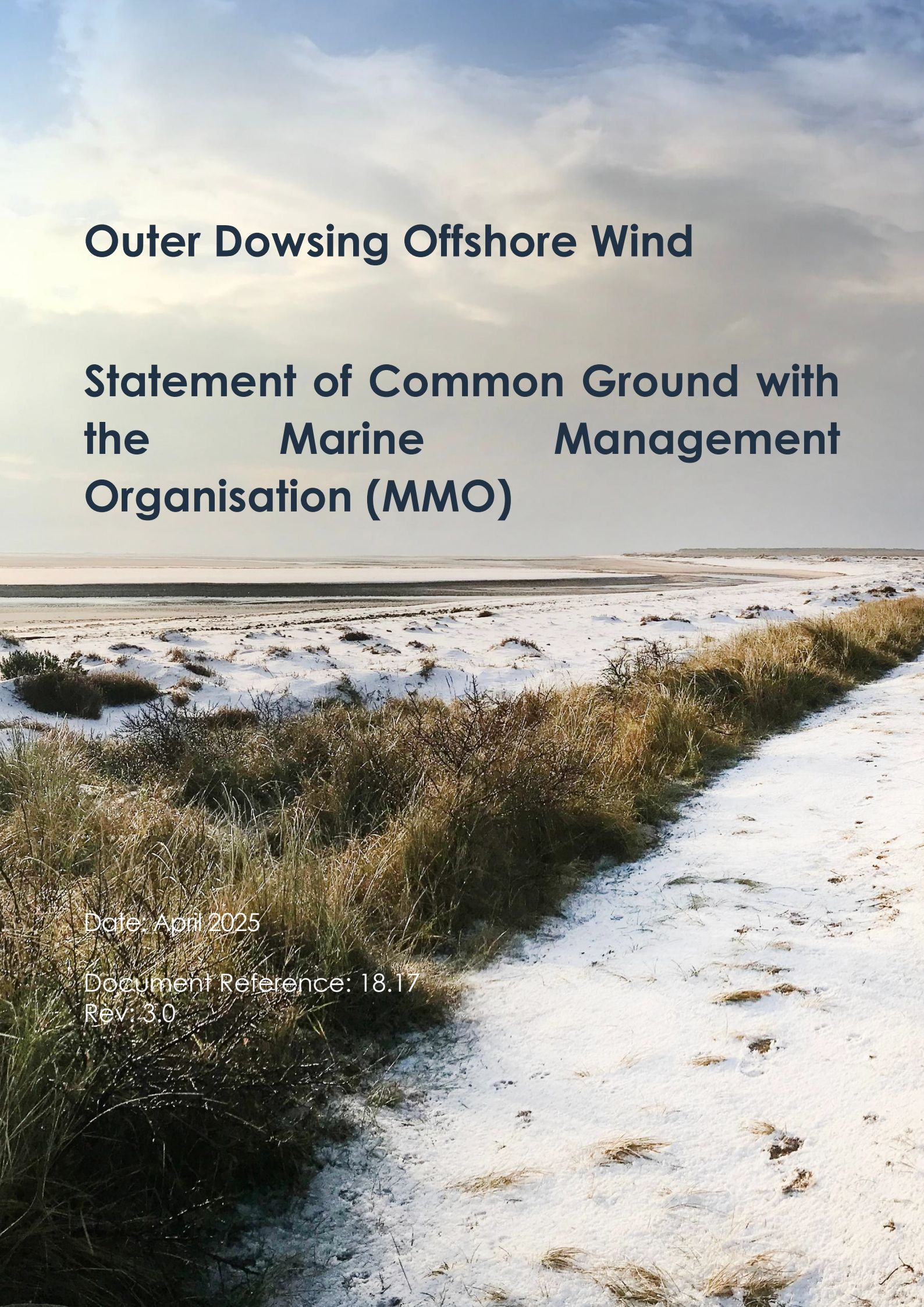
Outer Dowsing Offshore Wind

Statement of Common Ground with the Marine Management Organisation (MMO)



Date: April 2025

Document Reference: 18.17
Rev: 3.0

Company:	**Outer Dowsing Offshore Wind**	Asset:	**Whole Asset**
Project:	**Whole Wind Farm**	Sub Project/Package:	Whole Asset
Document Title or Description:	Statement of Common Ground with the Marine Management Organisation		
Internal Document Number:	PP1-ODOW-DEV-CS-STA-0033_3	3rd Party Doc No (If applicable):	N/A

Rev No.	**Date**	**Status / Reason for Issue**	**Author**	**Checked by**	**Reviewed by**	**Approved by**
0.1	October 2024	Draft for MMO review and update	GoBe & MMO	Outer Dowsing	MMO	Outer Dowsing
1.0	October	Deadline 1 Issue	GoBe	Outer Dowsing	Shepherd & Wedderburn	Outer Dowsing
2.0	March 2025	For MMO review	GoBe	Outer Dowsing	Shepherd & Wedderburn	Outer Dowsing
3.0	April 2025	Deadline 6	GoBe	Outer Dowsing	Shepherd & Wedderburn	Outer Dowsing

Table of Contents

Table of Tables

Acronyms & Definitions

Abbreviations / Acronyms

Abbreviation / Acronym	Description
ANS	Artificial Nesting Structure
CEA	Cumulative Effects Assessment
CRA	Chemical Risk Assessment
CSIP	Cable Specification and Installation Plan
dB	Decibel
DCO	Development Consent Order
DESNZ	Department for Energy Security and Net Zero
dML	Deemed Marine Licence
EAP	Early Adopters Programme
ECC	Export Cable Corridor
EDR	Effective Deterrence Range
EIA	Environmental Impact Assessment
EMF	Electromagnetic Fields
EPP	Evidence Plan Process
ES	Environmental Statement
ETG	Expert Topic Groups
EQSD	Environmental Quality Standards Directive
GBS	Gravity Based Structures
GT R4 Limited	GT R4 or GT R4 Limited, the incorporated joint venture development Co., the Applicant
GW	Gigawatt
HDD	Horizontal Directional Drilling
HRA	Habitat Regulations Assessment
HVAC	High Voltage Alternating Current
IHLS	International Herring Larval Survey
INNS	Invasive non-native species
IROPI	Imperative reasons of over-riding public interest
MCAA 2009	Marine and Coastal Access Act 2009
MLWS	Mean Low Water Springs
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MW&SQ	Marine Water and Sediment Quality
NE	North-east
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
NW	North-west
ODOW	Outer Dowsing Offshore Wind
ORCP	Offshore Reactive Compensation Platforms
ORBA	Offshore Restricted Build Area
OWFs	Offshore Windfarms
PADS	Principal Areas of Disagreement Statement
PEIR	Preliminary Environmental Information Report

Abbreviation / Acronym	Description
PEMP	Project Environment Management Plan
SNCB	Statutory Nature Conservation Bodies
SNS	Southern North Sea
SoCG	Statement of Common Ground
SSC	Suspended Sediment Concentration
SW	South-west
TTS	Temporary Threshold Shift
UK	United Kingdom
UXO	Unexploded Ordnance
WFD	Water Framework Directive
WTG	Wind Turbine Generators

Terminology

Term	Definition
The Applicant	GTR4 Limited (a joint venture between Corio Generation (and its affiliates), TotalEnergies and Gulf Energy Development), trading as Outer Dowsing Offshore Wind.
AfL array area	The area of the seabed awarded to GT R4 Ltd. through an Agreement for Lease (AfL) for the development of an offshore wind farm, as part of The Crown Estate's Offshore Wind Leasing Round 4.
Array Area	The area offshore within which the generating station (including wind turbine generators (WTG) and inter array cables), offshore accommodation platforms, offshore transformer substations and associated cabling will be positioned, including the ORBA.
Baseline	The status of the environment at the time of assessment without the development in place.
Cumulative Effects	The combined effect of the Project acting additively with the effects of other developments, on the same single receptor/resource.
Cumulative Impacts	Impacts that result from changes caused by other present or reasonably foreseeable actions together with the Project.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for a Nationally Significant Infrastructure Project (NSIP).
deemed Marine Licence (dML)	A marine licence set out in a Schedule to the Development Consent Order and deemed to have been granted under Part 4 (marine licensing) of the Marine and Coastal Access Act 2009.
Early Adopters Program (EAP)	A process launched in April 2023 by the Planning Inspectorate and adopted by seven NSIP projects including Outer Dowsing Offshore Wind, to trial potential components of a future enhanced pre-application service for applications decided under procedures set out in the Planning Act 2008 (PA2008).
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 sensitivity of the receptor, in accordance with defined significance criteria.

Term	Definition
EIA Regulations	Infrastructure Planning (Environmental Impact Assessment) Regulations 2017
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 Regulations, including the publication of an Environmental Statement (ES).
Environmental Statement (ES)	The suite of documents that detail the processes and results of the EIA.
Evidence Plan	A voluntary process of stakeholder consultation with appropriate Expert Topic Groups (ETGs) that discusses and, where possible, agrees the detailed approach to the Environmental Impact Assessment (EIA) and information to support Habitats Regulations Assessment (HRA) for those relevant topics included in the process, undertaken during the pre-application period.
Evidence Plan Process	An optional way to agree and record the information an applicant needs to supply to the Inspectorate when applying for a DCO so that environmental issues arising from multiple assessments (for example EIA, Habitats Regulations Assessment (HRA) and/ or Flood Risk Assessments) within the application can be efficiently identified, tracked, discussed and progressed.
Export Cables	High voltage cables which transmit power from the Offshore Substations (OSS) to the Onshore Substation (OnSS) via an Offshore Reactive Compensation Platform (ORCP) if required, which may include one or more auxiliary cables (normally fibre optic cables).
Habitats Regulations Assessment (HRA)	A process which helps determine likely significant effects and (where appropriate) assesses adverse impacts on the integrity of European conservation sites and Ramsar sites. The process consists of up to four stages of assessment: screening, appropriate assessment, assessment of alternative solutions and assessment of imperative reasons of over-riding public interest (IROPI) and compensatory measures.
High Voltage Alternating Current (HVAC)	High voltage alternating current is the bulk transmission of electricity by alternating current (AC), whereby the flow of electric charge periodically reverses direction.
Inter-array Cables	Cable which connects the wind turbines to each other and to the offshore substation(s) , which may include one or more auxiliary cables (normally fibre optic cables).
Impact	An impact to the receiving environment is defined as any change to its baseline condition, either adverse or beneficial.
Intertidal	The area between Mean High Water Springs (MHWS) and Mean Low Water Springs (MLWS).
Landfall	The location at the land-sea interface where the offshore export cables and fibre optic cables will come ashore.
Maximum Design Scenario	The project design parameters, or a combination of project design parameters that are likely to result in the greatest potential for change in relation to each impact assessed.
Mitigation	Mitigation measures are commitments made by the Project to reduce and/or eliminate the potential for significant effects to arise as a result of the Project. Mitigation measures can be embedded (part of the project

Term	Definition
	design) or secondarily added to reduce impacts in the case of potentially significant effects.
National Policy Statement (NPS)	A document setting out national policy against which proposals for Nationally Significant Infrastructure Projects (NSIPs) will be assessed and decided upon.
Offshore Export Cable Corridor (ECC)	The Offshore Export Cable Corridor (Offshore ECC) is the area within the Order Limits within which the export cable running from the array to landfall will be situated.
Offshore Restricted Build Area (ORBA)	The area within the array area, where no wind turbine generator, offshore transformer substation or offshore accommodation platform shall be erected.
Offshore Reactive Compensation Platform (ORCP)	A structure attached to the seabed by means of a foundation, with one or more decks (including bird deterrents) housing electrical reactors and switchgear for the purpose of the efficient transfer of power in the course of High Voltage Alternating Current (HVAC) transmission by providing reactive compensation.
Offshore Substation (OSS)	A structure attached to the seabed by means of a foundation, with one or more decks and a helicopter platform (including bird deterrents), containing— (a) electrical equipment required to switch, transform, convert electricity generated at the wind turbine generators to a higher voltage and provide reactive power compensation; and (b) housing accommodation, storage, workshop auxiliary equipment, radar and facilities for operating, maintaining and controlling the substation or wind turbine generators
Onshore Substation (OnSS)	The Project's onshore HVAC substation, containing electrical equipment, control buildings, lightning protection masts, communications masts, access, fencing and other associated equipment, structures or buildings; to enable connection to the National Grid
Order Limits	The area subject to the application for development consent, the limits shown on the works plans within which the Project may be carried out.
Outer Dowsing Offshore Wind (ODOW)	The Project.
Phase 2 Consultation	Statutory consultation carried out under section 42 of the Planning Act 2008
The Planning Inspectorate	The agency responsible for operating the planning process for Nationally Significant Infrastructure Projects (NSIPs).
Pre-construction and post-construction	The phases of the Project before and after construction takes place.
Preliminary Environmental Information Report (PEIR)	The PEIR was written in the style of a draft Environmental Statement (ES) and provided information to support and inform the statutory consultation process during the pre-application phase.
The Project	Outer Dowsing Offshore Wind, an offshore wind generating station together with associated onshore and offshore infrastructure.
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 or plants, people (often categorised further such as 'residential' or those using areas for amenity or recreation), watercourses etc.
Statement of Common Ground (SoCG)	A statement of common ground is a written statement produced jointly between The Applicant and another Interested Party setting out the areas of agreement and /or disagreement between parties.

Term	Definition
Statutory consultee	Organisations that are required to be consulted by the Applicant, the Local Planning Authorities and/or The Planning Inspectorate during the pre-application and/or examination phases, and who also have a statutory responsibility in some form that may be relevant to the Project and the DCO application. This includes those bodies and interests prescribed under Section 42 of the Planning Act 2008.
Subsea	Subsea comprises everything existing or occurring below the surface of the sea.
Wind Turbine Generator (WTG)	A structure comprising a tower, rotor with three blades connected at the hub, nacelle and ancillary electrical and other equipment which may include J-tube(s), transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation.

Reference Documentation

ODOW Application Document Reference	Application Document	Document Reference
6.1.7	Chapter 7 Marine Physical Processes	REP4a-142
6.1.9	Chapter 9 Benthic and Intertidal Ecology	REP5-019
6.1.10	Chapter 10 Fish and Shellfish Ecology	REP5-021
6.1.11	Chapter 11 Marine Mammals	REP5-023
6.2.10	Chapter 10 Fish and Shellfish Ecology Figures Part 1 of 2	REP5-050
6.2.10	Chapter 10 Fish and Shellfish Ecology Figures Part 2 of 2	REP5-051
6.3.9.1	Chapter 9 Appendix 1 Benthic Ecology Technical Report (Array)	APP-154
6.3.9.2	Chapter 9 Appendix 2 Benthic Ecology Technical Report (ECC)	REP4a-069
6.3.10.1	Chapter 10 Appendix 1 Fish and Shellfish Ecology Technical Baseline	REP5-068
6.3.11.2	Chapter 11 Appendix 2 Underwater Noise Assessment	REP5-069
8.03	Offshore In-Principle Monitoring Plan	V3 document reference 8.03, submitted at deadline 6
8.4	Outline Project Environmental Management Plan	APP-277
8.5	Outline Cable Specification and Installation Plan	REP4-082
9.1	Planning Statement	APP-297
3.1	Draft Development Consent Order clean	REP4a-006
6.1.8	Chapter 8 Marine Water and Sediment Quality	REP5-017
6.3.12.1	Chapter 12 Appendix 1 Intertidal and Offshore Ornithology Technical Baseline	REP4a-046
3.1.1	Draft DCO	REP4a-008
8.24	Spawning Herring Pilling Restriction Plan	Submitted at Deadline 6
15.3	Applicant Response to Relevant Representations	PD1-071
15.9	Environmental Report for the Offshore Restricted Build Area (ORBA) and Revision to the Offshore Export Cable Corridor (ECC)	PD1-081
15.9A	Offshore Restricted Build Area and Revision to the Offshore Export Cable Corridor Appendix A Figures Part 1	PD1-082
15.9H	Review of Offshore Restricted Build Area Impact on Shipping Displacement and Collision Risk	PD1-090
RR-042	Marine Management Organisation Relevant Representation	RR-042

1 Introduction

1.1 Outer Dowsing Offshore Wind (ODOW)

1. Outer Dowsing Offshore Wind ('The Project') is a proposed offshore windfarm comprising both offshore and onshore infrastructure, including an offshore generation station (windfarm) located approximately 54km from the Lincolnshire coastline, export cables to landfall, Offshore Reactive Compensation Platforms (ORCPs), onshore cables, connection to the electricity transmission network, ancillary and associated development and areas for the delivery of up to two Artificial Nesting Structures (ANS) and the creation of a biogenic reef (if these compensation measures are deemed to be required by the Secretary of State).
2. The Project will have a total installed capacity of 1.5GW which is roughly equivalent to the annual electricity consumption of over 1.6million UK households.

1.2 Purpose of this Statement of Common Ground (SoCG)

3. The Marine Management Organisation (MMO) was established by the Marine and Coastal Access Act 2009 (MCAA 2009) to contribute to sustainable development in the marine area and promote clean, healthy, safe, productive and biologically diverse oceans and seas. The MMO are responsible for licencing construction works, deposits and removals in English inshore and offshore waters. In the case of NSIPs, the Planning Act 2008 (the 2008 Act) enables DCOs for projects which affect the marine environment to include provisions which deem marine licences. As a prescribed consultee under the 2008 Act, the MMO advises developers during pre-application on those aspects of a project that may have an impact on the marine area or those who use it. In addition to considering the impacts of any construction, deposit or removal within the marine area, this also includes assessing any risks to human health, other legitimate uses of the sea and any potential impacts on the marine environment from terrestrial works.
4. The draft Development Consent Order (DCO) (PD1-026) submitted as part of the Applicant's DCO application includes deemed Marine Licences (dMLs) for the generation and offshore transmission assets as well as dMLs for each of the two artificial nesting structures and biogenic reef creation in the event that these are deemed necessary by the Secretary of State. The MMO is the delivery body responsible for post-consent monitoring, variation, enforcement and revocation of the provisions in the dMLs relating to the marine environment. As such, the MMO has a keen interest in ensuring that provisions drafted in the dMLs enable the MMO to fulfil these obligations.
5. This SoCG has been prepared by ODOW ('the Applicant') and the MMO to identify topics that are relevant to the MMO's regulatory role and states whether relevant matters are agreed, not agreed or still in discussion. If relevant, where matters are not agreed, an explanation is provided as to whether these matters are of consequence or not. The initial draft SoCG focuses on the principal areas of disagreement between the Applicant and the MMO, with the aim of making progress to resolve these and narrow the issues at Examination.

6. This SoCG has been prepared with due regard to the Planning Act 2008: Guidance on the examination stage for Nationally Significant Infrastructure Projects (Department for Levelling Up, Housing and Communities, 2024).

1.3 Consultation

7. The Applicant has engaged with the MMO throughout the pre-application process, through statutory consultation carried out under section 42 of the Planning Act 2008 ('section 42 consultation'), bilateral engagement and participation in the Evidence Plan Process (EPP).
8. During the Phase 2 consultation held by the Applicant in June/July 2023, the MMO provided comments on the Preliminary Environmental Information Report (PEIR).
9. Additionally, as part of the Applicant's participation in the NSIP Reform Early Adopters Programme (EAP), the MMO submitted a Principal Areas of Disagreement Summary Statement (RR-042) (PADSS) which has formed the basis for this SoCG.

1.4 Topics addressed in this Statement of Common Ground

10. Table 1 sets out the topics addressed in this SoCG. The topics referred to are referenced against the relevant chapter of the Environmental Statement (ES) or other DCO application plans and documents.

Table 1: Topics Included in this SoCG

Topic	Application Documents and references	Included in EPP (Yes/No)
Marine Physical Processes	Chapter 7 Marine Physical Processes (document reference 6.1.7) (APP-062)	Yes
Marine Water and Sediment Quality	Chapter 8 Marine Water and Sediment Quality (document reference 6.1.8) (AS1-038)	Yes
Benthic and Intertidal Ecology	Chapter 9 Benthic and Intertidal Ecology (document reference 6.1.9) (APP-064)	Yes
Fish and Shellfish Ecology	Chapter 10 Fish and Shellfish Ecology (document reference 6.1.10) (APP-065)	Yes
Marine Mammals	Chapter 11 Marine Mammals (document reference 6.1.11) (APP-066)	Yes
Draft Development Consent	Draft DCO (document reference 3.1) (PD1-026)	No

1.5 Identification of items agreed/not agreed/in discussion

11. This SoCG sets out the relevant topics and identifies them as agreed, not agreed or in discussion using a colour coding system. The colour coding system used throughout the document is summarised in Table 2.

Table 2: Colour coding system

Classification	Meaning
Agreed	Agreement has been reached between the parties
In discussion	This matter has not been 'agreed' or 'not agreed' but discussions are continuing, or information is to be provided with the intention of reaching agreement.
Not agreed (No material impact)	This matter has not been agreed, but discussions have been concluded and it is considered that it does not have a material impact.
Not Agreed	This matter has not been agreed, but discussions have been concluded.

2 Statement of Common Ground

2.1 Marine Physical Processes

12. The Applicant has assessed the likely significant effects of the Project seaward of Mean High Water Springs (MHWS) and on specific receptors above MHWS on Marine Physical Processes during the construction, operation and maintenance and decommissioning phases as set out in Chapter 7 Marine Physical Processes of the Environmental Statement (ES) (APP-062).
13. Marine Physical Processes were included within the Marine Ecology, Coastal Processes and Compensation & Derogation panel as part of the EPP. Minutes of the meetings held can be found in Appendix 5.1.15 of the Consultation Report submitted as part of the Project's application for development consent (APP-052).
14. Table 3 sets out areas of agreement (common ground), areas where discussions are ongoing and areas where it has not been possible to reach agreement and discussions are no longer being pursued in relation to Marine Physical Processes.

Table 3: Marine physical processes

Ref	ODOW Position	MMO position	Status
PADS 1 Impacts from scour.	As outlined in Section 7.12.2.2 of Chapter 7 Marine Physical Processes (REP4a-142), scour around foundations will be limited by the installation of scour protection where required for engineering purposes (as outlined in Chapter 3 Project Description (6.1.3)). As a result, potential impacts from the remobilisation of sediments due to erosion occurring during scour development are within the envelope assessed for seabed preparation around foundations, as they will occur within the construction phase and over a smaller spatial footprint than seabed preparation activities. Elevated SSC is predicted to become indistinguishable from background levels within several tidal cycles, and therefore sediment plumes are not considered additive. With regard to secondary scour, available evidence has been provided from an analogous windfarm site (Hornsea One) with additional clarification on the suitability of the evidence provided within Row B31, Table 1.45.3.2 (PD1-071); Q1 BE 2.8, Table 1.2 (REP3-054); and Point B31, Table 1.2 (REP4-113). The Applicant has acknowledged the uncertainties around the assessment of secondary scour within the assessment.	The Environmental Statement (ES) chapter 7 response (paragraph 188) states *"Post-construction monitoring data from the Hornsea One OWF, located approximately 20km to the northeast of the Project, identified minor bathymetric changes around foundations with scour protection in the Year 2 surveys. These changes are of the order of 20cm to 40cm, and may indicate secondary scour processes, although at some sites this cannot be distinguished from natural sediment mobility processes (Ørsted, 2021)".* The applicant's response is given on Page 155 of The Applicant's Reponses to Relevant Representations (PP1-ODOW-DEV-CS-REP-0216, Document Reference 15.3), comment RR-042.029 and expands notably on the ES paragraph 188. Importantly, it references the similarities in depth and sediment type to justify the numerical order of the expected scour impact. Most valuably, in response to the MMO comment *"It is not clear whether secondary scour footprint is factored into project footprint estimates. Further information was requested."* RR-042.029 also notes that *"the predicted extent of secondary scour would occur within the footprint for seabed preparation works around foundations, which represents the greatest area for habitat disturbance"*. The MMO considers that this effectively addresses the request.	Not agreed (No material impact)

Ref	ODOW Position	MMO position	Status
	The Applicant has provided a full response to the MMO's comments on primary scour in Table 1.3, The Applicant's Comments on Deadline 5 Submissions (document reference 22.3). The Applicant would note that the MMO have not raised these concerns around the methodology of primary scour prediction at any other stage of the Examination or pre-application consultation. Within the MMO's Relevant Representation (RR-042) Paragraph 4.2.3, the MMO stated that "*The suggested impact for scour is minor adverse, which we do believe is appropriate*." The Applicant would emphasise that the installation of scour protection will take place where required for engineering purposes (as outlined in Chapter 3 Project Description (APP-058)).	It is noted that 'ecological' scour protection may be used that would not exceed the footprint of the methods presented. Any scour protection method used should be notified to the MMO for review and approved prior to use. All rock used for scour protection should be inert and free from fines.	

Ref	ODOW Position	MMO position	Status
	The Applicant is not aware of recent literature from the offshore environment which presents results of either field-based or laboratory-based investigation which corresponds to the effects that the MMO describe. The Applicant understand that the USDA 2007 document quoted by the MMO is for fluvial environments, which does not necessarily reflect processes taking place in the marine environment. The effects described here by the MMO are not described in a range of literature used as best practice, such as DECC (2008), Harris *et al.* (2011), and Whitehouse *et al.* (2011), nor have they been considered as part of scour assessments for other recent OWF DCO applications (Hornsea Project Four and the Sheringham and Dudgeon Extension Projects). The Applicant therefore consider that a robust assessment of the potential impact of seabed scouring on Marine Physical Processes receptors has been presented within Section 7.12.2.2 Chapter 7 Marine Physical Processes (REP4a-029, Impact 5). Paragraph 184 of Chapter 7 Marine Physical Processes (REP4a-029) states that "*The times required for the equilibrium scour condition to initially develop is also dependant on these parameters and may vary from hours to years*". The Applicant therefore consider that this possibility that scour effects will alter in profile over time has been recognised within the ES, as appropriate.	The assessment provided in the ES Chapter 7 (paragraph 186) has estimated potential scour depths up to 18m, but also that depth will be limited in other places by underlying stiff till. The assessment also estimates the radius of scour based on an assumed conical section of fixed [depth:radius] ratio of 2:1 (Table 7.9). The MMO understands this to assume that the radius is controlled by the depth i.e., if depth is limited to 3m, then the radius is calculated from the 2:1 ratio. However, the MMO's understanding of scour would suggest that the potential radius of impact could be modified in depth-limited cases i.e., where scour cannot penetrate to its expected depth, the impact may extend over a greater area, since the energy driving the scour has not been dissipated downward ("Scour asymptotically approaches a limiting extent (volume or depth)" - USDA, 2007). The same engineering text also suggests that *"ultimate scour in cohesive or cemented soils may be just as great, even though the ultimate scour depth is reached more slowly. Under constant flow conditions, scour reaches maximum depth in sands within hours; in cohesive bed materials in days; in months in glacial till, sandstones, and shale"*. The ES does not recognise the possibility that scour effects will alter in profile over time.	

Ref	ODOW Position	MMO position	Status
	Potential secondary scour occurring within the Inner Dowsing, Race Bank and North Ridge SAC is anticipated to be restricted in scale due to the project dimensions of the cable protection. This is particularly the case given that scour protection located within the Inner Dowsing, Race Bank and North Ridge SAC will be removable, therefore taking the form of concrete mattresses or rock bags. This cable protection will be of low profile and therefore any scour processes taking place will be considerably less than that assessed for foundations.	It would be of value to understand in the first instance whether there is any evidence from Hornsea One (or any other comparable windfarm) of depth-limited scour pits increasing in radius relative to unlimited sites. If this does occur, it would be necessary to estimate a maximum likely radius to ensure that this does not exceed the seabed preparation footprint, as stated. A maximum radius may be estimated based on a calculated volume (assuming no depth limitation). A depth limit may be obtained from the subsurface depth of the glacial till layer; then, assuming this depth of scour, the potential radius can be calculated based on the calculated volume. In this case, secondary scour may be more substantial, since scour protection extents would be based on the initial radius estimate. This additional evidence may be of consequence in Inner Dowsing, Race Bank and North Ridge SAC, as ES Chapter 7 paragraph 192 assesses the significance of the effect based on scour depth-limiting conditions here. The applicant has given a verbal interpretation of the original assessment that partially addresses the query but has not provided any additional evidence. The MMO has suggested potential evidence and methods that may be appropriate for estimating residual scour impacts in SACs that may be appropriate if there are specific concerns over impacts on habitats along the cable route.	

Ref	ODOW Position	MMO position	Status
MMO2	The Applicant wishes to highlight that Impact 8 (Decommissioning: Modifications to littoral transport and coastal behaviour (erosion) including at landfall, including coastal processes and geomorphology above MHWS) has been assessed within Section 7.12.3.3 of ES Chapter 7 Marine Physical Processes (APP-062), with the potential effect identified as not significant in EIA terms. However, the Applicant recognises that Impact 8 has been omitted from Table 7.3, and this has been rectified within V2 of Chapter 7 submitted at Deadline 4a. This did not result in any changes to the assessment or the assessment conclusions. For the purposes of undertaking the assessment, decommissioning works are assumed to comprise a reverse of the construction processes, should there be a requirement to remove the seabed infrastructure. Impact 8 has therefore been assessed based on the MDS identified for Impact 3 (Construction: Modifications to littoral transport and coastal behaviour (erosion) including at landfall, including coastal processes and geomorphology above MHWS). As outlined in Section 7.12.3 of APP-062, Project infrastructure will be decommissioned in accordance with the decommissioning plan in addition to the best environmental practice at the time.	The MMO notes that Impact 8 is not included in the decommissioning stage of Table 7.3 (Maximum Design Scenario). The MMO queries whether this is an oversight or intentionally left out. Whilst the cables are meant to be left in situ, the MMO queries if there is any risk of exposure by retreating shorelines/local erosion that may need to be considered. In Table 7.5, where potential impacts/changes are classified to pathways and receptors; Impact 4 is only identified as a pathway. MMO considers it should be pathway/receptor, as Impact 4 includes the geomorphology above MHWS, which includes shoreline features such as beach dunes. The Applicant submitted an updated ES Chapter 7 (document reference 6.1.7), which includes an assessment of Impact 9: Modifications to littoral transport, coastal behaviour (erosion) including at landfall, and also including coastal processes and geomorphology above MHWS. The Applicant has also committed to using concrete mattresses within the nearshore. Mattresses are a low profile form of cable protection and therefore will not impede littoral transport.	Agreed

Ref	ODOW Position	MMO position	Status
	Appropriate set back distances, taking into account the risk of coastal erosion, have been selected during the landfall design process. These distances, as well as the depth of the HDD under the beach (as outlined in Table 7.1 of Chapter 3: Project Description (APP-089)), are considered to appropriately mitigate any potential risk of exposure. Impact 4 has considered both pathway effects from modifications to the wave and tidal regime, in addition to potential impacts to receptors including the shoreline and geomorphology above MHWS. Additionally, the Applicant has committed to using concrete mattresses within the nearshore if cable protection is required. The Applicant therefore consider the assessment and conclusions to be appropriate.		

2.2 Marine Water and Sediment Quality

15. The Applicant has assessed the likely significant effects of the Project on Marine Water and Sediment Quality (MWSQ) during the construction, operation and maintenance and decommissioning phases within Chapter 8 Marine Water and Sediment Quality of the ES (AS1-038).
16. Table 4 sets out areas of agreement (common ground), areas where discussions are ongoing and areas where is has not been possible to reach agreement and discussions are no longer being pursued relating to MWSQ.

Table 4: Marine Water and Sediment Quality

Ref	ODOW Position	MMO position	Status
MMO 4	The Applicant has used appropriate laboratories to undertake analysis to characterise the proposed dredge material; estimates of worst case scenarios for dredge volume for various phases of the construction and operation have been provided.	MMO validated laboratories have been used to undertake appropriate analysis to be able to characterise the proposed dredge material sufficiently (RR-042, paragraph 4.3.5)	Agreed
MMO5 (RR-042.041 and 042)	The Applicant will ensure that all chemicals and substances which have the potential to enter the marine environment are listed within the Chemical Risk Assessment (CRA) (which will be contained within the Project Environmental Management Plan (PEMP)) produced post-consent. Condition 13(1)(e) of Part 2, Schedules 10 and 11, Condition 10(1)(d), Part 2, Schedules 12, 13, 14 and 15 require the PEMP to be in accordance with the outline PEMP (APP-277) and the PEMP must be approved in writing by the MMO prior to the commencement of licensed activities or any part of those activities. Section 6 of the outline PEMP provides that the CRA will include consideration of whether they are approved for use offshore, for example, whether the chemical is included on the PLONOR list. The Applicant considers there are a number of difficulties with the revised proposed condition wording: • it would be impractical to require an update to the whole PEMP in order to approve each chemical; • the draft wording requires that submissions for approval must take place no later than 10 weeks	The MMO is in agreement and considers it appropriate that the Applicant lists all chemicals proposed for use throughout the project within the Chemical Risk Assessment (CRA) produced post-consent (REP2-092 1.4.2). The Applicant has misinterpreted our comments regarding the chemicals condition. The intention was for it not to be included within the PEMP (Condition 13(1)(e) of Part 2, Schedules 10 and 11). The MMO has been requesting to replace condition 11(1), Part 2, Schedules 10-11, condition 8(1), Part 2, Schedules 12-15 and condition 6(1), Part 2, Schedule 16 to include the following: *X. (x) Unless otherwise agreed in writing by the MMO, all chemicals with a pathway to the marine environment, used for the marine licensed activities, outside the course of normal navigation, must be approved in writing by the MMO prior to use. Submissions should include a site-specific chemical risk assessment that includes:*	Not Agreed Not

Ref	ODOW Position	MMO position	Status
	prior to use. This introduces a potential conflict in the timescales for approval of the PEMP, which in the absence of this wording, would have a 4 month timescale for approval by the MMO; and The Applicant considers that the definitions of "chemicals" and "substance" significantly extend the scope of the condition beyond the ordinary natural meaning of the words to encompass benign, naturally occurring compounds, such as water	*(i) the function of the chemical;* *(ii) the quantities being used and the frequency of use;* *(iii) the physical, chemical, and ecotoxicological properties of the chemical.* *Chemicals present on the OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment (PLONOR) are exempt from this requirement;* *Submissions for approval must take place no later than ten weeks prior to use.* Definitions to be added to 'Interpretation' section of DML: "pathway to the marine environment" open systems or closed systems that require top up. "chemicals" comprise both substances and preparations. "preparation" means a mixture or solution composed of two or more substances. "substance" means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent	

Ref	ODOW Position	MMO position	Status
		which may be separated without affecting the stability of the substance or changing its composition. The MMO is aware that concerns may be raised around the 10-week submission timescale proposed within the condition and provide the following justification. Based on the information intended to be assessed by Cefas obtained through this condition, we have accounted for an 8-week-period for their review. The MMO further anticipates a 2-week period within which to review the submission, regard Cefas advice, and make a determination. This is deemed to be acceptable considering the current timeframes for which projects currently receive post-consent chemical discharges. The definitions to be included within the consents ertaining to the new condition wording, come from the definition for 'chemicals', 'preparation' and 'substance' given within OSPAR Decision 2002/2 on a Harmonised Mandatory Control System for the Use and Reduction of the Discharge of Offshore Chemicals.	
MMO6	The Cefas Action Levels as presented in Chapter 8: Marine Water and Sediment Quality (APP-063) are accurate. The Applicant notes that AL2 for Arsenic is 100 milligrams per kilogram (mg/kg) dry weight is correct in chapter 8 and does not consider the error in Appendix	The MMO notes the comprehensive discussions on the contaminants present and description of analysis and comparisons of results, which is welcomed. However, a minor point regarding concerns for levels of Arsenic exceeding Action level 2 (AL2) "One station	Agreed

Ref	ODOW Position	MMO position	Status
	9.2 to materially impact the assessment or conclusions presented. Furthermore, following the removal of the northern ECC option, station ECC-51 is no longer included as part of the Project. The Applicant consider the assessment and conclusions to be appropriate.	in the survey area, ECC_51, had very high concentrations of arsenic, exceeding all thresholds detailed in Table 23, including Cefas action level 1 of 20mg.kg-1 and Cefas action level 2 (AL2) of 50 mg.kg" (Volume 3: Chapter 9: Appendix 9.2 page 82). This station is no longer within the Project Order Limits. The Project should note that the current published AL2 for Arsenic is 100 milligrams per kilogram (mg/kg) dry weight. The MMO notes that the Applicant has welcomed the clarification provided on the Cefas Action Levels.	

2.3 Benthic and Intertidal Ecology

17. The Applicant has assessed the likely significant effects of the Project on benthic, subtidal and intertidal ecology seaward of MHWS during the construction, operation and maintenance and decommissioning phases within Chapter 9 of the ES (APP-064).
18. Table 5 sets out areas of agreement (common ground), areas where discussions are ongoing and areas where is has not been possible to reach agreement and discussions are no longer being pursued relating to benthic and intertidal ecology.

Table 5: Benthic and intertidal ecology

Ref	ODOW Position	MMO position	Status
PADS 2 Impact of temporary habitat disturbance during the construction phase: Sabellaria spinulosa reef.	The pre-construction survey campaign proposed by the Applicant is appropriate. The Applicant will agree the methodology for any pre-construction monitoring with the MMO and its advisors prior to surveys being undertaken as required under condition 13(1)(c)(i) of the DML within Schedule 11 of the dDCO. Due to the ephemeral nature of *S. spinulosa*, a pre-construction survey campaign will be conducted to identify the extent and distribution of this feature, as detailed at Table 3.2 of the ES Offshore In-Principle Monitoring Plan (APP-276).	It is possible that potential *Sabellaria spinulosa* reef could go undetected in future geophysical surveys. The Applicant has updated the Offshore In-Principle Monitoring Plan (document reference 8.03) at Deadline 4a to provide further details on monitoring proposals (REP4a-073). The MMO recommended the use of dropdown video at the previous areas where substantial low and medium reef was observed in still images as it is known to be difficult to distinguish reef from the surrounding coarse/mixed sediments. The use of drop down videos has been included within the monitoring proposal in the Offshore In-Principle Monitoring Plan (document reference 8.03).	Agreed

Ref	ODOW Position	MMO position	Status
	The pre-construction survey will be informed by full coverage (within the Order Limits in which the Applicant is proposing to carry out construction works) geophysical data and designed with detailed enough resolution to give confidence in the data, as detailed within the ES Offshore In-Principle Monitoring Plan (REP4a-073). This plan has been updated following the requests from the MMO and NE, to provide more detailed methodologies. For *S. spinulosa* the monitoring proposal is likely to include a full seabed coverage swath-bathymetric and a Side Scan Sonar survey (to meet the requirements of Marine Guidance Note (MGN) 654 and its Annexes) of the area(s) within the Order Limits in which it is proposed to carry out construction works and ground-truthing using drop down video of the data where *S. spinulosa* reef has previously been recorded and/or is expected based on a detailed review of the geophysical campaign, in line with industry best-practise. The Applicant will also undertake pre-construction surveys to determine the location, extent and quality of supporting habitat for Annex I S. spinulosa reef, as detailed at Table 3.2 of the ES Offshore In-Principle Monitoring Plan (APP-276).		

Ref	ODOW Position	MMO position	Status
PADS 3 Potential spread of invasive non-native species (INNS) due to the presence of infrastructure during the operation * maintenance phase	The Applicant has appropriately considered the spread of invasive non-native species within the operation and maintenance phase in the Application, Chapter 9 Benthic and Intertidal Ecology (APP-064). The Applicant has provided a full response to this point in 'The Applicant's Response to Relevant Representations'(PDI-071) reference: 4.4.2. In summary: ▪ The Applicant has further reconsidered the risk of the spread of INNS, in the Environmental Report for the Offshore Restricted Build Area (ORBA) and Offshore Export Cable Corridor (PDI-081), with no change considered necessary with regard to the magnitude of "negligible" as determined in APP-064. ▪ The Applicant remains confident in the determination of a negligible magnitude for the risk of INNS from the Project alone, and the consequent scoping out of this impact from the cumulative assessment, and so does not consider that any update or reassessment is required. The Applicant submitted an updated Offshore In Principle Monitoring Plan at Deadline 4a (REP4a-073) to include INNS monitoring. The details of monitoring should be agreed post consent and approved by MMO.	Potential spread of invasive non-native species (INNS) due to the presence of infrastructure during the operation & maintenance phase. The PEMP does not consider the potential spread of INNS during operation. The MMO advises reassessing the spread of INNS during operation as above 'negligible' and scoping INNS into the cumulative effects assessment during operation. The MMO has welcomed the updates within the Offshore In Principle Monitoring Plan (REP4a-073) submitted at deadline 4a and agrees this issues is resolved.	Agreed

Ref	ODOW Position	MMO position	Status
	The Applicant has also committed that for all wind turbine generator (WTG) foundations, a Biosecurity Plan will be developed to minimise marine INNS introduction/spread		
MMO 9	The Applicant considers the methodology used to determine patchiness robust and following MMO guidance. The Applicant has provided the MMO with all images of Sabellaria aggregations observed along contiguous patches of reef and considers the conclusions the assessment are accurate. The Applicant will review all advice in relation to methodologies for assessing S. spinulosa reef habitat, including taking 'the patch-based approach' to analyses. This is secured by Condition 13(1)(c) and 19 of Part 2 of Schedules 10 and 11 of the dMLs, which sets the requirement for a monitoring plan (which accords with the in-principle monitoring plan) to includes details of proposed post-construction surveys, including methodologies and analyses, timings, proposed format and content, to be submitted to the MMO for written approval prior to commencement of licensed activities, in consultation with the relevant Statutory Nature Conservation Bodies (SNCB). The Offshore In-Principal Monitoring Plan (REP4a-073) was updated at Deadline 4a to incorporate the MMO's request that "that the outline offshore in-principle monitoring plan include drop-down video at the previous areas where substantial low and medium reef	The Applicant confirmed the approach stated by the MMO was used in the reanalysis of the data and that patchiness was assessed throughout the video transect and averaged accordingly as per the guidelines from Gubbay (2007) and provided the MMO with all images of Sabellaria aggregations observed along contiguous patches of reef for review. The MMO recommended the Applicant should commit to taking the patch-based approach to assessing reefiness using seafloor imagery going forward. Images have not been provided for certain stations where 'reefiness' was assessed in the Sabellaria spinulosa reanalysis and report (Envision, 2024), specifically stations 37, 48, 49, and 62. Station 62 is of particular interest, as its classification as 'not a reef' was based solely on insufficient tube elevation—an attribute that is challenging to assess accurately from the available seafloor imagery. The MMO requests that the Applicant provides images from these stations for the MMO to review. The MMO has concerns that the Sabellaria spinulosa reanalysis and report (REP3-035) does	Not agreed

Ref	ODOW Position	MMO position	Status
	was observed in still images as it is known to be difficult to distinguish reef from the surrounding coarse/ mixed sediments." The Applicant highlights that Natural England's concerns regarding the presence of existing reef have now been addressed. However, in light of the habitat that could be available to support growth of *S. spinulosa* reef the Applicant has undertaken additional analyses across the area to support the mitigation of this habitat, as detailed within the *S. spinulosa reef* supporting habitat Technical Note (document reference 22.11, updated at Deadline 6), at the request of Natural England. The Applicant does not consider further engagement with experts regarding the identification of *S. spinulosa* within individual images to be appropriate or relevant to assessment conclusions. However, the Applicant would like to reassure all parties that due diligence and caution were carefully applied in the analyses conducted. In accordance with industry best practices, existing data will be thoroughly reviewed to inform the proposed locations for any pre-construction surveys, including any previously acquired data on the Project, such as areas where *S. spinulosa* tubes have been recorded. This approach is outlined and secured within the Offshore In Principle Monitoring Plan (V3 submitted at Deadline 6, document reference 8.3). As such, these habitats will continue to be given careful consideration at this stage	not classify Station 57 as reef due to insufficient percentage cover. However, consecutive images from this station show S. spinulosa aggregations with substantially higher coverage than the 10% threshold required for classification as 'low' reef, and the original analysis determined that this station did indeed have a cover exceeding 10% (APP-155). This discrepancy needs clarifying by the Applicant. Similarly, the Sabellaria spinulosa reanalysis and report (REP3-035) does not classify Station 66 as reef due to having insufficient area, when the imagery presented shows S. spinulosa aggregations covering substantial portions of the visible seabed, and the original analysis of this station determined that the area was sufficient to be classified as reef (APP-155). The Applicant should clarify this apparent discrepancy and specify how many consecutive images must contain S. spinulosa aggregations to exceed the 25 m^2 threshold required for classification as 'low' reef.	

Ref	ODOW Position	MMO position	Status
	of the development, in close consultation with the MMO and their advisors. The Applicant notes that the MMO considers "Whilst these are not major concerns at this stage, the MMO feels a consensus should be reached before the interpretation of future surveys intended to inform mitigation measures (e.g., micro- routing). The Applicant understands this and will continue to engage with the MMO to develop the methodology in the post-consent stage of the Project.	The MMO considers that the Applicant can provide clarification prior to the end of examination. The MMO have noted that whilst these are not major concerns at this stage, consensus should be reached before the interpretation of future surveys intended to inform mitigation measures (e.g., micro-routing).	

2.4 Fish and Shellfish Ecology

19. The Applicant has assessed the likely significant effects of the Project on fish and shellfish ecology seaward of MHWS during the construction, operation and maintenance and decommissioning phases within Chapter 10 of the ES (APP-065).
20. Table 6 sets out areas of agreement (common ground), areas where discussions are ongoing and areas where is has not been possible to reach agreement and discussions are no longer being pursued relating to fish and shellfish ecology.

Table 6: Fish and shellfish ecology

Ref	ODOW Position	MMO Position	Status
PADS 4 Data sources	The Applicant has presented revised 'heat' maps showing the most recent ten years of IHLS data up to 2023/2024 within Offshore Restricted Build Area and Revision to the Offshore Export Cable Corridor Appendix A Figures (PD1-082), which has been submitted for Procedural Deadline of 19th September 2024 in response to the MMO Relevant Representation Response (RR-042). The revised 'heat' maps will also be included within V2 of Chapter 10: Fish and Shellfish Ecology, submitted at Deadline 5.The Applicant provided further information on the revised 'heat' maps within 'The Applicant's Responses to Relevant Representations' (PD1-071), noting that it was not possible to calculate larval densities and produce 'heat' maps for the years 2020/2021 and 2021/2022 because the IHLS data sheets do not contain information about the volume of seawater filtered during these years. Therefore, the years 2020/2021 and 2021/2022 have been excluded, but the data for years 2022/2023 and 2023/2024, as the most recent data available, are provided. The Applicant considers this item to be resolved.	In the MMO's Deadline 2 submission (REP2-092, Section 1.6.5), the MMO thanks the Applicant for providing revised figures showing International Herring Larvae Survey (IHLS) 'heat' maps for the most recent 10 years of IHLS data, up to the year 2023/2024.	Agreed

Ref	ODOW Position	MMO Position	Status
MMO10a	For impacts to herring north of the ANS, the Applicant presented a proposed piling restriction on a without prejudice basis to the MMO in January 2025. For impacts to herring within the array area, the Applicant proposed two different piling restrictions with different spatial extents depending on use of noise abatement solutions ("NAS"). Following further discussions with the MMO and considering the updated guidance in the written ministerial policy paper regarding the use of NAS, the Applicant has committed to a partial piling ban covering the western extent of the array area to minimise impacts to the Banks herring spawning stock. The Applicant provided a proposal of the proposed piling restriction to the MMO on 5 March 2025 along with a map illustrating the extent of a potential Herring Spawning Piling Restriction Area in the array area. The MMO responded by email on 11 March 2025, noting that they are not content in terms of the evidence provided for the spatial extent of the Piling Restriction Area. The Applicant has subsequently undertaken additional underwater noise modelling to determine an appropriate boundary line for the Herring Spawning Piling Restriction Area within the array area. . The results of the new modelling and a revised Spawning Herring Piling Restriction Plan based on the new modelling was discussed with the	The MMO has been liaising with the Applicant regarding the proposed piling restriction area in the array area and confirmed on the 2nd April 2025, the new modelling presented by the Applicant uses appropriate parameters to calculate the predicted impact ranges. The maximum hammer energies of 3,500kJ and 6,600KJ have been used in the modelling for the piling of jacket foundations and monopile foundations respectively. The maximum pile diameters of 5m (jacket foundations) and 14m (monopiles) have been modelled, and all scenarios are based on a stationary receptor using a 135 dB sound exposure level single strike (SELss) threshold for behavioural responses in herring (based on Hawkins *et al.*, 2014). The MMO considers these parameters to be appropriate for modelling the worst-case scenario, i.e. the maximum impact ranges in relation to herring at their spawning grounds.	Agreed

Ref	ODOW Position	MMO Position	Status
	MMO on 27 March 2025. The spatial extent of the Piling Restriction Area for the array area was approved by the MMO on 2 April 2025. The Applicant will submit the Spawning Herring Piling Restriction Plan with the agreed Piling Restriction Area at Deadline 6 (document reference 8.24). The Applicant and the MMO are also agreed that the temportal extent of the piling restrictions for both the northern ANSs and array area is between 1 September and 16 October, The Applicant considers that the matter relating to the Herring Piling Restriction Area is resolved (excluding dML drafting related matters discussed below).	The MMO notes that the revised modelling based on the new Northeast and Southeast modelled locations for the piling of jacket foundations and monopile foundations shows a slight overlap in the range of impact with the portion of the spawning ground where larval densities are higher (between 3,000.1 – 4,500 larvae per m^2). The MMO considers the small overlap in the range of impact to be acceptable for the purpose of determining the spawning herring piling restriction area, as shown in the Spawning Herring Piling Restriction Plan,. Whilst there is still a slight overlap of noise impact with a portion of the herring spawning ground, based on the information reviewed, the MMO is satisfied that the likelihood of significant adverse impacts to spawning herring at this location is unlikely to occur as a result of noise disturbance. The MMO considers that the matter relating to the Herring Piling Restriction Area is resolved including dML drafting related matters (discussed below).	

Ref	ODOW Position	MMO Position	Status
MMO 10b	In relation to the dML condition, revised dML condition wording for piling in the array area was submitted to the MMO on 27 March 2025. The Applicant considers its drafting to be appropriate. Revised simplified drafting (and dispensing with the need for an outline plan) below. This will be a new standalone condition 25 of Part 2, Schedule 10 to the DCO. The herring spawning plan at condition 13(1)(j), (4) and (5) will be deleted. The spawning herring piling restriction plan would then just be a Figure showing the spatial extent of the spawning herring piling restriction area. **Piling restriction for spawning herring** *25.-(1) No piling activity may be undertaken within the spawning herring piling restriction area during the herring spawning season, unless otherwise approved in writing by the MMO.* *(2) In this condition:* *(a) "herring spawning season" means 1 September and 16 October inclusive;* *(b) "spawning herring piling restriction area" means the area identified as the spawning herring piling restriction area within the spawning herring piling restriction plan; and*	The MMO agrees that condition 13(1)(j), (4) and (5) should be deleted and replaced with condition 25.	Agreed

Ref	ODOW Position	MMO Position	Status
	(c) "spawning herring piling restriction plan" means the plan certified as the spawning herring piling restriction plan by the Secretary of State for the purposes of the Order under article 41.		
PADS 5	The Applicant confirms that, as noted by the MMO, SELss noise contours have been presented in Figures 10.39 and 10.40 of Volume 2, Chapter 10: Fish and Shellfish Ecology Figures Part 2 of 2 (APP-098) in 5dB increments from the piling source up to 135dB SELss. The SELss contours up to 135dB have also been included within V2 of Chapter 10: Fish and Shellfish Ecology, submitted at Deadline 5. However, the Applicant re-iterates that it does not consider it appropriate to use the 135dB impact range for behavioural effects in their impact assessment for herring. The Applicant has set out why they do not support the use of the 135dB, as presented in Hawkins *et al.* (2014a), in PADS 9 below. The Applicant provided further detail on the use of the 135dB threshold within The Applicant's Comments on Deadline 3 Submissions (REP4-108), submitted at Deadline 4, noting that a 'without prejudice' review of the impact assessment for herring using the 135dB response threshold for behavioural effects had been conducted. This assessment showed an overlap of the 135dB	Although the 135 dB modelling has been presented in the ES, the Applicant has chosen not to include the 135 dB impact range for behavioural effects in their impact assessment for herring. The MMO considers the 135 dB threshold from Hawkins *et al.* (2014a) is the best current scientific evidence from which a quantitative threshold can be derived for the purposed of modelling behavioural responses in herring. The MMO maintains that the 135 dB threshold (as per Hawkins *et al.*, 2014) is a precautionary, but appropriate threshold for the purpose of modelling behavioural responses in herring at their spawning ground and that the resulting impact range should be given due consideration in terms of whether the range of effect is likely to overlap the various herring spawning grounds near Flamborough head, or hinder the north-south migration of Banks herring in the Central North Sea. The Applicant provided the additional modelling requested by the MMO. The modelling showed that the range of effect from piling at the North Artificial	Agreed

Ref	ODOW Position	MMO Position	Status
	behavioural response threshold with areas of no, low and medium spawning activity (as inferred from the IHLS data) but no overlap with the area of highest spawning intensity off Flamborough Head to the north of the Project. The conclusions of this assessment have been included within V2 of Chapter 10: Fish and Shellfish Ecology, submitted at Deadline 5. However, following discussion with the MMO, the Applicant has committed to implement extra mitigation in the form of a temporal piling restriction covering the western extent of the array area and the full extent of the northern ANS location to minimise impacts to Banks herring. . A revised Herring Spawning Piling Restriction Plan for the array area (document reference 8.24) was discussed with the MMO on 27 March 2025. As recommended by the MMO, the boundary line of the Herring Spawning Piling Restriction Plan has been delineated based on new underwater noise modelling using the 135dB SELss contour. The spatial extent of the Piling Restriction Area for the array area was approved by the MMO on 2 April 2025. The Applicant submitted the Spawning Herring Piling Restriction Plan with the agreed Piling Restriction Area at Deadline 6 (document reference 8.24). The Applicant considers this item to be resolved.	Nesting Structure (ANS) and the Array area overlaps the herring spawning ground. The Applicant has since committed to a partial piling restriction to protect the Banks herring spawning stock covering the western extent of the array area. The Applicant has committed to a piling restriction covering the full spatial extent of the northern ANS area. The Applicant shared proposed dML condition wording agreeing to a partial piling ban with the MMO on 5 March 2025 and confirmed this will be submitted into examination at Deadline 5. The MMO confirmed on the 2nd April 2025 they are satisfied with the revised modelling and proposed boundary for the Piling Restriction Area. Whilst there is still a slight overlap of noise impact with a portion of the herring spawning ground, based on the information reviewed, the MMO is satisfied that the likelihood of significant adverse impacts to spawning herring at this location is unlikely to occur as a result of noise disturbance. The MMO agrees that condition 13(1)(j), (4) and (5) should be deleted and replaced with condition 25. See MMO 10b above.	

Ref	ODOW Position	MMO Position	Status
PADS 6	The Applicant remains confident in the determination of 'medium' sensitivity for herring to piling noise. The Applicant has provided a full response to this point in 'The Applicant's Response to Relevant Representations'(PDI-071) reference: 4.5.15-4.15.8, noting that: ▪ The Applicant has assessed the vulnerability of herring to piling noise as 'high', considering the good hearing ability of herring, the high susceptibility of herring to pressure-related injuries, and their reliance on specific benthic locations for spawning. ▪ Piling will not change the characteristics of potential suitable spawning substrates and any potential lethal effects would be restricted to areas close the piling locations and would only affect a very small proportion of the Banks spawning population in areas outside the main spawning beds off Flamborough Head. ▪ Sub-lethal effects such as TTS and behavioural changes are likely to affect a larger proportion of the population, but these effects are anticipated to be temporary and reversible. The Applicant considers that an importance of 'regional' is appropriate for Banks herring, which inhabit the central	The MMO maintains its position regarding the comments on the sensitivity and magnitude of impact for herring as a receptor. However, in light of the revised modelling and figures presented following the introduction of the Offshore Restricted Build Area (ORBA), the MMO has revised our original recommendation for a piling restriction (RR -042), to reflect the reduced range of impacts from piling. The Applicant has since committed to a partial piling restriction to protect the Banks herring spawning stock covering the western extent of the array area. The Applicant has committed to a piling restriction covering the full spatial extent of the northern ANS area. The Applicant shared proposed dML condition wording agreeing to a partial piling ban with the MMO on 5 March 2025 and confirmed this will be submitted into examination at Deadline 5. The MMO confirmed on the 2nd April 2025 they are satisfied with the revised modelling and proposed boundary for the Piling Restriction Area. Whilst there is still a slight overlap of noise impact with a portion of the herring spawning ground, based on the information reviewed, the MMO is satisfied that the likelihood of significant adverse impacts to spawning herring at this location is unlikely to occur as a result of noise disturbance.	Agreed

Ref	ODOW Position	MMO Position	Status
	North Sea. The Applicant also remains confident in the determination of 'low' magnitude of impact for herring from piling noise. The Applicant has provided a full response to this point in 'The Applicant's Response to Relevant Representations'(PDI-071) reference: 4.5.23, noting that: ▪ While there is a partial overlap of the lethal and recoverable injury noise contours with the southern extent of the Banks spawning ground around Outer Dowsing, IHLS data show that the main spawning of Banks herring consistently occurs north of the Project, off Flamborough Head. ▪ It is recognised that there is annual variability in the areas used for spawning, with the southern portion of the Banks spawning ground being relatively more important for spawning in some years. However, even in years of higher spawning activity, the relative importance of the areas surrounding Outer Dowsing for herring spawning remains low when compared to both the spawning intensity observed off Flamborough Head and the extent of areas over which peak spawning takes place.	The MMO agrees that condition 13(1)(j), (4) and (5) should be deleted and replaced with condition 25. See MMO 10b above.	

Ref	ODOW Position	MMO Position	Status
	▪ There is no overlap between the areas of highest larval abundances off Flamborough Head and piling noise at a level that will induce TTS. It is therefore the Applicant's view that the proportion of Banks spawning herring stock that would be impacted by piling is minimal when compared to the areas of peak herring spawning off Flamborough Head and that this level of impact will not lead to material changes to the Banks spawning stock. The Applicant has maintained this position throughout the Examination. However, following further discussion with the MMO, the Applicant has committed to implement extra mitigation in the form of a temporal piling restriction to further reduce impacts to Banks herring during their spawning season. A revised Spawning Herring Piling Restriction Plan for the array area, based on new underwater noise modelling, was discussed with the MMO on 27 March 2025. The spatial extent of the Piling Restriction Area for the array area was approved by the MMO on 2 April 2025. The Applicant submitted the Spawning Herring Piling Restriction Plan with the agreed Piling Restriction Area at Deadline 6 (document reference 8.24).		

Ref	ODOW Position	MMO Position	Status
	The Applicant considers that this issue is now resolved.		
PADS 7	The worst-case location for piling effects to herring spawning grounds is the NW location, which has also been modelled. All the modelling locations used to inform the ES were agreed through the ETG, and those used for ES match those used at PEIR, which the MMO were content with. The Applicant has provided a full response to this point in 'The Applicant's Response to Relevant Representations'(PDI-071) reference: 4.5.32. In summary: ▪ Remodelling of the NE and NW locations is not required, as it is possible to predict what the combined overlap would be from the existing modelling. ▪ The MMO's preferred methodology would not result in a greater worst-case scenario than the methodology used by the Applicant. The Applicant provided an additional response at Deadline 4 (REP4-108, Annex 8), highlighting that for herring the worse-case locations for piling in the array area are: ▪ Array NW as the closest WTG to the main Banks herring grounds off Flamborough Head; and	The Applicant has modelled the worst-case scenario for simultaneous piling of two monopile foundations at the SW and NE piling locations in the array area. Please can the Applicant explain why this scenario has been chosen as the 'worst-case'? Modelling simultaneous piling from the SW and NE locations is indeed the worst- case scenario in terms of geographical spread, but not necessarily for fish receptors, specifically herring. The most vulnerable herring spawning grounds in relation to the project array are located northwest of the site. Therefore, for a worst-case simultaneous piling scenario, the NE and NW locations should also be modelled as these locations are the most critical in terms of impacts to herring at their spawning grounds and consequently are where greatest overlap in noise disturbance will occur. In light of the revised modelling and figures presented following the introduction of the Offshore Restricted Build Area (ORBA), the MMO has revised its original recommendation for a piling restriction (RR -042) to reflect the reduced range of impacts from piling. The MMO is in discussion with the Applicant regarding the proposal of two different piling restrictions with different spatial extents depending on the use of the NAS. The MMO shared drafting for licence conditions	Agreed

Ref	ODOW Position	MMO Position	Status
	▪ Array NW and Array SW as both locations overlap with the less frequently used secondary herring spawning area (as identified by IHLS data). However, following discussion with the MMO, the Applicant has committed to implement extra mitigation in the form of a temporal piling restriction to further reduce impacts to Banks herring during their spawning season. . The Applicant shared dML condition wording agreeing to a partial piling ban covering the western extent of the array area with the MMO on 5 March 2025. An Herring Spawning Piling Restriction Plan for the array area was discussed with the MMO on 27 March 2025. As recommended by the MMO, the boundary line of the Herring Spawning Piling Restriction Plan has been delineated based on new underwater noise modelling using the 135dB SELss contour. The spatial extent of the Piling Restriction Area for the array area was approved by the MMO on 2 April 2025. The Applicant submitted the Spawning Herring Piling Restriction Plan with the agreed Piling Restriction Area at Deadline 6 (document reference 8.24). The Applicant considers this item to be resolved.	with the Applicant that would need to be adapted for ODOW, as set out under point MMO10 above. The MMO considers that the discussions remain ongoing and notes the Applicant's response that it will provide further detail on this matter. The Applicant has committed to a partial piling ban to protect the Banks herring spawning stock. The Applicant shared dML condition wording agreeing to a partial piling ban with the MMO on 5 March 2025. The MMO confirmed on the 2nd April 2025 they are satisfied with the revised modelling and proposed boundary for the Piling Restriction Area. Whilst there is still a slight overlap of noise impact with a portion of the herring spawning ground, based on the information reviewed, the MMO is satisfied that the likelihood of significant adverse impacts to spawning herring at this location is unlikely to occur as a result of noise disturbance. The MMO agrees that condition 13(1)(j), (4) and (5) should be deleted and replaced with condition 25. See MMO 10b above.	
PADS 8	The Applicant has committed to a seasonal piling ban to protect the Banks herring spawning stock,	The MMO notes the increase in hammer energies being used to install monopiles at OWFs. Monopile	Agreed

Ref	ODOW Position	MMO Position	Status
	covering the northern ANS location and the western extent of the array area. The Applicant shared dML condition wording agreeing to a partial piling ban in the array areawith the MMO on 5 March 2025. An Herring Spawning Piling Restriction Plan for the array area was discussed with the MMO on 27 March 2025. As recommended by the MMO, the boundary line of the Herring Spawning Piling Restriction Plan has been delineated based on new underwater noise modelling. The spatial extent of the Piling Restriction Area for the array area was approved by the MMO on 2 April 2025. The Applicant submitted the Herring Spawning Piling Restriction Plan with the agreed Piling Restriction Area at Deadline 6 (document reference 8.24). The Applicant considers this item to be resolved.	hammer energies have typically been in the region of 4,000 – 5,000 kilojoules (kJ). It is noted that 6,000 – 7,000kJ is proposed. These higher hammer energies are likely to result in noise impacting a larger area. Whilst receptor-specific mitigation is recommended by the MMO when the evidence suggests that significant impacts to a particular species of fish are likely to occur, additional noise abatement measures may be required, such as bubble curtains or other alternative measures. Given the availability of effective alternatives to unmitigated piling – i.e., measures to reduce noise at source, also known as noise abatement – it will be difficult for unmitigated pile driving to be justified on the basis that there are no realistic alternatives. It is therefore clear that noise abatement measures will likely be required for this development, in order to reduce the risk of potential impact on marine receptors. The MMO would highlight that given the wider context of the current ramp up of offshore wind development at unprecedented scale in the North Sea it is vital that these discussions begin as soon as possible. To ensure adequate preparations are made and potential delays avoided, it is therefore in the Applicant's interest to plan for noise abatement measures at the earliest opportunity and to incorporate such measures into any future Marine Mammal Mitigation Plans (MMMP). The MMO is in discussion with the Applicant regarding	

Ref	ODOW Position	MMO Position	Status
		the proposal of two different piling restrictions with different spatial extents depending on the use of the NAS. The MMO shared drafting for licence conditions with the Applicant that would need to be adapted for ODOW, as set out under point MMO10 above. The Applicant has committed to a partial piling ban to protect the Banks herring spawning stock. The Applicant shared dML condition wording agreeing to a partial piling ban with the MMO on 5 March 2025. The MMO confirmed on the 2nd April 2025 they are satisfied with the revised modelling and proposed boundary for the Piling Restriction Area. Whilst there is still a slight overlap of noise impact with a portion of the herring spawning ground, based on the information reviewed, the MMO is satisfied that the likelihood of significant adverse impacts to spawning herring at this location is unlikely to occur as a result of noise disturbance. The MMO agrees that condition 13(1)(j), (4) and (5) should be deleted and replaced with condition 25. See MMO 10b above.	

Ref	ODOW Position	MMO Position	Status
PADS 9	The Applicant has provided a full response to this point in 'The Applicant's Response to Relevant Representations'(PDI-071) reference: 4.5.3. In summary: ▪ SELss noise contours have been presented in Figures 10.39 and 10.40 of Volume 2, Chapter 10: Fish and Shellfish Ecology Figures Part 2 of 2 (APP-098) in 5 dB increments from the piling source up to 135 dB SELss. ▪ The Applicant has provided a literature review in paragraph 213 *et seq.* of Volume 1, Chapter 10: Fish and Shellfish of the ES (APP-065) to support its position. ▪ The Applicant has provided reasons, supported by to support the literature review to explain why the suggested 135 dB SELss threshold is not suitable. As such, the Applicant believes that the use of the threshold recommended by the MMO is not scientifically robust and the qualitative assessment of the risk of behavioural disturbance as recommended by Popper *et al*. (2014) and presented by the Applicant better enables a consideration of the potential for significant impacts at a population level of the species considered.	The MMO's Deadline 2 submission (REP2-092, Section 1.6.4) recognises that impulsive sound will likely lose its impulsive nature as the sound propagates and whilst there have been a few studies which speculate about the distance over which this occurs, there has been nothing concrete published or agreed to date. Thus, the MMO maintains their position that until further criteria or guidance on this issue is published in peer-reviewed literature, the most relevant and recent noise exposure criteria should still be applied. The MMO confirmed on the 2nd April 2025 they are satisfied with the revised modelling and proposed boundary for the Piling Restriction Area. Whilst there is still a slight overlap of noise impact with a portion of the herring spawning ground, based on the information reviewed, the MMO is satisfied that the likelihood of significant adverse impacts to spawning herring at this location is unlikely to occur as a result of noise disturbance. The MMO agrees that condition 13(1)(j), (4) and (5) should be deleted and replaced with condition 25. See MMO 10b above.	Agreed

Ref	ODOW Position	MMO Position	Status
	The Applicant has maintained this position throughout the Examination and provided further justification for its position at Deadline 3 (REP3-037) and Deadline 4 (REP4-108) (reference: RR-042.069). However, following discussion with the MMO, the Applicant has committed to a partial piling ban to minimise impacts to the Banks herring spawning stock. The Applicant shared dML condition wording agreeing to a partial piling ban covering the western extent of the array area with the MMO on 5 March 2025. An Herring Spawning Piling Restriction Plan for the array area was discussed with the MMO on 27 March 2025. As recommended by the MMO, the boundary line of the Spawning Herring Piling Restriction Area has been delineated based on new underwater noise modelling using the 135dB SELss contour. The spatial extent of the Piling Restriction Area for the array area was approved by the MMO on 2 April 2025. The Applicant submitted the Herring Spawning Piling Restriction Plan with the agreed Piling Restriction Area at Deadline 6 (document reference 8.24). The Applicant considers this item to be resolved.		
PADS 10	The Applicant has provided a full response to this point in 'The Applicant's Response to Relevant Representations'(PDI-071) reference: 4.5.13. In summary:	The MMO in their Relevant Representations (paragraph number 4.5.13) recommends that in line the with the National Policy Statement EN3 (Department of Energy & Climate Change, 2011)) cables are buried to a minimum depth of 1.5m	Agreed

Ref	ODOW Position	MMO Position	Status
	▪ The Applicant has committed to a target burial depth of 1m below the seabed. ▪ Cable burial will be the preferred option for cable protection. Where burial is not possible the installation of cable protection will be considered. ▪ Final cable burial depth will be determined by a cable burial risk assessment as part of the final project design process. ▪ The Applicant has submitted an Outline Cable Specification and Installation Plan (CSIP) with the DCO application (APP-278). ▪ The proposed burial of the subsea cables and the application of additional cable protection if needed, will provide a separation between buried cables and the seabed surface, and therefore effects from EMF will be reduced. Moreover, the Applicant wishes to highlight that the current NPS EN3 (DESNZ, 2023), which the ODOW application will be tested against, does not include the requirement for a specific minimum burial depth. The Applicant has reiterated its commitment to bury cables to a target burial depth of 1m below the seabed within 'The Applicant's Comments on Deadline 3 Submissions', submitted at Deadline 4 (REP4-108, reference: 4.5.13). The Applicant	(subject to local geology or seabed obstructions) as this will further increase the distance between electro-sensitive fish receptors and EMF, as well as reduce the risk of snagging and damage to cables by other marine vessels e.g. anchors, bottom-towed gear. The MMO will work with the Applicant on the Cable Burial Risk Assessment post consent and notes the target burial depth of 1m below the seabed. The MMO has no further comments to make.	

Ref	ODOW Position	MMO Position	Status
	provided an updated Outline Cable Specification and Installation Plan (REP2-033), including the minimum cable depth of 1m, at Deadline 2, and has confirmed at Deadline 4 (REP4-108) that the cable burial depth will be determined by a cable burial risk assessment as part of the final project design process. The Applicant considers this comment to be resolved.		
PADS 11	Project-specific underwater noise modelling predicted that Temporary Threshold Shift (TTS) in stationary fish during the course of piling may occur up to 23km from the piling location during the installation of monopiles and 24km during the piling of jacket foundations, based on the sequential installation of six pin piles in a 24-hour period. For fleeing receptors, the TTS onset impact range was 9.7km for the installation of monopiles and 8.1km for the piling of jacket foundations. Therefore, the Applicant is confident that a screening range of 100km is appropriate to inform the cumulative underwater noise impact assessment for fish and shellfish receptors. Following further discussions with the MMO, the Applicant has committed to a seasonal piling ban covering the western extent of the array area and the full extent of the northern ANS to minimise	It should be recognised that the range of effect for cumulative and inter-related effects may increase if the modelling shows an impact range exceeding 100km. With this in mind, there may be other offshore developments further afield that will require scoping into the assessment, should the UWN modelling show a range of effect of >100km. The Applicant has committed to a partial piling ban to protect the Banks herring spawning stock. The Applicant shared dML condition wording agreeing to a partial piling ban with the MMO on 5 March 2025.	Agreed

Ref	ODOW Position	MMO Position	Status
	impacts to the Banks herring spawning stock. The Applicant shared dML condition wording agreeing to a partial piling ban in the array area with the MMO on 5 March 2025. Revised dML condition wording and an Herring Spawning Piling Restriction Plan for the array area was discussed with the MMO on 27 March 2025. As recommended by the MMO, the boundary line of the Herring Spawning Piling Restriction Plan has been delineated based on new underwater noise modelling. The spatial extent of the Piling Restriction Area for the array area was approved by the MMO on 2 April 2025. The Applicant submitted the Herring Spawning Piling Restriction Plan with the agreed Piling Restriction Area at Deadline 6 (document reference 8.24). The Applicant considers this item to be resolved.	The MMO confirmed on the 2nd April 2025 they are satisfied with the revised modelling and proposed boundary for the Piling Restriction Area. Whilst there is still a slight overlap of noise impact with a portion of the herring spawning ground, based on the information reviewed, the MMO is satisfied that the likelihood of significant adverse impacts to spawning herring at this location is unlikely to occur as a result of noise disturbance. The MMO agrees that condition 13(1)(j), (4) and (5) should be deleted and replaced with condition 25. See MMO 10b above.	

Ref	ODOW Position	MMO Position	Status
MMO 12	The Applicant has produced revised figures, as advised by the MMO, showing the spawning grounds for sandeel and other fish species that are spawning in the area in relation to modelled maximum noise impact ranges. These figures have been included in Document 15.9A - Offshore Restricted Build Area and Revision to the Offshore Export Cable Corridor Appendix A Figures (PD1-082) and within V2 of Chapter 10: Fish and Shellfish Ecology, submitted at Deadline 5 (Figures 10.28, 10.29, 10.30 and 10.31 in Fish and Shellfish Ecology Figures Part 2 of 2, Document Reference: 6.2.10). The Applicant considers this comment to be resolved following confirmation from the MMO.	Figures 10.29, 10.30, 10.31 and 10.32 in Volume 2: Chapter 10: Fish and Shellfish Ecology Figures, do not present the spawning grounds for sandeel or any other species that are spawning in the area, so are of little value in their current form. The figures with the relevant spawning grounds and/or habitats included should be re-presented. In their Deadline 2 submission (REP2-092, Section 1.6.7), the MMO thanked the Applicant for presenting the modelled noise contours for the effects of mortality and potential mortal injury, recoverable injury and temporary threshold shift for sandeel habitat from simultaneous piling of jacket (pin-pile) foundations and monopile foundations. The MMO concluded (in Section 1.6.8 of REP2-092) that as the project is located within a much wider area of sandeel habitat, no further mitigation to prevent significant impacts to sandeels at a population scale is necessary, however, the MMO defers to Natural England regarding impacts to designated sites.	Agreed

Ref	ODOW Position	MMO Position	Status
MMO 13	The Applicant believes that the use of the 135dB threshold recommended by the MMO is not scientifically robust and the qualitative assessment of the risk of behavioural disturbance as recommended by Popper *et al.* (2014) and presented by the Applicant better enables a consideration of the potential for significant cumulative impacts at a population level of the species considered. The Applicant has maintained this position throughout the Examination for the reasons set out in PADS 9 above. However, following discussion with the MMO, the Applicant has since committed to a seasonal piling restriction covering the western extent of the array area and the full extent of the northern ANS location to minimise impacts to the Banks herring spawning stock. The Applicant submitted updated dML condition wording and an Spawning Herring Piling Restriction Plan based on new underwater noise modelling to the MMO on 27 March 2025. area. The spatial extent of the Piling Restriction Area for the array area was approved by the MMO on 2 April 2025. The Applicant submitted the Spawning Herring Piling Restriction Plan with the agreed Piling Restriction Area at Deadline 6 (document reference 8.24). The Applicant considers this item to be resolved.	The cumulative behavioural effects to fish from underwater noise between different OWFs and the proposed works to fish have been assessed. However, from our understanding, the underwater noise impact ranges for behavioural responses in fish have been based on the conclusions of the ES of those windfarms, which may quantify behavioural responses in a different way, therefore appropriate comparisons cannot be made. For example, the ES states that the Hornsea Project Three OWFs (Ørsted, 2018) assessment assumed a maximum of 319 monopiles across the site and predicted behavioural effects up to 10.8km from the piling locations. However, the Hornsea Project Three OWF ES did not include modelling of the 135 dB threshold for behavioural effects in herring, therefore discussing the potential overlapping cumulative effects with the proposed works is not appropriate; especially when the Applicant's behavioural effects assessment for fish has not been modelled using the 135 dB threshold either (Hawkins et al., 2014). Secondly, the MMO recommends that the cumulative impact range contours are presented, for all the projects discussed in the cumulative impact assessment, as a figure to help better visualise any potential cumulative impacts between OWF projects. The Applicant has committed to a partial piling ban to protect the Banks herring spawning stock. The	Agreed

Ref	ODOW Position	MMO Position	Status
		Applicant shared dML condition wording agreeing to a partial piling ban with the MMO on 5 March 2025. The MMO confirmed on the 2nd April 2025 they are satisfied with the revised modelling and proposed boundary for the Piling Restriction Area. Whilst there is still a slight overlap of noise impact with a portion of the herring spawning ground, based on the information reviewed, the MMO is satisfied that the likelihood of significant adverse impacts to spawning herring at this location is unlikely to occur as a result of noise disturbance. The MMO agrees that condition 13(1)(j), (4) and (5) should be deleted and replaced with condition 25. See MMO 10b above.	

Ref	ODOW Position	MMO Position	Status
MMO 14	The Applicant has provided a full response to this point in 'The Applicant's Response to Relevant Representations'(PDI-071) reference: 4.6.1. In summary: ▪ The baseline description of shellfish receptors within the Project fish and shellfish study area draws on a wide range of recent and historic data, including site-specific survey data, regional datasets, and monitoring studies undertaken for a number of existing and proposed OWFs in the southern North Sea region (APP-159). ▪ Site-specific benthic ecology baseline data, including from benthic grabs, Drop Down Video and epibenthic trawls, were collected within the AfL array area (APP-154) and offshore ECC (APP-155). The results relevant to shellfish receptors are presented in the Fish and Shellfish Ecology Technical Baseline report (APP-159). ▪ The current status of commercially important shellfish stocks within the Project fish and shellfish study area is presented in the Fish and Shellfish Ecology Technical Baseline report (APP-159).	In the MMO's Deadline 2 submission (REP2-092), the MMO appreciates the comments addressed by the Applicant (Page 169, RR-042.099 of PD1-071). The Applicant has resolved the comment raised that the baseline data relating to shellfish species is outdated and does not cover the array or cable corridor. The Applicant directed us to the evidence provided for the presence of commercially important shellfish species within the array and surrounding areas (Volume 3, Appendix 10.1: Fish and Shellfish Ecology Technical Baseline, GoBe, 2024, V.1.0) from MMO landings data between 2018 to 2021, species identified include brown crab, common whelk, common cockle, scallop, European lobster and brown shrimp. The MMO considers this to be sufficient as supporting information to address the comments. The MMO's Deadline 4 submission (REP4-129) confirmed that all comments relating to shellfish can be considered as resolved.	Agreed

Ref	ODOW Position	MMO Position	Status
	The Applicant is therefore confident that the data used to characterise the baseline environment for shellfish receptors and shellfisheries are robust and sufficient for the purposes of EIA. The Applicant received confirmation in the Deadline 2 MMO Response (Section 1.7 Shellfish Ecology of REP2-092) that comments regarding the baseline characterisation of shellfish and shellfisheries have been resolved.		

2.5 Marine Mammals

21. The Applicant has assessed the likely significant effects of the Project on marine mammals seaward of MHWS during the construction, operation and maintenance and decommissioning phases within Chapter 11 of the ES (APP-066).

22. Table 7 sets out areas of agreement (common ground), areas where discussions are ongoing and areas where is has not been possible to reach agreement and discussions are no longer being pursued relating to marine mammals.

Table 7: Marine mammals

Ref	ODOW Position	MMO Position	Status
PADS 12	The Applicant has submitted an Outline MMMP for UXO Clearance (APP-280) and the final UXO clearance MMMP will be submitted as part of the separate Marine Licence Application for UXO clearance in the post-consent stage. The Final MMMP for UXO Clearance will refer to the measures identified in the Outline MMMP, however, these measures would be updated depending on new guidance and advice from SNCBs at the time of drafting. The Applicant submitted an updated MMMP UXO at Deadline 4a, following the new Defra guidance published January 2025. Updates clarified the Applicant's primary approach will be avoidance, in cases where this is not possible and clearance is required then low order detonations will be utilised, with high order detonations only used in cases where low order is not possible. The Applicant will also be in line with JNCC (2025) guidelines that identify the need for noise abatement measures for high order detonations. It is expected that noise abatement measures such as bubble curtains will be used for all high order clearance events including those under 50 kg TNT equivalent.	Paragraph 27 within the MMMP for UXO clearance states that "Technologies are available which attenuate the amount of noise emitted at the source (noise abatement). The use of bubble curtains during high-order UXO clearance activities is now standard best-practise for UXO clearance campaigns for offshore wind projects, with all projects since East Anglia One being required to use bubble curtains (subject to certain environmental limitations) for UXO detonations with combined charge sizes of greater than 50 kg (TNT-equivalent)". The MMO requests that bubble curtains are deployed for all high-order detonations, including those under 50 kg. In the MMO's Deadline 4a submission, the MMO welcomed the update that high order clearance only be used as a measure of last resort in cases where low order was not possible.	Agreed

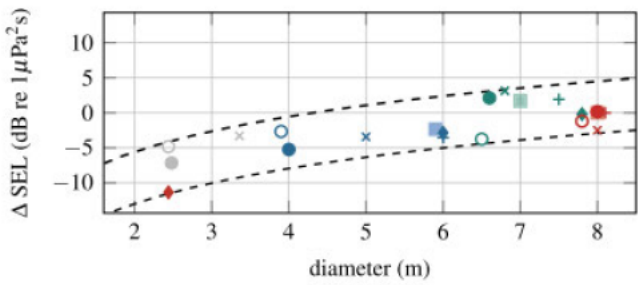
Ref	ODOW Position	MMO Position	Status
PADS 13	The Applicant considers 5km Effective Deterrence Range (EDR) for low order UXO clearance to be suitable. The Applicant has maintained this position throughout the Examination. The Applicant notes that the MMO consider this comment is now closed. The Applicant will review EDR guidance at the time of the separate UXO Clearance Marine Licence Application at the time of the post-consent stage. The Applicant considers this issue is now agreed.	For low order UXO clearance, it is noted that a 5 km EDR has been assumed, although there is currently no advised EDR in the Statutory Nature Conservation Bodies (SNCB) guidance (Joint Nature Conservation Committee, 2020). The MMO notes it was requested that justification was provided to support the 5 km EDR, and Chapter 11, Section 11.6.34 states the following: "In the absence of empirical data with which to set a threshold, the Sofia Offshore Windfarm Marine Licence Application for UXO detonation assumed a 5km EDR for low-order detonations. This assumed EDR was based on the fact that data has shown that low-order deflagration detonations produce underwater noise that is over 20dB lower than high-order detonation (Robinson et al., 2020). Note, the Sofia Offshore Windfarm Limited committed to undertaking noise monitoring of low-order detonations to confirm this proportionally lower noise level however, the data are not yet available. Until such time as empirical data are available to inform the EDR for low-order detonations, the 5km EDR suggested by Sofia Offshore Windfarm has been assumed". The MMO recommends that further evidence is provided by ODOW to justify the 5 km EDR.	Agreed

Ref	ODOW Position	MMO Position	Status
		The MMOs Deadline 4 submission maintains that any EDR should be backed by empirical data and that there is no EDR specified for low order clearance in the JNCC (2020) guidance however, the MMO notes that the Marine Noise Registry Tool recommends a 5 km EDR for low order clearance. The MMO also notes that EDRs are currently being reviewed, and an update should be published by the end of 2025. At this stage the MMO considers the content for this comment to be closed, recognising the need going forward for empirical data to support EDRs and that UXO clearance will be subject to a separate marine licence.	
PADS 14	The Applicant considers that it is a suitable approach to use both the 26 km EDR (JNCC, 2020) and TTS-onset as a proxy for the assessment of disturbance from UXO clearance, as there is no empirically based threshold to assess disturbance from high-order UXO clearance currently available. The Applicant provided a response at Deadline 4a highlighting that the EDR approach (which is recommended by the MMO) has been used to assess disturbance as well as undertaking the assessment using TTS-onset as a proxy.	The MMO advises that it is not appropriate to use TTS-onset thresholds as a proxy for disturbance from UXOs. TTS occurs at much higher sound exposures and so will underestimate the risk of disturbance. In this instance, TTS-onset as a proxy for disturbance has been presented alongside the 26 km EDR approach in acknowledgement that there is no empirically based threshold to assess disturbance from high-order UXO clearance currently available.	Not agreed (No material impact)

Ref	ODOW Position	MMO Position	Status
	The Applicant has provided a response at Deadline 4a that there are no empirically derived behavioural thresholds of dose-response curves for UXO clearance currently available.	The MMOs Deadline 4 submission maintains that it is not appropriate to use TTS-onset as a proxy for disturbance. The MMO recommends the disturbance assessment is undertaken with dose-response curves. The MMO does consider it appropriate that the EDRs have been considered in the assessment, and this is the approach the MMO recommend. However, the MMO considers the content for this comment to be closed, recognising the need going forward for empirical data to support EDRs and that UXO clearance will be subject to a separate marine licence and this information should be presented in any application.	

Ref	ODOW Position	MMO Position	Status
PADS 15	The Applicant recognises the concerns regarding underestimated impacts, and would advise this be seen in appropriate context. Although impact ranges for operational turbine noise are stated for precaution as "<100m" in practice the actual calculated PTS ranges are less than 20 m. Even if the formula were underestimating, the theoretical impacts would still be very low to negligible. This is reinforced by the recent paper by Bellmann *et al.* (2023) *"Experience report on operational noise: Cross-project evaluation and assessment of underwater noise measurements from the operational phase of offshore wind farms"*, which (although it is noted that only turbines up to 8 MW are studied) shows no evidence of underwater noise levels measured on site around any operational wind turbines that come close to noise levels that would lead to a concern for marine mammals or fish. In fact, Holme *et al*. (2023). *"The relation between underwater noise and operating offshore wind turbines"* suggests that the calculation methodology following Tougaard *et al.* (2020) as used in the ODOW operational underwater noise assessment, overestimated the noise levels they measured on site. Therefore, the Applicant considers the formula used to assess the correlation between SPL and various parameters is suitable.	$L_{eq} = C + \alpha \log_{10}\left(\frac{distance}{100\ m}\right) + \beta \log_{10}\left(\frac{wind\ speed}{10\ ms^{-1}}\right) + \gamma \log_{10}\left(\frac{turbine\ siz}{1\ MW}\right.$ This formula represents a statistical model that was used to assess the correlation between SPL and various parameters (distance, wind speed, turbine size) for the data in the Tougaard study. The MMO considers is that this is not suitable for estimation of the sound levels at 1m in a bespoke model, or as substitute for modelling the propagation loss to the far field. In particular, in terms of estimating propagation, the use of the formula would imply a loss of 23.7 log R, which is unrealistically large, and thus will lead to underestimation of the levels in the far field. No changes have been made to (this section of) the report after PEIR although our comment was more for observation purposes to highlight the uncertainties with using this formula. We appreciate that no empirical data is currently available for large wind turbines close to the specifications proposed here for Outer Dowsing. The report does appropriately acknowledge that the maximum turbine sizes considered at the Project are much larger than those used for the estimation, so caution must be applied when considering the results presented in this section (section 5.2).	Not agreed (No material impact)

Ref	ODOW Position	MMO Position	Status
		The MMO raise these uncertainties as these can impact post consent monitoring and reporting comparisons. However, is content that is not agreed but has no material impact.	

Ref	ODOW Position	MMO Position	Status
MMO 12	As per von Pein et al., (2022) the increase between the pile diameters under consideration (5m vs 14m) should lead to a big increase in their noise output. However, the Applicant consider that von Pein et al., (2022) has overestimated the significance of the diameter as a determining parameter and its effect is much lower. Figure 7 in von Pein et al., (2022) shows the fit of the predicted noise levels to empirical data. Although the best fit tends towards an asymptote, which the Applicant agrees with, our analysis indicates a much shallower curve: the difference between noise data points shown at pile diameter 4m and 8m is the same, and beyond 6.5m appears to be trending downwards. The Applicant considers that the pile energy has the greatest effect on the noise output. Section 3.1 of Chapter 11 Appendix 2 Underwater Noise Assessment (APP-161) discuss the confidence in the modelling against historic data and how the current parameters have been extrapolated.  Fig 7 (top) from von Pein et al., 2022	The values (focusing on the SELss) do not seem to be particularly very high, given the large pile diameters and hammer energies. The monopile foundation values (for a 14 m diameter pile and 6600 kJ hammer energy) are only 1-1.5 dB above the corresponding jacket pile foundation values (5 m diameter pile and 3500 kJ hammer energy) at the same locations. The increase of hammer energy alone from 3500 kJ to 6600 kJ might plausibly explain these differences; however, the substantial increase in pile diameter (from 5 to 14 m) does not seem to have a very important role. This is somewhat at odds with the emerging evidence from literature which suggests that the pile dimeter is a very important factor in the scaling of the piling noise. The MMO raise these uncertainties as these can impact post consent monitoring and reporting comparisons. However, is content that is not agreed but has no material impact.	Not agreed (No material impact)

2.6 DCO and dML conditions

23. Table 8 refers to the draft DCO requirements and dML conditions which are set out within the draft DCO (ASI-024) submitted as part of the Project's DCO application.

Table 8: Areas of agreement re DCO and dML conditions (PD1-023)

Ref	ODOW Position	MMO Position	Status
MMO 16	The interpretation of all terms within the following sections of the DCO and DMLs are appropriate and adequate: ▪ Article 2, Part 1 of the draft DCO ▪ Condition 1, Part 1 of Schedule 10 of the draft DCO ▪ Condition 1, Part 1 of Schedule 11 of the draft DCO ▪ Condition 1, Part 1 of Schedule 12 of the draft DCO ▪ Condition 1, Part 1 of Schedule 13 of the draft DCO ▪ Condition 1, Part 1 of Schedule 14 of the draft DCO	The MMO requests clarity on the Applicant's definition of 'inert', for example in Schedules 10 and 11 Part 2 Condition 11(5) and Schedules 12-15 Part 2 Condition 8(5). The MMO requests that the definition of 'inert' is added to the DMLs. If samples contain fine material, these may contain contaminants. It needs to be clear that any material containing contaminants cannot be disposed of within the disposal sites when listing the licensable activities under Part 1 of the DMLs. The MMO requests that the definition of the term 'static' is added to Part 1 of the DMLs.	Not agreed (No material impact)

MMO 17	The wording of Article 4 (Power to maintain the authorised project, Part 2 of the draft DCO is appropriate and adequate.	The MMO currently has no comments to make regarding this section.	Agreed
MMO 18 PADS 16 PADS 17 PADS 18 PADS 19	The wording of Article 6 (Benefit of the Order), Part 2 is appropriate and adequate.	This is a Principal Area of Disagreement as identified by the MMO. The MMO has major concerns over the wording of Article 6 (Benefit of the Order). The MMO resists the inclusion of Article 6(1)-(2) as this provision operates to make the decision that of the undertaker, with the Secretary of State (SoS) providing consent to the transfer, rather than the MMO as the regulatory authority for marine licences considering the merits of any application for a transfer. It is the position of the MMO that these provisions are removed and that any transfer should be subject to the existing regime under the 2009 Marine and Coastal Access Act, with the decision maker remaining the MMO.	Not agreed

	The Applicant disagrees with the MMO's position on the wording of Article 6 and has set out its detailed response at RR-042.007 to RR-042.011 in the Applicant's Responses to Relevant Representations (PD1-071). The Applicant's position is summarised at 1.3.3 to 1.3.9 and at 2.1.1 to 2.1.10 of Table 1.2.2.2 of the Applicant's Comments on Deadline 4 Submissions (REP4a-115). The Applicant and the MMO have agreed the following statement:	The MMO resists the inclusion of Article 6(2)(b) as there is no clarity on how it will operate. It will be an additional administrative procedure for marine licences. The MMO resists the inclusion of Article 6(3) as it does not take into account the views of MMO when the SoS provides consent. There is no obligation for MMO to be informed. A decision to transfer the licence should be made by the regulatory authority in that area (the MMO). The inclusion of Article 6(3) explicitly disapplies Sections 72(7) and (8) of The Marine and Coastal Access Act (2009). The MMO resists the inclusion of Article 6(12) as it conflicts with the MMO's stated position that the DML granted under a DCO should be regulated by the provisions of 2009 Act and specifically by all provisions of Section 72.	

	"The Applicant and the MMO have continued to engage in relation to their differing views on the inclusion of Article 6 (Benefit of the Order) of the Development Consent Order, including most recently at a meeting on 20 February 2025. Both parties acknowledge that provisions similar to those set out in Article 6 have been included in numerous previous DCOs for offshore wind farms. However, the Applicant and the MMO disagree on the principle of whether such a mechanism ought to be included in DCOs. The Applicant and the MMO consider it unlikely that a resolution will be reached in respect of this issue prior to the close of Examination."		
MMO 19 PADS 23 PADS 24 PADS 25	The wording of the following provisions of the draft DCO are appropriate and adequate: ▪ Article 32, Part 6 (Deemed marine licences under the 2009 Act) Schedule 10 (Deemed Marine Licence under the 2009 Act for the generation assets)	The MMO has requested that additional conditions are added covering the matters set out in the rows below.	Agreed

	▪ Schedule 11 (Deemed Marine Licence under the 2009 Act for the offshore transmission assets) ▪ Schedule 12 (Deemed Marine Licence under the 2009 Act for northern artificial nesting structure 1) ▪ Schedule 13 (Deemed Marine Licence under the 2009 Act for northern artificial nesting structure 2) ▪ Schedule 14 (Deemed Marine Licence under the 2009 Act for southern artificial nesting structure 1) ▪ Schedule 15 (Deemed Marine Licence under the 2009 Act for southern artificial nesting structure 2) ▪ Schedule 16 (Deemed Marine Licence under the 2009 Act for the creation of a biogenic reef)		

	The Applicant updated the draft DCO to include a maintenance reporting condition at condition 24, Part 2, Schedules 10 and 11 and condition 16, Part 2, Schedules 12-15 of the DCO.	The MMO requested an additional condition on: Maintenance reporting - To ensure that the MMO is able to know the maintenance activities throughout the lifetime of the operation including understanding any impacts. The MMO welcomes the new maintenance reporting condition and thanks the Applicant for its inclusion in the DMLs.	Agreed
	The Applicant considers that an additional condition to set out the stages of construction would be a duplication of the requirement to provide a construction programme under condition 13(1)(b), Part 2, Schedules 10 and 11, condition 11(1)(b), Part 2, Schedules 12-15 and condition 8(1)(b), Part 2, Schedule 16. The Applicant is content to provide updates on the construction timetable at monthly meetings.	The MMO requested an additional condition on: Stages of construction - To ensure the MMO has the full timetable for construction The MMO has confirmed that this point is agreed, subject to updates being provided on the construction timetable at monthly meetings.	Agreed
	The Applicant strongly disagrees that such a condition is necessary or appropriate. The Applicant's position is set out at 1.3.17 of Table 1.2.2.2 of the Applicant's Comments on Deadline 4 Submissions (REP4a-115).	The MMO has requested an additional condition on: Adaptive management - To allow the applicant to provide potential solutions when reviewing the results of monitoring, to be discussed with the MMO and SNCBs, In the event that monitoring reports identify impacts which are beyond those predicted within the Environmental Statement/Habitat Regulations Assessment.	Not agreed

		The MMO still believes there should be a process in the DML stating what would happen should the monitoring reports show impacts higher than what has been agreed. The MMO would highlight that this is not blanket adaptive management for every impact identified but specifically linked to the agreed monitoring being undertaken. The aim of the condition is to provide a clear process to the Applicant, the MMO and any consultees, if in preparing the monitoring reports the Applicant identifies greater impact that the Environmental Statement (ES) predicted rather than just a discussion upon review of the reports. The MMO notes that if impacts are higher than predicted we can utilise Section 72 of 2009 Marine and Coastal Access Act(MCAA) and vary the marine licence to request adaptive management, but believes this Condition gives a clear process to all and allows for proactive management rather than reactive management by the MMO. The condition wording below should be added to the post-construction monitoring Condition 19 and would be linked to those reports. *" (5) In the event that the reports provided to the MMO under sub-paragraph (2) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.*	

		(6). In the event that monitoring reports provided to the MMO under subparagraph (2), identifies impacts which are beyond those predicted within the Environmental Statement, adaptive management/mitigation may be required. An Adaptive Management/Mitigation Plan to reduce effects to within what was predicted within the Environmental Statement, unless otherwise agreed in writing by the MMO, must be submitted alongside the monitoring reports submitted under subparagraph (4), including timelines and associated monitoring to test effectiveness. This plan must be agreed with the MMO in consultation with the relevant SNCBs to reduce effects to a suitable level for this project. *7) Any such agreed or approved adaptive management/mitigation should be implemented and monitored in full. In the event that this adaptive management/mitigation requires a separate consent, the Applicant shall apply for such consent."*	

	The Applicant has proposed updated drafting in respect of the spatial and temporal piling restriction for the protection of herring spawning grounds: **Piling restriction for spawning herring** 1. —(1) — No piling activity may be undertaken within the spawning herring piling restriction area during the herring spawning season, unless otherwise approved in writing by the MMO. (2) In this condition: (c) "herring spawning season" means 1 September and 16 October inclusive; (c) "spawning herring piling restriction area" means the area identified as the spawning herring piling restriction area within the spawning herring piling restriction plan; and (c) "spawning herring piling restriction plan" means the plan certified as the spawning herring piling restriction plan by the Secretary of State for the purposes of the Order under article.	The MMO is satisfied with the wording of Condition 25, and this can now be agreed. The flexibility in the original condition was linked to a plan being submitted with an agreed outline plan, to ensure it was clear to all now, what is required to enable works to take place within the herring spawning season at the post consent stage, if the Applicant used Noise Abatement Systems and the level of disturbance was significantly lower. The MMO understands that the Applicant is no longer looking for this flexibility in the condition.	Agreed

	The Applicant considers the proposed drafting offers greater certainty and precision.		

	The Applicant considers that the inclusion of the force majeure condition is appropriate in line with numerous other made DCOs. The Applicant has, however, in light of the MMO's concerns, proposed alternative wording for condition 12, Part 2, Schedules 10 and 11, condition 9, Part 2, Schedules 12-15 and condition 7, Part 2, Schedule 16. The Applicant's position is that the difference in views between the MMO and the Applicant in this regard is not material to the determination of the Application.	The MMO notes the amendment to this condition to represent a notification to the MMO, but the MMO still considers that this condition should be removed.	**Not agreed**
	The Applicant has agreed to the MMO's proposed amendments following discussion with the MCA and updated the draft DCO accordingly.	The MMO requested amendments to the wording relating to the requirements for dropped objects at conditions 11(10), Part 2, Schedules 10 and 11, condition 8(10), Part 2, Schedules 12-15 and condition 6(5), Part 2, Schedule 16. However MCA have agreed this wording and on this occasion the MMO is content with the wording set out in REP4a-006	Agreed

	The Applicant disagrees that a requirement to provide an outline Decommissioning Plan is necessary. The Applicant's position is set out at 1.3.19 of Table 1.2.2.2 of the Applicant's Comments on Deadline 4 Submissions (REP4a-115) The Applicant's position is that the difference in views between the MMO and the Applicant in this regard is not material to the determination of the Application.	The MMO has requested the provision of an outline Decommissioning Plan. The MMO considers that this should be provided during this consenting process to align with the Decommissioning of Offshore Renewable Energy Installations Under The Energy Act 2004 Guidance notes for industry Decommissioning of offshore renewable energy installations under the Energy Act 2004. The MMO understands the Applicant believes the submission to the SoS covers this and that the MMO has not provided further information on what is required. Further information was provided within REP4a-133. The MMO would request if this can't be provided during the examination, if a commitment could be secured to discuss the Programme prior to submission to the SoS and formal consultation to ensure all issues are discussed and captured and ensure a quicker approval by the SoS.	Not agreed
	The Applicant has updated the draft DCO at Deadline 5 to reflect the form of words proposed by the MMO at Deadline 4 (section 2.1.27, REP4-129). The Applicant considers that the definitions of "chemicals" and "substance" significantly extend the scope of the condition to encompass benign, naturally occurring compounds, such as water.	The MMO has provided draft alternative wording to replace condition 11(1), Part 2, Schedules 10-11, condition 8(1), Part 2, Schedules 12-15 and condition 6(1), Part 2, Schedule 16. The Applicant has misinterpreted our comments regarding the chemicals condition. The intention was for it not to be included within the PEMP (Condition 13(1)(e) of Part 2, Schedules 10 and 11). The MMO has been requesting to replace condition 11(1), Part 2, Schedules 10-11, condition 8(1), Part 2, Schedules 12-15 and condition 6(1), Part 2, Schedule 16 to include the following: *X. (x) Unless otherwise agreed in writing by the MMO, all chemicals with a pathway to the* *marine environment, used for the marine licensed activities, outside the course of normal* *navigation, must be approved in writing by the MMO prior to use. Submissions should include a* *site-specific chemical risk assessment that includes:*	Not Agreed

	The Applicant's position is that the difference in views between the MMO and the Applicant in this regard is not material to the determination of the Application.	*(i) the function of the chemical;* *(ii) the quantities being used and the frequency of use;* *(iii) the physical, chemical, and ecotoxicological properties of the chemical.* *Chemicals present on the OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment (PLONOR) are exempt from this requirement;* *Submissions for approval must take place no later than ten weeks prior to use.* Definitions to be added to 'Interpretation' section of DML: "pathway to the marine environment" open systems or closed systems that require top up. "chemicals" comprise both substances and preparations. "preparation" means a mixture or solution composed of two or more substances. "substance" means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition. The definitions to be included within the consents pertaining to the new condition wording, come from the definition for 'chemicals', 'preparation' and 'substance' given within OSPAR Decision 2002/2 on a Harmonised Mandatory Control System for the Use and Reduction of the Discharge of Offshore Chemicals.	

		Regarding the Applicant's concerns regarding benign substances, some PLONOR chemicals still have issues in that although they may pose little or no risk say for toxicity their physical presence maybe an issue, as is the case for bentonite- bentonite for example is a thickening agent added to drilling fluid but some components of the drilling mud can have impacts on the filtration activity and survival of bivalve molluscs impairing gill function. Under OSPARs list Bentonite is PLONOR and no aquatic toxicity data is required, however under REACH there is no registration dossier as it is a naturally occurring mineral and therefore exempt from REACH registration under Annex V. Due to it's potential for impact for smothering the MMO needs to see site specific information and quantity of use to ensure the location of use is still acceptable i.e. not in a Class A shellfish bed without mitigation for any loses for punch out or fracture in bed formation for use during horizontal directional drilling, as noted in i and ii above.	
	<u>Disposal Sites</u> The Applicant has agreed with the MMO's request, subject to being provided with the relevant reference numbers.	The MMO has requested that the MMO's reference number for the relevant disposal sites is added to Part 1 of Schedules 10-16. The MMO notes that the conditions already state 'within the disposal site reference(s) to be provided by the MMO within the extent of the Order limits seaward of MHWS' the MMO welcomes this update and believes this should be updated to include 'in writing'. The MMO will provide the disposal site reference numbers once known.	Agreed
	The Applicant has agreed with the MMO's request and provides an updated draft DCO at Deadline 5 (3.1).	The MMO has requested that the wording of condition 11(4), Part 2, Schedules 10-11 and condition 8(4), Part 2, Schedules 12-15 is updated to adjust the timing of submission of disposal returns. The MMO welcomes the update and will confirm this is agreed at Deadline 6.	Agreed -

	The Applicant updated condition 16, Part 2, Schedules 10 and 11, condition 13, Part 2, Schedules 12-15 and condition 10, Part 2, Schedule 16, following comments from the MMO and to align with the wording of the equivalent condition in the Hornsea Four DCO.	The MMO agrees with the updated wording.	Agreed
	The Applicant has updated condition 13(1)(a), Part 2, Schedule 11 of the DCO to refer to the offshore reactive compensation platform design principles statement.	The MMO agrees with the updated wording.	Agreed
	Determination timescales – Schedules 10 and 11	The MMO has requested that the following plans are subject to a six month determination timescale (REP1-056 and REP4a-133): - Marine Mammal Mitigation Protocol (MMMP) - Monitoring Plan - Site Integrity Plan - Ornithology Plans - Operation and Maintenance Plans - Cable Specification and Installation Plan The MMO welcomes the updates to the DCO in relation to timescales and that for the MMMP is to be submitted at least six months prior to commencement of piling activities and welcomes the addition to clarify that for the MMMP the MMO has 6 months to make a determination.	Not Agreed

	The Applicant continues to consider that a four-month determination timescale is appropriate for all of these plans, with the exception of the Marine Mammal Mitigation Protocol and the Site Integrity Plan, which the Applicant acknowledges have particular complexities. In particular, the timescales proposed are appropriate and strike the balance between allowing the MMO and consultees adequate time to consider the submissions and the need for speedy deployment of offshore wind Critical National Priority infrastructure in order to meet the 2030 targets for offshore wind and the net zero targets set by the government.	However, the MMO maintains that the DML should not place determination timescales on the MMO as the regulator. The MMO will work closely with the Applicant and advisors to determine documents submitted for approval in a timely manner but in a manner that addresses all concerns/impacts and due to evidence from the current post consent offshore wind farms believes that if this should remain this should be 6 months at a minimum (REP4a-133).	

	However, in order to reach agreement with the MMO on this matter, the Applicant will submit an updated DCO at Deadline 5, which will provide for a 6 month timescale for those plans specifically requested by the MMO, with the exception of the Ornithology Plans, which are not relevant to the Project or proposed by the Applicant and which the Applicant considers are likely to be related to different proposals.		
	Determination timescales – Schedules 12-15	The MMO welcomes the update from 3 months to 4 months. However, the MMO maintains that the DML should not place determination timescales on the MMO as the regulator. The MMO will work closely with the Applicant and advisors to determine documents submitted for approval in a timely manner but in a manner that addresses all concerns/impacts and due to evidence from the current post consent offshore wind farms believes that if this should remain within the DML this should be 6 months at a minimum (REP4a-133). A	Not agreed

	The Applicant met with the MMO on 20 February 2025 and the Applicant proposed to increase the approval periods for the MMMP and the SIP under the ANS DMLs at Schedules 12-15 from three to four months, in recognition of the need for coordination of the in-combination elements of these plans. The draft DCO submitted at Deadline 4a has been updated to reflect this proposal.		

	The Applicant maintains a six month time period for approval of plans prior to the commencement of piling activities relating to the ANS is inappropriate. Piling works relating to the ANS will constitute a single pile per ANS, which is a considerably less complex proposal than the piling proposals for the wind turbine generators in the array, which have a six month determination period. Furthermore, in light of the requirement for the ANS to be in place at least two full breeding seasons prior to the operation of any turbine, any delay by a few months could result in an additional year being added to the programme. This would be a disproportionate impact in terms of the delay to the deployment of Critical National Priority Infrastructure, compared to the protections offered by the condition.		

	The Applicant notes that condition 14(2) of Part 2 of Schedules 10 and 11 of the draft DCO provides for an approval period of at least four months unless otherwise stated. Following consultation with Natural England and the MMO, the Applicant previously revised the draft DCO to increase the approval period from four to six months for those plans which may have particular complexities. Condition 11(1) of Part 2 of Schedules 12, 13, 14 and 15 and condition 9(1) of Part 2 of Schedule 16 of the draft DCO provides for an approval period of at least three months unless otherwise stated. The Applicant has updated conditions 11(1)(e) and 15, Part 2 of Schedules 12-15 to provide for a four month determination timescale.	The MMO requests that all conditions which states that documents are to be provided to MMO four months prior to commencement, should be updated to six months. Where timescales are not included, this should be added.	Not agreed

	The Applicant maintains that the timescales proposed are appropriate and strike the balance between allowing the MMO and consultees adequate time to consider the submissions and the need for speedy deployment of offshore wind Critical National Priority infrastructure in order to meet the 2030 targets for offshore wind and the net zero targets set by the government.		
MMO 20 PADS 20	The wording of Article 38 (Arbitration), Part 7 and Schedule 19 of the draft DCO is appropriate and adequate.	The MMO understands that arbitration does not apply to the MMO in this application. The MMO thanks the Applicant for clearly setting out that the Arbitration and Appeals procedures set out in the DCO do not apply to the MMO/DMLs.	Agreed
MMO 21	The wording of Article 40 (Certification of plans etc.) of the draft DCO is appropriate and adequate. Schedule 21 contains a list of documents to be certified.	The MMO currently has no comments to make regarding this section.	Agreed
MMO 22	The wording of Schedule 1 (the Authorised Project) of the draft DCO is appropriate and adequate.	The MMO currently has no comments to make regarding this section.	Agreed

MMO 23 PADS 21	The wording of the following provisions is appropriate and adequate: ▪ Paragraphs 8 and 9, Part 1 of Schedule 10 of the draft DCO ▪ Paragraphs 8 and 9, Part 1 of Schedule 11 of the draft DCO ▪ Paragraphs 8 and 9, Part 1 of Schedule 12 of the draft DCO ▪ Paragraphs 8 and 9, Part 1 of Schedule 13 of the draft DCO ▪ Paragraphs 8 and 9, Part 1 of Schedule 14 of the draft DCO ▪ Paragraphs 8 and 9, Part 1 of Schedule 15 of the draft DCO ▪ Paragraphs 7 and 8, Part 1 of Schedule 16 of the draft DCO all relating to the materiality of amendments to or variations from the approved details.	The MMO strongly considers that the activities authorised under the DCO and DML should be limited to those that are assessed within the EIA, and the statement that activities will be limited to those that 'do not give rise to any materially new or materially different environmental effects' should be updated to 'do not give rise to any new or different environmental effects to those assessed in the environmental information' to clarify this. The MMO has confirmed that this matter is now agreed.	Agreed

	The Applicant has responded to the MMO's comments on the reference to materially new or materially different environmental effects at RR-042.012 in the Applicant's Responses to Relevant Representations (PD1-071).		

2.7 Policy Compliance

24. The Applicant has identified the marine policy in the relevant chapters within the ES and a summary is provided in the Planning Statement (APP-297). A Policy Compliance Document was submitted to Examination in response to R17 letter dated 3 July (AS-012).

25. Table 9 sets out areas of agreement relating to marine policy.

Table 9: Areas of agreement relating to policy compliance

Ref	ODOW Position	MMO position	Status
MMO 25	A Policy Compliance Document was submitted to Examination in response to R17 letter dated 3 July (AS-012). The Applicant submitted an updated Policy Compliance Document (REP4-090) at Deadline 4 and responded to the comment from the MMO regarding policies E-ECO-1 and E-TR-3 in Table 9 of The Applicant's Comments on Deadline 1 Submissions (REP2-053). The Applicant considers this point is now resolved.	The MMO have requested that all the policies outlined in the East Marine Plan areas are reviewed within a table to demonstrate compliance. The MMO is satisfied with having the policy considerations within the Policy Compliance Document (AS-012) but notes that policies E-ECO-1 and E-TR-3 appear to be missing and request that these are added. The MMO is satisfied with the Projects consideration of E-ECO-1 and E-TR-3 as outlined in REP2-053.	Agreed

3 Signatures

26. The above statement of common ground has been prepared by Outer Dowsing Offshore Wind and the MMO and is agreed on the date below.

Signed for the MMO	
Name	[redacted]
Position	Senior Case Manager
Date	04/04/2025
Duly authorised for and on behalf of the Marine Management Organisation	

Signed for Outer Dowsing Offshore Wind	
Name	[redacted]
Position	Development Manager
Date	04/04/2025
Duly authorised for and on behalf of Outer Dowsing Offshore Wind	

References

Department for Levelling Up, Housing and Communities (2024) Planning Act 2008: Guidance for the examination of applications for development consent

Tougaard, J., Hermannsen, L & Madsen, P. (2020). How loud is the underwater noise from operating offshore wind turbines?. The Journal of the Acoustical Society of America. 148.Holme, C. T., Simurda, M., Gerlach, S., & Bellmann, M. A. (2023). Relation Between Underwater Noise and Operating Offshore Wind Turbines. In *The Effects of Noise on Aquatic Life: Principles and Practical Considerations* (pp. 1-13). Cham: Springer International Publishing.

JNCC (2020) Appendix 1: Summary of legal protection for marine mammals in UK waters. Available at https://jncc.gov.uk/media/8417/draft-marine-mammal-guidelines-explosive-use-appendices-1-3.pdf [Accessed October 2024]

Tougaard, J., Hermannsen, L., & Madsen, P. T. (2020). How loud is the underwater noise from operating offshore wind turbines? *The Journal of the Acoustical Society of America*, *148*(5)