessment the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed and an adaptive management plan to reduce effects to within what was predicted within the environmental statement, the Habitats Regulations Assessment, and the Marine	The MMO requests that a provision for adaptive management is included within construction monitoring and surveys and NE expressed a significant concern regarding the degree of adaptive management in the draft DCO in appendix J [REP3-056]. The ExA notes the additional wording on adaptive management to Revision 4 of the In Principle Monitoring Plan [REP5-027] does not commit the effects to be reduced to within what was predicted within the environmental statement, rather it suggests additional monitoring and further discussion with the MMO and statutory nature conservation bodies. The ExA also notes the dDCO applies adaptive management directly to	Natural England welcome the inclusion of these amendments. We suggest the following additional amendment for the Examiner's consideration: "...the requirement for any additional monitoring and/or remedial action will be agreed with the MMO in writing and implemented as agreed...".  Natural England defer to the MMO on this matter, but we question whether the final sentence of the amendment is necessary, as if the works require a consent our understanding is that it would not be possible to do them prior to this being granted.	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's Proposed Schedule of Changes to the dDCO</b> [REP7-130].

I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
			<p>Conservation Zone Assessment, unless otherwise agreed by the MMO in writing in consultation with the relevant statutory nature conservation body, must be submitted alongside the monitoring reports submitted under sub-paragraph (4). This plan must be agreed by the MMO in consultation with the relevant statutory nature conservation bodies to reduce effects to an agreed suitable level for this project. Any such agreed and approved adaptive management or mitigation should be implemented and monitored in full to a timetable first agreed in writing with the MMO in consultation with the relevant statutory nature conservation body. In the event that this adaptive management or mitigation requires a separate consent, the undertaker must apply for such consent. Where a separate consent is required to undertake the agreed adaptive management or mitigation, the undertaker shall only be required to undertake the adaptive management or mitigation once the consent is granted.</p>	<p>aspects related to kittiwake and guillemot and razorbill implementation management plans and the ExA considers it appropriate this is extended to other receptors as has been done in other recent made DCOs for OWFs and has suggested the wording which has been accepted by the Secretary of State on other made DCOs. This would be useful to address concerns related to potential impacts to any ecological receptor and also specific concerns including, but not limited to:</p> <ul style="list-style-type: none"> <li>• monitoring and remedial action for potential sediment blockage and repair of any breach at Spurn point</li> <li>• potential impacts to Holderness Inshore MCZ and Humber Estuary SAC</li> <li>• to provide evidence to support the use of the assumption that the bottlenose dolphin baseline distribution along the northeast English coast is the same as in Scotland.</li> </ul> <p>In the absence of a commitment by the applicants to commit to reduce effects to within what was predicted within the environmental statement in the relevant control document, the ExA currently sees no other option other than to add it to the face of the DCO.</p>		
REP7-151:15	Schedule 10 – DML1; Schedule 11 – DML2: Part 2, 29(4)	n/a	(4) The ornithological monitoring plan must provide details of proposed post-construction and operational surveys, including methodologies and timings, and a proposed format, content and timings for providing post-construction	The ExA considers it prudent to insert the following conditions based on other recently made DCOs, particularly in light of NE's extensive comments on the proposed ornithological monitoring in Table 1 of Appendix J [REP3-056] for which NE's	Natural England welcome the inclusion of this amendment and the acknowledgement of Natural England's advice. To fully resolve [R&I A12/A15], we consider that a monitoring plan for each thematic	The Applicants do not agree with the proposed change – please see the Applicants' response to this point in <b>The Applicants' Comments on the ExA's</b>

I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
			<p>and operational monitoring reports. The plan must—</p> <p>(a) specify each bird species survey objectives and explain how it will assist in informing a useful and valid comparison with the pre-construction position for each bird species and how it will enable the validation or otherwise of key predictions in the environmental statement;</p> <p>(b) have due regard to the need to undertake monitoring to determine the distribution and behaviour of each bird species within the array areas of the proposed developments and the rates of collision and avoidance of each bird species with wind turbine generators within the array areas; and</p> <p>(c) ensure that the outcome of the agreed surveys together with existing data and reports are drawn together to present a valid statement of the post-construction and operational position, with any limitations, and must make clear what pre-construction comparison is intended and the justification for this.</p> <p>(5) The undertaker must carry out the surveys for each bird species as agreed under sub-paragraph (4) and provide the post-construction and operational monitoring reports to the MMO and Natural England in the agreed format and in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO, in consultation with Natural England.</p> <p>(6) Any monitoring report compiled in accordance with the monitoring schemes required under sub-paragraph (4) must be provided to the MMO and Natural England no later than four months following completion of the</p>	<p>Risk and Issue log <a href="#">[REP6-077]</a> point A12/A15 continues to indicate that these concerns are not fully resolved.</p>	<p>area should be named and secured by condition in the dML.</p> <p>For DBS this should include monitoring plans for ornithology, benthic, marine processes, marine mammals, and sandeel (indirect effects).</p> <p>We have provided comments that relate to monitoring plans for some of these thematic areas in the comments above, however this condition is considerably more in depth. We will therefore provide further comment on recommendations for conditions with respect to monitoring plans at DL8, to allow for further consideration of alignment across topics.</p>	<p><b>Proposed Schedule of Changes to the dDCO</b> <a href="#">[REP7-130]</a>.</p>

I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
			<p>monitoring to which it relates, unless otherwise agreed in writing by the MMO, in consultation with Natural England.</p> <p>(7) All monitoring reports must be made publicly available and submitted to relevant evidence databases no later than six months following completion of the monitoring required by the ornithological monitoring plan unless otherwise agreed in writing by the MMO, in consultation with Natural England.</p> <p>(8) In the event that the reports provided to the MMO and Natural England under sub-paragraph (4) identify impacts which are unanticipated and/or in the view of the MMO in consultation with the relevant statutory nature conservation body are significantly beyond those predicted within the environmental statement, either an adaptive management plan to reduce effects to within what was predicted within the Environment Statement or a plan to deliver additional compensation must be submitted alongside the monitoring reports submitted under sub-paragraph (4) unless otherwise agreed by the MMO in writing in consultation with the relevant statutory nature conservation body. These plans must be agreed by the MMO in consultation with the relevant statutory nature conservation bodies. Any such agreed and approved adaptive management, mitigation or compensation should be implemented and monitored in full to a timetable agreed in writing with the MMO, in consultation with the relevant statutory nature conservation body. In the event that this adaptive management,</p>			



I.D.	Reference	Text as set out in the draft DCO	ExA's recommended amendment/insertion	Reasons and notes	Natural England's Response	Applicants' Response
			mitigation or compensation requires a separate consent, the undertaker must apply for such consent. Where a separate consent is required to undertake the agreed adaptive management, mitigation or compensation the undertaker shall only be required to undertake the adaptive management, mitigation or compensation once the consent is granted.			

## 2.9 Ørsted IPs

Table 2-13 – The Applicants’ response to Ørsted IPs Deadline 7 Document [REP7-157]

I.D.	Ørsted IPs Response	Applicants’ Response
REP7-157:1	<p>This submission is made in relation to the examination of the Dogger Bank South Offshore Wind Farm Project (the “<b>DBS Project</b>”) and is made on behalf of Hornsea 1 Limited, the collective of Breesea Limited, Soundmark Wind Limited, Sonningmay Wind Limited and Optimus Wind Limited (together, the “<b>Hornsea 2 Companies</b>”), Orsted Hornsea Project Three (UK) Limited, Orsted Hornsea Project Four Limited, Lincs Wind Farm Limited, Westernmost Rough Limited and Race Bank Wind Farm Limited (together, or in any combination, the “<b>Ørsted IPs</b>”).</p> <p>The Ørsted IPs note that only Hornsea 1 Limited, the Hornsea 2 Companies and Orsted Hornsea Project Three (UK) Limited continue to hold objections to the DBS Project relating to wake loss.</p> <p>The purpose of this submission is for the Ørsted IPs to provide comments on the submissions made by the Applicants at Deadline 6, where appropriate. The Ørsted IPs consider that the majority of the points made in the Applicants’ submissions have already been addressed via the Ørsted IPs’ position on these matters throughout submissions made by the Ørsted IPs in this examination. Therefore, the Ørsted IPs do not propose to repeat, at length, submissions that they have already made – instead, the Ørsted IPs have responded to various points on a document by- document basis where they consider it necessary and helpful to do so.</p>	<p>The Applicants are responding selectively to the points made by the Orsted IPs to avoid undue repetition.</p> <p>They may respond further at Deadline 9 to the financial impact statement which has been submitted, given the shortage of time to review it.</p>
REP7-157:2	<p><b>Applicants’ Written Summaries of Oral Submissions made at Issue Specific Hearing 6 [REP6-055]</b></p> <p>In paragraph 6 of this document, the Applicants suggest that the Ørsted IPs’ acceptance of the Applicants’ wake modelling figures upon the Hornsea 1, Hornsea 2 and Hornsea 3 offshore wind farms extends to the Ørsted IPs’ endorsement of the Applicants’ wake modelling figures upon the Projcos’ assets. The Ørsted IPs do not support this assertion – the Ørsted IPs are simply accepting the use of the modelling figures that relate to their own assets in this examination, due to the limited time remaining since the Applicants provided these, and in an attempt to act reasonably and with pragmatism. As stated throughout the examination, the Ørsted IPs would have preferred an independent assessment of wake loss. These numbers do not necessarily align with the Ørsted IPs’ internal modelling. The dispute between the Applicants and the Projcos should be resolved via technical discussions and/or through independent modelling, with the Ørsted IPs not taken to endorse either side.</p> <p>In paragraph 7 of this document, the Applicants state that “<i>there has been no custom and practice of substantive engagement on wake loss at the pre-application stage for new offshore wind farm projects</i>”. The Ørsted IPs do not agree with this statement – as previously stated in submissions, there has been such engagement and there are clear reasons why not all of this engagement has been public-facing.</p> <p>In paragraph 10 of this document, the Applicants state that “<i>there is an attempt to retrospectively apply a contested interpretation of National Policy Statement (“NPS”) EN-3 to hold the Applicants to an inappropriate standard which was not accepted to apply at the time</i>” (emphasis added). The Ørsted IPs disagree with this statement – as previously stated in submission, knowledge of the true extent of far-field wake effects emerged between 2019 and 2021. It is incumbent upon the Applicants to assess all likely significant effects as part of its Environmental Impact Assessment (“<b>EIA</b>”), not least very obviously significant economic impacts. As stated in pages 12-14 of the Ørsted IPs’ Deadline 6 Submission [REP6-085], consideration of the EIA ‘limbs’ considered by the Applicants lead to the conclusion, in the Ørsted IPs’ view, that effects from</p>	<p>The Applicants stand by their submissions. They are only responding selectively to the points raised by the Orsted IPs to avoid undue repetition.</p> <p><b>Wake Assessment</b></p> <p>The Applicants note the Orsted IPs’ position regarding the Applicant’s assessment.</p> <p>The Applicant would have welcomed an opportunity to review “Ørsted IPs’ internal modelling” referenced, as the Orsted IPs knowledge of the precise conditions at their wind farms may aid in improving accuracy, however the Orsted IPs chose not to submit their modelling.</p> <p>Regarding pre-application engagement, if the Orsted IPs are referring to projects outside the relevant Crown Estate (TCE) buffer or outside the situation where there is common project ownership, then they need to provide examples. The Applicants stand by their point.</p> <p><b>Mitigation</b></p> <p>The Applicants made a number of detailed submissions in respect of mitigation including what the Applicants consider should be regarded as criteria for reasonable mitigation. Orsted and Projcos have criticised the Applicants’ proposals but have not provided any alternative approach. Ultimately, it will be up to the Secretary of State to make a decision.</p> <p>The Applicants have carefully assessed all proposed wake mitigation measures, with site specific assessments starting in November 2023, and beyond those proposed by Orsted IPs and Projcos, and undertaken a detailed review of the available evidence. The Applicants believe this work represents a thorough and good-faith effort, supported by expert evaluation. While it is acknowledged that, in principle, mitigation decisions should not rest solely with Applicants, in this case the Applicants have demonstrated that their approach has been robust and reasonable.</p>

I.D.	Ørsted IPs Response	Applicants' Response
	<p>wake loss from the DBS Project on the Ørsted IPs' assets is likely to be major (significant), thereby meriting consideration of mitigation and/or compensation. This is only enhanced further by the production of the Financial Impact Assessment at Appendix 1 to this submission, showing total financial losses of between £84m to £295m from the DBS Project alone (rising to £106m to £319m when the cumulative impact of the Outer Dowsing Offshore Wind (Generating Station) Project is factored in). The Ørsted IPs also note that the Applicants' EIA contains numerous assessments of other human environment impacts that are far less significant in economic terms than these figures.</p> <p>Paragraph 10 also states that other Leasing Round 4 Projects <i>"did not act differently from the Applicants"</i>. This is, the Ørsted IPs consider, driven by the same motivation of seeking to avoid significant mitigation and/or compensation outcomes. Paragraph 10 also refers to the Applicants acting in accordance with <i>"accepted practice"</i> and that there are <i>"no accepted mitigation options"</i> – on the first point, the Ørsted IPs have already stated that the accepted practice is that private wake loss agreements have been entered into (the Ørsted IPs have covered this in previous submissions relating to the Walney Extension, and also note again that Hornsea 1 publicly dropped its wake loss objection against the DCO application for Hornsea 2), and the second point can be rebutted by noting that: (i) physical mitigation options have been implemented in, for example, German waters<sup>5</sup>; and (ii) financial compensation is an accepted form of mitigation for a number of offshore wind farms located across English waters.</p> <p>In paragraph 11 of this document, the Applicants state that The Crown Estate (<i>"TCE"</i>) is <i>"on record stating that an important consideration for setting buffer distances was the consideration of wake effects"</i>. The Ørsted IPs provided the relevant TCE submission from the examination of the Outer Dowsing Offshore Wind (Generating Station) Project in Appendix 1 to the Ørsted IPs' Deadline 1 Submission [REP1-086], in which TCE actually state that <i>"the buffer/stand-off between wind farms (unless developers consent to closer proximity) is a separation distance to enable developers to develop, operate and maintain wind farms by allowing for a range of factors including amongst other matters, wake effects, navigation, and safety"</i>. Furthermore, in that same submission, TCE stated that they <i>"acknowledge that inter-farm wake effects can extend beyond these buffer distances. TCE also notes that the spatial and temporal variability of wind speed means that it is complex to accurately predict the wake impact on nearby wind farms, which may depend on factors beyond distance – e.g. prevailing wind direction and wind farm layout"</i>.</p> <p>In paragraph 12 of this document, the Applicants state that if the <i>"generic research"</i> had identified <i>"mitigation steps which were reasonable then they would be adopted by the Applicants"</i>. The Ørsted IPs do not consider that it is for the Applicants alone to decide what is <i>"reasonable"</i> – what is (or is not) reasonable from a project-to-project perspective is not necessarily the same as what is (or is not) reasonable from a UK-wide, Net Zero perspective. Further, the Ørsted IPs again note that the Applicants did not undertake a wake loss assessment on the Ørsted IPs assets until Deadline 5 of this examination. It is disingenuous of the Applicants to suggest that the reason they have delayed this step until this stage is because they did not believe that there was any <i>"reasonable"</i> mitigation that could be employed, irrespective of the findings of any wake modelling that they could have undertaken.</p> <p>In paragraph 14 of this document, the Applicants state that <i>"there is no guidance or custom and practice on this"</i>, referring to the weighting of mitigation measures against other design considerations. The Ørsted IPs note, as stated in their Deadline 6 Submission [REP6-085], that there are a range of instances whereby</p>	<p>In contrast, the Applicants are concerned that both the Orsted IPs and Projcos have not engaged constructively. Their objections to measures such as buffering overlook clear evidence, including two independent studies, both of which concluded that the benefits are limited. These studies are consistent with accepted physical theory and expert input. Despite this, the Orsted IPs continue to call for site-specific assessments without explaining why minor local variations would materially change the conclusions—or recognising that any such study would remain open to similar challenges.</p> <p>In the case of wake reenergisation, the Projcos go further, requesting assessments of a technology that remains unproven and is not yet viable. Undertaking such analysis—especially at the scale of Dogger Bank—would be speculative and technically infeasible at this stage.</p> <p>The Applicants have invested substantial effort into assessing and testing wake mitigation measures. However, the Orsted IPs and Projcos have consistently rejected this work without offering constructive alternatives or substantiated reasoning. If the Applicants had identified mitigation options which met the tests they have specified, it would be commercially advantageous for them to have applied them to their own projects. Further, there would be no reason not to highlight them in this Examination and otherwise.</p> <p><b>Compensation</b></p> <p>On compensation, the Orsted IPs suggest that such arrangements are standard practice in the UK offshore wind sector. However, no concrete details have been provided. The examples referenced involve projects with shared ownership and shorter wake distances, under conditions that do not apply here. Without transparency or comparable context, these cases cannot be treated as precedent or evidence of industry-wide norms. The Applicants position on compensation has been made clear in previous submissions.</p> <p>The Applicants have explained their approach and it is a matter for the Secretary of State to consider in the light of the submissions from both sides.</p> <p><b>Timeline of understanding of wake</b></p> <p>See <b>The Applicants' Deadline 7 Wake Loss Submission</b> [REP7-136], section 2.1 .</p> <p>Further to this, it should be noted that Orsted's share price fell when the press release "Ørsted presents update on its long-term financial targets" was released. Noting that Orsted have a bespoke modelling process that significantly differs from other developers, and that other operator and developer share prices did not significantly fall, the implication that Orsted's press release was a fundamental shift in the <i>industry</i> is simply not supported.</p> <p>RWE have historically used different wake modelling methods, which have continuously evolved over time. RWE do not hold the view that 2019 was a fundamental change in wake modelling, only a continuation of a process that has evolved over the last 40 years. Conversely to Orsted's press release, the RWE press release "Study: RWE and DNV to validate implications of long-distance "wake effects" from large offshore wind clusters" was not a commentary on RWE's modelling, but a response to the observation that some (not all) consultancies were under predicting wake, and that this was damaging to the industry as a whole.</p> <p>Orsted's assertion that the situation of their wake modelling is representative of the industry as a whole is a significant overstatement of fact.</p>

<sup>5</sup> As stated in a submission made into the examination of the Mona offshore wind farm, BP have previously advocated for mitigation for wake effects arising from proposed new wind farms at their own sites, proposing measures included delaying tendering for the sites (to reduce temporal overlap with BP's developments) and reducing the power density of the sites – as a result of these submissions, the capacity of a proposed site was reduced by 50% (from 2GW to 1GW).

I.D.	Ørsted IPs Response	Applicants' Response
	<p>financial compensation is used to deal with economic impacts, including, for example, fisheries compensation. In the Ørsted IPs' view, there is no reason why wake loss should be excluded from this.</p> <p>In paragraph 16 of this document, the Applicants state that <i>"wake effects remain a novel issue"</i>. The Ørsted IPs dispute this claim – this has been hotly contested in all relevant DCO examination since the Awel y Mor decision, i.e. since the industry understanding regarding the true extent of far-field wake effects took a material leap forward between 2019 and 2021. The Applicants go on to state that they <i>"have followed the accepted approach to wake effects"</i> – again, the Ørsted IPs note that refusing to undertake a wake loss assessment until late in a DCO examination is not an <i>"accepted approach"</i>. The Applicants also state in this paragraph that they <i>"remain of the view that wake effects were well understood when the buffer distance was set by TCE for Round 4 in 2019"</i>. The Ørsted IPs have rebutted this point in previous submissions (and, indeed, within this submission), but again wish to note that TCE set the buffer distances of 7.5km for Leasing Round 4 Projects prior the evolution of the industry's understanding of wake effects – the majority of the research provided by Ørsted on this issue is from the last 6 years. Additionally, it is noted that in the last 6 years both Ørsted and RWE (two of the largest offshore wind operators in Europe), and in collaboration with DNV, have made public statements demonstrating that industry knowledge of this issue is evolving considerably. In 2019, Ørsted issued a market update (in relation to its long-term financial targets) on the true extent of far-field wake effects, which highlighted that the negative impacts of wake effect had been underestimated and which is provided at Appendix 3 to this submission. Ørsted's share price took a significant hit when this market update was communicated, so it is disingenuous of the Applicants to imply that far-field wake effects were <i>"well understood"</i> prior to that. Following this market update, further work was undertaken to understand the actual observed wake impacts, the results of which were presented by Ørsted in 2023. Following this, in 2024, RWE/DNV presented its own report regarding the implications of long-distance wake effects from large offshore clusters, which is provided at Appendix 4 to this submission.</p> <p>In paragraph 17 of this document, the Applicants state that a new system for wake effects would give rise <i>"to a host of complex technical and policy issues"</i>. The Ørsted IPs note that ensuring wake losses are agreed upon (through modelling), and financially compensated for, is not particularly complex – in fact, this has been common practice (albeit typically for offshore wind farms that are located closer together) for many years.</p> <p>In paragraph 18 of this document, the Applicants state that <i>"there is no history of routinely including wake effects within an ES"</i>. As stated, the Ørsted IPs note that the issue of far-field wake effects became apparent from 2019. It was incumbent upon the Leasing Round 4 Projects, and the Five Estuaries Project (a 2019 extension leasing round project), to develop and implement routine assessments of what has, since then, been a clear and obvious impact (a far more significant impact than the majority of human environment impacts that are routinely assessed as part of offshore wind farm EIAs, including within the Applicants' EIA); however, these projects elected not to establish this routine. This ties in with a rebuttal to a point made by the Applicants in paragraph 20 that they have <i>"adhered to normal industry standards"</i> – as stated, post-2019 an improved understanding of far-field wake effects became apparent, and it was incumbent upon offshore wind farm developers to react to this, i.e. such industry standards ought to have shifted to accommodate this improved understanding.</p> <p>In paragraph 24 of this document, the Applicants state that the lack of mention of financial compensation in the consultation letter issued by the Secretary of State on the Mona Offshore Wind Farm Project is <i>"consistent with the previous SoS decision at Awel y Mor and the drafting in the emerging changes to EN-3"</i>.</p>	<p><b>The Applicants' Comments on the Financial Impact Assessment at Appendix 1</b></p> <ol style="list-style-type: none"> <li>The Applicants acknowledge and agree in principle with the percentage wake loss effects attributed to the Dogger Bank South (DBS) wind farms on the Ørsted assets, as presented in the Ørsted IPs' submission. The wake loss percentages, ranging from 0.35% to 0.75% Annual Energy Production, and appear to be the mean two of the three wake models the Applicants provided: EV and VV.</li> <li>However, the Applicants do not consider the Ørsted IPs' financial impact assessment to be suitable for use in robust financial modelling for the following reasons: <ul style="list-style-type: none"> <li><u>Lack of Empirical Validation for Long-Range Wake Effects</u> While the wake loss percentages are accepted in principle, the long-range wake effects underpinning these figures have not been empirically verified to a degree that would justify their use in financial forecasting. The industry's understanding of far-field wake effects is still evolving, and the extrapolation of these effects over multi-decade project lifetimes introduces significant uncertainty.</li> <li><u>Discount Rate Assumptions Are Too Low</u> The financial impact assessment applies a range of net discount rates from 0% to 7.5%. In our view, this range does not reflect the risk-adjusted cost of capital typically applied in offshore wind financial modelling. A 0% discount rate is not appropriate for any forward-looking Net Present Value (NPV) analysis, and even 2.5% or 5% may understate the time value of money and project risk. It is the Applicant's position that a minimum discount rate of 7.5% should be applied in all such assessments to reflect industry norms and investor expectations.</li> <li><u>Ambiguity in Post-Contract for Difference (CfD) Energy Price Assumptions</u> The assessment references DESNZ (Department for Energy Security and Net Zero) market price forecasts and applies inflation adjustments, but it remains unclear which specific price trajectories were used in the post-CfD period. Given the volatility and uncertainty of future wholesale electricity prices, any financial modelling that extends beyond the CfD period should clearly state the price assumptions used and apply appropriate sensitivity analysis. Without this transparency, the resulting NPV figures may be misleading.</li> <li><u>Omission of CfD Top-Up Losses During Negative Pricing Hours</u> The analysis does not account for the impact of negative pricing hours on Contract for Difference (CfD) revenues. Under current CfD rules, generators are not eligible for top-up payments during periods of negative market prices. Wake-induced reductions in output during these hours result in a compounded financial loss—both from lost generation and the absence of CfD support. This omission likely underestimates the true financial impact on CfD-backed projects, particularly as negative pricing events become more frequent with increasing renewable penetration.</li> <li><u>Lack of Consideration for Tax Implications</u> The analysis appears to present gross revenue losses without considering the tax treatment of compensation. In practice, any compensation received would be subject to UK corporation tax (currently 25%), reducing the net benefit. This materially lowers the effective value of any financial mitigation proposed and should be reflected in the modelling.</li> </ul> </li> </ol>



I.D.	Ørsted IPs Response	Applicants' Response
	<p>The Ørsted IPs disagree – the Awel y Mor requirement does not preclude a financial settlement (indeed, this may be the likely outcome preferred over physical mitigation), and furthermore the draft NPS EN-3 makes a direct reference to financial compensation at paragraph 2.8.233, where it states that <i>“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, <u>although developers may opt to take such approaches outside of the planning process</u>”</i> (emphasis added).</p> <p>In paragraph 31 of this document, the Applicants state that the protective provisions proposed by the Projcos and the Ørsted IPs are <i>“completely unsupported by policy”</i> and <i>“entirely novel”</i>. The Ørsted IPs consider these statements to be inaccurate, for the reasons set out in previous submissions (by the Projcos and the Ørsted IPs), including regarding the EIA ‘limbs’ considered by the Applicants and the appropriateness and justification of the protective provisions demonstrated by the figures in the Financial Impact Assessment at Appendix 1 to this submission, alongside the fact that examples of compensation via such protective provisions (and alternative commitments made within Environmental Statements and other parts of DCOs) exist through the routine protection of, for example, fisheries and Network Rail.</p>	
REP7-157:3	<p><b>Applicants’ Comments on Responses to ExQ2 [REP6-051]</b></p> <p>At page 80 of this document, the Applicants state that they <i>“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”</i>. The Ørsted IPs note that compensation settlements covering wake losses, that are incurred both within and outwith TCE buffer zones, have been entered into on numerous occasions across UK waters. In each case, this outcome is both necessary and pragmatic. For wake losses incurred beyond TCE buffer distances, the existence of common ownership across waked and waking projects has, to date, typically driven pragmatic compensation outcomes. However, the UK offshore wind industry is currently grappling with a new situation whereby it has become apparent that five proposed Leasing Round 4 Projects and one proposed 2017 Extension Round project will impose significant wake effects well beyond the buffer distances imposed by TCE while, at the same time, common ownership across these projects is not in place to drive pragmatic compensation outcomes. In lieu of this, protective provisions, such as those proposed by the Ørsted IPs, are necessary to safeguard the business cases of both existing (waked) and proposed (waking) offshore wind farms from future unmitigated wake loss impacts. Requiring wake loss mitigation and/or compensation, that protects the interests of waked projects that have been leased through earlier leasing rounds, is the only means of ensuring that wake loss impacts are accurately priced-in to consumer bills.</p> <p>Page 80 of this document also contains a statement from the Applicants that <i>“there are no circumstances in which an imposed financial compensation mechanism would be an ‘attractive solution’ for the Applicants”</i>. The Ørsted IPs are surprised by this statement – financial compensation would presumably be more attractive to the Applicants than the imposition of physical mitigation requirements that could potentially be more costly. In some cases, financial compensation can offer the most appropriate way of addressing an issue that may be difficult to mitigate through physical mitigation. As stated above and in previous submissions, this is, in principle, no different from the financial compensation commitments that are routinely put in place to address impacts on other sea users, for example commercial fishers and shipping operators, in instances where available physical mitigations come with inherent limitations.</p> <p><i>At page 87 of this document, the Applicants state that “comparison to background levels of variation is established practice, and accepted as an indication that an effect is not significant”. The Ørsted IPs dispute this</i></p>	<p>The Applicants stand by their submissions, but are not responding to every point made and reserve the right to respond further at Deadline 9.</p> <p>Private compensation agreements between projects with common ownership are in an obviously different category to the present situation. The point the Applicants have made stands and the Ørsted IPs have not cited any comparable examples to the current situation.</p> <p>Impacts between developers and operators within the same industry can give rise to special considerations as to how those impacts should be assessed and managed (and do so in this case) as compared to impacts on other sectors.</p> <p>The reference in draft EN-3 paragraph 2.8.233 to compensation agreements outside the planning process is simply a reference to the existing practice of projects within the relevant TCE buffer entering into such agreements.</p> <p>The Applicants stand by the various public interest points they have made and which the Ørsted IPs do not substantively address. The generic risks from future seabed licensing rounds have been known for a long time (including wake effects before 2019, not least because Ørsted would have been working on this for a long time before making any public announcement). The fact that financial compensation would not be imposed through the planning system was a given all parties have accepted throughout. To impose that unexpectedly now has substantial public interest considerations for Round 4 bidders and for other projects unfairly affected, as the Applicants have explained. There is no contradiction. What happens in relation to future licensing rounds is an open question at this point, depending on the final revised wording of EN-3, industry debate and the approach adopted by TCE in designing future rounds in consultation with the DESNZ and the industry.</p>



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	<p><i>interpretation of significance in an EIA context – for example, a fisher’s catch may fluctuate significantly from day to day, but that evidence is not used to argue that (for example) an average 4% loss of that fisher’s revenue, for the rest of their operational lifetime, is not significant.</i></p> <p><i>At page 90 of this document, the Applicants state that “the planning system does not exist to protect the commercial interests of competitors”. The Ørsted IPs wish to note that the planning system also does not exist to permit the imposition of uncompensated revenue losses upon competitors. Page 90 of this document also contains a statement from the Applicants that draft NPS EN-3 “rules out financial compensation in relation to future offshore wind applications” – again, as stated above, draft NPS EN-3 actually states, at paragraph 2.8.233, 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, <u>although developers may opt to take such approaches outside of the planning process</u>” (emphasis added).</i></p> <p><i>At pages 97-98 of this document, the Applicants state that “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)”. However, earlier in the same response, the Applicants state that “the effects from future wind farms was a clear generic risk which all wind farm developers would have needed to take into account”. These positions are in direct contradiction, as effects from future wind farms remain a risk today. It would suggest that the Applicants will be including large wake risk premiums in their CFD bid price to account for the likely future unknown wake effects from future leasing rounds, thereby driving up costs to consumers. The Applicants would have to use imperfect information to estimate the extent and timing of these future effects.</i></p> <p><i>If the future effects are not realised, the Applicants would make a profit at the expense of the UK electricity consumer, and if the future effects are worse than predicted then the Applicants’ asset will not perform as expected. This system of estimating future effects and building them into CFD prices is inefficient and carries more risk of undermining investor confidence, due to potential negative shocks every time TCE allocates a new lease area.</i></p> <p><i>At page 101 of this document, the Applicants state that the Secretary of State has rejected the principle of financial compensation, using the example of the Awel y Mor decision. The Ørsted IPs note, again, that the Awel y Mor requirement does not preclude a financial settlement as an alternative outcome to the design provisions set out in the requirement.</i></p> <p><i>Page 101 also contains a statement from the Applicants that “any project-specific financial compensation scheme included in a DCO gives rise to a wide range of public interest considerations”. The Ørsted IPs note that, in response to a letter from the Secretary of State dated 12 May 2025 in relation to the examination of the Mona offshore wind farm, the applicant in that case included (on a without prejudice basis) in its response (dated 23 May 2025) a draft DCO requirement on wake loss that contained the option of a private settlement as one limb of this draft requirement.</i></p> <p><i>The Applicants also ask, in relation to the spectrum of assessment outcomes, “which point on the spectrum should be selected?”. The Ørsted IPs note that it is standard practice that waking and waked projects each pick a reputable, independent wake modelling consultant and the difference between their findings is split. The Applicants also state that “there would need to be government guidance on this to ensure a fair and consistent</i></p>	

I.D.	Ørsted IPs Response	Applicants' Response										
	<p><i>approach, which does not exist. It should not be left to an expert on a single project". The Ørsted IPs note that the issue of wake loss compensation has been amicably resolved across the UK on numerous occasions using a range of approaches, and the Ørsted IPs see no issue with the use of independent experts.</i></p> <p><i>Page 101 also contains a statement from the Applicants that "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 such a system". The Ørsted IPs note that the proposed protective provisions would allow waked projects to proceed in a timely fashion, subject to them making waked projects whole. Nothing overly complicated, or particularly novel, is being suggested.</i></p> <p><i>Across pages 101 and 102 of this document, the Applicants pose several questions in relation to the proposed protective provisions. The Ørsted IPs have responded to these in turn:</i></p> <table><tr><th>Question from the Applicants</th><th>Ørsted IPs' Response</th></tr><tr><td>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 EA2 is claiming compensation but is not offering to compensate Galloper and Greater Gabbard for its future wake effects on them.</td><td>Compensation should be payable to projects leased in previous leasing rounds only (compensation should not be payable across projects within the same leasing round). A requirement to compensation cannot be retrospectively applied in situations whereby waked projects have not put forward successful wake loss objections through now closed planning processes (a mechanism does not exist to facilitate this).</td></tr><tr><td>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?</td><td>It is expected that the waked projects will be made whole if compensation is paid over the lifetime of the waked project, for example with payments made annually in arrears. Deductions may be agreed for an approach that is based on an up-front lump sum payment.</td></tr><tr><td>3. When should payments be made? Orsted has put forward protective provisions into the Outer Dowsing application which impose a single advance commuted sum. 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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?	The Ørsted IPs note that the version of protective provisions provided in the examination of the Outer Dowsing Offshore Wind (Generating Station) Project is different to those provided in relation to the DBS Project, as the position has developed.											
4. What discount percentage should be applied in relation to future revenue streams?	This is irrelevant to an annual in arrears payment approach which simply reflects price x generation x wake loss.											

I.D.	Ørsted IPs Response	Applicants' Response
REP7-157:4	<p><b>Applicants' Responses to Rule 17 Letter dated 9 June 2025 [REP6-057]</b></p> <p>At page 16 of this document, the Applicants state that "DBS is much further from Dogger Bank A ("DBA") than Awel y Mor from Gwynt y Mor". The Ørsted IPs do not consider that the difference in distances of c.5km and c.7.5km is "much further" (nor, indeed, particularly different) in the context of wake effects.</p> <p>At page 17 of this document, the Applicants refer back to the Frazer Nash Study to conclude that "DBS would suffer a reduction in energy production from reducing its array area, but the only farm to potentially benefit would be DBA, as all others are beyond 10km". The Ørsted IPs consider that, rather than referring back to the generic Frazer Nash Study, it is incumbent upon the Applicants to model mitigations for the DBS Project, instead of relying on theoretical examples.</p>	<p>Awel y Mor is immediately adjacent to Gwynt y Mor, which is the point the Applicants were making.</p> <p>The Applicants stand by the points they have made. The request for specific modelling is not justified in these circumstances.</p>
REP7-157:5	<p><b>Applicants' Responses to June 2025 Hearing Action Points [REP6-056]</b></p> <p>All of the extracts of this document to which the Ørsted IPs wish to respond are found on page 8. Firstly, the Applicants state that the circumstances of this examination are "highly unusual and novel" – the Ørsted IPs note that similar concerns have been debated across multiple DCO examinations to date, so they cannot see why the DBS Project is so unusual and novel.</p> <p>Secondly, the Applicants refer to a "lack of history of wake assessments". The Ørsted IPs note that there is a long history of wake assessments being undertaken privately. The Applicants also refer to the "absence of guidance on wake assessments", to which the Ørsted IPs note that despite the fact that there is no specific industry guidance on, for example, assessing restrictions imposed by offshore wind farms on heli-access/egress to/from helideck-equipped oil &amp; gas platforms, these complex technical assessments have, for a number of years, been undertaken as part of offshore wind farm EIAs as a matter of course.</p> <p>Thirdly, the Applicants assert that wake loss "was not envisaged as being part of effects subject to the mitigation hierarchy when the CNP policy was introduced". The Ørsted IPs do not agree with this statement – wake loss is simply another economic impact (of many), with not all needing to be (or intended to be) specifically name-checked.</p> <p>Lastly, the Applicants state that "the SoS has felt the need to propose new wording in [draft NPS] EN-3 to address wake effects expressly for the first time". The Ørsted IPs note that it is the spurious interpretation of NPS EN-3 put forward by waking projects in recent DCO examinations that has necessitated the Secretary of State stepping in with clarifications.</p>	<p>The Applicants stand by the points they have made.</p> <p>The Applicants were referring the current group of Examinations, which all face similar issues which are being considered in a similar time frame. That is indeed novel and unusual as regards wake effects.</p>

## 2.10 The Projco's

Table 2-14 – The Applicants' response to The Projco's Deadline 7 Document [REP7-139]

I.D.	The Projco's Response	Applicants' Response
REP7-139: 1	<p><b>INTRODUCTION</b></p> <ol style="list-style-type: none"> <li>1. 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).</li> <li>2. 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.</li> <li>3. 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).</li> <li>4. 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.</li> <li>5. DBA Projco, DBB Projco and DBC Projco (together the Projco IPs) 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: <ol style="list-style-type: none"> <li>a. Relevant representation (RR-007);</li> <li>b. Deadline 1 Submission (REP1-071);</li> <li>c. Deadline 2 Submission (REP2-071);</li> <li>d. Deadline 3 Submission and Response to the Examining Authority's (ExA) First Written Questions (REP3-063);</li> <li>e. Deadline 4 Submission (REP4-117);</li> <li>f. Deadline 5 Submission and Response to the ExA's Second Written Questions (REP5-071);</li> <li>g. Wake Loss Assessment Report submitted by the Projco IPs (REP5-070); and</li> <li>h. Deadline 6 Submission (REP6-081).</li> </ol> </li> <li>6. The Projco IPs' comments on the Applicants response to the ExA's request for further information under Rule 17 of the Planning (Examination Procedure) Rules 2010 issued on 9 June 2025 (REP6-057) is set out at Appendix 1 to this submission.</li> <li>7. The Projco IPs' comments on the Applicant's responses to the Projco IP's comments on the ExA's Second Written Questions (ExQ2) (REP6-051) is set out at Appendix 2 to this submission.</li> </ol>	No response is required.

I.D.	The Projco's Response	Applicants' Response
	<p>8. The Projco IP's comments on further information and submissions received at Deadline 6 is at Appendix 3 to this submission.</p> <p>9. The Projco IP's comments on the ExA's preferred draft DCO is set out at Appendix 4 to this submission.</p>	
REP7-139: 2	<p><b>POSITION SUMMARY</b></p> <p>10. The Projco IPs' position remains that there is an adverse effect on DBA, DBB and DBC which policy directs attracts substantial weight in the decision-making process and which is far more significant than the impact on Awel y Mor where the Secretary of State considered mitigation necessary. The Applicant's position is that there is no mitigation that can be imposed now, and so applying the mitigation hierarchy this only leaves compensation as a means of addressing this issue.</p> <p>11. The Projco IPs reiterate their request that the protective provisions submitted at Deadline 5 are included in the draft DCO.</p>	The Applicants' position remains as previously stated.
REP7-139: 3	<p><b>UPDATED WAKE LOSS ASSESSMENT</b></p> <p>12. The Projco IP's have updated their wake loss assessment and have submitted an updated wake loss assessment (the Updated Wake Loss Assessment Report) at Deadline 7.</p> <p>13. The Applicant identified two material differences between the Applicant's wake loss assessment and the Projco IP's wake loss assessment at ISH6. These related to the blockage model used and the omission of the Hornsea projects in the Projco IP's wake loss assessment. Following further review, the Projco IPs also consider that there is a third material difference which is the approach to long term mean wind speed (LTMWS). In respect of these three issues, the Projco IPs consider:</p> <p>a. that the blockage model that they have used remains appropriate and so have continued to use that blockage model. The Projco IP's approach to blockage is considered to be consistent with the model setup validated by Ørsted against operational data from their offshore wind portfolio. In addition, the Projco IP's note the Applicant has used a proprietary blockage model which is not available to industry more widely. As such, the Projco IPs are unable to gain confidence in this approach;</p> <p>b. that its approach to LTMWS is appropriate, as it is based on its knowledge of LTMWS at DBA, DBB and DBC and this is explained in the Updated Wake Loss Assessment Report. The Applicant had undertaken to share its approach to LTMWS, but this has not been shared with the Projco IPs.</p> <p>c. the Applicant's comments in respect of the Hornsea projects to be fair and so have included the Hornsea projects (including Hornsea Four) within the Updated Wake Loss Assessment. This has led to an alteration in the level of modelled impact on DBA, DBB and DBC which is explained below.</p> <p>14. The Updated Wake Loss Assessment continues to demonstrate a far greater impact on DBA, DBB and DBC than the Applicant's wake loss assessment. However, there has been a reduction in the modelled impact which is set out below. The Updated Wake Loss Assessment Report is also considered to represent a conservative assessment, on the basis that it includes Hornsea Four in the modelling despite the fact that Orsted has publicly confirmed that it is not bringing Hornsea Four forward at this time.</p> <p>15. The Updated Wake Loss Assessment Report identifies the reduction in expected energy production across DBA, DBB and DBC to be approximately 312 GWh and 9,170 GWh on an annual and lifetime basis, respectively.</p>	<p><b>The Applicants' Deadline 7 Wake Loss Submission</b> [REP7-136] responds to the majority of this section. In particular Section 3.4 lays out the Applicants' position on the Projcos modelling approach comprehensively. Several points about the updated wake assessment merit a response:</p> <ol style="list-style-type: none"> <li>The Applicants note the correction of the error in PyWake, but continue to have two concerns:</li> <li>the first is whether the error is truly corrected. PyWake is complex and it is relatively trivial to use a configuration which gives incorrect results. The Applicants would expect some detail of the configuration to be provided to ensure that the configuration is correct. Failing that plots showing the performance of the blockage model could be provided, to gain confidence that it is performing as expected.</li> <li>The second concern is more fundamental. Despite the Projcos assertion that the blockage model used is appropriate, the Applicants have shown industry consensus from the GloBE project is that it is crucial to represent the atmospheric boundary layer height in a blockage model (see Appendix C of <b>The Applicants' Deadline 7 Wake Loss Submission</b> [REP7-136]), a feature which the Projcos model lacks. Additional illustration of the impact of this omission was shown in Figure 3-7 of the same submission. This omission materially impacts the results.</li> <li>The Projcos <b>Assessment of potential Dogger Bank South wake impacts revision 2</b> [REP7-140] reports a mean windspeed of 10.53 meters per second, this is slightly different from the Applicants own calculation but does not represent a material difference. As this is information the Applicants consider confidential, details will be provided to the Projcos (along with the rest of the actions resulting from the meeting from 10<sup>th</sup> June 2025) via email as soon as possible and before Deadline 9. For ease of reference the Applicants have included alongside this submission a tracked change version of Projcos' <b>Assessment of potential Dogger Bank South wake impacts revision 2</b> [REP7-140] (see Appendix B of this document) which the Applicants hope would assist the Examining Authority to more readily ascertain changes made to the previous version.</li> <li>The Projcos continue to rely on dramatically overstated financial impact, revised to £499 million, using the same methodology which the Applicants have critiqued in section 3.5 of <b>The Applicants' Deadline 7 Wake Loss Submission</b> [REP7-136]], and shown to be overstated by a factor of approximately 13. This figure suffers from the same error.</li> </ol>



I.D.	The Projco's Response	Applicants' Response
	<p>16. The financial impact of the wake losses at DBA, DBB and DBC are significant. In indicative financial terms, and considering undiscounted 2025 CfD power prices, the Projco IPs expect the impact across DBA, DBB and DBC to be approximately £17 million and £499 million on an annual and lifetime basis. In terms of financial impact, it is also important to note that:</p> <p>a. the projects were awarded CfDs in AR3 which at the time was the most competitive auction round due, in part, to the capacity cap applied to the auction by the government. The strike prices were the cheapest for offshore wind to that point; the next round resulted in slightly lower Strike Prices but the only subsequent round which attracted any bids from industry was AR6 in which the winning Strike Prices were materially higher, i.e. seeing an increase in the price of offshore wind; and</p> <p>b. the CfD contract covers a period of 15 years, after which the financial position is subject to market prices at that time or alternative arrangements such as corporate power purchase agreements which would be put in place nearer the time.</p> <p>17. A loss in the region of £499 million across the operational lifetime is demonstrably significant. Such a loss, of almost half a billion pounds over the life of the projects, is material, and the Projco IPs note the potential for these values to be even higher if DES-NZ wholesale electricity prices come to pass as outlined in Section 4.3 of the Updated Wake Loss Assessment Report. It should be noted that the scale of financial impact at the level outlined in the Projco IPs' Updated Wake Loss Assessment Report is clearly of material concern and, notwithstanding the fundamental concerns over the Applicant's assessment (REP4-099) that the Projcos have detailed in their Deadline 5 submissions, would remain such even if the Applicants' wake loss percentages were valid. In either case, these represent a significant economic loss to the Projcos' assets. Consequently, it is vital that opportunities for mitigation, including compensation, are secured.</p> <p>18. As explained in the Updated Wake Loss Assessment Report, the figures identified in paragraphs 14 to 15 above are considered conservative as they do not consider electricity prices post-CfD. When the financial impact of the wake losses at DBA, DBB and DBC is based on the Strike Prices during the CfD period and thereafter on wholesale prices as forecast by DESNZ<sup>6</sup> then the financial losses are estimated to be an average of £23 million on an annual basis and £669 million on a lifetime basis.</p> <p>19. The scale of this loss (even on the Applicant's assessment) in respect of GWh and financial impact is significantly greater than the scale of loss identified in the Awel y Mor case where mitigation was identified as being necessary by the Secretary of State, and as far as the Projco IPs are aware is of a significantly greater scale than the loss that has been identified by other offshore wind operators in the other examinations that are currently proceeding.</p> <p>20. The loss of revenue, if unmitigated, is likely to represent a material risk to the future commercial viability of DBA, DBB and DBC.</p> <p>21. The Projco IP's position set out in Paragraphs 41 to 49 of its Deadline 6 submission continue to apply.</p>	<p>6. The Applicants acknowledge and agree in principle with the assumption that energy prices may change following the expiry of the Contracts for Difference (CfD) period. However, as mentioned previously, the Applicants submit that the approach taken in the assessment, specifically, the presentation of post-CfD financial impacts in undiscounted 2025 terms, is not aligned with standard financial modelling practices.</p> <p>As outlined in <b>The Applicants' Deadline 7 Wake Loss Submission</b> [REP7-136]], in financial modelling, it is customary to discount future cash flows to present value using an appropriate discount rate. This reflects the time value of money and the inherent uncertainty associated with long-term forecasts. The assumption of a flat, undiscounted price trajectory extending decades into the future introduces a significant upward bias in the net present value (NPV) of projected losses.</p> <p>Furthermore, the use of a single forecasted wholesale price (e.g., the Department for Energy Security and Net Zero's (DESNZ's) 2050 projection) for the entire post-CfD period introduces ambiguity. Energy prices are subject to a wide range of market, policy, and technological uncertainties, and it is not possible to predict them with precision over such a long horizon. As such, any financial impact assessment should incorporate a range of scenarios and apply appropriate discounting to reflect these uncertainties.</p> <p>Given the above, the Applicants contend that the NPV impact of wake effects, particularly in the post-CfD period, should be significantly lower than the figures presented in the current assessment. A more robust and transparent financial analysis would discount future losses and consider a range of plausible price trajectories, thereby providing a more accurate representation of the economic impact.</p> <p>The Applicants' prior submissions regarding the Projcos claims regarding viability remain and are not repeated here. The Projcos have not demonstrated a likely threat to the viability of Dogger Bank A (DBA), Dogger Bank B (DBB) or Dogger Bank C (DBC).</p>

<sup>6</sup> DESNZ Energy and emissions projections: 2023 to 2050 - Annex M: Growth assumptions and prices <https://www.gov.uk/government/publications/energy-and-emissions-projections-2023-to-2050>

Table 2-15 – The Applicants’ response to The Projco’s comments on the Applicant’s responses to Examining Authority’s Rule 17 Letter (Appendix 1) [REP7-139]

I.D.	The Projco’s Response	Applicants’ Response
REP7-139: R17.25	<p>The Applicant has not addressed the Projco IP’s comment at ISH6 in respect of the presentation of the information in the wake loss assessment which is necessary in order to allow the Projco IP’s to fully understand the information presented.</p> <p>A project specific assessment in respect of the Projects and which considers all of the Projco IP’s projects, which remains absent, would support a more informed assessment of the mitigation options for DBA, DBB and DBC. This is because the specific conditions of the site (including wind speed, wind direction, turbine technology and other physical parameters) form an important part of the understanding of the mitigation. Without that project specific assessment, the Projco IPs cannot comment meaningfully. A further example of the lack of project specific assessment is the effects of applying mitigation to one (as opposed to both) of the array areas (consistent with the approach to environmental assessment where issues are considered alone and in combination).</p> <p>The Frazer Nash Report (AS-014), which as the document identifies was compiled by Elliott Lindsay (the Projco IP’s wake loss expert who appeared on behalf of the Projco IPs at ISH6 and who has authored the wake loss assessment (REP5-070) and the Updated Wake Loss Assessment) represents a generic study and does not (and cannot) support a number of the project specific conclusions that the Applicant arrives at.</p>	<p>The Applicants have laid out responses to all mitigation issues in <b>The Applicants' Deadline 7 Wake Loss Submission</b> [REP7-136], all mitigation options have been dealt with showing that they were considered and evaluated as unreasonable or ineffective.</p> <p>Further discussion of the assessment of mitigations is presented in REP7-157: 2 of The Applicants’ response to Ørsted IPs Deadline 7 Document (see <b>Table 2-13</b> of this document).</p> <p>The Applicants see no need to comment on further requests for assessments.</p> <p>With regards the Frazer Nash report, the Applicants appreciate Mr. Lindsay’s work and note that it has been reviewed and cited extensively by wake experts. The general conclusion of all these experts is that this work is wholly appropriate to use in this context. Indeed, if such “generalist” were not appropriate, it would hold no value at all. The wind conditions used were:</p> <ul style="list-style-type: none"> <li>- “based on 30-year hindcast model data from the Met Office at a single point in space 110m above sea level [4]. This distribution is typical of a location in UK waters with relatively high mean wind speed and was assumed to apply across all of the modelled domain. ”</li> </ul> <p>The turbines and layouts were realistic for the given task, and the buffering gap between farms ranged from 2km to 22km, covering an appropriate range under discussion here. As well as Elliott Lindsay, the report has a “verified by” and “approved by” contributors ensuring the objectives of the study (which is directly related to the discussion here) were met.</p> <p>The Applicants’ wake experts have no concern about the applicability of Frazer Nash Consultancy work in this context.</p>
REP7-139: R17.26	<p>The Applicant’s response does not address the question raised and does not assess a range of options for the reduction in size of array areas. The Applicant’s response takes this examination no further on this matter.</p> <p>The Frazer Nash study referred to is not a project specific assessment and was not conducted in relation to the Projects. As the Applicant’s response identifies, the Frazer Nash report provides an indication of what might be expected if a project specific assessment were carried out but that does not assist in understanding the actual potential range of mitigation that could be secured in respect of DBA, DBB or DBC as a consequence of any mitigation. We note that the Applicant’s response does identify that this measure may lead to a small reduction in the wake loss impacts for DBA at least.</p> <p>The Frazer Nash Report, which as the document identifies was compiled by Elliott Lindsay (the Projco IP’s wake loss expert who appeared on behalf of the Projco IPs at ISH6 and who has authored the wake loss assessment and the Updated Wake Loss Assessment) represents a generic study and does not (and cannot) support a number of the project specific conclusions that the Applicant arrives at.</p> <p>A project specific assessment in respect of the Projects and which considers all of the Projco IP’s projects, which remains absent, would support a more informed assessment of the mitigation options for DBA, DBB and DBC. This is because the specific conditions of the site (including wind speed, wind direction, turbine technology and other physical parameters) form an important part of the understanding of the mitigation. Without that project specific assessment, the Projco IPs cannot comment meaningfully. A further example of the lack of project specific assessment is the effects of applying mitigation to one (as opposed to both) of the</p>	<p>The objections raised here are addressed in REP7-157: 2 of The Applicants’ response to Ørsted IPs Deadline 7 Document (see <b>Table 2-13</b> of this document).</p>

I.D.	The Projco's Response	Applicants' Response
	array areas (consistent with the approach to environmental assessment where issues are considered alone and in combination).	
REP7-139: R17.27	<p>The Applicant's response demonstrates that there is a mitigation measure which may be available at the point of construction of the Projects. The Projco IP's position is that the Applicants have prematurely discounted this option.</p> <p>DNV, the independent energy expert and assurance provider, has been undertaking a landmark joint industry project (JIP) validating the feasibility of wind farm flow control technology<sup>2</sup>. The JIP is identified as marking a critical milestone by establishing industry-wide consensus, and is reported as having provided precise predictions of energy yield improvements under real-world conditions. The Projco IPs understand that the JIP has confirmed control technology as being compatible with existing assets and demonstrated quantified energy output gains and the potential for clear benefits.</p> <p>In addition, the Applicants have continued to consider wake control measures such as wake steering in terms of inter-project effects. As identified by the Projco IPs in its Deadline 6 submission, the use of wake control measures such as wake steering should be properly considered in combination with other measures (such as buffers and layout alterations) as a means of mitigating any losses that the Applicant considers may be considered by internal wake loss as a consequence of those other measures. The Applicant's response appears to recognise the potential effectiveness of wake control measures such as wake steering in terms of internal mitigation.</p> <p>A project specific assessment in respect of the Projects and which considers all of the Projco IP's projects, which remains absent, would support a more informed assessment of the mitigation options for DBA, DBB and DBC. This is because the specific conditions of the site (including wind speed, wind direction, turbine technology and other physical parameters) form an important part of the understanding of the mitigation. Without that project specific assessment, the Projco IPs cannot comment meaningfully. A further example of the lack of project specific assessment is the effects of applying mitigation to one (as opposed to both) of the array areas (consistent with the approach to environmental assessment where issues are considered alone and in combination).</p> <p>The Projco IP's protective provisions allow for the Applicant to implement this mitigation measure in its design should the measure come forward. As identified in the Projco IP's comments on the Applicant's response to ExQ2 IOU.2.8 at Deadline 6 (REP6-081) this recognises that further measures may come forward within the seven year period for implementation. Given the long duration of consent validity sought by the Applicant and the speed at which technology innovations occur in the offshore wind industry the Projco IPs consider that this is appropriate.</p>	<p>The Applicants note that RWE is a member of the JIP run by DNV, and thus well aware of both the JIP and results presented within it. The Applicants position on wake steering as a mitigation measure remains the same, as outlined in <b>The Applicants' Deadline 7 Wake Loss Submission</b> [REP7-136].</p>
REP7-139: R17.28	<p>The Projco IPs have no further comment on this response, save to note (as set out in the comment on R17.27 above) that the Projco IPs consider that the Applicant's are prematurely discounting the potential of wake control measures.</p> <p>The Projco IPs have identified the issues with the approach to the mitigation criteria at Deadline 6: see Paragraph 81 and response to R17.23 of REP6-081.</p>	No response is required.
REP7-139: R17.30	The Projco IP's protective provisions allow for the Applicant to implement any mitigation measure which may come forward in its design and align with the Secretary of State's position.	The Applicants' position regarding the proposed protective provisions remains as previously stated.

Table 2-16 – The Applicants’ response to The Projco’s comments on the Applicant’s comments on The Projco’s responses to EXQ2’s (Appendix 2) [REP7-139]

I.D.	The Projco’s Response	Applicants’ Response
REP7-139: 2.1	<p><b>Executive Summary</b></p> <p>The Applicant has not identified any legal or in principle reason why compensation would not be appropriate pursuant to the current NPS EN-3. The Projco IPs have set out in detail the reasons how this would be within the scope of the Planning Act 2008 in REP4-117 and REP5-071.</p> <p>Para 2.1.8 of NPS EN-3 expressly states that: “<i>Applicants must show how any likely significant negative effects would be avoided, reduced, mitigated or compensated for, following the mitigation hierarchy</i>”. The Projco IPs have demonstrated a significant negative effect on DBA, DBB and DBC. The Applicant’s position is that the significant negative effect on DBA, DBB and DBC cannot (at this stage) be mitigated. Therefore, that leaves compensation. The Applicant does not address why compensation would not apply to wake loss effects pursuant to this policy.</p> <p>Draft EN-3 does not rule out financial compensation for wake loss as is asserted by the Applicant and draft EN-3 does not rule out circumstances, such as this, where compensation is a necessary means to mitigate the impact. As has been made clear in the Projco IP’s Deadline 5 and Deadline 6 submissions the relevant policy to which the Applicant refers (draft NPS EN-3 Para 2.8.233) is subject to consultation responses identifying that it should be removed in its entirety. At present, Para 2.8.233 of draft EN-3 attracts little to no weight in this Application given that this specific policy is the subject of consultation responses recommending its removal and given its contradictory nature.</p> <p>In any event, the Applicant’s position that it would be “<i>wholly inappropriate to apply a different approach to a current application</i>” based on draft NPS EN-3 is a fundamental misapplication of the policy hierarchy that applies. The Application falls to be determined pursuant to the current NPS EN-3, with the weight to be afforded to draft EN-3 (or, as is likely when the Application falls to be determined, a newly adopted NPS EN-3) a matter for the Secretary of State on such determination. Wake loss is a matter for the planning system, and draft EN-3 reiterates that. It would be wholly inappropriate to deviate from the application of current policy (and precedent, including emerging precedent in Secretary of State consultations) based on a draft policy that currently attracts little to no weight and which may not form part of an updated NPS once adopted.</p>	<p>The definition of ‘mitigation hierarchy’ in EN-1 applies to paragraph 2.1.8 relates expressly to impacts on the environment and biodiversity. This paragraph references engagement with SNCBs, for example. Wake effects do not cause an impact to the environment or biodiversity.</p> <p>In any event, there is no assumption that compensation is justified if mitigation has been applied. There are strong policy reasons why compensation is not justified in this case on its own facts and because of the public policy considerations the Applicants have highlighted, with specific examples.</p> <p>The policy intent of draft EN-3 does, in effect, rule out financial compensation. It remains to be seen how the Secretary of State (SoS) will choose to apply weight to the draft EN-3 in relevant DCO decisions. There is a very strong case for not imposing financial compensation on current projects, save pursuant to clear, consistent and fair policy which has been consulted on with the offshore wind industry. That is manifestly not intended by the SoS.</p>
REP7-139: IOU.2.3	<p>The Projco IP’s do not intend to comment further in this submission on mitigation measures, noting that there remains an absence of project specific assessment and noting the comments the Projco IP’s have made on the Applicant’s response to ExQ3 at Appendix 1 of this submission.</p> <p><u>Financial Compensation - Policy</u></p> <p>The Applicant relies primarily on draft EN-3 and Para 2.8.233 for its position that compensation is not payable. It is notable that the Applicant does not draw any support from the existing NPS for its position, but simply states that: “<i>There is no reasonable reading of EN-3 which provides a justification for this</i>”. This would require reading wording in a clear form (which draft EN-3 does not provide) into the current EN-3, and draft EN-3 does not assist in the interpretation of current EN-3.</p> <p><u>Current EN-3</u></p> <p>NPS EN-3 makes clear provision for economic loss suffered by third parties to be an important and relevant matter in the determination of the Application with the Secretary of State having to be satisfied that the design of the Projects has been made with a view to “<i>minimising economic loss</i>” (NPS EN-3 2.8.345) and</p>	<p>The Applicants are not responding to every point made, to avoid undue repetition. It should be assumed that the Applicants otherwise stand by their position as previously stated.</p> <p><u>Financial Compensation – Policy</u></p> <p>The Applicants ask that the ExA rely on their various statements on this topic rather than the interpretation of them by the Projcos.</p> <p>The Applicants have made it plain that special considerations will or may apply to projects within the same asset class as opposed to between industries or asset classes. That applies here and is part of the pragmatism required by paragraph 2.8.342.</p> <p>There is no track record of financial compensation being imposed on new offshore wind farms by reference to wake effects, through the planning system. There would need to be express justification for this which is absent from EN-3. The fact that the SoS considers that express policy is required for wake effects supports the Applicants’ view that there is no basis for imposing compensation regarding wake effects under EN-3.</p> <p><u>Current EN-3</u></p>



I.D.	The Projco's Response	Applicants' Response
	<p>recognition that “<i>available wind resource is critical to the economics of a proposed offshore wind farm</i>” (NPS EN-3 2.8.28).</p> <p>NPS EN-3 provides for substantial weight to be provided to the adverse effects of the Projects given the Projco IP's position that the Projects will have a likely effect on the future viability of DBA, DBB and DBC (NPS EN-3 2.8.347). The Secretary of State cannot be satisfied of the first policy in this examination and must also apply substantial weight to the adverse effect pursuant to the second policy.</p> <p>As previously noted by the Projco IP's, the draft DCO already provides for an indemnity to a third party in respect of unquantified economic loss (Paras 47 to 55 of REP4-117).</p> <p>Finally, Para 2.1.8 of NPS EN-3 expressly states that: “<i>Applicants must show how any likely significant negative effects would be avoided, reduced, mitigated or compensated for, following the mitigation hierarchy</i>”.</p> <p><u>Draft EN-3</u></p> <p>The Projco IPs approach to draft EN-3 is clearly not “<i>tortuous</i>”; it is the correct reading of the draft EN-3. The Applicant has adopted an over-simplistic approach and has misinterpreted Draft NPS EN-3 Para 2.8.233 which the Applicant states: “<i>rules out financial compensation</i>”. This is not the case.</p> <p>As has been made clear, the relevant policy to which the Applicant refers (NPS EN-3 Para 2.8.233) is subject to consultation responses identifying that it should be removed in its entirety.</p> <p>In any event, the Applicant cannot demonstrate that it has taken all reasonable steps to minimise as far as possible the impact of wake effects because it has not engaged in discussions in respect of compensation or protective provisions. As such, the Projco IP's position is that the Applicant cannot demonstrate compliance with draft EN-3 Para 2.8.316, which is a gateway to consideration of draft NPS EN-3 Para 2.8.233.</p> <p><u>Financial Compensation - Principle</u></p> <p>It is not plain that the Secretary of State has a “<i>strong in principle stance against imposing financial compensation with regards to wake effects</i>” as the Applicant asserts. The Applicant cites two purported precedents to support its position in response to this question. In respect of those two purported precedents:</p> <ul style="list-style-type: none"> <li>Awel y Mor: neither the ExA or the Secretary of State rejected the principle of financial compensation. As identified in the Projco IP's Deadline 6 submission, the reason that compensation provisions were not included in the Awel y Mor DCO was not a matter of policy or principle but a matter of imprecise drafting by the party seeking the indemnity. The ExA in that case considered that the proposed requirement was vague and so would fail to meet the tests of enforceability and precision (the ExA did not conclude that it would not meet the tests of necessity and reasonableness) (see Paragraph 5.14.83 of the Awel y Mor Recommendation Report).</li> <li>Draft EN-3: the Applicant mischaracterises what is said in draft EN-3 as a rejection of the principle of financial compensation. Draft EN-3 makes it clear that the Secretary of State's position is that financial compensation is an approach that can mitigate the impact of wake effects. Draft EN-3 does not rule out circumstances, such as this, where compensation is a necessary means to mitigate the impact. As has been made clear, the relevant policy to which the Applicant refers (NPS EN-3 Para 2.8.233) is subject to consultation responses identifying that it should be removed in its entirety.</li> </ul> <p>The absence of a precedent for compensation is not a justification for not including compensatory measures within the draft DCO given the significance of the impacts on DBA, DBB and DBC.</p>	<p>Paragraph 2.8.345 cannot, on any reading, be said to apply to other offshore wind farms. It is plain that it only applies to “<i>other offshore industries</i>” (emphasis added). Impacts between projects in the same sector can give rise to special considerations and do here. This policy on “<i>minimising economic loss</i>” does not apply to the Application.</p> <p>In any event it would be balanced with other considerations as regards site selection and site design and the realities of wake effects in the context of and emerging sector, which the Projcos do not acknowledge. Taking all this into account is part of the pragmatic approach required by paragraph 2.8.342, which would include recognition of the role of TCE's buffer as a key step in balancing the interests (including wake effects) of a new and an emerging project within the same sector. The special considerations which arise require specific policy consideration which is only now taking place with the draft EN-3.</p> <p><u>Draft EN-3</u></p> <p>The draft EN-3 has a clear policy intent of rejecting financial compensation. The Applicants cannot be criticised for declining to engage in discussion regarding protective provisions whose intent is to impose such financial compensation.</p> <p><u>Financial compensation – principle</u></p> <p>The Applicants stand by their position. The SoS in Awel y Mor had every opportunity to invite (or impose) alternative wording to provide financial compensation and chose not to do so. The policy intent of draft EN-3 is plain – where design mitigation has been addressed (as is the case here) then there is ‘no expectation’ of financial agreements. If the SoS had wanted to signal a meaningful role for financial compensation he would have chosen different language.</p> <p><u>Collaboration</u></p> <p>The Applicants stand by their submissions and have addressed this further in their closings. There is a difference between collaboration and engagement. There is an inherent limit to what collaboration is realistic in this context.</p> <p>The reason the Applicants highlighted Dogger Bank D was because on the one hand the Applicants were being criticised for their approach to wake effects, on the basis that the required approach in EN-3 was clear, and on the other those promoting DBD (after the intense spotlight of the last 12 months) are themselves saying it is unclear. That point is fair and is undisturbed by the various responses the Applicants have made relating to DBD in their Deadline 7 submission.</p> <p><u>Weight</u></p> <p>The Applicants position is based on its interpretation of EN-3, reinforced by draft EN-3 (which cannot be used to hold the Applicants to a retrospective standard as regards collaboration).</p> <p>The Applicants have consistently argued that special considerations must apply within the asset class of offshore wind (if EN-3 language is to be applied). Paragraph 2.8.345 does not apply. The Projcos have failed to demonstrate a likely meaningful future threat to the viability of DBA, DBB and DBC – a high bar. Their conduct since 2021 contradicts any such claim, as previously explained.</p> <p>They have claimed a financial loss expressed in 2025 money which is dramatically overstated for the reasons explained in REP7-139: 3 above. The Projcos have simply made a range of speculative assertions about adverse scenarios which fall far short of evidence of a likely meaningful threat to viability. The Applicants</p>



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	<p><u>Collaboration</u></p> <p>The Applicants have not followed an accepted industry approach to wake effects; this is evident from the information the Applicant has submitted in respect of the Dogger Bank D offshore wind farm (which is another offshore wind farm which is in the pre-application stage) where the developer of that project (which does have partially shared ownership with the Projco IPs) is adopting a different approach to wake loss to that promoted by the Applicant throughout this examination. Please see the comments on the response to IOU2.4 below for further detail.</p> <p>The Applicant has not “acted appropriately” through the pre-application stage. As has been made clear throughout this examination and was reiterated by the Projco IPs at ISH6, the Projco IPs have consistently sought to engage with the Applicant on wake loss and the Applicant reversed its position on wake loss at ISH1 in spite of precedent and emerging policy. As was made clear at ISH6 in response to questions, the Applicant ignored the Projco IPs requests for engagement following draft environmental statement chapters being shared with the Projco IPs. The draft statement of common ground (REP2-056) shows a consistent pattern of the Projco IPs seeking to engage with the Applicant on this issue without response from the Applicant: see reference to the unanswered requests for updates on 13 May 2024, 1 August 2024, 6 August 2024, 29 August 2024 and 23 December 2024. In spite of these requests, no substantive response was received until 14 January 2025 and the confirmation that wake loss modelling would not be shared. The Projco IPs have also fully engaged with the examination, including addressing requests for information from the ExA on a without prejudice basis which the Applicant has not engaged with. This is not an appropriate level of engagement and the Applicant cannot demonstrate compliance with NPS.EN-3 2.8.200 or NPS EN-3 2.8.261.</p> <p>The Applicant did not act collaboratively in producing its own wake loss assessment, only engaging with the Projco IPs after the production and submission of that assessment and the Projco IPs comments on that assessment. As has been clear throughout, this engagement is far too late in the process. For example, early engagement during the site selection process might have allowed for larger buffers in the emerging design of the Projects. In terms of the requirement for engagement and collaboration, this clearly extends beyond collaboration on modelling which is the extent of the engagement from the Applicant in respect of the Projects.</p> <p>The Applicant cannot demonstrate that it has worked collaboratively with the Projco IPs. Its conduct throughout the pre-application stage and examination demonstrates the opposite and a lack of engagement. As such, the Projco IP's position is that the Applicant cannot demonstrate compliance with draft EN-3 Para 2.8.316.</p> <p><u>Weight</u></p> <p>The Applicant's position in this response is that wake loss impacts on DBA, DBB and DBC should carry “no more than limited weight”. This is not credible, and appears to be based on: 1) the application of draft EN-3 (and not the current EN-3); and 2) a position that the Applicant considers that it has complied with draft NPS EN-3 Para 2.8.316 (which the Projco IPs strongly reject).</p> <p>The Applicant's approach to weight is contrary to: 1) the current NPS, which directs the weight to be afforded where there is a likely future affect on viability; and 2) the precedent in the previous Secretary of State's decision on Awel y Mor (where moderate weight was attached to the impact on the affected project in that case in spite of that impact being significantly less than the impact of the Projects on DBA, DBB and DBC).</p>	<p>have included in their closing submissions (and not repeated here) some further commentary on the relevance of the principles and standards applied elsewhere in the planning system to viability assessments. These are not met by the Projcos submissions.</p>

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	The Projco IP's position is that the adverse impacts on DBA, DBB and DBC attract substantial weight and that this substantial weight necessitates the imposition of the protective provisions.	
REP7-139: IOU.2.4	<p>The Projco IPs are not the promoters of the Dogger Bank D project (although the company promoting that project does have partially shared ownership with the Projco IPs) and the information provided by the Applicant in respect of Dogger Bank D does not undermine to any extent the case made by the Projco IPs in this examination.</p> <p>The Applicant's comments on Dogger Bank D are of no relevance to the examination of this Project, save in one respect which is to demonstrate that the Applicant's position that its approach in respect of wake loss has been and is in line with "<i>standard industry practice</i>" of offshore wind developers or that the Applicant is following the "<i>common industry-wide interpretation</i>" (points made in the comments to the Projco's response to IOU2.3) is not correct.</p> <p>The extract of the Dogger Bank D PEIR that the Applicant has provided in its response to this question demonstrates that the promoter of the Dogger Bank D project considers that: 1) wake loss is a planning matter; 2) wake loss is an evolving matter, with the approach that it will take being directed by emerging decisions and guidance; and 3) that at the environmental statement stage it will look to include a detailed wake loss assessment. This shows that promoters of offshore wind farm projects do address wake properly at the pre-application stage, and only serves to reinforce a number of the fundamental flaws in the Applicant's approach that the Projco IPs have identified throughout this examination.</p>	The Applicants observations remain entirely apt and relevant.
REP7-139: IOU.2.5	<p>The methodology and inputs from both sides are all matters which should have been considered and addressed by the Applicant at the pre-application stage when the Projco IPs were actively seeking to engage with the Applicant on this topic.</p> <p>The Applicants raise consistency and fairness as principles in this response. It is the Applicants that have taken an inconsistent approach to wake loss across the Project and it is the Applicants who have not engaged in pre-application consultation (in spite of requests to do so) by the Projco IPs.</p> <p>The Applicants also raise the ad-hoc way in which this has played out across six recent DCO examinations. The Applicant has decided to adopt the position that it has throughout at its own risk and in knowledge of those five preceding DCO examinations. The Applicant also adopted its current position after the Awel y Mor decision and the publication of the Clean Power 2030 Action Plan.</p> <p>The Projco IP's consider that this examination has addressed this issue in a satisfactory and appropriate manner with cognisance of the preceding DCO examinations and the Secretary of State's approach post-recommendation.</p>	<p>The Applicants are not intending to repeat their position, which stands.</p> <p>The Applicants would observe that, whilst it might have been reached at an earlier point, the same amount of collective effort would have produced essentially the same difference of assessments as has been reached at this point in the Examination.</p>
REP7-139: IOU.2.12	The Projco IP's reserve the right to respond to any information submitted at Deadline 7.	Noted.
REP7-139: IOU.2.13	<p><u>Engagement</u></p> <p>The Applicant's analysis of engagement in respect of viability in this response is misplaced and ignores the fact that the onus is on it, as the applicant subject to the policy, to discharge its policy obligations in bringing the Projects forward.</p>	<p><u>Engagement</u></p> <p>The Applicants are not proposing to repeat their position on engagement.</p> <p><u>Viability</u></p>

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	<p>As has been made clear throughout this examination, the Projco Ips have consistently sought to engage with the Applicant. As was made clear at ISH6 in response to questions, the Applicant ignored the Projco Ips requests for engagement following draft environmental statement chapters being shared with the Projco Ips. The draft statement of common ground shows (REP2-056) a consistent pattern of the Projco Ips seeking to engage with the Applicant on this issue without response from the Applicant: see reference to the unanswered requests for updates on 13 May 2024, 1 August 2024, 6 August 2024, 29 August 2024, 23 December 2024. In spite of these requests, no substantive response was received until 14 January 2025 and the confirmation that wake loss modelling would not be shared.</p> <p>The Projco IPs cannot compel the Applicant to engage, and as is clear now the Applicant is still refusing to engage on measures to address the impacts on DBA, DBB and DBC such as protective provisions even on a without prejudice basis.</p> <p>The Applicant has stated, in respect of the Projco Ips, that: <i>"there is an attempt to retrospectively apply a contested interpretation of National Policy Statement (NPS) EN-3 to hold the Applicants to an inappropriate standard"</i>. The Projco Ips position has been consistent throughout this scheme; it is the Applicant who reversed its position on planning and EIA at the start of the examination (removing an assessment that it, itself, had scoped in and originally included in the Application) and it is the Applicant which has been inconsistent, seeking to contest the policy in spite of precedent.</p> <p><u>Viability</u></p> <p>The Projco IPs position is that the Projects are likely to affect the future viability of DBA, DBB and DBC. The £499 million figure provided is considered to be a conservative assessment.</p> <p><u>Three Phases</u></p> <p>Whilst the DBA, DBB and DBC are owned by separate Projcos they have been developed and will be operated as one. Therefore, as previously outlined at ISH6 and in REP6-081 the impact across all three projects is relevant to consideration of materiality of the impacts from the Projects, and particularly to the potential for impacts on DBA, DBB and DBC's future viability. DBA, DBB and DBC secured CfDs in the same bidding round, with the projects phased over the two available delivery years with DBA in the first and DBB and DBC in the second. Key offshore work packages were contracted for all three phases (i.e. turbines, foundations, marine installation, HVDC system, vessels etc.) treating them as part of one larger project allowed for the greatest synergies in construction and operation, in turn reducing the overall cost of the projects. In practical terms, this means that activities can be flexed between DBA, DBB and DBC during construction and operation to account for the challenges naturally encountered in the management of such large-scale projects in a challenging marine environment. Such an approach is normal within one wind farm and this is effectively simply scaled up in this case as the three projects are managed as one larger project. This ensures the most efficient construction and operation of the three projects so that the Projco IPs are able to deliver on what were record low strike prices secured in CfD Auction Round 3.</p> <p>In relation to wake impacts, the operational approach to DBA, DBB and DBC is perhaps more critical given it is this period which will see overlap and impact from the Projects. The approach DBA, DBB and DBC take in this phase to synergistic operations is formally covered through a binding legal agreement between each and all of the separate Projcos and the operator of the Projcos (the Coordination Agreement). The Coordination Agreement authorises and instructs an operator to carry out the management of its services (which includes management of the Projcos) towards each project in the interest of the Dogger Bank Wind Farm as a whole</p>	<p>The Projcos present a timeline, however they omit various important commercial events that add considerable context, which have been highlighted by the Applicants - see the timeline presented in <b>The Applicants' Deadline 7 Wake Loss Submission</b> [REP7-136].</p> <p>The points made about new investors into DBA, DBB and DBC by the Applicants completely contradict the claim of a likely meaningful threat to the projects' viability and are not substantively responded to.</p> <p><u>Three Phases</u></p> <p>The explanation provided regarding the construction and operation of DBA, DBB and DBC does not explain how the financial side of the projects work, which must be central to a claim that they are, in fact, a single project. The submission refers to a situation where "one of [the] projects were to become unviable", which completely contradicts the argument the Projcos are making. If one project could become unviable and cease operating (thereby increasing shared costs to the remaining two projects) then it cannot be a single project in financial terms.</p> <p>The wake effects vary substantially between the 3 projects. The ExA and the SoS should consider each project in its own right.</p> <p><u>Discounting</u></p> <p>The Applicants disagree with the assertion that discounting is irrelevant simply because the proposed financial provisions are structured as annualised payments rather than a commuted lump sum.</p> <p>Discounting remains a fundamental principle of financial analysis, regardless of the payment structure. The purpose of discounting is to reflect the time value of money, recognising that a pound received today is worth more than a pound received in the future. This principle applies equally to annualised payments as it does to lump sums.</p> <p>By claiming a headline total loss in 2025 money and not discounting future annual payments, the financial impact of wake loss is dramatically overstated. This creates a misleading impression of the economic burden imposed by the Dogger Bank South wind farms on the operational performance of the Projco's assets. In reality, the present value of future losses, particularly those occurring in the post-CfD period, should be significantly lower when appropriately discounted using a risk-adjusted rate.</p> <p>Therefore, the Applicants maintain that discounting is not only relevant but essential to ensure that the financial impact assessment accurately reflects the true economic implications of wake effects over time.</p> <p><u>Timeline and Project Specific Assessment</u></p> <p>The Projcos have not sought to correct the information provided by the Applicants regarding the carrying out of an AEP assessment in February 2021 or the two phases of new external investment into DBA, DBB and DBC. Those investment decisions are highly relevant to the credibility of a claimed impact on the future viability of the three projects. The prospective new investors will have made a judgment (as recently as October 2022) on the viability of the projects and found that attractive enough to invest, taking into account all the other normal risks of investment into £multi-billion projects through the expected lifetime of the projects.</p> <p>This provides powerful evidence by way of inference that there is no meaningful threat to the viability of the 3 projects from the wake effects from the Projects. This inference also means that it is incumbent on the Projcos to go further in providing evidence to overcome it, when arguing that there is in fact a likely</p>

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	<p>(i.e. DBA, DBB and DBC as one). The Coordination Agreement has hierarchical precedence over any single project's management agreement, other agreements and contracts. Further, the Coordination Agreement allows for economies of scale to be achieved, as well as mechanisms for how to manage the loss of one (or more) of DBA, DBB or DBC for whatever reason, for example if one of those projects were to become unviable. Put simply, the loss of one (or more) of DBA, DBB or DBC would increase the costs of the remaining projects due to the loss of economies of scale. For example, a vessel currently shared between three projects would have to be taken on by only the remaining projects.</p> <p>As previously outlined, it is too simplistic to simply analyse DBA, DBB and DBC separately and this is a further area where the lack of engagement is material.</p> <p><i>Discounting</i></p> <p>The Applicant has referred to discounting, but this is not relevant because the Projco IPs are not requesting payment of a commuted sum upfront but have instead structured the provisions to allow for an annualised payment in each year of impact which would not require discounting.</p> <p><i>Timeline and Project Specific Assessment</i></p> <p>The history of the development of DBA, DBB and DBC is not relevant to this examination. The policy test in respect of viability is one of a likely affect on future viability, not one of an impact on viability today or on viability as assessed in the past. However, in terms of ensuring that the timeline is properly set out and understood we have set out the timeline below:</p> <ul style="list-style-type: none"> <li>September 2019: CfD award announced for DBA, DBB and DBC;</li> <li>October 2019: CfD signed for DBA, DBB and DBC;</li> <li>November 2020: DBA and DBB reach financial close;</li> <li>February 2021: TCE announces initial results of Round 4 offshore wind tender;</li> <li>December 2021: DBC reaches financial close;</li> <li>April 2022: the plan-level HRA for TCE's Round 4, which was required in order for there to be certainty that Round 4 projects could proceed, was concluded;</li> <li>July 2022: the Applicant's request for a scoping opinion, with a broad redline (which reflects the bid area but not the final extent of the Projects) submitted;</li> <li>January 2023: the Applicant signs Agreement for Lease with TCE in respect of the Projects, which was required in order for there to be certainty that the Projects could proceed; and</li> <li>Summer 2023: statutory consultation in respect of the Projects, where the array areas were identified.</li> </ul> <p>This is important, as prior to February 2021 the area within which the Projects may be situated was not known. In respect of the Dogger Bank zone, the Round 4 tender process was over a much wider area (as shown on page 16 of TCE's Information Memorandum (REP3-038), and the Applicants (as part of their bidding process) will have identified an area within that zone (unknown to the Projco IPs) in their bids. As the Applicant's site selection assessment shows (Figure 4.1 – APPo67) the agreement for lease boundaries that were awarded in January 2023 are wider than the array areas that the Applicant has selected for the delivery of the Projects. This means that even in January 2023 there would be no certainty as to the array area for the Projects as the project refinement process was ongoing.</p>	<p>meaningful threat to future viability. The Projcos have failed to do either i.e. provide evidence if those investments had not been made, nor to provide the extra evidence required to overcome the force of the inference from the fact that they were.</p> <p>The Projcos knew the capacity of the Projects and their location from February 2021 onwards. They knew that it is extremely rare for a preferred bidder not to be awarded an Agreement for Lease (AfL) by TCE and that TCE would have had a very strong incentive (having run a complex and expensive process, which did not provide for reserve bidders) to ensure that all 6 preferred bidders received an AfL. The Projcos would also have known that RWE was and is one of the most successful UK and European offshore wind developers which would be committed to bringing the projects forward, particularly given the record level of option fees payable to TCE, following the Round 4 auction.</p> <p>Accordingly, it is not convincing to say there was "no certainty the Projects would proceed". There was every reason to believe they would. It is apparent that the Projcos conducted an immediate assessment of the Annual Energy Production (AEP) impact in February 2021, presumably making realistic worst case assumptions. Accordingly, the point the Applicants have made about 2.5 years of silence on the topic from the Projcos is entirely fair comment, if they had a real concern about the impact of the Projects on viability.</p> <p>The suggestion that their concern only began when the design of the Projects started to emerge in 2023 is completely unconvincing. The key information necessary to estimate the AEP impact was available in February 2023 and we know that it was analysed immediately.</p> <p>The Applicants do not accept the narrative relating to a lack of industry knowledge regarding inter-farm wake loss before 2019. This is far too simplistic as the Applicants have explained in <b>The Applicants' Deadline 7 Wake Loss Submission</b> [REP7-136], section 2.1.</p> <p><u>Round 4 Bid</u></p> <p>The direction of policy is towards considering and applying reasonable mitigation, but rejecting the case for financial compensation.</p> <p>There are very good reasons for this in wider public policy terms which the Applicants have highlighted, with specific project examples.</p> <p>The public policy contrast between existing projects and new Round 4 (or extension) projects is clear. The existence of wakes has been known to a greater or lesser extent from the origin of the industry. There are no examples of financial compensation being imposed through the planning system. A decision to impose this for the first time would be a considerable step by the SoS.</p> <p>The Applicants submit that investor confidence in planned and operational wind farms will remain the same as it was before the unexpected outcome of the Awel y Mor decision and the attempts to use that decision to extract financial payments from new projects which the relevant investors had no prior expectation of receiving.</p> <p>The unexpected imposition of such payments on new projects would be damaging to the UK offshore wind market. As the Applicants have already explained, no bidders into Round 4 would have assumed they were at risk of compensation payments through the planning system. This was a reasonable expectation. To impose a different outcome in an ad hoc way, with the inconsistencies and injustices which the Applicants have previously highlighted, with specific project examples, would be unreasonable and unjustified.</p>



I.D.	The Projco's Response	Applicants' Response
	<p>When DBA, DBB and DBC reached financial close there was clearly no certainty that the Projects would proceed (as the plan-level HRA had not been finalised, an agreement for lease was not in place and the Projects had not been through scoping).</p> <p>As the TCE acknowledges in its response (REP6-078), the <i>"location of a wind farm, (along with wind turbine specifics such as height, rotor diameter, MW power) within an area of seabed leased from The Crown Estate is for developers to decide and design for, subject to obtaining the necessary consents and The Crown Estate's approval"</i>. These are all factors which are required to inform a project specific wake loss assessment and understand wake loss impacts.</p> <p>It is also important to reiterate the point made at Paragraph 25 of the Projco IP's Deadline 6 submission that the TCE's leasing process for Round 4 commenced in advance of the more substantial industry knowledge on inter-farm wake loss and this position has continued to evolve significantly after the closure of TCE's leasing round.</p> <p>The general tenor of the Applicant's comments reflects the flawed approach taken to wake loss throughout this examination and is based on an expectation that the Projco IPs undertake an assessment based on a generic risk (and not a site-specific issue as matters progress through planning), as opposed to the Applicant's assessing the impact of its Projects (the design of which only the Applicant will have been aware of) and engaging with the Projco IPs. Since that design has emerged in 2023, the Projco IPs have sought to engage on the project specific risk that the Projco IPs have identified.</p> <p><u>Round 4 Bid</u></p> <p>The Applicant's position in respect of Round 4 and its finances is effectively a broader point of policy argument, and relates to the Applicant's original argument that wake loss is not a matter for planning which the Secretary of State has squarely rejected. It is clear that the balance is now in favour of new projects mitigating wake loss impacts on existing projects and so the Applicant's position is contrary to the direction of travel of decisions and policy,</p> <p>The imposition of compensation would not be a "retrospective" measure. It is a measure which is imposed, as with other mitigation measures and compensatory measures, through the planning process which is designed to address the specific impacts of projects as they are developed. The TCE process is not a planning process and is not designed to address such measures.</p> <p>The Applicant's position in this response is based on an underlying point that it has not assessed the prospect of the payment of compensation as part of its project development. This is a failing on its part, as it has to develop its projects in accordance with all relevant planning policy. The failure to consider this is not a reason for compensation not to be imposed.</p> <p>The converse is also true, and investor confidence in planned and operational wind farms will be affected if these impacts are left unmitigated (where such mitigation can include compensation). As set out in the Projco IP's response to ExQ1 IOU.1.12 (at Deadline 3 – REP3-063). In terms of the balance and need to protect projects from a financial perspective in order to provide certainty, this weighs in favour of DBA, DBB and DBC as committed projects and this reflects the direction of travel. This reflects the importance of preserving the viability of DBA, DBB and DBC (which will contribute to Clean Power 2030 and which are more certain contributors than the Projects given their current status).</p>	<p>DBA, DBB and DBC are already committed, and will have taken account of the generic industry risk of new projects coming forward through Round 4 (whose bidding areas were fixed in 2019) and otherwise. The investment decisions will have been taken in the knowledge that financial compensation was not available/expected through the planning system.</p> <p>No evidence of a meaningful threat to their future viability (let alone a likely threat) has been provided. That evidence must be considered on its own merits. It is the Projects which should not be exposed to unreasonable and unjustified financial payments, for their own sake and for the sake of preserving confidence in the UK offshore wind market.</p>



I.D.	The Projco's Response	Applicants' Response
	The Projco IPs have set out their position that the absence of compensation will lead to a likely affect on the future viability of DBA, DBB and DBC. The Applicant has not made the converse statement, and has not made a case that the payment of compensation will have an effect on the future viability of the Projects.	
REP7-139: IOU.2.15	The Projco IP's reserve the right to respond to any information submitted at Deadline 7.	Noted.
REP7-139: IOU.2.16	The Projco IPs reiterate their position in response to IOU2.16 at Deadline 5 and the Applicant continues to misrepresent this matter in what appears to be an attempt to play downplay the significance of this matter. Wake loss should be considered as a bias always reducing the energy produced by DBA, DBB, and DBC each year. inter-annual variability (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 Applicants have nothing to add to their previous submissions.
REP7-139: IOU.2.21	The Projco IP's protective provisions are appropriate and are workable. It is important to note, as set out in more detail in the response to the Applicant's comments on the Projco IP's response to IOU2.22 below, that the Applicant's comments go to the justification for the protective provisions (i.e. whether they are necessary in this case) as opposed to the substance of the protective provisions.	See response to IOU.2.22 below.
REP7-139: IOU.2.22	<p>As the Applicant notes in its submissions on the protective provisions, it has not provided detailed drafting comments or alternative drafting.</p> <p>Instead, the Applicant has made a number of high-level observations on the detailed protective provisions provided by the Projco IP's and the Orsted IPs.</p> <p>The Applicant's position is that the protective provisions are not required or appropriate. Whilst not expressed here, this is presumably (in part) on the basis of: 1) the "<i>limited weight</i>" attributed to the adverse impacts to DBA, DBB and DBC in the planning balance; 2) the "<i>negligible</i>" effects concluded as part of the wake loss assessment; and 3) the Applicant's policy analysis more generally.</p> <p>Taking the various points made by the Applicant in turn.</p> <p><b><u>Mitigation</u></b></p> <p>The drafting of the protective provisions provided by the Projco IPs does not concede that there are no mitigation measures available or (more importantly) that there will be no mitigation measures available in a number of years' time when the process set out in the protective provisions is engaged. The protective provisions do not oblige (but allow for) the Applicant to include mitigation measures in the design of the Projects, but do provide for any such measures to be taken account in the updated wake loss assessment. This is clearly a reasonable position to adopt.</p> <p><b><u>Uncertainty</u></b></p> <p>There is a general statement that the protective provisions would create "<i>significant uncertainty</i>" for the Projects. There is no rationale behind this statement or explanation as to what this significant uncertainty is; the protective provisions set a clear process, and the protective provisions provide a more stringent process for the quantification of impacts and assessment of compensation than other full indemnities provided in the draft DCO (for example that provided to Network Rail Infrastructure Limited pursuant to Para 14(3) of Part 5 of Schedule 15 to the draft DCO).</p>	<p>The Applicants position remains on the various points raised regarding the protective provisions, which they regard as unreasonable and unworkable. For the reasons already explained at Deadline 6, the Applicants are not engaging in further detailed responses. Where something is completely at odds with policy, it is not reasonable for the Applicants to be expected to engage further than they already have.</p> <p>The Projcos seek to normalise something which would involve a profound departure for the offshore wind sector. The Applicants maintain their position that the SoS should reject the proposed protective provisions as unjustified and unreasonable.</p>

I.D.	The Projco's Response	Applicants' Response
	<p>The Applicant has now been asked repeatedly to engage on the drafting of protective provisions and has not done so, and has not demonstrated that the protective provisions are not satisfactory. It is in the Applicant's power to engage with affected parties like the Projco IPs in order for the Applicant to address this uncertainty and it has refused to do so.</p> <p>Effectively, the Applicant's position is that the adverse effects are left unmitigated because of unspecified uncertainty this would cause to the Projects. This is not accepted or justified.</p> <p><b><u>Financial Compensation</u></b></p> <p>This is not "<i>completely at odds with policy</i>" as explained in previous submissions and throughout this response. Taking each point made in turn.</p> <p><b><u>Paragraph 8 – National Scheme</u></b></p> <p>Paragraph 8 of the protective provisions is included to ensure that the Applicant is protected from any form of double recovery if such a national scheme were to be developed. It does not imply that any such scheme is currently being promoted, and the Secretary of State will understand this.</p> <p>If the Applicant does not wish to have the benefit of such protection in the protective provisions, then this can be deleted.</p> <p><b><u>Secretary of State's Position</u></b></p> <p>The Secretary of State has not "<i>consistently rejected the principle of financial compensation</i>" as the Applicant asserts. The Applicant cites three purported precedents to support its position. In respect of those three purported precedents:</p> <ul style="list-style-type: none"> <li>Awel y Mor: neither the ExA or the Secretary of State rejected the principle of financial compensation. As identified in the Projco IP's Deadline 6 submission, the reason that compensation provisions were not included in the Awel y Mor DCO was not a matter of policy or principle but a matter of imprecise drafting by the party seeking the indemnity. The ExA in that case considered that the proposed requirement was vague and so would fail to meet the tests of enforceability and precision (the ExA did not conclude that it would not meet the tests of necessity and reasonableness) (see Paragraph 5.14.83 of the Awel y Mor Recommendation Report).</li> </ul> <p>In any event, the circumstances in respect of Awel y Mor and its impacts are materially different and the Projco IPs position is that the impacts caused by the Projects on DBA, DBB and DBC are significantly greater than the impacts caused by the Awel y Mor offshore wind farm on Rhyl Flats.</p> <ul style="list-style-type: none"> <li>Draft EN-3: the Applicant mischaracterises what is said in draft EN-3 as a rejection of the principle of financial compensation. Draft EN-3 makes it clear that the Secretary of State's position is that financial compensation is an approach that can mitigate the impact of wake effects. Draft EN-3 does not state that there will not be circumstances, such as this, where compensation is a necessary means to mitigate the impact. As has been made clear, the relevant policy to which the Applicant refers (NPS EN-3 Para 2.8.233) is subject to consultation responses identifying that it should be removed in its entirety.</li> <li>Mona: the Mona consultation does not reject the principle of compensation. It requests that information is provided in respect of a number of matters. In any event, the circumstances in respect of Mona and its impacts are materially different and the Projco IPs position is that the impacts caused by the Projects on DBA, DBB and DBC are significantly greater than the impacts caused by the Mona offshore wind farm on</li> </ul>	

I.D.	The Projco's Response	Applicants' Response
	<p>affected projects. It is also important to note that the Secretary of State has issued an identical request in respect of the Morgan Offshore Wind Farm by a letter dated 19 June 2025.</p> <p><u>Public Interest Issues and Government Guidance</u></p> <p>The imposition of the protective provisions will be the culmination of the public interest issue in this case as part of the DCO decision and will (if included in the DCO) be a decision by the relevant Secretary of State and so will be government-led. There would be no requirement for an alternative governmental process, and as the Applicant highlights its understanding is that there is no such governmental process underway. As such, this only serves to reinforce that specific protective provisions are the only mechanism to address this.</p> <p><u>Expert Provision</u></p> <p>The substantive issues are proposed to be resolved by an independent third-party expert in the absence of agreement between the parties. The Projco IP's do not consider this to be a fundamental issue and consider that a third-party expert would be best placed to address such matters, but notes that the Applicant has raised that this could be the Secretary of State as opposed to a third-party expert. This is a drafting point.</p> <p>As noted in the Projco IP's Deadline 6 submission, if the concern relates to a third-party then an alternative could be determination by the Secretary of State. However, the Projco IP's position is that a third-party expert is preferable for inclusion within the protective provisions on the basis that such a party will have a detailed knowledge of the modelling inputs and technical subject matter.</p> <p><u>Examples</u></p> <p>The Applicant has provided four examples which purport to demonstrate problems with the protective provisions.</p> <ul style="list-style-type: none"> <li>On the first example provided, the Applicant is commenting on another examination which relates to a materially different set of circumstances linked to Round 2 offshore wind farms and extension projects. The protective provisions in front of this examination do not address this circumstance which relates to a different set of interactions in relation to an extension project which is subject to a different application. The basis of the wake loss assessments provided in respect of this Project are clear, and this purported issue is not relevant to the form of protective provisions in front of this examination.</li> <li>On the second example, the wake loss mitigation scheme to be secured pursuant to Para 4(2) of the protective provisions must include the mechanism for quantifying the financial loss caused which would address such matters. If there were to be any dispute between the parties the protective provisions allow for appointment of a third-party expert. The Applicant has raised that this could be the Secretary of State as opposed to a third-party expert. If there were to be a dispute about the third-party expert, this would be resolved by arbitration. This is a clear process, and is clearer than other processes included in the Applicant's draft DCO where matters of detail or compensation are payable or referable to arbitration in the event of any dispute (for example Para 5(4) and Para 6(3) of Part 1 of Schedule 15 to the draft DCO in respect of utility undertakers and Para 14(3) of Part 5 of Schedule 15 to the draft DCO in respect of Network Rail Infrastructure Limited).</li> <li>On the third example, the Applicant is again commenting on a different form of protective provisions in respect of a different entity submitted as part of a different examination. The Projco IPs have provided for an assessment which will address these measures (see Para 4(2)), which identifies that the payment profile will be based on annual impacts. The Projco IPs have intentionally avoided the imposition of an indemnity or the payment of a commuted sum to avoid over-compensation and have also ensured that</li> </ul>	

I.D.	The Projco's Response	Applicants' Response
	<p>the protective provisions only extend to the operational lifetime of the projects with paragraph 5 of the protective provisions ceasing to have effect if one of the projects ceases to be operational. This purported issue is not relevant to the form of protective provisions in front of this examination. The Projco IPs would be open to discussing the nature of the payment structure if the Applicant would prefer an alternative payment structure, but the Applicant has not engaged to date.</p> <ul style="list-style-type: none"> <li>On the fourth example, the Applicant has referred to discounting, but as identified above this is not relevant because the Projco IPs are not requesting payment of a commuted sum upfront but have instead structured the protective provisions to allow for an annualised payment which would not require discounting. If there were to be any dispute between the parties the protective provisions allow for appointment of a third-party expert. The Applicant has raised that this could be the Secretary of State as opposed to a third-party expert. If there were to be a dispute about the third-party expert, this would also be resolved by arbitration. As per the second example, this is a clear process and is clearer than other similar processes included in the Applicant's draft DCO.</li> </ul> <p>As a general point, and noting the response to IOU.2.23 below, the Projco IPs do not accept the criticism of the role of the arbitrator in the protective provisions. This is consistent with other protective provisions within the draft DCO, and incorporates the arbitration provisions in article 47 of the draft DCO (and associated arbitration rules at Schedule 16 to the draft DCO).</p>	
REP7-139: IOU.2.23	<p>The Applicant's response conflates two issues; third-party expert determination and arbitration.</p> <p>The substantive issues are proposed to be resolved by an independent third-party expert in the absence of agreement between the parties. The Projco IP's do not consider this to be a fundamental issue and consider that a third-party expert would be best placed to address such matters, but notes that the Applicant has raised that this could be the Secretary of State as opposed to a third-party expert.</p> <p>The Projco IP's drafting of the arbitration provisions is based on the Applicant's drafting, where (as identified in the response to IOU.2.22) it is applied in a number of cases across the draft DCO (see, for example, Paragraph 20 of Part 5 of Schedule 15 to the draft</p> <p>NPS EN-3 provides that "<i>in some circumstances, the Secretary of State may wish to consider the potential to use requirements involving arbitration as a means of resolving how adverse impacts on other commercial activities will be addressed</i>" which demonstrates policy support for this approach.</p>	The Applicants position remains as stated. See REP7-139: IOU.2.22.

Table 2-17 – The Applicants' response to The Projco's Comments on further information and submissions received at Deadline 6 (Appendix 3) [REP7-139]

I.D.	The Projco's Response	Applicants' Response
REP7-139: 3.1	<p><b>Written Summary REP6-055</b></p> <p>The Applicant identified that it had used the Globe blockage model at ISH6 and the Projco IPs undertook to engage with the Applicant on this matter (see Para 33 of REP6-055). Following such engagement, it is clear that the Applicant has used a proprietary blockage model (and not the Globe model they claimed at ISH6).</p>	The Applicants have not used the GloBE blockage model. At ISH6 the Applicants reported that the proprietary VV model (which was used, explained and cited in all submissions by the Applicants) was tested against the measurements taken in GloBE, and performed better than the model developed as part of GloBE (paragraph 33 of <b>The Applicants' Written Summaries of Oral Submissions made at ISH6</b> [REP6-055]). The Applicants did not claim to use the model developed by Frazer Nash as part of GloBE—that seems to have been a misunderstanding on the part of the Projcos.

Table 2-18 – The Applicants’ response to The Projco’s comments on the EXA’s preferred Draft DCO (Appendix 4) [REP7-139]

I.D.	The Projco’s Response	Applicants’ Response
REP7-139: 4.1	<p>The Projco IPs position is that they have justified the requirement for the protective provisions for the benefit of DBA, DBB and DBC through their submissions to this examination and that it is appropriate for those protective provisions to be included in the draft DCO. The Projco IP’s submissions have demonstrated that the imposition of such protective provisions is lawful, and the protective provisions are precise and enforceable.</p> <p>The Applicant has not engaged with the drafting of the protective provisions (save to note that references to the third-party expert may be more suitable as references to the Secretary of State), and the Projco IPs respectfully request that the protective provisions are included in the draft DCO in the form submitted by the Projco IPs at Deadline 5.</p>	The Applicants position regarding the proposed protective provisions remains as previously stated.

Table 2-19 – The Applicants’ response to Dogger Bank D response to Dogger Bank South application for development consent [REP7-139]

I.D.	The Projco’s Response	Applicants’ Response
REP7-139: DBD 1	<p><b>Dogger Bank D response to Dogger Bank South application for development consent</b></p> <p>Further to our letter dated 6<sup>th</sup> September 2024, we are writing to you regarding the application for development consent submitted for the Dogger Bank South Offshore Wind Farms (DBS) by RWE Renewables UK Ltd.</p> <p>Within our letter dated 6<sup>th</sup> September 2024 we stated that Dogger Bank D (DBD) wished to register as an Interested Party to participate in the DBS Examination as necessary, in particular relating to issues which DBD and DBS share in common, including (but not limited to):</p> <ol style="list-style-type: none"> <li>1. Cumulative Effects;</li> <li>2. Coordination; and</li> <li>3. Compensation (Habitats Regulations).</li> </ol> <p>The purpose of this letter is to provide a progress update on shared coordination and compensation matters.</p>	No response is required.
REP7-139: DBD 2	<p><b>Coordination</b></p> <p>Further to our letter dated 6<sup>th</sup> September 2024, we reiterate that DBD is committed to exploring co-ordination opportunities, including to minimise the impacts on the local communities and the environment as far as practicable, and notes that DBS similarly recognises that the coordination of offshore transmission infrastructure is a clear policy expectation in Section 4.4.1 of the Planning Statement (APP-226), which sets out the relevant National Policy Statements (NPSs), namely the ‘Energy NPSs’:</p> <ul style="list-style-type: none"> <li>• The Overarching NPS for Energy (EN-1);</li> <li>• The National Policy Statement for Renewable Energy Infrastructure (EN-3); and</li> <li>• National Policy Statement for Electricity Networks Infrastructure (EN-5).</li> </ul> <p>The main focus of coordination efforts to date between DBD and DBS relate to an area of overlap between the two projects’ respective Export Cable Corridors (ECC) in the nearshore/ landfall area. As a result of this overlap and the flexibility on potential routing proposed for the DBS cables in the nearshore, DBD requires to</p>	The Applicants will continue to engage with Dogger Bank D around potential opportunities for co-ordination between the Projects post examination.



I.D.	The Projco's Response	Applicants' Response
	<p>maintain a worst-case scenario of routing through the Holderness Inshore Marine Conservation Zone (MCZ). However, there is potential that further coordination on routing in the nearshore may enable the MCZ to be avoided by DBD.</p> <p>DBD and DBS have held two meetings to date (25/07/2024 and 17/06/2025) to progress potential coordination in the nearshore.</p> <p>Following the first meeting, DBD has progressed coordination efforts by completing technical studies looking in detail as to how coordinated use of DBS's ECC may be possible in order for DBD to seek to avoid any requirement to route through Holderness Inshore MCZ. The outcome from the technical study was presented to DBS on 17/06/2025. DBD notes that both meetings have been positive and supportive to progressing a coordinated solution. However, we have not yet been able to reach an agreed solution which could avoid DBD taking forward an option which routes through the Holderness Inshore MCZ. Significant further efforts will be required by both DBD and DBS in order for coordination in this instance to be successful.</p> <p>We hope to continue to progress coordination discussions with DBS at pace, so that the current worst-case requirement to route through Holderness Inshore MCZ at landfall can be excluded as an option prior to DBD's planned consent application in July 2026, thereby helping to ensure both DBD and DBS meet the relevant NPS expectations. We acknowledge that this will require a concerted effort on both sides, and although we are confident that both sides will make this effort, a timely and successful outcome is not guaranteed. So if the Secretary of State is minded to grant the DBS Order in the terms proposed, they should be mindful that DBD may not have other means of proceeding except to include cable routing through the Holderness Inshore MCZ at landfall within its DCO application.</p>	
REP7-139: DBD 3	<p><b>Compensation</b></p> <p>As outlined in our letter dated 6<sup>th</sup> September 2024, Dogger Bank D would also like to reiterate our interest in exploring opportunities for collaboration on compensation measures, particularly where improved environmental outcomes can be achieved through a coordinated or collaborative approach. This includes instances where challenges in securing measures could potentially be more effectively addressed through a multi-party or coordinated approach.</p> <p>To support such collaboration, DBS and DBD jointly developed a draft Memorandum of Understanding between September and December 2024, aimed at facilitating coordination on compensation where appropriate. DBD remains interested in finalising the MoU and continuing to progress these discussions.</p>	<p>The Applicants are keen to continue to engage with Dogger Bank D regarding potential collaboration on compensation measures. The Applicants highlight however that the opportunities available for collaboration on compensation measures would be in part dependent upon the decisions made by the Secretary of State on the quantum of compensation required to be provided by the Projects.</p>

## 2.11 Riplingham Estates

Table 2-20 – The Applicants’ response to Riplingham Estates Deadline 7 Document [REP7-162]

I.D.	Riplingham Estates Response	Applicants’ Response
REP7-162:1	<p>STATEMENT OF UPDATED POSITION IN RELATION TO PROGRESS OF NEGOTIATIONS FOR A VOLUNTARY AGREEMENT - RIPLINGHAM ESTATES LIMITED AND THE LOS TRUSTEES - STATEMENT of 26<sup>th</sup> June 2025</p> <p>STATEMENT BY REGISTERED ID. NO. 2005086 - MICHAEL GLOVER MRICS FAAV OF MICHAEL GLOVER LLP, CHARTERED SURVEYORS, GLOBE HOUSE, 15 LADYGATE, BEVERLEY, HU17 8BH AND ON BEHALF OF REGISTERED ID. NO. 20050119- EDWARD SMITH BSc MRICS FAAV, ALSO OF MICHAEL GLOVER LLP</p> <p><u>SITE REFS:</u></p> <p>RIPLINGHAM ESTATES LIMITED - VINEGAR HILL FARM, BEVERLEY (DM PARCEL REF. 2586) (LAND PLAN: 17-011) (10,135 SQ METRES)</p> <p>LOS TRUSTEES - LAND AT MOLESCROFT, BEVERLEY (OM PARCEL REF. 2432) (LAND PLAN: 14-006) (32,110 SQUARE METRES)</p> <ol style="list-style-type: none"> <li>1. This Statement updates the position following my last update of 13<sup>th</sup> June 2025 and comments on progress towards reaching a voluntary agreement.</li> <li>2. This Position Statement follows a meeting on the 19<sup>th</sup> June 2025 at Michael Glover LLP offices, Globe House, 15 Ladygate, Beverley, HU17 8BH, between Mr Tim Wright of Dalcour Maclaren, as agent for RWE, and myself, the purpose of which was to discuss the development clause which may be, and I suspect certainly could be, a method of addressing the concerns of our two clients above, Riplingham Estates Limited and the Los Trustees.</li> <li>3. The issues surrounding our observations on the Version 2 of the development clause was set out to Mr Tim Wright of Dalcour Maclaren on the 19<sup>th</sup> June 2025, upon which he was to take instructions from RWE.</li> <li>4. It does appear that we are unlikely to receive a response in respect of those observations by the date that closing submissions are due in at the Planning Inspectorate (3<sup>rd</sup> July 2025). Accordingly, we are again contacting Dalcour Maclaren today setting out, within a letter and accompanying notes on the draft development clause, our observations on the same and the reasoning why certain aspects are not acceptable in their current form.</li> <li>5. On the 24<sup>th</sup> June 2025, our client's solicitor received contact from Womble Bond Dickinson seeking confirmation of his fee proposals for addressing the legal agreements, including the development clause, and any potential for an early settlement depends upon the nature of the response we now receive from Dalcour Maclaren on behalf of RWE.</li> <li>6. For the moment, therefore, we attach our letter of today's date to Mr Tim Wright, copied to DBS at dalcourmaclaren.com and await a response. The attached correspondence clearly sets out the situation, identifying issues that we think need to be addressed in order to arrive at a suitable form of voluntary agreement in so far as development opportunity protection is concerned. Reading the attached would bring the Inspectorate up-to-date with the current situation.</li> </ol>	<p>The Applicants’ agent held a positive meeting with the appointed agent on 19<sup>th</sup> June and agreed that a development clause may be the best method for capturing any uplift in value as a result of any future alternative use of the land. The draft development clause was reviewed in detail and revised wording was sent to the appointed agent on 1<sup>st</sup> July 2025 for further review. It is noted that both parties are willing to progress with voluntary agreements, and the Applicant remains hopeful that an agreement will be reached. However, it is unlikely that this matter will be concluded prior to the end of examination.</p> <p>The Applicants’ Land Agents have been in regular contact with the agents acting on behalf of Riplingham Estates and can comment on each point in turn as follows:</p> <p>It is disappointing that the Interested Parties’ agent has been somewhat disingenuous with the ExA regarding its commentary on the draft development clause but acknowledge some cross over of communication between examination deadlines.</p> <p>The Applicants’ agent believe the parties are in fact much closer to reaching an agreement following the meeting on 19<sup>th</sup> June 2025 and have responded to the Interested Parties agent on 1<sup>st</sup> July 2025 (copy at <b>Appendix A</b>) including an improved position which better reflects the comments raised at the meeting. For example, the response to the Interested Parties’ agent includes an updated position on the time limiting factor for the Grantor to prove they have a genuine and settled intention to carry out a development on the Grantor's Property. The Applicants have extended their position to a term of 15 years post Offshore Transmission Owner (OFTO) divestment to serve a development notice, assuming energisation in 2032, this would afford the Interested Parties until 2047. The Applicants believe this position to be more than reasonable to prove the intent to develop and realise the loss, whereas the Interested Party eludes that any cap would be unacceptable, which differs to the ongoing discussions between the parties.</p> <p>The Applicants acknowledge the comment that a legal fee undertaking has been provided to the Interested Party to enable them to now receive expert legal advice on the merits of the development clause and how it best enables the Interest Party to recover potential development loss in the future, whilst there is current uncertainty on the sites ability to secure planning consent for a change of use.</p> <p>The Applicants’ Land Agent has been having productive discussions with Riplingham Estates’ agent and the Applicants having met with Riplingham Estates’ agent on 19<sup>th</sup> June 2025 to discuss the practical application of the development clause, are confident of reaching an agreement to mutually acceptable commercial terms for an Option and Deed of Grant for the Onshore Export Cable Corridor.</p>

## 2.12 Royal Society for the Protection of Birds (RSPB)

Table 2-21 – The Applicants’ response to RSPB Deadline 7 Document [REP7-159]

I.D.	RSPB Response	Applicants’ Response
REP7-159:1	<p>1. Introduction</p> <p>1.1. This Written Submission contains the RSPB’s comments on the Examining Authority’s recommended amendments to the Applicant’s draft Development Consent Order.</p>	<p>No response required.</p>
REP7-159:2	<p>2. RSPB comments on the Examining Authority’s recommended amendments to the Applicant’s draft Development Consent Order</p> <p>2.1. Below we set out the RSPB’s comments on the Examining Authority’s recommended amendments to the Applicant’s draft Development Consent Order.</p> <p><b>Schedule 18 – Compensation Measures: Part 2: Flamborough and Filey Coast Special Protection Area: Kittiwake Compensation Measures</b></p> <p>2.2. The RSPB requests the following amendments be made to the draft DCO to address:</p> <ul style="list-style-type: none"> <li>The number of full breeding seasons the offshore ANS should be installed before operation of the first turbine;</li> <li>The lifetime of the offshore ANS.</li> </ul> <p><u>The number of full breeding seasons the offshore ANS should be installed before operation of the first turbine</u></p> <p>2.3. The RSPB maintains its position that the offshore ANS should be installed four full breeding seasons before operation of the first turbine e.g. see RSPB REP3-o66 (answer to OR.1.26) and RSPB REP 4-113 (answer to ISH5 Action 14).</p> <p>2.4. We recommend that Schedule 18 Part 2 is amended in line with the equivalent provision in the original Hornsea Project Three Development Consent Order (Schedule 14, Part 1, paragraph 4) which states:</p> <p><i>“The undertaker must implement the measures as set out in the KIMP approved by the Secretary of State and no operation of any turbine forming part of the authorised development may be commenced until four full breeding seasons following the implementation of the measures set out in the KIMP have elapsed. For the purposes of this paragraph each breeding season is assumed to have commenced on 1 March in each year and ended on 30 September.”</i></p> <p><u>The lifetime of the offshore ANS</u></p> <p>2.5. The RSPB has reviewed the Applicant’s response to the RSPB’s answer to the ExA’s Second Written Question OR.2.17 (see Applicant’s REP6-051, page 103-104). This is in response to the RSPB’s proposal that the DCO be amended so that it states the offshore ANS should be maintained beyond the lifetime of the Project, reflecting the considerable uncertainty as to whether or when the oANS would achieve full kittiwake compensation in respect of:</p> <ul style="list-style-type: none"> <li>the damage caused by the Dogger Bank South array during its operational lifetime; and</li> </ul>	<p>2.1. No response required.</p> <p>2.2. The Applicants do not agree with the proposed amendments for the reasons set out below.</p> <p>2.3 - 2.4. The Applicants maintain their position in relation to this matter and refer to <b>The Applicants' Responses to RSPB's Deadline 3 Additional Submission</b> [REP5-038]:</p> <p><i>“The Applicants refer RSPB to <b>Reduction in Kittiwake Breeding Seasons Prior to Artificial Nesting Structure Installation (Revision 2)</b> [REP4-o83] which sets out in comprehensive detail the logistical challenges which make delivering an offshore Artificial Nesting Structure (ANS) four years prior to operation infeasible.</i></p> <p><i><b>Reduction in Kittiwake Breeding Seasons Prior to Artificial Nesting Structure Installation (Revision 2)</b> [REP4-o83] demonstrates that, even at low colonisation rates and low productivity, the ANS would adequately compensate the lifetime collision mortality of the Projects, in most scenarios. In the worst case scenarios, the ANS would be unlikely to compensate for the lifetime collision mortality as calculated, whether the structure is installed either two, or four years in advance of wind farm operation.</i></p> <p><i>Given that most scenarios show the measure adequately compensating, as well as the presence of the onshore tower, and the potential option for adaptive management, the Applicants are confident that a reduction in breeding seasons from four to two ahead of operation does not materially affect the delivery of the compensation requirement and furthermore, is necessary to ensure the security of the Projects.”</i></p> <p>2.5 - 2.7. The Applicants reiterate that maintaining the offshore ANS beyond the operational lifetime of the Projects is an adaptive management measure only and may not be required. It is therefore inappropriate for such a commitment to be included within the Draft Development Consent Order (DCO). The Applicants refer to their previous response on this matter in <b>The Applicants' Comments on Responses to the Examining Authority's Second Written Questions (ExQ2)</b> [REP6-051]:</p> <p><i>“The Applicants’ <b>Draft DCO (Revision 9)</b> [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.</i></p> <p><i>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</i></p>

I.D.	RSPB Response	Applicants' Response
	<ul style="list-style-type: none"> <li>the time it will take the kittiwake population of the FFC SPA to recover once operation of the Dogger Bank South array has ceased.</li> </ul> <p>2.6. We note that the Applicant's position that the draft DCO already secures that the oANS cannot be decommissioned without written approval of the Secretary of State in consultation with the relevant statutory nature conservation body. This is broadly in line with the first sentence in paragraph 4 in Part 1 of Schedule 14 of the Hornsea Project Three DCO.</p> <p>2.7. However, we consider this does not provide sufficient certainty on the face of the DCO that the oANS will be maintained beyond the lifetime of the project. Therefore, we continue to recommend that paragraph 7 in Schedule 18, Part 2 should be amended by addition of the subsequent text in paragraph 4, Part 1, Schedule 14 of the original Hornsea Project Three DCO:</p> <p><i>"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."</i></p>	<p><i>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."</i></p>
REP7-159:3	<p><b>Schedule 18 – Compensation Measures: Part 3: Flamborough and Filey Coast Special Protection Area [and Farne Islands Special Protection Area]: Guillemot [and Flamborough and Filey Coast Special Protection Area: Razorbill] Compensation Measures</b></p> <p>2.8. In the RSPB's Written Representation (REP1-087), we expressed concerns similar to those above for kittiwake i.e. that compensation measures should remain in place as long as the project's adverse impact on the SPA continue. In the context of an offshore wind farm, that is the lifetime of the development plus the time it will take the affected seabird population to recover from the impacts.</p> <p>2.9. We note that Schedule 18, Part 3 of the DCO contained no safeguards in this respect.</p> <p>2.10. These concerns remain and are relevant to the long-term ecological success of a predator eradication measure wherever it is located. In paragraph 42 in REP4-026 (Revision 2 of the Outline Guillemot and Razorbill CIMP) the Applicant stated that "biosecurity will be an ongoing commitment for the lifetime of the Projects" i.e. they will end when the array stops operating.</p> <p>2.11. This reinforces our view that the appropriate safeguards are not in place. There remains no commitment on maintaining biosecurity for the time it will take for the affected seabird populations to recover from the adverse impacts of the Project: such impacts are likely to extend beyond the lifetime of the Project. Without ongoing biosecurity measures, there would be a high risk of failure of the predator eradication should there be a biosecurity breach. Therefore, such a safeguard needs to be set out in the DCO wording to ensure the long-term success of any predator eradication measure carried out by the Applicant.</p>	<p>2.8 - 2.11. The Applicants submit that the <b>Draft DCO (Revision 11)</b> [document reference 3.1] does contain adequate safeguards to ensure that the auk compensation measure(s) will provide adequate compensation for the Projects' potential impacts. The Guillemot [and Razorbill] Compensation and Implementation Monitoring Plan (CIMP) must be submitted to and approved by the Secretary of State in consultation with the relevant statutory nature conservation body and, where appropriate, the Marine Management Organisation (MMO) and/or the relevant local planning authority. The CIMP must be in accordance with the outline CIMP, which, as noted by the RSPB, commits to maintaining the measures for the lifetime of the Projects. The CIMP must also include details of ongoing monitoring and adaptive management. For completeness, the Applicants have also added that "details of the maintenance schedule for the measures (if any)" must also be included in the CIMP to paragraph 4(a)(vi) in Part 3 of Schedule 18 to the <b>Draft DCO (Revision 11)</b> [document reference 3.1].</p> <p>The Applicants would also highlight that if compensation for auks is delivered through the payment of a financial contribution to the Marine Recovery Fund (MRF), which would be required in order to deliver strategic compensation on the Scilly Isles, then responsibility for any ongoing maintenance would sit with Defra as MRF operator.</p>



## 2.13 Stephen Mounce

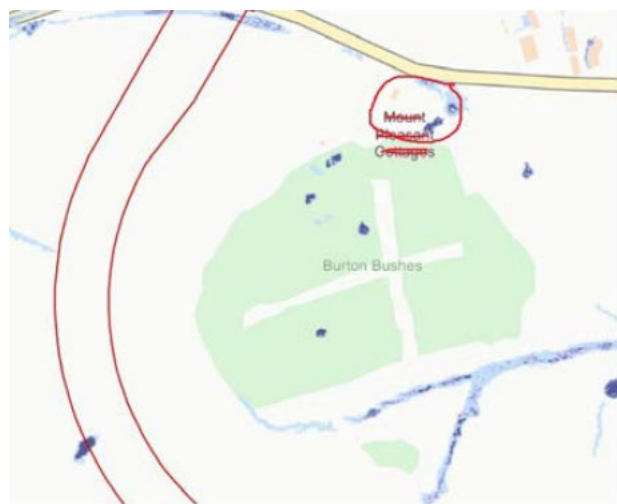
Table 2-22 – The Applicants’ response to Stephen Mounce’s Deadline 7 Document [REP7-161]

I.D.	Stephen Mounce Response	Applicants’ Response
REP7-161:1	I am writing once again as an Interested Party (20050002) to provide further input regarding the Dogger Bank South Project, specifically in response to the Applicants’ comments on the Examining Authority’s second written questions, and the input from the Forestry Commission and Woodland Trust. While I appreciate the information provided, several key concerns I previously raised, and which were echoed or supported by other Interested Parties, remain inadequately addressed.	The Applicants acknowledge this comment.
REP7-161:2	My persistent concerns are as follows:  Discrepancy in Hydrological Connectivity and Wetland Nature of Burton Bushes/Westwood. I previously stated that the Westwood is often waterlogged with a waterway opening up to the bottom of Burton Bushes. However, the Applicants assert that there is no surface water connectivity to Burton Bushes SSSI. This is in direct contradiction of my observations. As the Forestry Commission raise: ‘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.’	<p>The Applicants refer to their response to the Forestry Commission’s comments under AS-182: LVI.2.2 (<b>The Applicants’ Comments on Responses to the Examining Authority’s Second Written Questions (ExQ2)</b> [REP6-051]), which states:</p> <p><i>Burton Bushes SSSI is 120m west of the Onshore Export Cable Corridor, and as stated in <b>Chapter 20 Flood Risk and Hydrology (Revision 2)</b> [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.</i></p> <p><i>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.</i></p> <p><i>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 <b>Chapter 20 Flood Risk and Hydrology (Revision 3)</b> [REP5-017], the underlying Hull and East Riding Chalk groundwater body measures almost 2,000 km<sup>2</sup>, 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.</i></p> <p><i>As assessed in <b>Chapter 20 Flood Risk and Hydrology (Revision 3)</b> [REP5-017], 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.</i></p> <p>For the full response, please see Table 2-3 in <b>The Applicants’ Comments on Responses to the Examining Authority’s Second Written Questions (ExQ2)</b> [REP6-051].</p> <p>Any surface water associated with the construction of the Projects would be controlled by the Surface Water Management Plan, this would ensure any runoff following periods of heavy rain is suitably managed so that it does not affect land outside of the Order Limits. As detailed in section 6.3.2.4 of the <b>Outline Code of Construction Practice (OCoCP) (Revision 5)</b> [REP7-105].</p> <p>It is also important to note that Woodland Trust (in response REP7-160:17.16 [REP7-160]) have stated:</p> <p><i>The Woodland Trust welcomes the additional clarification from the applicant on potential impacts on Burton Bushes, in particular hydrological impacts. We are satisfied that the development should not give rise to deterioration of Burton Bushes ancient woodland.</i></p>



I.D.	Stephen Mounce Response	Applicants' Response
REP7-161:3	Underestimation of Bird Diversity and Status within Burton Bushes SSSI. I previously reported on over 63 varieties of birds in Burton Bushes, including rare species such as greater spotted woodpecker, tawny owl, chiffchaffs, and blackcaps. ERYC, in their comments, stated that bird species are not a cited feature for Burton Bushes SSSI. This dismissal significantly downplays the potential ecological impact on a thriving and diverse bird population (whether formally cited or not). The project should acknowledge and assess the impact on these observed species in Burton Bushes.	<p>The Applicants acknowledge the previously reported detail on birds in Burton Bushes, as per the written representation [REP1-090].</p> <p>The Applicants refer to their response to East Riding of Yorkshire Council's (ERYC's) comments (<b>The Applicants' Comments on Responses to the Examining Authority's Second Written Questions (ExQ2)</b> [REP6-051]). ERYC stated, 'bird species are not a cited feature' and the 'proposed works align with the wider use of the area for farming and use of key road infrastructure routes'. The Applicants acknowledged these comments and welcomed ERYC's agreement on this matter.</p> <p>Although bird species are not formally cited, an Ecological Management Plan (EMP) will be developed in accordance with the <b>Outline Ecological Management Plan (Revision 6)</b> [REP7-107] which will include details of any long-term mitigation and management measures relevant to terrestrial ecology and ornithology and nature conservation. Breeding Bird surveys have been undertaken as part of the ecological assessment and are included in <b>Appendix 18-8 - Ornithology Breeding Bird Report Part 1 of 4</b> [APP-152 to APP-155]. Pre-construction Breeding Bird surveys will also be undertaken to feed into the detailed EMP, any vegetation would either be removed prior to breeding bird season or under the supervision of an Ecological Clerk of Works (ECOW). As detailed in section 1.5.3.1 of the <b>Outline Ecological Management Plan (OEMP) (Revision 6)</b> [REP7-107] 'a buffer zone suitable to the relevant species would be established and allowed to reach their natural conclusion without being disturbed or damaged.'</p>
REP7-161:4	Sufficiency of Buffer Zones for Indirect Impacts on Ancient Woodland and SSSI. Both the Forestry Commission and the Woodland Trust explicitly questioned whether the proposed 15-meter buffer zone is sufficient to mitigate indirect impacts such as dust, noise, or air pollution from construction traffic and industrial processes, requesting supporting analysis to demonstrate this sufficiency. The Applicants' response states their commitment to the buffer based only on general guidance but does not provide the specific analysis requested by the FC and WT to demonstrate its effectiveness against these wider-ranging indirect impacts. This analytical gap should be filled.	<p>The Applicants refer to their response to AS-182: ENC.2.5 (<b>The Applicants' Comments on Responses to the Examining Authority's Second Written Questions (ExQ2)</b> [REP6-051], which states:</p> <p><i>...the <b>Outline Ecological Management Plan (Revision 5)</b> [REP4-042] ... 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.</i></p> <p>The protective buffer zones will also be informed by pre-construction surveys.</p> <p>In REP7-160: 17.16 [REP7-160], Woodland Trust state:</p> <p><i>With regards to impacts on Bentley Moor Wood ancient woodland, although we welcome the applicant's commitment to provide at least the minimum required buffer, we note that actual buffer width is to be determined post DCO consent through discharge of conditions. In view of the nature and scale of the proposals we would have preferred to have seen the applicant's assessment of indicative buffer width at this stage. However, if buffer width is to be determined as part of agreeing the Ecological Management Plan under Requirement 12, then we confirm that we are not in a position to provide further comment on mitigation proposals.</i></p> <p>Woodland Trust have not objected to this approach and the matter is now closed.</p>
REP7-161:5	Scientific Basis for Shallower HDD Depth in Ancient Woodland. The Forestry Commission raised a critical point that it is unclear how geotechnical investigation alone could provide clear evidence that a shallower HDD depth (less than 5m) would not impact biological and organic processes (e.g., roots, soils, rhizosphere) within ancient woodland. The Woodland Trust also questioned allowing shallower depths for other constraints if it impacts the woodland negatively. The Applicants explained 'other constraints' relate to a Source Protection Zone and that agreement with ERYC/Natural England is	<p>The Applicants refer to their response to REP6-079: R17.33 (<b>The Applicants' Responses to Deadline 6 Documents</b> [REP7-131], which states:</p> <p><i>The <b>Outline Ecological Management Plan (OEMP) (Revision 6)</b> [document reference: 8.10] has also been updated in section 1.5.2.1, at Deadline 7 to provide further clarification on the trenchless crossing at Bentley Moor Wood. 'The trenchless crossing technique would be selected to minimise impacts on the rhizosphere and to keep the overall risk to trees as low as reasonably practicable. Adopting a shallower depth than 5 m may enable a wider range of alternative</i></p>

I.D.	Stephen Mounce Response	Applicants' Response
	required. However, the fundamental question of the scientific adequacy of geotechnical investigation for biological impacts, as raised by the FC, remains unanswered.	<p><i>trenchless methods to be considered, potentially offering lower risks to roots and reduced impacts compared to a deeper, more conservative 5m approach. Benefits of a shallower depth may include:</i></p> <ul style="list-style-type: none"> <li><i>Smaller bore requirements;</i></li> <li><i>Reduced or eliminated need for drilling fluids;</i></li> <li><i>Shorter construction duration and lower vibration levels;</i></li> <li><i>Less extensive entry and exit pit works; and</i></li> <li><i>Lower energy and material demands.'</i></li> </ul> <p><i>As detailed in section 1.5.2.1 of the <b>OEMP (Revision 6)</b> [document reference: 8.10] 'the Applicants are committed to installing the crossing at depth greater than 5m as recommended by the Woodland Trust'. The wording in paragraph 95 has been updated further at Deadline 7 to clarify: 'If, following detailed geotechnical investigations and the detailed design of the trenchless crossing, the Contractor can provide clear evidence demonstrating that a shallower depth would not adversely impact on roots, soils or rhizosphere along or, above the proposed route, a shallower depth may be considered. Any such change would be subject to agreement and must be approved in consultation with ERYC, Natural England, and an appropriately qualified arboriculturist.' On this basis the Applicants consider that there is sufficient protection provided to ancient woodland, as a shallower drill could not be undertaken without further evidence and in consultation with the relevant regulators.</i></p>
REP7-161:6	Direct Clarification on Drilling Under Burton Bushes/Westwood. I specifically requested confirmation that there would be no drilling under Burton Bushes or the Westwood. While the Applicants state a commitment to Horizontal Directional Drilling (HDD) 'under woodland areas to leave them undisturbed and in situ' and that for Burton Bushes SSSI, only shallow excavations are planned 120m away (no deep trenchless crossings), a direct, unequivocal statement explicitly confirming 'no drilling under Burton Bushes or the Westwood' as a whole is still absent.	<p>The Applicants are not allowed to build the Projects, when consented, outside of the Order Limits. As previously stated, Burton Bushes SSSI and the Beverley Westwood are not located within the Order Limits and therefore cannot be drilled under, the Projects are located 120m from Burton Bushes Site of Special Scientific Interest (SSSI) at their closest point.</p> <p>The Applicants refer to their response to REP4-100:6 (<b>The Applicants' Responses to Deadline 4 Documents</b> [REP5-037]), which states the following in relation to Bentley Moor Wood, which is located within the Order Limits:</p> <p><i>Bentley Moor Wood and LWS located within the Onshore Substation Zone will be avoided by the use of trenchless crossing techniques such as Horizontal Directional Drilling (HDD). Where the Projects are committed to trenchless crossing under an area of ancient woodland, as is the case at Bentley Moor Wood, the Applicants are committed to trenchless crossing techniques at depth greater than 5m as recommended by the Woodland Trust, unless following detailed geotechnical investigations clear evidence is provided to demonstrate that a shallower depth would not result in adverse impacts on roots, soils or rhizosphere along or above the proposed route.</i></p>
REP7-161:7	Broader Impacts on Beverley Westwood as a Public Amenity Area. My concerns extend beyond the specific SSSI boundaries to the entire Beverley Westwood, recognized as a unique site and very popular nature amenity area for the public. I specifically highlighted the significant disruption from large-scale construction activities, including noise and transport impacts, expected for up to 12 months in section 16a running alongside the Westwood. While the Applicants address traffic management generally and state construction compounds are 'further away' from the SSSI, they have not adequately addressed the cumulative amenity, noise, and general wildlife impacts on the wider Westwood area or the prolonged disruption to public use. The PEIR's assessment of negligible impacts on tourism and recreational routes, without proposed mitigation, remains unsatisfactory for this highly valued public space.	<p>The impact of the Projects on tourism and recreation is assessed in <b>Chapter 29 Tourism and Recreation (Revision 2)</b> [REP6-033]. Table 29-19 and Table 29-29 of Chapter 29 do not identify any significant effects on Beverley Westwood in relation to land use, landscape and visual impact, traffic and transport, noise and vibration, air quality or socio-economics during construction or operation. Please refer to <b>Chapter 29 Tourism and Recreation (Revision 2)</b> [REP6-033] for full assessment details. Potential impacts related to construction dust, noise and traffic and transport will be controlled through the <b>OCoCP (Revision 5)</b> [REP7-105] and the <b>Construction Traffic Management Plan (CTMP) (Revision 4)</b> [REP6-041].</p>
REP7-161:8	No doubt the Planning Inspectorate may seek further clarification and more robust evidence addressing these outstanding and critical issues to ensure the comprehensive protection of Burton	The Applicants have provided responses to address all concerns raised throughout the examination period.

I.D.	Stephen Mounce Response	Applicants' Response
	Bushes SSSI, the ancient woodland, the archaeological remains, and the broader Beverley Westwood as a vital public amenity area.	
REP7-161:9	<p>Ps. The following query was originally part of an addendum I posted commenting on the Forestry Commission contribution, I have updated it with a map below:</p> <p>... I wish to highlight a further concern. It has come to my attention that the property Burton Gate House formerly at lat, long 53.842977, -0.464529 (which is directly adjacent to Burton Bushes) was sold and subsequently demolished in recent months (please see figure below). It appears that the land in this area is currently being prepared in some way, and a fence has been erected between this land and the part of Burton Bushes it abuts (i.e. a om distance).</p>	<p>The Applicants refer to their response to REP6-086:1 (<b>The Applicants' Responses to Deadline 6 Documents</b> [REP7-131], which states:</p> <p><i>In regard to the comments made by Dr Stephen Mounce on Burton Gate House which has been demolished immediately adjacent to Burton Bushes SSSI this is not associated with the Projects' and the Applicants have not purchased this area of land. The Applicants are not therefore unable to provide any further details on this matter.</i></p>
REP7-161:10	 <p>Can the applicant confirm if they have purchased this area of land? If so, what sort of impacts might occur for the adjacent ancient woodland and SSSI due to any proposed works, temporary compounds, or activities on this recently acquired land? This proximity raises immediate concerns regarding:</p> <ul style="list-style-type: none"> <li>• Root Zone and Soil Disturbance: The extension of root systems beyond the woodland boundary and the potential for damage or soil compaction from construction traffic.</li> <li>• Changes in Hydrology: The risk of altering drainage patterns or intercepting groundwater flow, potentially impacting the woodland's soil moisture.</li> <li>• Edge Effects: Increased light penetration, noise, dust, and chemical pollutants, all of which can degrade the ancient woodland habitat.</li> <li>• Fragmentation and Connectivity: Hindrance of species movement if this area is going to be used for construction activities.</li> </ul> <p>These potential impacts directly align with the concerns raised in both my previous submission and the Forestry Commission's advice, underscoring the need for a thorough and transparent assessment of any activities planned for this newly prepared area so close to such a sensitive site and a reconsideration of the buffer zone.</p>	<p>The Applicants refer to their response to REP6-086:1 (<b>The Applicants' Responses to Deadline 6 Documents</b> [REP7-131], which gives details of all previous responses to Dr Stephen Mounce.</p>

## 2.14 The Woodland Trust

Table 2-23 – The Applicants’ response to The Woodland Trust’s Deadline 7 Document [REP7-16o]

I.D.	Question	Woodland Trust Response	Applicants’ Response
REP7-16o:17.16	<p><b>Landscape and Visual Amenity – impacts on ancient woodland</b></p> <p>Review the applicants’ responses to your responses to ExQ2 ENC.2.5, LVI.2.2, LVI.2.3 [REP6-051] – do these comments address your concerns regarding impacts to ancient woodland? If not, set out clearly why. If you still consider that requirement(s) are necessary to ensure the protection of ancient woodland, provide suggested wording.</p>	<p>The Woodland Trust welcomes the additional clarification from the applicant on potential impacts on Burton Bushes, in particular hydrological impacts. We are satisfied that the development should not give rise to deterioration of Burton Bushes ancient woodland.</p> <p>With regards to impacts on Bentley Moor Wood ancient woodland, although we welcome the applicant’s commitment to provide at least the minimum required buffer, we note that actual buffer width is to be determined post DCO consent through discharge of conditions. In view of the nature and scale of the proposals we would have preferred to have seen the applicant’s assessment of indicative buffer width at this stage. However, if buffer width is to be determined as part of agreeing the Ecological Management Plan under Requirement 12, then we confirm that we are not in a position to provide further comment on mitigation proposals.</p>	<p>The Applicants welcome The Woodland Trust’s comment and acknowledge the issues are now resolved.</p>

## Appendix A - REP7-162: 1



[REDACTED]

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**From:** [REDACTED]  
**Sent:** 01 July 2025 16:17  
**To:** [REDACTED]  
**Cc:** [REDACTED]@mgllp.karoo.co.uk; Dogger Bank South  
**Subject:** RE: Dogger Bank South-Riplingham Estates Ltd - Vinegar Hill Farm and Los Trustees: Land at Molescroft ,Beverley-17-011 and 14-006.  
**Attachments:** 20250701 Developer Clause v2 10.01.2025 RWE Amends.docx

Dear [REDACTED]

Thank you for your email which was received while I was on annual leave.

I am attaching the Developer Clause with tracked comments/amends incorporating Project instructions following our meeting on 19<sup>th</sup> June.

The suggestion is that we have a page turn with the respective lawyers once you have had the opportunity of digesting the Project feedback.

Regards

[REDACTED]

[REDACTED]  
D [REDACTED]  
M [REDACTED]

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**From:** [REDACTED]@mgllp.karoo.co.uk>  
**Sent:** 26 June 2025 16:10  
**To:** [REDACTED]@dalcourmaclaren.com>  
**Cc:** digitalvault@mgllp.karoo.co.uk; Dogger Bank South <doggerbanksouth@dalcourmaclaren.com>  
**Subject:** Dogger Bank South-Riplingham Estates Ltd - Vinegar Hill Farm and Los Trustees: Land at Molescroft ,Beverley-17-011 and 14-006.

Dear [REDACTED],

Please find attached a letter together with observations on the development clause (v2) confirming points made on 19th June.

A copy of this letter has been submitted today to the ExA to detail the update in our clients position although we can add little more until we hear a response to the points made on the 19th June 2025.

You or your colleagues may not be able to respond by 3rd July in which case we will lodge a closing statement to the examination in a manner to protect our clients interests.

Regards,

[REDACTED]



Michael Glover LLP, Chartered Surveyors.

Tel:



Draft - Subject to client approval

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**1. DEVELOPMENT OF GRANTOR'S PROPERTY**

1.1 The Grantor must serve a notice (the "Development Notice") on the Grantee if at any time before the date falling ~~10 (ten)~~ **15 (fifteen)** years after the date of OFTO divestment (which is anticipated to be 2031/2032:

**Commented [DM1]:** At our meeting, I indicated that the Project would require the Development Notice to be restricted to a fixed timescale.

My instructions are that a term of 15 years is considered reasonable. A term of 15 years has been agreed with other parties and, assuming energisation in 2032, this would take us to 2047.

We would suggest that this should allow sufficient time to achieve planning permission.

1.1.1 the Grantor has a genuine and settled intention to carry out a development (the "Proposed Development") on the Grantor's Property;

1.1.2 the Proposed Development cannot reasonably be undertaken due to the presence of the Infrastructure within the Easement Strip; and

1.1.3 the Landlord has a reasonable prospect of successfully obtaining any consents, including planning permission, necessary for the Proposed Development to take place.

1.2 The Development Notice must include or be accompanied by:

1.2.1 details of the Proposed Development;

1.2.2 details of the impact that the presence of the Infrastructure within the Easement Strip would have on the Proposed Development; and

1.2.3 reasonable evidence of the matters set out in Clause **1.5** (the Grantee will require the minimum evidence of a Certificate of Alternative Development (CAAD))[1.1].

**Commented [DM2]:** 1.5?

1.3 Any dispute or disagreement over the validity of the Development Notice will be determined under Clause **1.8**.

**Commented [DM3]:** Presumably clause 1.8? - At our meeting, I believe that you were intending to give some further thought to the wording of 1.8.

1.4 Following service of a Development Notice the Grantor and the Grantee will endeavour in good faith and acting reasonably to agree how:

1.4.1 ~~the impact of the presence of the Infrastructure on the Proposed Development can best be mitigated; and~~

**Commented [DM4]:** We believe that it should be possible by design to mitigate the impact both on the land affected by the Easement strip and on the severed area - both parties acting reasonably and using reasonable endeavours.

This anticipates discussion in advance between the parties as envisaged in clause 1.5.

1.4.2 the Proposed Development can best proceed notwithstanding the presence of the Infrastructure within the Easement Strip.

1.5 The Grantor will:

1.5.1 consult with the Grantee in relation to any application ("Application") for planning permission for the Proposed Development;

1.5.2 **use reasonable endeavours to** ensure that any Application minimises the impact of the presence of the Infrastructure on the Proposed Development so far as is possible and is designed to ensure **as far as possible** that the Proposed Development can proceed notwithstanding the presence of the Infrastructure; and

**Commented [DM5]:** This is the additional wording which we discussed at our meeting.

1.5.3 provide a copy of any application for planning permission for the Proposed Development to the Grantee ~~at least [three (3)] months before submitting it [when submitted to the local planning authority [or as otherwise agreed between the parties acting reasonably]].~~

**Commented [DM6]:** At our meeting, you appeared comfortable with sharing the Development Brief/Pre app discussions but would only share the application when submitted.

The proposed alternative wording should address this point. This can be qualified by additional wording to the following effect: "or as otherwise agreed between the parties acting reasonably."

1.6 This clause does not affect or limit in any way the Grantee's right to submit comments on or objections to the Application **for good practical reasons** to the local planning authority or otherwise as part of any planning or related process.

**Commented [DM7]:** The expectation is that the parties would be able to agree matters in advance as set out in clause 1.5. However, the Grantee would need to retain the right to make representations. We have suggested that this right be qualified by a reasonableness test.

- 1.7 Provided that the Grantor has served a Development Notice in relation to a Proposed Development and complied with its obligations in this clause then the Grantor and Grantee shall agree compensation for the loss in development value attributable to the apparatus and its corresponding rights. The Grantor will be required to have obtained planning permission showing development over their remaining adjoining landholding prior to the parties agreeing any compensation figures.
- 1.8 The Grantor and the Grantee will endeavour acting reasonably and in good faith to agree whether any Compensation Sum is payable and, if so, the amount of the Compensation Sum. In the absence of agreement either the Grantor or the Grantee may refer these questions to for third party expert determination.
- 1.9 Instead of paying compensation under clause [1.7] the Grantee may, if it chooses to do so within a reasonable timescale [TBA] and at its own cost:
- 1.9.1 carry out any works necessary to enable the implementation of any relevant planning permission if applicable and
- 1.9.2 relocate the Infrastructure to an alternative route or location within the Grantor's Property, such alternative route to be agreed between the Grantor and Grantee (acting reasonably) and both the Grantor and the Grantee taking all steps necessary to enable the relocation and effect a variation of this Deed such that the Easement Strip is varied to reflect the new location of the Infrastructure.
- 1.9.3 In such an event that the Grantees apparatus and or easements are relocated during the development period, the Grantor shall still not be entitled to compensation for any losses in development value under the principle of equivalence.

2.0 The Grantee will be responsible for the reasonable extra costs of the Grantor in working the Project into the Development and in addressing consultations with the Grantee.

**Commented [DM8]:** As we discussed at our meeting, compensation will be subject to a cap of £10m which, for the avoidance of doubt, will be index linked. The Grantor will need to show that the local planning authority has refused the permission as a direct consequence of the cables being in situ. The Developer Clause relates solely to the easement strip. As you are aware, the Grantee would not be seeking to impose restrictions on the adjoining land either side of the easement strip.

**Commented [DM9]:** We are suggesting "adjoining" - on reflection, "remaining" is too loose.

**Commented [DM10]:** I believe that you were intending to review the wording.

**Commented [DM11]:** The Project position is that the consideration is being transferred and would not be payable twice. However, there would be a case for an additional payment if, for instance, the length of cables laid was longer.

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**Commented [DM12]:** Suggested costs wording included. These costs would be in relation to the Developer Clause. Costs in relation to HoTs will be dealt with separately. The Project is happy to review your timesheets for costs incurred to date.

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## Appendix B - REP7-139: 3





# **Assessment of Potential Dogger Bank South Wake Impacts Rev 02**

**Dogger Bank A, B, and C**

**Energy Analytics Team**



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Rev	Prepared by	Checked by	Approved by	Date of issue
01	Elliott Lindsay	David Malins	Gordon Barr	23 May 2025
<u>02</u>	<u>Elliott Lindsay</u>	<u>David Malins</u>	<u>Gordon Barr</u>	<u>26 June 2025</u>

# 1. Introduction

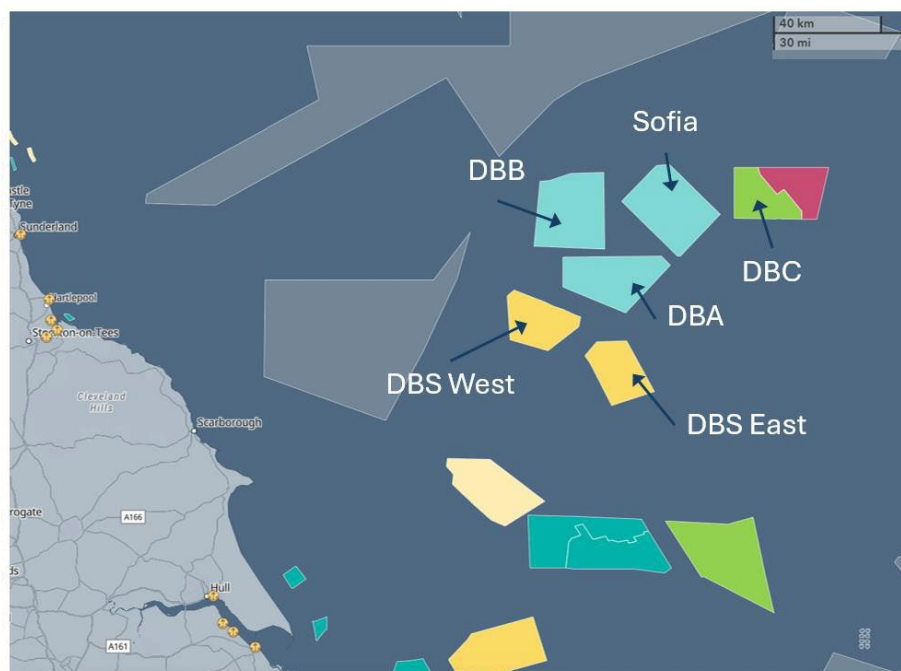
## 1.1. About the Authors

This report sets out the Dogger Bank Projcos' assessment of the expected reduction in energy produced by the DBA, DBB and DBC projects because of DBS. In carrying out this modelling, the Projcos have relied on the SSE Renewables Energy Analytics (EA) team, which is comprised of wind energy analysts and wake modelling experts who are responsible for performing wind resource and energy yield assessments. Their track record covers offshore wind projects developed by the Projco shareholders, with previous experience working for independent consultancies, turbine manufacturers, and in research and development of wake modelling.

## 1.2. Background

In The Crown Estate (TCE) Leasing Round 4 seabed auction, RWE were successful in securing two 1500MW (Mega-Watt) wind farm sites in the Dogger Bank region. These sites are referred to collectively as Dogger Bank South (DBS) and individually as Dogger Bank South East (DBSE) and Dogger Bank South West (DBSW) in this document. RWE have submitted a Development Consent Order (DCO) application which, at the time of writing, is in the Examination phase. To help inform the Dogger Bank Projcos' position on the DCO application, the SSE Renewables Energy Analytics (EA) team has assessed the potential Annual Energy Production (AEP) wake losses on Dogger Bank A, B, and C (DBA, DBB, and DBC) wind farms, collectively referred to here as Dogger Bank Wind Farms (DBWF) due to the proposed developments at DBS.

The position of DBSW and DBSE are shown in relation to other wind farms in the Dogger Bank region in Figure 1.



**Figure 1: Arrangement of wind farms at different stages of development in the Dogger Bank region.**

### 1.3. Objectives

The objectives of this study are to:

- Quantify the potential aerodynamic impact of proposed wind farms at DBSW and DBSE on the AEP of DBA, DBB, and DBC wind farms
- Assess the extent to which the impact on DBA, DBB, and DBC depends on the turbine size installed at DBSE and DBSW.
- Determine the indicative financial impact on DBA, DBB, and DBC including over project lifetime.

## 2. Methodology

### 2.1. Overview

Engineering models are used in this study to predict the changes in wind speed at DBA, DBB, and DBC due to the aerodynamic effects of the proposed DBS wind farms. These models solve a set of analytical equations that are tuned to real-world observations and consider key wind farm characteristics including turbine positions and the force exerted on the wind by each turbine. Changes in wind speed are converted into changes in energy production by means of the wind turbine power curves and considering the full range of wind speed and wind direction conditions expected at Dogger Bank on an annual basis. The impact of DBS wind farms is isolated by comparing the expected energy produced by DBA, DBB, and DBC projects under two scenarios: (1) with all wind farms excluding DBS; and (2) all wind farms including DBS.

### 2.2. Wind Farm Layouts

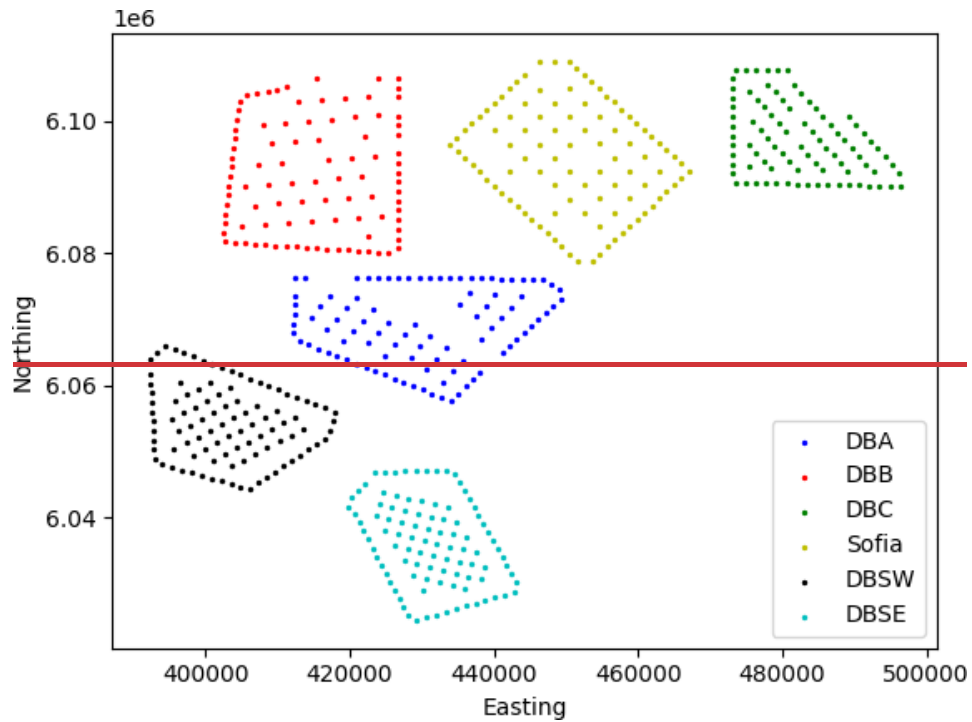
The wind farm layouts considered in this study are shown in Figure 2 and Figure 3, for scenarios where small (15 MW) and large (21 MW) turbines are installed at DBS sites, respectively.

All DB projects which have obtained planning consent are modelled as operational in a post-Contracts for Difference (CfD) regime. The confirmed layouts for DBA, DBB, DBC, and Sofia are used in this study; as the projects are in construction these layouts are finalised. Sofia is included in this assessment given its proximity to DBC and likely wake impact. In addition, wake effects from the proposed wind farms at DBS may impact the wakes of Sofia on DBC.

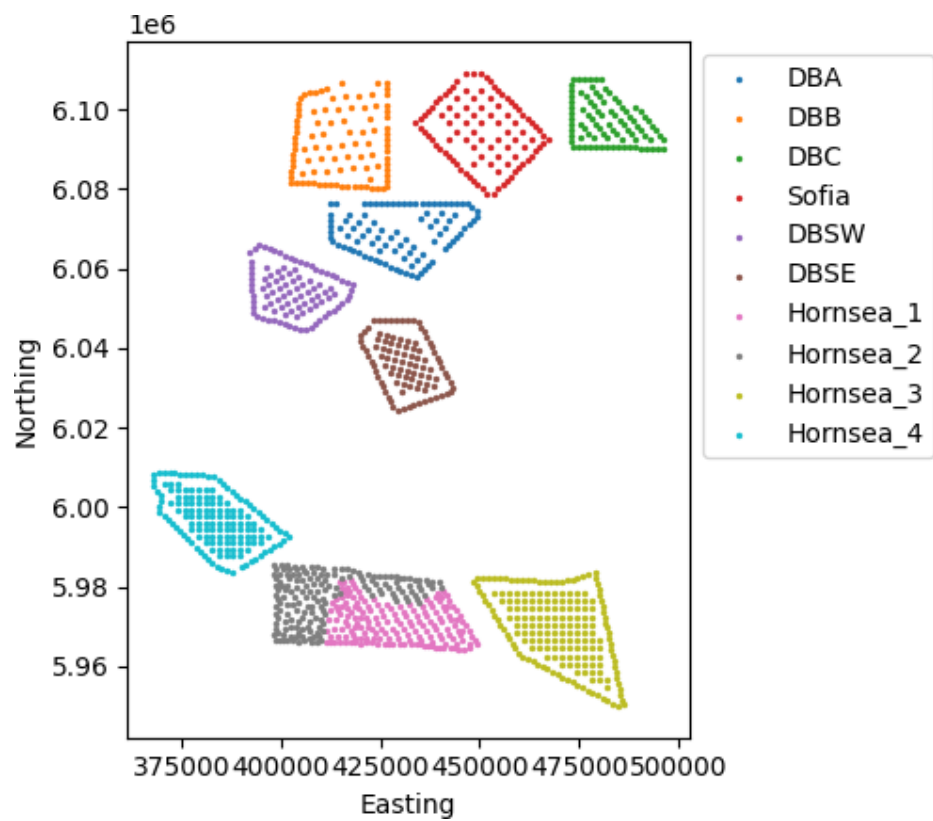
Turbine specifications and layouts are not yet available for the DBS projects. As such, indicative layouts have been generated for the purposes of this study. These assumed layouts for DBS seek to respect the export capacity and site boundaries published at the time of writing in the DBS DCO documentation. Care has been taken to establish layouts for DBS which do not result in excessively large levels of internal wake loss.

Layout coordinates for DBS modelled in this study are presented in Appendix A of this report.

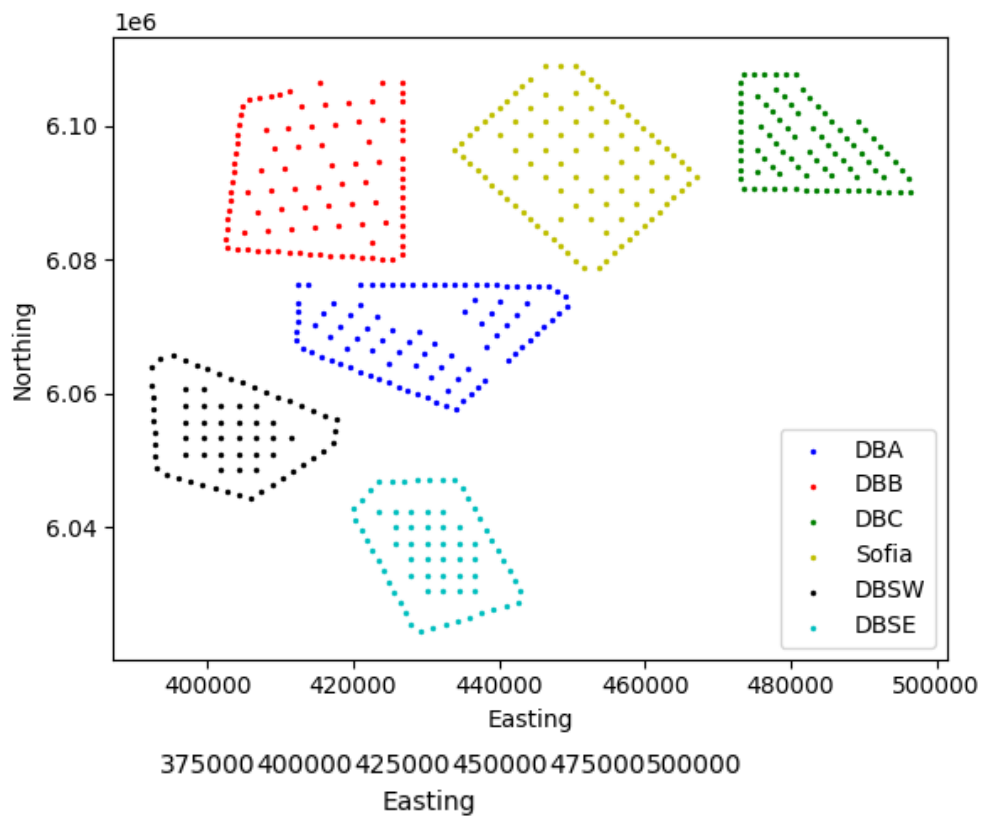




This revision 02 of the wake impact assessment includes the influence of the Hornsea 1, 2, 3, and 4 wind farms. Actual layouts were modelled for Hornsea 1 and 2 as these projects are fully commissioned. Given layouts for Hornsea 3 and 4 are not yet available, indicative layouts have been generated using a similar approach to that used to generate the DBS layouts.



**Figure 2: Turbine layouts modelled for small DBS turbine scenario.**



**Figure 3: Turbine layouts modelled for large DBS turbine scenario.**

## 2.3. Turbine Data

A summary of all turbine specifications modelled in this assessment is presented in Table 1.

The engineering wake models used in this study require inputs describing the characteristics and performance of the wind turbines, namely:

- **Power curves** quantify the relationship between wind speed and the expected power generated by a turbine (typically measured in Mega Watts (MW)). The capacity of a wind turbine refers to the maximum power it can generate. Power curves are necessary in this assessment to convert the reductions in wind speed into reductions in power generation at DBA, DBB, and DBC due to DBS. They are supplied by turbine manufacturers for each specific turbine model and are a key metric for quantifying the performance of individual turbine models and wind farms. As such, power curves for commercial turbine models are considered commercially sensitive.
- **Thrust curves** quantify the amount of force (or thrust) exerted on the wind by a wind turbine for its range of operating wind speeds. This relationship is used in the models to characterise the spatial extent and magnitude of the DBS wake effects. Thrust curves are supplied by turbine suppliers for specific turbine models and are similarly commercially sensitive.
- **Hub height and rotor diameter** are key dimensions of the turbine which influence the available wind speed and spatial evolution of the wake. They are explicitly included in the models.

Turbines at DBA, DBB, and DBC are modelled with the power and thrust curves, hub heights, and rotor diameter data provided to SSE Renewables by the [Projco's](#) turbine supplier. Due to commercial sensitivity restrictions, the power and thrust curves of these turbines cannot be made available publicly in this report.

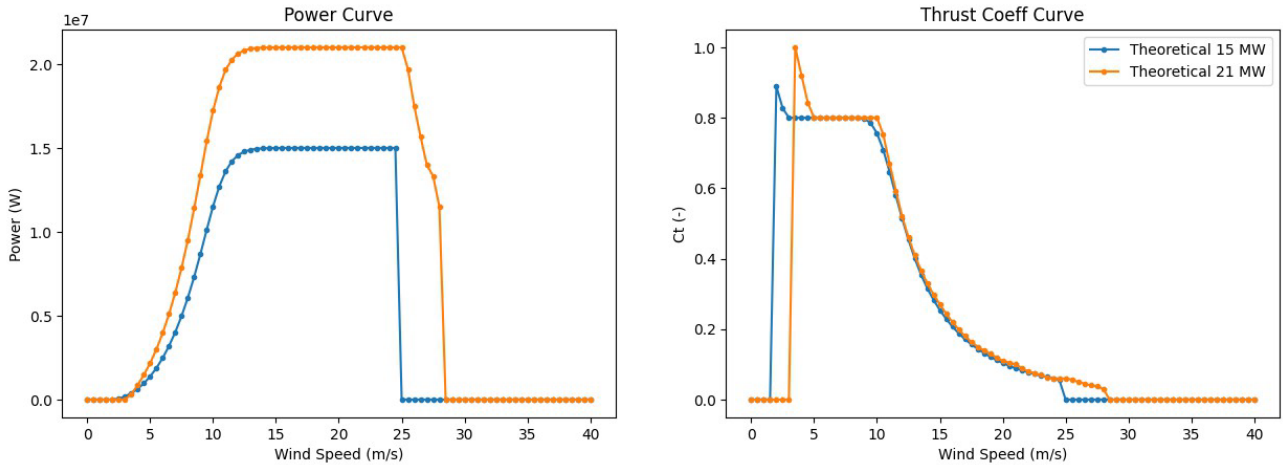
The size and capacity of the DBS turbines are not known at this stage; however, in the DBS DCO application, it is stated the turbines selected for construction will lie within a range from 15MW to in excess of 20MW. In the absence of further information:

- A small turbine (15MW) scenario and a large turbine (21MW) scenario are modelled in this present study to assess the sensitivity of results to DBS turbine size. The layouts and turbine counts are adjusted accordingly between the small and large DBS turbine scenarios to not exceed an export capacity of 1,500MW per DBS project [1].
- DBS turbines are modelled with the theoretical power and thrust curves shown in Figure 4. The modelled rotor diameters and hub heights of the DBS turbines comply with the maximum rotor diameter of 344m and minimum tip clearance of 34m stated in the DBS DCO application.

Turbines at Hornsea projects are modelled using generic power and thrust curves. For Hornsea 1 and 2, these curves reflect the known turbine capacities and dimensions. However, as the turbine models to be installed at Hornsea 3 and 4 are not yet known, it is assumed that 15MW turbines will be installed.

**Table 1: Wind farm turbine counts and capacities.**

Wind Farm	Number of WTs	WTG Capacity (MW)	Wind Farm Capacity (MW)	Hub height (m)	Rotor diameter (m)
DBA	95	13.0	1235	140	220
DBB	95	13.0	1235	140	220
DBC	87	14.7	1278.9	140	220
Sofia	100	14.0	1400	140	222
<u>Hornsea 1</u>	<u>174</u>	<u>7.0</u>	<u>1218</u>	<u>113</u>	<u>154</u>
<u>Hornsea 2</u>	<u>165</u>	<u>8.4</u>	<u>1386</u>	<u>121</u>	<u>167</u>
<u>Hornsea 3</u>	<u>197</u>	<u>15</u>	<u>2955</u>	<u>158</u>	<u>236</u>
<u>Hornsea 4</u>	<u>160</u>	<u>15</u>	<u>2400</u>	<u>158</u>	<u>236</u>
DBS East (small WT)	100	15.0	1500	152	236
DBS West (small WT)	100	15.0	1500	152	236
DBS East (large WT)	71	21.0	1491	179	290
DBS West (large WT)	71	21.0	1491	179	290



**Figure 4: Theoretical power and thrust curves for DBS turbines in assessment.**

## 2.4. Wakes and Blockage Models

Wakes and blockage losses were assessed in this study using a Turbulence Optimised Park (TurbOPark) wake model with gaussian velocity deficit profile coupled to the Rankine Half Body with Wake expansion (RHBW) blockage model [2, 3]. Ørsted developed and tuned the TurbOPark model to capture farm-to-farm wake effects as well as internal wake effects. Measurement evidence from Ørsted's own portfolio indicates that the TurbOPark wake model, coupled with Ørsted's blockage model, reproduces the impact of long-range wakes well up to 50km separation between wind farms [4, 5]. Whilst the evidence basis is still evolving, TurbOPark is considered a credible engineering model to model inter-array wake effects in this

study. This was run using version 2.6.7 of PyWake and set up with a blockage model to replicate, in as far as practicable, the implementation as-validated by Ørsted and utilised by Frazer-Nash Consultancy [6].

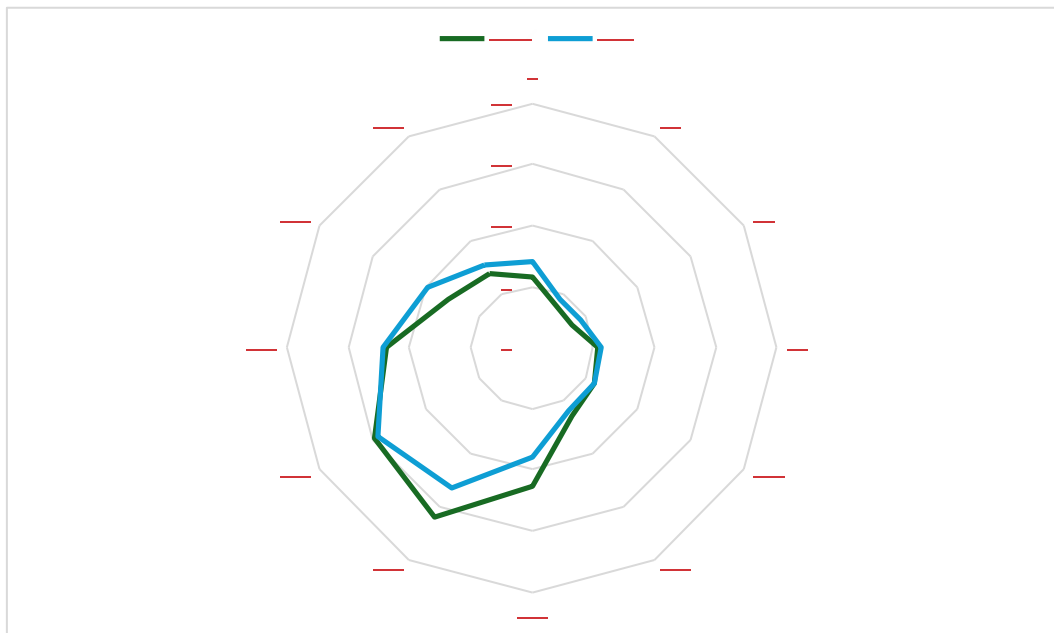


Further to a review of our approach, we identified an issue whereby blockage deficits were being summed in quadrature in our model, instead of linearly as specified in the formulation of the RHBW blockage model [3]. This issue has been addressed in this revised assessment, and we note this has resulted in a reduction in average DBS wake impact of approximately 0.1% AEP across the DBA, DBB, and DBC projects.

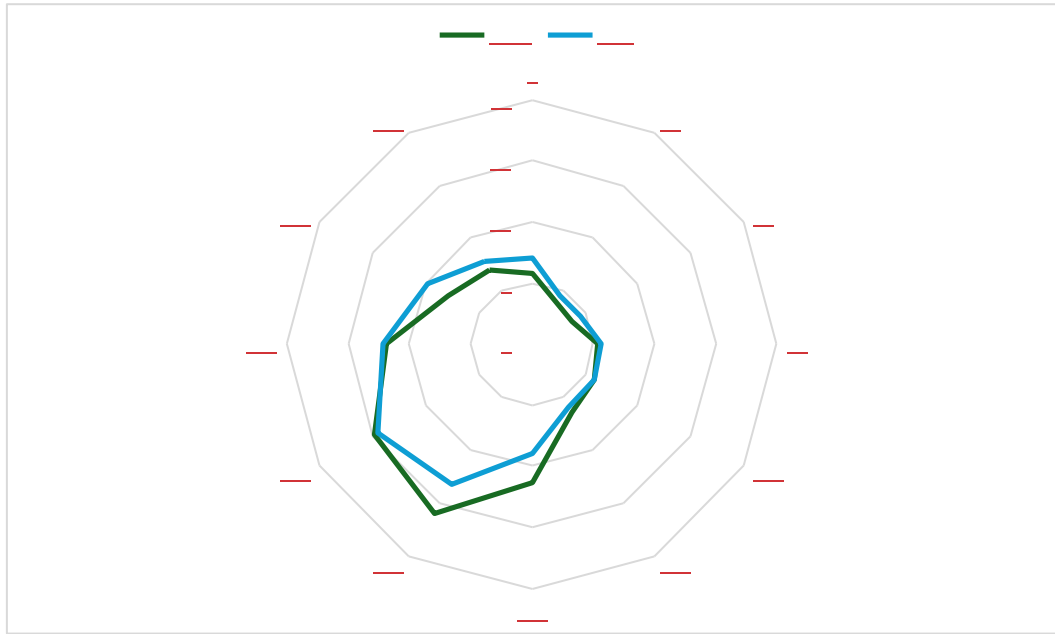
## 2.5. Wind Resource

The wind resource is a key input to this study as it influences the frequency and spatial extent of the predicted wake effects generated by all wind farms at Dogger Bank including DBS. A wind resource representative of the Dogger Bank region has been used in this present assessment, including:

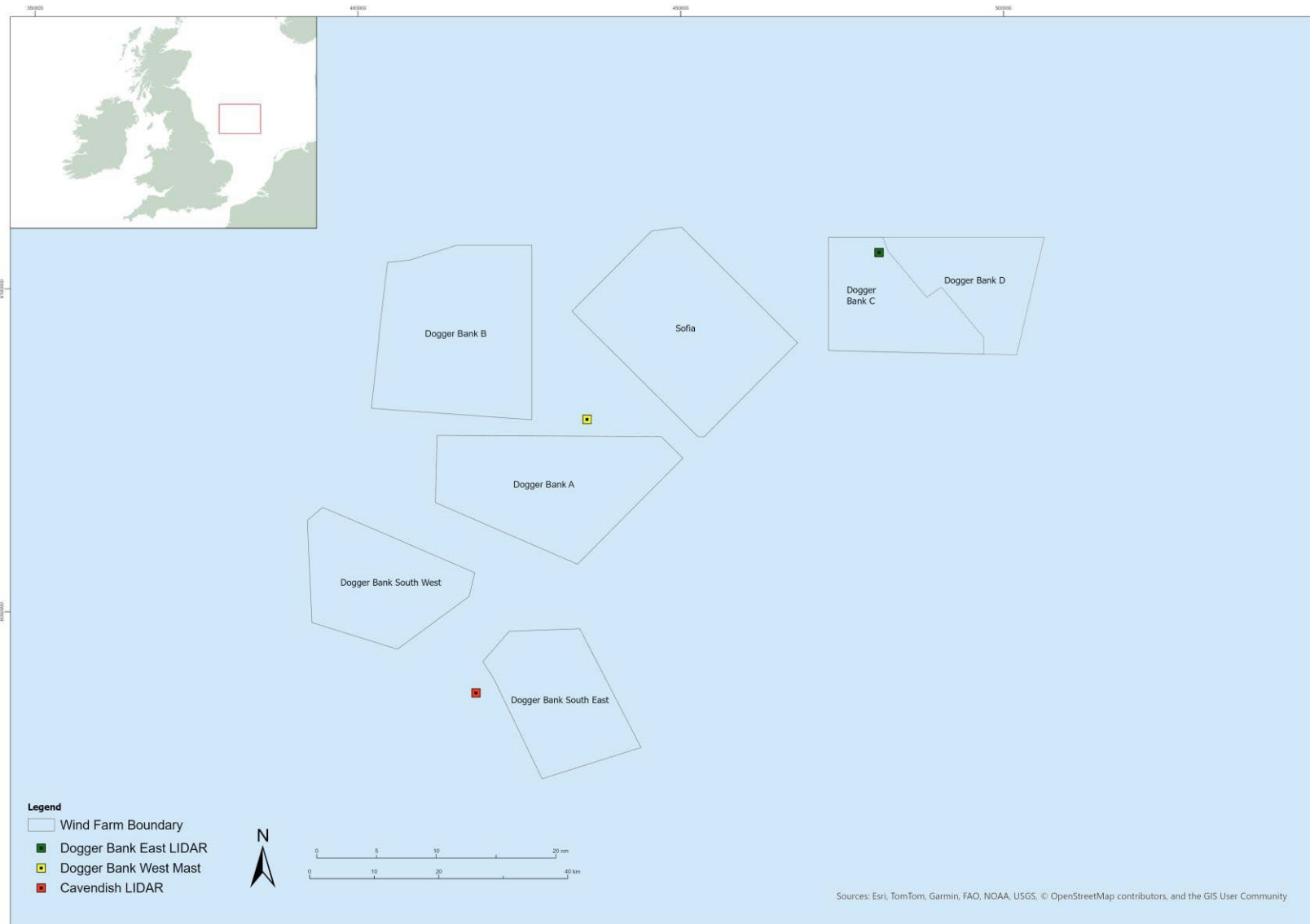
- Probability distributions of freestream wind speed and wind direction based on measurements made at the Dogger Bank West (DBW) and Dogger Bank East (DBE) measurement devices. The wind direction distributions are shown in Figure 5. The measurement period considered for DBW was from 26 September 2013 to 26 September 2017. The measurement period considered for the DBE data was from 16 March 2013 to 22 September 2017. Long-term adjustments were applied to both datasets to account for inter-annual variability. These data collection methods were established specifically to gather wind data for the DBA, DBB, DBC, and Sofia wind farms and hence are considered to provide the most representative data for wind conditions and wake effects expected at the sites. The Cavendish LIDAR (light detection and ranging device) measurement data was discounted for the purposes of this assessment due to its relative remoteness to the DBA, DBB, and DBC projects, as shown in Figure 6.
- Horizontal extrapolation using wind maps provided by Vortex.
- Turbulence intensity distributions with wind speed and wind direction based on measurements made at DBW and DBE.

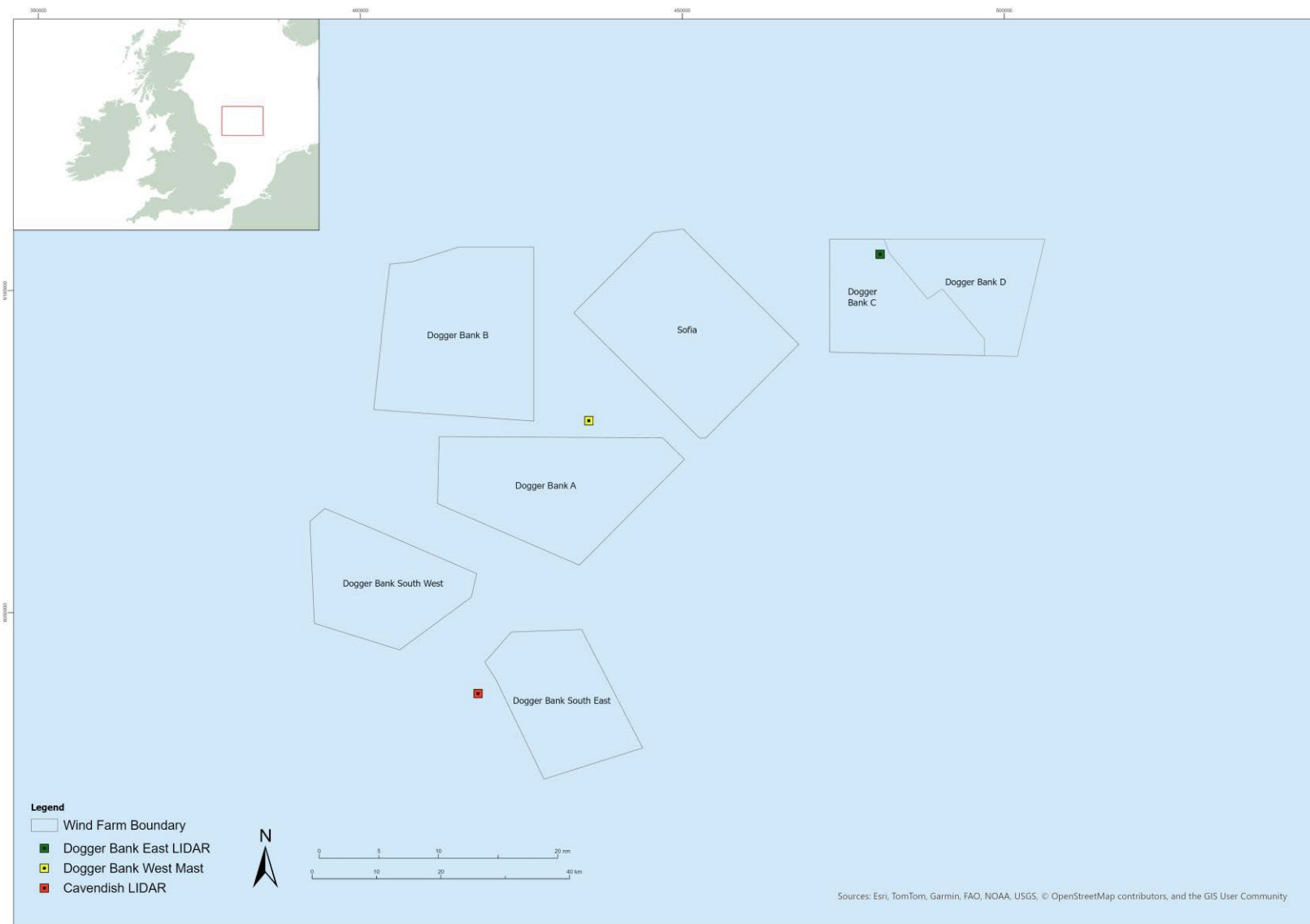


- At DBA hub height, the modelled long-term mean wind speed is 10.53 m/s with a mean turbulence intensity of 5.13%.



**Figure 5: Wind direction probability distributions (%) at DBW and DBE met masts. Wake impacts at DBA and DBB were calculated using the DBW distribution, while wake impacts at DBC were calculated using the DBE distribution. The prevailing wind direction is from a south westerly direction.**





**Figure 6: Offshore wind farm project areas and measurement devices in the Dogger Bank area.**



## 3. Results

### 3.1. Impact on Annual Energy Production (AEP)

This section presents the ~~results~~AEP impact for both DBS turbine scenarios assessed. These are summarised in ~~Error! Reference source not found.~~Table 2 and key findings are discussed in Section 4.4.

The wake impact of DBS was assessed by comparing the net AEP of DBA, DBB, and DBC, with and without the influence of DBS included. The reduction in net AEP due to DBA is expressed as a percentage of the net AEP without the wake impact of DBS in ~~Table 2.~~Table 2. Net AEP values only consider the influences of wind resource, wakes, and blockage losses.

**Table 2: Expected AEP wakes and blockage loss on DBA, DBB, and DBC due to proposed DBS development.**

Wind Farm	Net AEP change due to DBS (%)	
	Small DBS turbines (15MW)	Large DBS turbines (21MW)
DBA	-3.93%	-4.13.5%
DBB	-1.52%	-1.64%
DBC	-0.54%	-0.65%
Average	-2.01.7%	-2.1.8%

## 3.2. Lifetime and Financial Impacts

This section discusses how the wake impacts of DBS presented in section 3.1 (in percentage AEP terms) are converted into energy and financial terms for the large DBS turbine scenario. These results are presented on both an annual basis and for the anticipated lifetime of the DBA, DBB, and DBC projects, respectively. The calculation is performed as follows:

1. An indicative net AEP is computed for each of the DBA, DBB, and DBC projects using publicly available capacity factor data for the purpose of this analysis.
2. The indicative net AEP is multiplied by the wake losses due to DBS (discussed in section 3.1) to give an annual wake loss in energy terms (GWh) for each project. Collectively, the anticipated annual energy loss from DBA, DBB, and DBC due to DBS wakes is expected to be 312 GWh.
3. Annual energy losses due to DBS wakes are converted into indicative financial terms with assumptions on power price. The power generated by DBA, DBB, and DBC during the first 15 years from commissioning will be sold at the Contracts for Difference (CfD) strike price. However, the CfD contracts do not cover the whole period of overlap between DBWF and DBS operations, and during the post-CfD period the true power price may be higher or lower than the strike price. To consider the impact of this on lifetime financial losses, the following two scenarios are considered for post-CfD power price:
  - a. Scenario 1: where the lost energy is sold at the CfD strike price for the DBA, DBB, and DBC projects.
  - b. Scenario 2: where the lost energy is sold at the power price forecast by the Department for Energy Security and Net Zero (DESNZ) [7]. These forecast wholesale prices of £70-79/MWh (in 2023 prices) are materially higher than the Strike Prices assumed in Scenario 1. As DESNZ forecast prices are not available from 2051 until when DBA, DBB, and DBC are expected to be decommissioned, it is assumed that the forecast price for 2050 is applicable during this period.
4. To illustrate the financial impacts and simplify the analysis, all prices are presented in 2025 terms and without discounting for each scenario in Table 3. Calculation details for Scenario 1 and Scenario 2 are presented in Table 4 and Table 5, respectively.
5. Lifetime energy and financial losses are calculated for the whole period where DBA, DBB, and DBC operations are expected to overlap with those of DBS. The overlap period begins in the year after DBS is expected to be fully commissioned (2032) and ends when the DBA, DBB, and DBC projects are expected to be decommissioned. It is assumed that DBA, DBB, and DBC projects are subject to the anticipated DBS wakes for this entire period.

**Table 3: Summary of annual and total financial impacts across DBA, DBB, and DBC due to DBS wake effects (assuming 21MW turbines are installed at DBS).**

Power Price Scenario	Financial Impact (£m 2025 undiscounted)	
	Annual	Total
Scenario 1 (CfD Strike Price)	17	499
Scenario 2 (CfD Strike Price + Merchant Forecast)	23	669

**Table 4: Summary of annual and lifetime energy and financial impacts of DBS wakes on DBA, DBB, and DBC wind farms for the large DBS turbine scenario. Power price scenario 1: CfD Strike Price for during and post-CfD.**

	DBA	DBB	DBC	Total	Comment
Installed capacity (GW)	1.2	1.2	1.2	3.6	
Capacity Factor (CF)	0.55	0.55	0.55	0.55	based on publicly available CF: <a href="https://doggerbank.com/">https://doggerbank.com/</a>
Design life (yrs)	35	35	35	35	
Estimated commissioning year	2025	2026	2026		DB website
First full year of production	2026	2027	2027		year after estimated commissioning year
Estimated decommissioning year	2060	2061	2061		
First full year of production (DBS)	2032	2032	2032		year after expected commissioning year (2031)
Overlap with DBS (yrs)	29	30	30		
Wake loss due to DBS (% net AEP)	3.5%	1.4%	0.5%		
Net AEP (GWh/yr)	5785.6	5785.6	5785.6		
Average Power price (£/MWh)	£ 53.410	£ 56.250	£ 56.250		CfD strike price in 2025 prices
<b>Annual</b>					
Wake Loss (GWh)	202	81	29	312	
Wake Loss (£m)	11	5	2	17	£m in 2025 prices with no discounting
<b>Lifetime</b>					
Wake Loss (GWh)	5,872	2,430	868	9,170	
Wake Loss (£m)	314	137	49	499	£m in 2025 prices with no discounting

**Table 5: Summary of annual and lifetime energy and financial impacts of DBS wakes on DBA, DBB, and DBC wind farms for the large DBS turbine scenario. Power price scenario 2: CfD Strike Price during CfD period and merchant forecast price post-CfD.**

	DBA	DBB	DBC	Total	Comment
Installed capacity (GW)	1.2	1.2	1.2	3.6	
Capacity Factor (CF)	0.55	0.55	0.55	0.55	based on publicly available CF: <a href="https://doggerbank.com/">https://doggerbank.com/</a>
Design life (yrs)	35	35	35	35	
Estimated commissioning year	2025	2026	2026		DB website
First full year of production	2026	2027	2027		year after estimated commissioning year
Estimated decommissioning year	2060	2061	2061		
First full year of production (DBS)	2032	2032	2032		year after expected commissioning year (2031)
Overlap with DBS (yrs)	29	30	30		
Wake loss due to DBS (% net AEP)	3.5%	1.4%	0.5%		
Net AEP (GWh/yr)	5785.6	5785.6	5785.6		
Average Power price (£/MWh)	£ 72.837	£ 73.334	£ 72.598		CfD period: Strike price in 2025 prices Post CfD period: DESNZ merchant power price forecast in 2025 terms
<b>Annual</b>					
Wake Loss (GWh)	202	81	29	312	
Wake Loss (£m)	15	6	2	23	£m in 2025 prices with no discounting
<b>Lifetime</b>					
Wake Loss (GWh)	5,872	2,430	868	9,170	
Wake Loss (£m)	428	178	63	669	£m in 2025 prices with no discounting

## 4. Discussion

This section presents the key findings from the results: each of the objectives in section 1.3 is addressed in sections ~~4.1 and 4.2. Lifetime and financial impacts are presented in section 4.3. Error! Reference source not found.~~ 4.1 – 4.3.

### 4.1. What is the AEP impact of DBS on DBA, DBB, and DBC?

**DBS is expected to reduce the collective AEP of DBA, DBB, and DBC, by approximately ~~2.0 – 2.1%.~~ 1.7 – 1.8%**

Sites located closer to DBS are more greatly impacted by the wakes and blockage effects of DBS. DBA is the most impacted, with projected AEP losses of between ~~3.93%~~ 3.93% and ~~4.13.5%~~ 4.13.5% whilst AEP losses at the further- away DBC are projected to be between ~~0.54%~~ 0.54% and ~~0.65%~~ 0.65%, depending on turbine size and layouts installed at DBS. Overall, all of the individual losses on DBA, DBB, and DBC, are considered significant. At a minimum, it is recommended the impact of DBS is included in yield projections for these sites, should DBS be consented, constructed and operated as proposed by the current DCO application.

### 4.2. How sensitive are the findings to DBS turbine layout and size?

**The AEP loss on DBA, DBB, and DBC is expected to increase by 0.1 – 0.2 percentage points if the turbines installed at DBS have a capacity of 21MW instead of 15MW.**

This variation is less pronounced for sites further downstream of DBS – such as DBC – where contributions from individual DBS turbines to the wake are less distinct due to mixing of these with the background flow.

Overall, this variation is considered to be modest and wake losses on DBA, DBB, and DBC due to DBS are likely to remain significant irrespective of the final turbine size selected for construction at DBS.



### 4.3. LifetimeWhat are the lifetime and financial impacts of DBS on DBA, DBB, and DBC?

Over the operational life of the DBA, DBB, and DBC projects, we expect wake effects from DBS to reduce the energy generation by ~~10,698 GWh~~ **9,170 GWh** in a scenario where large (21MW) DBS turbines are selected for construction. ~~On an indicative and undiscounted basis~~ **Indicatively**, we expect this to result in lost revenue of approximately ~~£582 million on a lifetime basis~~.

~~Table 3~~ **Error! Reference source not found.** summarises how the wake impacts of DBS presented in section 3 (in percentage terms) are converted into energy and financial terms for the large DBS turbine scenario. **£669 million (2025 terms) over the lifetime of DBA, DBB, and DBC.**

This figure excludes discounting and is based on CfD Strike Prices during the CfD terms and wholesale power prices thereafter using forecasts published by DESNZ [7].

~~These results are presented on both an annual basis and for the anticipated lifetime of the DBA, DBB, and DBC projects, respectively. The calculation is performed as follows:~~

- ~~1. An indicative net AEP is computed for each of the DBA, DBB, and DBC projects using publicly available capacity factor data. This approach is considered appropriate to illustrate the magnitude of the wake losses and is used instead of the actual project AEP estimates (which are commercially sensitive).~~
- ~~2. The indicative net AEP is multiplied by the wake losses due to DBS (presented in section 3) to give an annual wake loss in energy terms (GWh) for each project. Collectively, the anticipated annual energy loss from DBA, DBB, and DBC due to DBS wakes is expected to be 364 GWh.~~
- ~~3. Annual energy losses due to DBS wakes are converted into indicative financial terms assuming this lost energy would have been sold at the CfD strike price for the DBA, DBB, and DBC projects. To illustrate the financial impacts and simplify the analysis, all prices are presented in 2025 terms and without discounting. On this basis, we anticipate annual losses in revenue of approximately £20m across the DBA, DBB, and DBC projects collectively, due to wake effects from DBS.~~
- ~~4. Lifetime energy and financial losses are calculated for the whole period where DBA, DBB, and DBC operations are expected to overlap with those of DBS. The overlap period begins in the year after DBS is expected to be fully commissioned (2032) and ends when the DBA, DBB, and DBC projects are expected to be decommissioned. Assuming the DBA, DBB, and DBC projects are subject to the anticipated DBS wakes for this entire period, we expect overall energy losses of 10,698 GWh.~~
- ~~5. To provide an indicative financial impact, for simplicity we have assumed the energy generated by DBA, DBB, and DBC is sold at their respective CfD strike prices over the whole overlap period. Based on this assumption we forecast total revenue losses of £582m (in undiscounted 2025 prices). Of course, the CfD contracts for DBA, DBB, and DBC cover a period of 15 years from the commissioning of these projects; they do not cover the whole overlap period, and the true power price may be higher or lower than the strike price in this post-CfD period. Power price forecasts published by the Department for Energy Security and Net Zero in December 2024 [7] indicate wholesale electricity prices of £70-79/MWh (in 2023 prices) for the post-CfD period up to 2050. These prices are materially higher than the Strike Prices (in 2025 prices) assumed in calculating our indicative financial impact; therefore should actual prices be at the level indicated in the DESNZ forecasts the overall losses will be higher than stated in this report.~~

**Table 3: Summary of annual and lifetime energy and financial impacts of DBS wakes on DBA, DBB, and DBC wind farms for the large DBS turbine scenario.**

	DBA	DBB	DBC	Total	Comment
Installed capacity (GW)	1.2	1.2	1.2	3.6	
Capacity Factor (CF)	0.55	0.55	0.55	0.55	based on public
Design life (yrs)	35	35	35	35	
Estimated commissioning year	2025	2026	2026		DB website
First full year of production	2026	2027	2027		year after estim
Estimated decommissioning year	2060	2061	2061		
First full year of production (DBS)	2032	2032	2032		year after expe
Overlap with DBS (yrs)	29	30	30		
Wake loss due to DBS (% net AEP)	4.10%	1.60%	0.60%		
Net AEP (GWh/yr)	5785.6	5785.6	5785.6		
Power price (£/MWh)	£ 53.410	£ 56.250	£ 56.250		CfD strike price
<b>Annual</b>					
Wake Loss (GWh)	237	93	35	364	
Wake Loss (£m)	13	5	2	20	£m in 2025 price
<b>Lifetime</b>					
Wake Loss (GWh)	6,879	2,777	1,041	10,698	
Wake Loss (£m)	367	156	59	582	£m in 2025 price

## 5. Conclusions

This study was commissioned with the primary objective of quantifying potential wakes and blockage losses on DBA, DBB, and DBC wind farms in the Dogger Bank region due to the proposed development at Dogger Bank South (DBS).

In summary, based on the modelling performed in this study, we expect the proposed development at DBS to lead to a material reduction in the expected energy output of DBA, DBB, and DBC wind farms. We expect this reduction to be approximately 364312 GWh and 40,6989,170 GWh on an annual and lifetime basis, respectively. ~~In indicative financial terms, and considering undiscounted 2025 CfD power prices~~ Indicatively, we expect ~~the impact~~ this to result in financial losses of approximately £20m23m and £582m669m (in 2025 terms) on an annual average and lifetime basis, respectively.

Specifically, the wakes and blockage losses from DBS:

- Are expected to reduce the aggregate AEP of DBA, DBB, and DBC by 2.1.8% in a scenario where 21MW turbines are installed at DBS.
- Are expected to have the largest impact on the DBA wind farm due to its proximity to DBS, reducing the AEP of DBA by 4.13.5% in a scenario where 21MW turbines are installed at DBS sites.
- Show little sensitivity to assumed turbine size at DBS. AEP losses of DBA, DBB, and DBC are expected to increase by 0.1 – 0.2 percentage points if larger (21MW) turbines are installed at DBS compared to smaller (15MW) turbines. Wake losses on DBA, DBB, and DBC due to DBS are likely to remain significant irrespective of the final turbine size selected for construction at DBS.

# References

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[7] DESNZ, "Energy and emissions projections: 2023 to 2050," Accessed on 23/05/2025 from: <https://www.gov.uk/government/publications/energy-and-emissions-projections-2023-to-2050>, December 2024.



## A. DBS turbine coordinates

**Table 46: DBS West small turbine (15MW) layout coordinates (EPSG:32631).**

Name	Easting	Northing
WT1	392275.7	6064079.4
WT2	400732.8	6060466.4
WT3	393344.0	6065008.7
WT4	399097.8	6059522.4
WT5	394412.4	6065938.1
WT6	397462.7	6058578.4
WT7	395756.3	6065492.2
WT8	395827.7	6057634.4
WT9	397060.9	6064941.7
WT10	403406.3	6059611.9
WT11	398365.5	6064391.2
WT12	401771.2	6058667.9
WT13	399670.1	6063840.7
WT14	400136.2	6057723.9
WT15	400974.7	6063290.2
WT16	398501.1	6056779.9
WT17	402279.3	6062739.7
WT18	396866.1	6055835.9
WT19	403579.5	6062179.0
WT20	395231.0	6054891.9
WT21	404878.5	6061615.3
WT22	404444.7	6057813.3
WT23	406177.8	6061052.3
WT24	402809.6	6056869.3
WT25	407477.1	6060489.6
WT26	401174.6	6055925.3
WT27	408776.7	6059927.2
WT28	399539.5	6054981.3
WT29	410076.4	6059365.4
WT30	397904.5	6054037.3
WT31	411376.4	6058804.0
WT32	396269.4	6053093.3
WT33	412676.5	6058242.9
WT34	407118.2	6056958.7
WT35	413976.9	6057682.4
WT36	405483.1	6056014.7
WT37	415277.1	6057121.7
WT38	403848.0	6055070.7
WT39	416577.2	6056560.7
WT40	402213.0	6054126.7
WT41	417877.5	6056000.0

Name	Easting	Northing
WT42	400577.9	6053182.7
WT43	417627.5	6054606.2
WT44	398942.9	6052238.7
WT45	417304.9	6053227.4
WT46	397307.8	6051294.7
WT47	416556.2	6052025.6
WT48	395672.8	6050350.7
WT49	415415.2	6051187.1
WT50	409791.6	6056104.2
WT51	414274.2	6050348.5
WT52	408156.6	6055160.2
WT53	413133.1	6049510.0
WT54	406521.5	6054216.2
WT55	411992.1	6048671.5
WT56	404886.4	6053272.2
WT57	410851.1	6047832.9
WT58	403251.4	6052328.2
WT59	409710.0	6046994.4
WT60	401616.3	6051384.2
WT61	408569.0	6046155.9
WT62	399981.3	6050440.2
WT63	407428.0	6045317.4
WT64	398346.2	6049496.2
WT65	406287.0	6044478.9
WT66	412465.1	6055249.6
WT67	404889.4	6044706.4
WT68	410830.0	6054305.6
WT69	403537.3	6045126.9
WT70	409195.0	6053361.6
WT71	402185.3	6045547.4
WT72	407559.9	6052417.6
WT73	400833.1	6045967.9
WT74	405924.8	6051473.6
WT75	399481.0	6046388.5
WT76	404289.8	6050529.6
WT77	398128.9	6046809.0
WT78	402654.7	6049585.6
WT79	396776.9	6047229.5
WT80	401019.7	6048641.6
WT81	395424.8	6047650.0
WT82	413503.5	6053451.1
WT83	394072.7	6048070.5
WT84	411868.4	6052507.1
WT85	392957.5	6048943.2
WT86	410233.4	6051563.1
WT87	392893.8	6050357.7
WT88	408598.3	6050619.1

Name	Easting	Northing
WT89	392830.1	6051772.3
WT90	406963.2	6049675.1
WT91	392766.4	6053186.9
WT92	405328.2	6048731.1
WT93	392702.7	6054601.4
WT94	403693.1	6047787.1
WT95	392638.9	6056015.9
WT96	392575.2	6057430.5
WT97	392511.5	6058845.1
WT98	392447.8	6060259.6
WT99	392384.1	6061674.2
WT100	396424.3	6060377.0

**Table 57: DBS East small turbine (15MW) layout coordinates (EPSG:32631).**

Name	Easting	Northing
WT1	423494.0	6046863.1
WT2	424594.3	6043915.6
WT3	424909.1	6046913.7
WT4	424115.4	6042128.4
WT5	426324.2	6046964.2
WT6	423636.5	6040341.2
WT7	427739.3	6047014.7
WT8	426381.5	6043436.7
WT9	429154.4	6047065.3
WT10	425902.6	6041649.6
WT11	430569.4	6047115.8
WT12	425423.7	6039862.4
WT13	431984.6	6047166.4
WT14	424944.8	6038075.2
WT15	433399.7	6047216.9
WT16	428168.7	6042957.9
WT17	434646.6	6046546.0
WT18	427689.8	6041170.7
WT19	435296.2	6045287.8
WT20	427210.9	6039383.5
WT21	435945.8	6044029.6
WT22	426732.0	6037596.3
WT23	436595.4	6042771.4
WT24	426253.2	6035809.1
WT25	437245.0	6041513.2
WT26	429955.9	6042479.0
WT27	437894.6	6040255.0
WT28	429477.0	6040691.8
WT29	438544.2	6038996.8
WT30	428998.1	6038904.6
WT31	439193.8	6037738.6

Name	Easting	Northing
WT32	428519.2	6037117.4
WT33	439843.4	6036480.4

WT34	428040.3	6035330.2
WT35	440493.0	6035222.1
WT36	427561.5	6033543.0
WT37	441142.6	6033963.9
WT38	431743.1	6042000.1
WT39	441792.1	6032705.7
WT40	431264.2	6040212.9
WT41	442441.7	6031447.6
WT42	430785.3	6038425.7
WT43	443091.3	6030189.3
WT44	430306.4	6036638.5
WT45	442851.3	6028793.8
WT46	429827.5	6034851.3
WT47	441501.4	6028366.2
WT48	429348.7	6033064.1
WT49	440151.5	6027938.7
WT50	428869.8	6031276.9
WT51	438801.6	6027511.1
WT52	433530.2	6041521.2
WT53	437451.7	6027083.5
WT54	433051.4	6039734.0
WT55	436101.8	6026655.9
WT56	432572.5	6037946.9
WT57	434751.9	6026228.3
WT58	432093.6	6036159.7
WT59	433402.0	6025800.7
WT60	431614.7	6034372.5
WT61	432052.1	6025373.2
WT62	431135.9	6032585.3
WT63	430702.3	6024945.6
WT64	430657.0	6030798.1
WT65	429352.4	6024518.0
WT66	434838.6	6039255.2
WT67	428120.0	6025215.4
WT68	434359.7	6037468.0
WT69	427505.4	6026491.0
WT70	433880.8	6035680.8
WT71	426890.8	6027766.7
WT72	433401.9	6033893.6
WT73	426276.2	6029042.4
WT74	432923.1	6032106.4
WT75	425661.6	6030318.0
WT76	432444.2	6030319.2
WT77	425047.1	6031593.7

WT78	436146.9	6036989.1
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Name	Easting	Northing
WT79	424432.5	6032869.4
WT80	435668.0	6035201.9
WT81	423817.9	6034145.1

WT82	435189.1	6033414.7
WT83	423203.3	6035420.7
WT84	434710.3	6031627.5
WT85	422588.7	6036696.4
WT86	434231.4	6029840.3
WT87	421974.1	6037972.1
WT88	437455.2	6034723.0
WT89	421359.5	6039247.7
WT90	436976.3	6032935.8
WT91	420652.4	6040474.5
WT92	436497.4	6031148.6
WT93	419877.0	6041659.4
WT94	436018.6	6029361.4
WT95	420155.2	6043047.8
WT96	438763.5	6032457.0
WT97	421087.7	6044113.4
WT98	438284.6	6030669.8
WT99	422020.2	6045179.0
WT100	430178.1	6029010.9

**Table 68: DBS West large turbine (21MW) layout coordinates (EPSG:32631).**

Name	Easting	Northing
WT1	392275.7	6064079.4
WT2	397049.3	6060580.0
WT3	393588.5	6065221.4
WT4	397049.3	6058187.5
WT5	395261.0	6065701.2
WT6	397049.3	6055795.0
WT7	396864.1	6065024.7
WT8	397049.3	6053402.5
WT9	398467.2	6064348.2
WT10	397049.3	6051010.0
WT11	400070.3	6063671.8
WT12	399441.8	6060580.0
WT13	401673.4	6062995.3
WT14	399441.8	6058187.5
WT15	403273.5	6062311.8
WT16	399441.8	6055795.0
WT17	404869.7	6061619.2
WT18	399441.8	6053402.5



WT19	406466.3	6060927.4
WT20	399441.8	6051010.0
WT21	408063.0	6060235.9

<u>Name</u>	<u>Easting</u>	<u>Northing</u>
WT22	401834.3	6058187.5
WT23	409660.1	6059545.4
WT24	401834.3	6055795.0
WT25	411257.5	6058855.4

WT26	401834.3	6053402.5
WT27	412855.1	6058166.0
WT28	401834.3	6051010.0
WT29	414453.0	6057477.3
WT30	404226.8	6058187.5
WT31	416050.6	6056787.9
WT32	404226.8	6055795.0
WT33	417648.3	6056098.8
WT34	404226.8	6053402.5
WT35	417570.1	6054360.5
WT36	404226.8	6051010.0
WT37	417173.6	6052666.3
WT38	404226.8	6048617.5
WT39	415866.0	6051518.3
WT40	406619.3	6055795.0
WT41	414463.9	6050488.0
WT42	406619.3	6053402.5
WT43	413061.8	6049457.6
WT44	406619.3	6051010.0
WT45	411659.7	6048427.2
WT46	406619.3	6048617.5
WT47	410257.6	6047396.8
WT48	409011.8	6055795.0
WT49	408855.5	6046366.4
WT50	409011.8	6053402.5
WT51	407453.4	6045336.0
WT52	409011.8	6051010.0
WT53	406015.5	6044356.1
WT54	411404.3	6053402.5
WT55	404354.0	6044872.9
WT56	402692.6	6045389.6
WT57	401031.1	6045906.4
WT58	399369.6	6046423.1
WT59	397708.1	6046939.9
WT60	396046.6	6047456.6
WT61	394385.2	6047973.3
WT62	392956.5	6048966.5
WT63	392878.2	6050704.7

WT64	392799.9	6052443.0
WT65	392721.6	6054181.2
WT66	392643.3	6055919.5
WT67	392565.0	6057657.7
WT68	392486.7	6059395.9

Name	Easting	Northing
WT69	392408.4	6061134.2
WT70	401834.3	6048617.5
WT71	406619.3	6058187.5

**Table 79: DBS East large turbine (21MW) layout coordinates (EPSG:32631).**

Name	Easting	Northing
WT1	423494.0	6046863.1
WT2	423587.5	6042380.3
WT3	425232.9	6046925.2
WT4	425762.5	6042380.3
WT5	426971.8	6046987.3
WT6	425762.5	6039987.8
WT7	428710.7	6047049.4
WT8	425762.5	6037595.3
WT9	430449.6	6047111.5
WT10	427937.5	6042380.3
WT11	432188.4	6047173.6
WT12	427937.5	6039987.8
WT13	433927.3	6047235.7
WT14	427937.5	6037595.3
WT15	434998.5	6045864.5
WT16	427937.5	6035202.8
WT17	435796.7	6044318.4
WT18	427937.5	6032810.3
WT19	436594.9	6042772.3
WT20	430112.5	6042380.3
WT21	437393.1	6041226.2
WT22	430112.5	6039987.8
WT23	438191.4	6039680.1
WT24	430112.5	6037595.3
WT25	438989.6	6038134.0
WT26	430112.5	6035202.8
WT27	439787.8	6036587.9
WT28	430112.5	6032810.3
WT29	440586.0	6035041.8
WT30	430112.5	6030417.8
WT31	441384.3	6033495.7
WT32	432287.5	6042380.3
WT33	442182.5	6031949.6

WT34	432287.5	6039987.8
WT35	442980.7	6030403.5
WT36	432287.5	6037595.3
WT37	442584.4	6028709.3
WT38	432287.5	6035202.8
WT39	440925.6	6028183.9
WT40	432287.5	6032810.3

<u>Name</u>	<u>Easting</u>	<u>Northing</u>
WT41	439266.9	6027658.4
WT42	432287.5	6030417.8
WT43	437608.1	6027133.0
WT44	434462.5	6039987.8
WT45	435949.3	6026607.6
WT46	434462.5	6037595.3

WT47	434290.6	6026082.2
WT48	434462.5	6035202.8
WT49	432631.8	6025556.8
WT50	434462.5	6032810.3
WT51	430973.1	6025031.4
WT52	434462.5	6030417.8
WT53	429314.3	6024505.9
WT54	436637.5	6035202.8
WT55	427944.7	6025579.2
WT56	436637.5	6032810.3
WT57	427189.5	6027146.7
WT58	436637.5	6030417.8
WT59	426434.3	6028714.3
WT60	425679.1	6030281.8
WT61	424923.9	6031849.4
WT62	424168.6	6033417.0
WT63	423413.4	6034984.5
WT64	422658.2	6036552.1
WT65	421903.0	6038119.7
WT66	421147.8	6039687.2
WT67	420209.0	6041152.2
WT68	420008.9	6042880.7
WT69	421154.8	6044190.1
WT70	422300.7	6045499.5
WT71	436637.5	6037595.3

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